IPAA
INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

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The Oil & Gas Producing Industry in Your State

COVER PHOTO: XTO Energy Inc. operation in Ohio, courtesy of XTO Energy Inc.

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The Oil & Gas Producing Industry in Your State

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2012: The Incredible Revolution in U.S. Oil & Gas Supplies

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Introduction:

The potential magnitude of the "Incredible Revolution" in U.S. unconventional oil and natural gas was substantiated during 2012. Unprecedented breakthroughs in liberating production from source rocks and tight reservoirs stimulated dramatic shifts in oil and natural gas supplies and in related market factors. The "shale gale" unlocked a 100 year supply for natural gas. But it also triggered excess production capacity and a collapse of natural gas prices that forced massive adjustments across the supply chain. With natural gas prices softening from 10-year lows at the beginning of the year, operators accelerated their shift from gas to oil — directed drilling. In spite of the pull back in drilling, gas production increased during the last part of 2012 as operators adjusted their focus to liquids-rich gas fairways. During the year, markets began to adjust to the availability of abundant low-cost gas and natural gas liquid (NGL) supplies and gas assets were consolidated by owners with long-term horizons. Shifting to oil, during 2012 the "great revival" of U.S. oil production also was no longer in doubt. The monthly growth rate in tight oil supplies exceeded projections and before the end of the year, discussions of energy independence took on more than a hollow ring. The "great revival" also demonstrated that it was an engine for job creation and economic growth as well as a huge plus for energy security. However, public concerns about perceived risks from horizontal drilling and hydraulic fracturing plus lack of an energy policy clouded understanding of how to take advantage of this huge bonus for U.S. energy supplies.

The U.S. led the world in annual oil production growth since 2008 and is projected to be the leader through the balance of this decade. An IHS study of 27 North American tight oil and liquids-rich gas plays identified 94 billion barrels of liquids resources and 327 trillion cubic feet (Tcf) of gas resources — most of which could be produced over the next 25 years. Supply models in the study indicated that tight oil production could reach almost five million barrels per day (MMb/d) by 2023. The sweet spot in the mix of tight oil plays was in the wet gas and volatile oil windows. As a result of surging NGL production, total liquids production from tight liquids-rich plays studied was projected to exceed 7.5 MMb/d by 2023 and natural gas production was projected to reach 37 billion cubic feet per day (bcf/d) by 2035. In line with this outlook, liquids production from tight oil plays increased by more than one MMb/d during 2012. Crude oil production increased by 843 thousand barrels per day (Mb/d), a 15 perent gain from 2011. This increase was driven by a 23 percent increase in U.S. oil well completions.

In spite of tepid economic growth and periodic bottlenecks as surging oil production overloaded the supply chain, the West Texas Intermediate (WTI) oil price averaged $90.73 during 2012, down only one percent from 2011. While relatively healthy oil prices sustained momentum for oil and drove a 32 percent increase in 2012 oil well completions, natural gas prices averaged only $2.76 per thousand cubic feet (Mcf) during 2012 – down 31 percent from 2011. Mild weather during the first and second quarter 2012 led to a huge surplus in U.S. gas storage which drove April average spot gas prices to $1.92 per Mcf — the lowest since spring of 2002. Gas prices recovered to $3.44 per Mcf by year-end 2012, but gas well completions decreased by 26 percent to 10,760 during the year. In spite of this decrease in gas well completions. U.S. wet gas production still recorded a five percent increase to 25.3 Tcf. This was one of the key surprises for 2012. Substantial increases in well performance in major liquids-rich gas plays like the Marcellus and Eagle Ford more than offset the decrease in gas drilling.

In the new unconventional play landscape oil-rich and gas-rich fairways were developed together and in many cases blurred the distinctions between oil or gas plays. The Bakken — Three Forks, Permian Basin and Eagle Ford plays evolved to become the "big three" for U.S. tight oil plays. New reservoirs plus areal expansions helped to boost resources and supplies in these plays. The Niobrara, Mississippi Lime and Anadarko Basin highlight secondary tight oil plays and operators were trying to find the "next Bakken" with emerging possibilities in the Woodbine, Tuscaloosa Marine or a new frontier shale play in Nevada. Offshore, the deepwater Wilcox fairway provided another plus for U.S. oil supplies. The plunge in gas prices was tough for operators who had focused on dry gas production. Rigs shifted from the prior dry gas dream plays like the Barnett and Haynesville shales to the Eagle Ford in Texas, liquids-rich parts of the Marcellus and Utica plays in the Appalachian Basin and to the Niobrara in Colorado — all of which delivered improved economics from a mix of higher value oil and NGL production along with associated gas.

E&P Trends:

Oil: With natural gas prices languishing at 10 year lows at the beginning of 2012, the expected shift away from dry gas drilling to oil and liquids that began to pick up momentum in 2010 continued to accelerate. Price differentials kept the push to oil strong — Henry Hub gas prices averaged $2.76 per Mcf during 2012 — almost a 40 percent drop from 2011. The average 2012 WTI oil price, on the other hand, averaged $90.73 per barrel, down only one percent from 2011. Activity statistics as of the end of 2012 confirmed the speed of the shift to oil with 20,202 oil completions (a 31.7 percent increase from 2011) and only 8,104 gas completions (a 23 percent drop from 2011) reported. Baker-Hughes rig counts illustrated the magnitude of the longer–term shift from gas to oil. By the third quarter of 2012, when 76 percent of rigs were directed to oil targets, the change represented a complete reversal from mid-June 2009, the last time that 76 percent of rigs were directed to gas targets. In 2012, moderate energy demand finally overcame supply anxieties and triggered a slump in oil prices in June causing concerns for operators in the Williston Basin where transportation bottlenecks suppressed well head prices. We began to see crude-by-rail shipments provide relief to operators in the Williston and the oil price bounced back quickly.

While the tight oil learning curve was still on the upswing during 2012, it became obvious that the Bakken/Three Forks, the Eagle Ford and a collection of plays in the Permian Basin would be the leading plays for tight oil production. But other plays still showed new potential. Noble Energy, Inc. and Anadarko Petroleum Corporation verified some four billion barrels of equivalent (boe) of recoverable oil and gas from their assets in the Denver Basin Niobrara play that only a year before was viewed by many to be questionable. The Utica shale play continues to expand in eastern Ohio and the Pearsall shale could add a second important reservoir over much of the western part of the Eagle Ford play. The Mississippian Lime play in the Mid-Continent and the Tuscaloosa Marine Shale play in Louisiana and Mississippi also attracted new attention and drilling.

Natural Gas: As the year began and low gas prices pushed companies and rigs to liquids, it was thought that the decline in dry gas drilling would help rebalance supply and potentially increase gas prices as 2012 unfolded. The gas price average in January of 2012 settled at $2.70 per million British thermal units (MMBtu) but only improved to $3.44 by December. Throughout the year, natural gas working storage remained above the previous five-year average and reached historic high levels in spite of a hot summer and reduced injections, keeping prices low. Reduced gas directed drilling flattened supply growth to a degree and demand increased to fuel record levels of gas-fired power generation. Low prices inspired a surge in chemical plant construction that uses gas as petrochemical feedstock. None of these otherwise positive economic developments had large impacts on the low prices though.

A perhaps slightly unanticipated surge in gas supplies from unconventional tight oil development kept the gas supply curve on a steady rise in spite of only 600 rigs drilling for gas, only about 30 percent of the total employed rigs. The percentage of gas-directed rigs declined even more during the year and by year-end there were only 431 rigs drilling for gas, about 24 percent of the total. In spite of these radical drilling curtailments, gas supply maintained its growth continued and continued to suppress price improvements. In the liquids plays, operators focused development on the liquids and oil windows and concentrated on those areas which provided gas as a reservoir drive mechanism to move the oil through the tight rocks. As a result, gas production moved from under 60 Bcf per day at the end of 2011 to more than 65 Bcf per day in 2012. Gas associated with tight oil plays proved to be a considerable resource and research showed more than 300 Tcf of gas could be produced in the next three decades from the tight oil development. Companies continued drilling the Barnett Shale, the Haynesville and especially the emerging giant Marcellus play, and the high volume producing wells in those plays made the economics work. Other dry gas plays saw major drilling reductions. One exception was the Fayetteville Shale play in Arkansas. Thanks to cost reductions and operational excellence, Southwestern Energy Co. continued to make the economics work in the Fayetteville in spite of lower production volumes when compared to the Marcellus and Haynesville.

Technology: The technology that unlocked production from unconventional reservoirs, horizontal drilling and hydraulic fracturing continued to be refined in 2012. Longer horizontal laterals, increasing the number of frac stages and boosting the amount of proppant per stage resulted in steady improvements in well performance, just as they had the year before. Operators also began to understand the importance of carefully geosteering the horizontal wellbore to stay in the optimal zone. Especially in tight oil plays, operators looked for more carbonate, sandy and silty, interbedded zones within the organic rich shales because those zones provided at least marginally better porosity and permeability than the shale and therefore provided a better "reservoir" to drain.

Horizontal drilling continued to surpass vertical drilling and some horizontal wells were being tried even in conventional plays with some success. Baker Hughes data show 1,111 U.S. active horizontal rigs, 63 percent of total rigs, at the end of 2012—growing from 59 percent of total rigs at the end of 2011. Operators turned more and more to pad drilling during the year, not only to reduce surface footprints and to manage community relations but also to drill the wells faster and realize cost savings. Some plays like the Bakken/Three Forks and the Marcellus reported 50 percent reductions in drilling time, saving significant dollars and making room for more investment in bigger frac jobs. Completion costs account for 50 percent of total well costs. Technology refinements and new well designs resulted in productivity improvements across the majority of the unconventional plays.

Exploration: Exploration in 2012 centered around understanding the unconventional liquids plays, finding the right zones and even adding new zones in the case of the Three Forks in North Dakota, the Niobrara in Colorado and the Wolfcamp in the Permian Basin. Pure exploration in the traditional sense resulted in 2,284 wells drilled, down from 2011 with 2,327 total exploratory wells. Total completions reported by the end of 2012 totaled 42,124 wells, underscoring the focus on developing and "exploring" the best producing areas in the established unconventional plays.

A number of interesting exploration prospects were tested during 2012 including delineation of the ongoing plays. The Bakken was tested in the southern Alberta Basin a few hundred miles west of the Williston Basin heart of the play. Bakken discoveries were reported by Rosetta Resources in northwest Montana but the wells initial production of less than 200 boe per day did not meet Rosetta's desired goal of at least 250 boe per day. More exciting was the news that Burlington Resources (ConocoPhillips), Continental Resources and other operators were finding pay in the deeper, previously untapped benches of the Three Forks in the Williston Basin. Elsewhere in the Rockies, several Mowry Shale tests were completed in the Bighorn Basin of northwest Wyoming and new Niobrara tests in northwest Colorado where Shell and Quicksilver Resources created a joint venture to explore the Niobrara's potential. Initial wells in both the Mowry and the Niobrara in northwest Colorado did not produce big wells. The best Niobrara well initially produced 500 barrels (bbls) per day, settling to a 30-day average of about 200 bbls per day. Many shales in the

Rockies were tested during the year, including Paradox Basin's Cane Creek and Gothic Shales, central Montana's Heath Shale, Atoka and Cherokee rocks in eastern Colorado, and deeper Paleozoics potential oil plays also in eastern Colorado. In September of 2012 Noble Energy, Inc. announced plans to explore lightly-drilled, non-producing areas of Nevada where the company estimated 1.4 billion boe of gross resources.

In the Mid-Continent, operators expanded the Mississippian Lime play from north-central Oklahoma into south-central Kansas, testing the play's economic limits. Some of the best Mississippian Lime wells in Oklahoma hit initial potential production rates from 1,000 to 2,000 bbls per day. The target rich Anadarko Basin saw new drilling in the liquids-rich Granite Wash and in the Cleveland, Marmaton and Tonkawa formations plus the Woodford Shale. Chesapeake announced a new discovery in the Hogshooter Missourian Wash in Wheeler County, Texas that produced over 5,000 bbls per day with about six million cubic feet of gas per day. To the west, Apache Corporation continued developing the Canyon Granite Wash in the Dalhart Basin with highly encouraging results.

In the Northeast U.S., the Marcellus dominated drilling as operators continued to test the play's sweetspots but the Utica play was also a target. Early hopes for a strong Utica oil window faded a bit with exploratory well results but the liquids window started to attract attention. One of the new Utica wells, Gulfport Energy's 1H Wagner Unit in Ohio's Harrison County tested at a peak rate of 17.1 million cubic feet of gas and 432 bbls of condensate daily.

Exploration in the Southern U.S. including the Gulf Coast saw operators evaluating the Smackover and the unconventional Tuscaloosa Marine Shale in Louisiana and Mississippi where high well costs challenged the economic viability of the play. In Texas, the Eagle Ford continued booming and the central part of the play clearly emerged as the best producing sweetspot. The deeper Pearsall Shale drew increasing attention across much of the same acreage in the Eagle Ford play. The best Pearsall wells flowed at 700 to 900 bbls per day with several million cubic feet of gas per day. The Gulf of Mexico continued its resurgence post-Macondo blow-out and several new deepwater discoveries were reported in 2012 in both the Lower Tertiary play in ultra-deepwater as well as in the Miocene play. Numerous deepwater developments came online in 2012 which should lead to offshore production growth in the coming years.

Exploration in the Permian Basin was really dominated by development drilling as operators continued to test liquids-rich Bone Spring and Wolfcamp unconventional zones plus the Spraberry, noting peak production improvements from new 2012 wells compared to older wells in the plays. Several other remote exploratory programs were underway in the fringes of the region including the southwest flank of the Delaware Basin where the Marfa Basin and the Diablo Platform converge for undisclosed targets, the Pedregosa Basin for Percha Shale (Woodford equivalent) evaluation and the Chihuahua Basin, again for an undisclosed target.

Production Trends :

Oil: Based on numbers tabulated for this report, U.S. crude oil production reached 2,124 million barrels (MMb), an increase of 286 MMb – almost a 16 percent gain from 2011. Marginal oil wells have provided a foundation for U.S. oil production for many decades and continued to do so. During 2012, marginal oil wells produced 387 MMb or 18 percent of the total crude volume. Almost 387,000 marginal oil wells were on-stream during 2012 and comprised almost 86 percent of the total tabulated U.S. producing oil wells. Heavy oil contributed 383.8 million barrels (Mmb) or 18 percent of the 2012 crude production. California remained the leading heavy oil producer, contributing more than 190 Mmb, or about half of the heavy oil. Condensate production in 2012 totaled 240.8 Mmb boosting total liquids production including crude to more than 2,364 million barrels.

Texas led all states in oil production in 2012 with over 610 Mmb produced. Federal offshore (442 Mmb) and North Dakota (239 Mmb) came in second and third place respectively. As in 2011, Texas, driven by Eagle Ford shale and Permian Basin oil production growth, led all states in 2012 by increasing its annual crude oil production by 163 Mmb over 2011 production. North Dakota followed and added 91 Mmb, mostly from the Bakken and Three Forks formations.

Natural Gas: Based on numbers tabulated for this report, U.S. gas well gas production reached 23,045 Bcf, an increase of 744 Bcf and a 3.3 percent gain from 2011. Coalbed methane delivered 1,579 Bcf during 2012 – just under seven percent of the total even though coalbed drilling slowed even more markedly than in 2011 in response to low gas prices. The U.S. Federal Offshore contributed 1,084 Bcf, or 4.7 percent of the total, falling from the 2011 offshore total of 1,373 Bcf. Marginal gas production remained overshadowed by the shale plays, but these smaller volume marginal wells produced almost 2,960 Bcf, or about 13 percent of the 2012 total, maintaining the same percentage of contribution as in 2011. Almost 367,000 marginal gas wells were on-stream during 2012, about 74 percent of the 493,457 total producing gas wells.

Pennsylvania, driven by the mighty Marcellus Shale gas production, led all states by increasing its annual gas well gas production by 1,013 Bcf. Ohio, thanks to the Utica in addition to other gas production, followed and added 1,298 Bcf. Louisiana, after being the leader for new gas production additions in 2011, actually lost gas production in 2012, dropping from 2,918 Bcf to 2,900 a reflection of continuing low prices and curtailed drilling in the Haynesville.

Associated gas production added an additional 607 Bcf in the lower 48 states. Associated gas production continued to increase during the year from liquids-rich fairways such as in in the Eagle Ford and Granite Wash plays.

Concluding Comments: The materiality of the unconventional oil and gas revolution and potential impacts on the U.S. economy also were clarified during 2012. Forecast oil supply growth projected substantial declines in oil imports over the balance of the decade with huge implications for energy security and the U.S. economy. A study by IHS economists estimated that unconventional oil and gas could contribute $450 billion per year to annual gross domestic product (GDP) by 2025 and could support creation of 1.5 million new jobs between 2012 and 2025. The reduction of oil and gas imports also would impact future global oil and gas distribution and markets. The unconventional revolution had the earmarks of becoming more than a North American phenomenon.

The 2013-2014 Edition –Editor's Desk

It is important to look at the American energy renaissance both in terms of the evolution of new (and old) plays through technological innovation as well as the broader implications for the global market. The steadily rising production trends for American oil and natural gas are not only benefiting the U.S. domestic economy and individual states but also the country's trade balance, its geopolitical power and its economic impact on world energy markets.

The sheer numerical growth is impressive. U.S. average liquids production in the first half of 2013 averaged 9.7 million barrels per day, a level not seen since 1988. That was an increase of nearly three million barrels per day from 2008 or the equivalent of adding another mid-tier Middle Eastern producer such as Kuwait. Meanwhile, natural gas production in 2011 had already reached a new, all-time high of 24 trillion cubic feet (Tcf) – which it surpassed in 2012 at 25.3 Tcf to rack up seven annual increases in a row.

Along with increased energy supplies comes growth in industry jobs. According to the Bureau of Labor Statistics state-level data, Pennsylvania, New Mexico and Louisiana saw more than 70 percent of their net job growth from 2005 to 2012 come from oil and natural gas upstream and midstream jobs. That figure was roughly 30 to 40 percent for West Virginia and Oklahoma, and from 10 to 20 percent for North Dakota, Texas, Colorado, Alaska, Kansas, Wyoming and Montana. According to a recent study by IHS, the unconventional oil and gas value chain supports more than 2.1 million jobs today, a figure forecast to rise to more than 3.3 million jobs in 2020 and 3.9 million by 2025. The oil and gas value chain's contribution to U.S. GDP was more than $284 billion in 2012 and is on track to grow to $535 billion in 2025. IHS foresees the U.S. trade deficit reduced by more than $164 billion in 2020 thanks to unconventional production, equivalent to one-third of the current U.S. trade deficit.

Meanwhile, these two fuels have become of greater importance to our economy's energy mix in amount, if not in overall share. In 2012, although oil's share of total energy, still the largest for any fuel, had slipped to 36.5 percent from 45.5 percent in 1975, consumption was higher by about six percent. The share for natural gas in 2012 was about the same as in 1975 at 27.3 percent, but the volume was up by more than 30 percent.

A good example of this renaissance is Pennsylvania and the Appalachian region – the birthplace of the U.S. oil and natural gas industry in the 1800s. Now, a century and a half later, the Marcellus shale play has once again put Pennsylvania (and West Virginia) in the energy headlines. This time the focus is on natural gas (and natural gas liquids) more than oil and with wells that are at least one hundred times deeper than the first oil well drilled in 1859. Natural gas from the Marcellus shale propelled Pennsylvania to the number three state in natural gas production in 2012 – all the way from fifteenth place as recently as 2007. For 2013, the U.S. Energy Information Administration (EIA) projects that Pennsylvania may surpass Louisiana to rank second for natural gas only after Texas. Meanwhile, West Virginia's rank rose from fourteenth in 2007 to ninth in 2012. Based on EIA's projections, the Marcellus provided 17 percent of U.S. domestic natural gas marketed production in 2013.

The rapid growth of Marcellus natural gas is staggering. Natural gas production in Pennsylvania more than doubled in 2010, then again in 2011, then rose more than 70 percent in 2012. West Virginia's natural gas production doubled between 2010 and 2012. For 2012, these two states were already producing 2,256 billion cubic feet –Bcf (more than the United Arab Emirates) and 540 billion cubic feet (more than Colombia), respectively. The nearby Utica shale formation, also driven by hydraulic fracturing and horizontal drilling, allowed Ohio to double its natural gas production between 2012 and 2013.

The impact of this increased U.S. oil and natural gas production on international trade has been monumental: reduced net imports, signifying unquestionable gains for the U.S. trade balance. The most obvious result of increased crude production, when combined with a roughly equal decline in consumption, has been a dramatic decline in overall imports. From its peak in 2005 of more than 12.5 million barrels per day to 7.4 million barrels per day in 2012, U.S. net imports of petroleum fell more than 40 percent, by enough to nearly equal half of Saudi Arabia's production. Even with product exports almost tripling over that period to 3.2 million barrels per day (almost equal to Iran's crude oil production), gross imports of crude oil and products into the U.S. still fell more than three million barrels per day. Net reliance on imports for the U.S. in 2005 had been over 60 percent, but that fell to 40 percent by 2012 and 33 percent in 2013. The U.S. has not been in this enviable position since the mid-1970s, at the time of the 1973 Arab oil embargo.

The rise in petroleum product exports has been notable. While U.S. demand has been stable, world petroleum demand continues to grow, particularly in developing countries. Therefore, it is not surprising that the U.S., as the world's largest refiner with one-fifth of the world's refining capacity, having satisfied domestic markets, has responded to these international market opportunities.

The large shifts in physical trade volumes have had a financial impact in the billions of dollars. Imported oil prices roughly doubled between 2005 and 2012. During this time, a rise in U.S. production coincided with a reduction in consumption, ultimately leading to a 40 percent decline in total imports, saving $180 billion in import costs.

The effects of the U.S. oil and natural gas resurgence reach beyond the trade figures, influencing our country's energy security and its standing in world energy markets. According to EIA, unplanned disruptions in OPEC and non-OPEC producing countries recently reached the highest level in at least two and a half years, at 2.7 million barrels per day. Increased American energy supplies can reduce the impact of external disruptions, especially when compared with countries where dependency is greater.

As for the U.S. standing in world energy markets, in 2012 the U.S. had the largest increases for both oil and natural gas production for any country in the world. The U.S. ranked as the largest producer of natural gas in the world and the third largest oil producer. The impact of the U.S. oil production increase on world markets has been significant in a larger way: while world demand rose nearly seven million barrels per day from 2005 through the first half of 2013, U.S. liquids production rose nearly three million barrels per day. Or put another way, U.S. net imports have dropped nearly six million barrels per day over that period, while non-OPEC demand has risen nearly 12 million barrels per day. In other words, the U.S. trend has helped ease the strain on world markets and the demand for OPEC oil. Thus, the boost in energy security is not just a narrow one of reduced U.S. imports and less U.S. reliance on the Middle East, but also one of a broader, global impact on the oil market's equilibrium.

The increases in American oil and natural gas production have not only led to local, state, regional, and national benefits in terms of jobs, economic growth, and government revenues, but these gains are having international impacts as well. Increased American production has bolstered economic competitiveness, offered greater flexibility in energy inputs including feedstock for U.S. manufacturing, and provided greater options for the U.S. to earn export revenue. As the IHS study noted, even non-producing states have experienced important job and revenue gains from the increased production.

IPAA and IHS seek to provide a continued focus on the upstream sector of an industry that plays such a vital role in powering America's economy. Policy issues such as natural gas and crude oil exports (*see pg. 30 FAQs: Crude Oil and Condensate Exports*) have become increasingly important as the industry looks to expand its market share internationally.

IPAA would like to thank the IHS team which includes Dr. Pete Stark, Dean Williams, William Brandorff, Steve Trammel, Bob Fryklund, Randy Peterson and John Wakefield for their continued efforts in making this publication both comprehensive and unique. IPAA would also like to thank Economist Ron Planting for all of his contributions to the publication.

If you have ideas or feedback for future publications, please send your comments to Frederick Lawrence at IPAA (flawrence@ipaa.org). Thank you for your continued support and readership of one of the industry's longest running sources of upstream state data.

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 used on state pages includes peak oil production, total (dry) production, average production, average output per well, coalbed methane, heavy oil and marginal wells. IHS data is used for summary production data and wells drilled rankings. EIA data is used on state pages for natural gas marketed production and peak natural gas production.

EIA production data is used for determining the value of production, cumulative crude oil wellhead value, state production rankings, state consumption figures, natural gas marketed production and shale gas production. For this issue, the CityGate natural gas price is used to determine value of production instead of wellhead price which is no longer available. State reserve data is from EIA. All price data comes from EIA or individual states.

NGLs and Natural Gas Reserves Reporting: NGL data is no longer provided for the following sections: Cumulative production & new reserves and Petroleum Reserves. Wet natural gas includes natural gas plant liquids and the reporting category of Dry Gas has been replaced with natural gas, wet after lease separation (Total Gas). For more information regarding reserves methodology, please refer to the following EIA report: U.S. Crude Oil and Natural Gas Proved Reserves (April, 10, 2014).

The mineral lease royalties, bonuses and rent data comes from the Office of Natural Resources Revenue. Additional lines items have been added for the rents, bonuses and other revenues that pertain to oil and natural gas in addition to a new Total that includes all oil and gas revenues in addition to rents and bonuses related to oil and gas. We also include a percentage that relates to oil and gas total to the entire mineral total. Federal production shares figured using data from the Office of Natural Resources Revenue (ONRR - Federal Volumes) and production data from the EIA or ONRR.

All Federal Offshore statistics include only those wells in Federal waters. All state well statistics include inland/non-Federal 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 has been used as a proxy for deepest well statistics. Cumulative number of total wells drilled data comes from IHS.

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, i.e. injection, storage, service, 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).

The Cost of Drilling and Equipping Wells data are no longer available (post-2010).

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500 MERO ST 5TH FL
FRANKFORT, KY 40601
(502) 564-5525
www.eec.ky.gov

Louisiana

Louisiana Department of Natural Resources
617 N THIRD ST - LA SALLE BLDG
BATON ROUGE, LA 70802
(225) 342-4500
dnr.louisiana.gov

Maryland

Maryland Geological Survey
2300 ST PAUL ST
BALTIMORE, MD 21218
(410) 554-5500
www.mgs.md.gov

Michigan

Department of Natural Resources
PO BOX 30028
LANSING, MI 48909
(517) 284-6367
www.michigan.gov/dnr

Michigan Geological Survey
WESTERN MICHIGAN UNVERSITY
KALAMAZOO, MI 490058-5424
(269) 387-5840
wmich.edu/geologysurvey

Missouri

MO Dept. of Natural Resources Geological Survey Program
111 FAIRGROUNDS RD
PO BOX 250
ROLLA, MO 65402-0250
(800) 361-4827
dnr.mo.gov/geology

Mississippi

MS State Oil and Gas Board
500 GREYMONT AVE STE E
JACKSON, MS 39202-3446
(601) 576-4900
www.ogb.state.ms.us

Montana

MT Board of O & G Conservation
2535 ST JOHNS AVE
BILLINGS, MT 59102
(406) 656-0040
bogc.dnrc.mt.gov

North Dakota

ND Industrial Commission
Oil and Gas Division
600 E BOULEVARD AVE DEPT 405
BISMARCK, ND 58505-0840
(701) 328-8020
www.dmr.nd.gov/oilgas

Nebraska

NE O & G Cons. Commission
922 ILLINOIS
PO BOX 399
SIDNEY, NE 69162
(308) 254-6919
www.nogcc.ne.gov

New Mexico

New Mexico Energy, Minerals and Natural Resources Department
1220 S ST FRANCIS DR
SANTA FE, NM 87505
(505) 476-3200
www.emnrd.state.nm.us

Nevada

Nevada Division of Minerals
400 WEST KING ST STE 106
CARSON CITY, NV 89703
(775) 684-7040
www.minerals.state.nv.us

New York

NY State Dept. of Env.Cons.
625 BROADWAY
ALBANY, NY 12233-0001
(518) 402-8013
www.dec.ny.gov

NY State Geological Survey
3000 CULTURAL EDUCATION CENTER
ALBANY, NY 12230
(518) 473-6262
www.nysm.nysed.gov/nysgs

NYS Energy Res. and Dev. Auth.
17 COLUMBIA CIR
ALBANY, NY 12203-6399
(518) 862-1090 (866) NYSERDA
www.nyserda.ny.gov

Ohio

OH Dept. of Natural Resources
Division of Oil and Gas
2045 MORSE RD
BLDG F
COLUMBUS, OH 43229-6693
(614) 265-6565
oilandgas.ohiodnr.gov

Oklahoma

Interstate O & G Compact Comm.
PO BOX 53127
OKLAHOMA CITY, OK 73105
(405) 525-3556
www.iogcc.state.ok.us

OK Corporation Commission
Oil and Gas Division
2101 N LINCOLN BLVD.
OKLAHOMA CITY, OK 73105
(405) 521-2211
www.occ.state.ok.us

Oregon

Oregon Department of Geology and Mineral Industries
800 NE OREGON ST #965
STE 965
PORTLAND, OR 97232-2162
(971) 673-1555
www.oregongeology.org

Pennsylvania

PA Dept. of Env. Protection
Oil and Gas Division
Bureau of Oil & Gas Management
PO BOX 8765
HARRISBURG, PA 17105-8765
(717) 772-2199
www.depweb.state.pa.us

South Dakota

SD Dept. of Environment and Natural Resources
PMB 2020
SD DENR
JOE FOSS BLDG
523 E CAPITOL
PIERRE, SD 57501
(605) 773-3151
www.denr.sd.gov

Tennessee

TN Dept. of Env. and Cons. Board of Water Quality, Oil and Gas
312 ROSA L PARKS AVE
3RD FLOOR NASHVILLE ROOM TN TOWER
NASHVILLE, TN 37243
(615) 532-0109
www.tennessee.gov/environment/

Texas

Texas Railroad Commission
Oil & Gas Division
PO BOX 12967
AUSTIN, TX 78711-2967
(512) 463-6838
www.rrc.state.tx.us

Utah

UT Dept. of Natural Resources
Division of Oil, Gas and Mining
1594 WEST NORTH TEMPLE
SALT LAKE CITY, UT 84116
(801) 538-5340
www.oilgas.ogm.utah.gov

Virginia

Virginia Department of Mines, Minerals and Energy
Division of Gas and Oil
135 HIGHLAND DRIVE
LEBANON, VA 24266
(276) 415-9700
www.dmme.virginia.gov

West Virginia

WV Dept. of Env. Protection
Office of Oil & Gas
601 57TH ST SE
CHARLESTON, WV 25304
(304) 926-0440
www.dep.wv.gov/oil-and-gas

Wyoming

WY Dept. of Env. Quality
122 WEST 25TH ST
HERSCHLER BLDG
CHEYENNE, WY 82002
(307) 777-7937
deq.state.wy.us

WY O & G Cons. Commission
2211 KING BLVD
PO BOX 2640
CASPER, WY 82602
(307) 234-7147
wogcc.state.wy.us

Federal Organizations

Bureau of Ocean Energy Management
1849 C STREET NW
WASHINGTON, D.C. 20240
(202) 208-6474
http://www.boem.gov

Bureau of Safety and Environmental Enforcement
1849 C STREET NW
WASHINGTON, D.C. 20240
(202) 208-7468
www.bsee.gov

Environmental Protection Agency
ARIEL RIOS BLDG
1200 PENNSYLVANIA AVE NW
WASHINGTON, DC 20460
(202) 272-0167
www.epa.gov

Federal Energy Regulatory Commission
888 FIRST ST NE
WASHINGTON, DC 20426
(866) 208-3372
www.ferc.gov

Nat'l Energy Tech. Laboratory
626 COCHRANS MILL RD
PO BOX 10940
PITTSBURGH, PA 15236-0940
(412) 386-4984
www.netl.doe.gov/research/oil-and-gas

U.S. Department of Energy
Fossil Energy
1000 INDEPENDENCE AVE SW
WASHINGTON, DC 20585
(800) DIAL DOE (342-5363)
(202) 586-6503
www.energy.gov/fe/

U.S. Department of Energy
Office of Scientific and Technical Information
PO BOX 62
OAX RIDGE, TN 37831
(865) 576-1188
www.osti.gov

U.S. Department of the Interior
1849 C ST NW
WASHINGTON, DC 20240
(202) 208-3100
www.doi.gov

U.S. Energy Information Administration
1000 INDEPENDENCE AVE SW
WASHINGTON, DC 20585
(202) 586-8800
www.eia.gov

U.S. Geological Survey
USGS National Center
12201 SUNRISE VALLEY DR
RESTON, VA 20192
(888) 275-8747
www.usgs.gov

Cooperating Oil & Gas Associations

Alabama

Coalbed Methane Assoc. of Alabama
3829 LORNA RD STE 306
BIRMINGHAM, AL 35244
(205) 733-8087
www.coalbed.com

Arkansas

Arkansas Ind Producers & Royalty Owners
1401 W CAPITOL AVE STE 440
LITTLE ROCK, AR 72201
(501) 975-0565
www.aipro.org

California

CA Independent Petroleum Assoc.
1001 K ST 6TH FL
SACRAMENTO, CA 95814
(916) 447-1177
www.cipa.org

Independent Oil Producers' Agency
4520 CALIFORNIA AVE #230
BAKERSFIELD, CA 93309
(661) 377-0411

Western States Petroleum Assoc.
1415 L ST STE 600
SACRAMENTO, CA 95814
(916) 498-7750
www.wspa.org

Colorado

Colorado Oil & Gas Assoc.
1800 GLENAM PL SUITE 1100
DENVER, COLORADO 80202
(303) 861-0362
www.coga.org

Western Energy Alliance
1775 SHERMAN ST STE 2700
DENVER, CO 80203
(303) 623-0987
www.westernenergyalliance.org

Florida

Florida Independent Petroleum Producers
5860 B SPANISH TRAIL
PENSACOLA, FL 32504
(850) 969-1034
www.flippaoil.org

Illinois

Illinois O&G Assoc.
PO BOX 788
MOUNT VERNON, IL 62864
(618) 242-2857
www.ioga.com

Indiana

Ind. Oil Producers Assoc. Tri-State
2104 LINCOLN AVE
EVANSVILLE, IN 47714
(812) 479-9451

Indiana O&G Assoc.
1200 REFINERY RD
MT VERNON, IN 47620
(812) 838-8515
www.inoga.org

Kansas

Kansas Independent O & G Assoc.
229 E WILLIAM SUITE 211
WICHITA, KS 67202-4027
(316) 263-7297
www.kioga.org

Eastern Kansas O & G Assoc.
17 S EVERGREEN AVE
CHANUTE, KS 66720
(620) 431-1020
www.ekoga.org

SW Kansas Royalty Owners Assoc.
209 EAST 6TH ST
HUGOTON, KS 67951
(620) 544-4333
www.swkroa.com

Liaison Committee of Cooperating Oil & Gas Associations
800 SW JACKSON ST STE 1400
TOPEKA , KS 66612
(785) 232-7772

Kentucky

Kentucky O & G Assoc.
306 W MAIN ST SUITE 404
FRANKFORT, KY 40601
(502) 226-1955
www.kyoilgas.org

Louisiana

Louisiana Landowners Assoc.
8982 DARBY AVE
BATON ROUGE, LA 70806
(225) 927-5619
lalandowners.org

Louisiana O & G Assoc.
PO BOX 4069
BATON ROUGE, LA 70821-4069
(800) 443-1433
www.loga.la

Michigan

Michigan Oil & Gas Assoc.
124 W ALLEGAN ST STE 1610
LANSING, MI 48933
(517) 487-1092
www.michiganoilandgas.org

Mississippi

MS Ind. Producers & Royalty Owners
PO BOX 187
JACKSON, MS 39205-0187
(601) 353-8349 x23
www.mipro.ms

Montana

Montana Petroleum Association
25 NEILL AVE STE 202
HELENA, MT 59601
(406) 442-7582
www.montanapetroleum.org

Northern Montana O & G Assoc.
PO BOX 488
CUT BANK, MT 59427
(406) 873-9000

New Mexico

Ind. Petroleum Assoc. of NM
PO BOX 6101
ROSWELL, NM 88202
(575) 622-2566
www.ipanm.org

New Mexico Oil & Gas Assoc.
123 W BOOTH ST
SANTA FE, NM 87505
(505) 982-2568
www.nmoga.org

New York

Independent O & G Assoc. of New York
38 LAKE ST
HAMBURG, NY 14075
(716) 202-4688
www.iogany.org

North Dakota

North Dakota Petroleum Council
100 WEST BROADWAY STE 200
PO BOX 1395
BISMARCK, ND 58501
(701) 223-6380
www.ndoil.org

Ohio

Ohio O & G Assoc.
88 E BROAD ST SUITE 1400
COLUMBUS, OH 43215
(614) 824-3901
www.ooga.org

Southeastern Ohio O & G Assoc.
214 1/2 WARNER ST
MARIETTA, OH 45750
(740) 374-3203
www.sooga.org

Cooperating Oil & Gas Associations

Oklahoma

OK Independent Petroleum Assoc.
500 NE 4TH ST SUITE 200
OKLAHOMA CITY, OK 73104
(405) 942-2334
www.oipa.com

Petroleum Technology Transfer Council
PO BOX 710942
OAK HILL, VA 20171
(703) 928-5020
www.pttc.org

National Stripper Well Assoc.
PO BOX 18336
OKLAHOMA CITY, OK 73154
(405) 228-4112
www.nswa.us

National Assoc. of Royalty Owners
15 W 6TH ST STE 2626
TULSA, OK 74119
(800) 558-0557
www.naro-us.org

Pennsylvania

Pennsylvania Independent O&G Assoc.
115 VIP DR STE 210
NORTHRIDGE OFFICE PLAZA II
WEXFORD, PA 15090-7906
(724) 933-7306
www.pioga.org

Tennessee

Tennessee Oil & Gas Assoc.
750 OLD HICKORY BLVD STE 150-2
BRENTWOOD, TN 37027
(615) 371-6137
www.tennoil.com

Texas

American Assoc. of Prof. Landmen
4100 FOSSIL CREEK BLVD
FORT WORTH, TX 76137-2791
(817) 847-7700
www.landman.org

Assoc. of Energy Service Companies
14531 FM 529 STE 250
HOUSTON, TX 77095
(713) 781-0758
www.aesc.net

East Texas Producers and Royalty Owners Assoc.
PO BOX 1700
KILGORE, TX 75663
(903) 984-8676

Int'l Assoc. of Geophysical Contractors
1225 NORTH LOOP WEST STE 220
HOUSTON, TX 77008
(866) 558-1756
www.iagc.org

Panhandle Producers and Royalty Owners Assoc.
3131 BELL STE 209
AMARILLO, TX 79106
(806) 352-5637
www.pproa.org

Permian Basin Petroleum Assoc.
415 W WALL STE 103
MIDLAND, TX 79701
(432) 684-6345
www.pbpa.info

Petroleum Equipment Suppliers Assoc.
1240 BLALOCK RD STE 110
HOUSTON, TX 77055
(713) 932-0168
www.pesa.org

Society of Independent Professional Earth Scientists
4925 GREENVILLE AVE STE 1106
DALLAS, TX 75206
(214) 363-1780
www.sipes.org

Texas Alliance of Energy Producers
900 8TH ST SUITE 400
WICHITA FALLS, TX 76301
(800) 299-2998
(940) 723-4131
www.texasalliance.org

Texas Independent Producers and Royalty Owners Assoc.
919 CONGRESS AVE STE 1000
AUSTIN, TX 78701
(512) 477-4452
www.tipro.org

Utah

Utah Petroleum Association
10714 S JORDAN GATEWAY STE 260
SOUTH JORDAN, UT 84095
(801) 619-6680
www.utahpetroleum.org

Virginia

Virginia O & G Assoc.
PO BOX 2285
ABINGDON, VA 24212
www.vaoilandgas.com

West Virginia

Independent Oil & Gas Assoc. of WV
300 SUMMERS ST STE 820
CHARLESTON, WV 25301
(304) 344-9867
www.iogawv.com

West Virginia Oil and Natural Gas Assoc.
PO BOX 3231
CHARLESTON, WV 25332-3231
(866) 343-1609
www.wvonga.com

Wyoming

Petroleum Assoc. of Wyoming
951 WERNER CT STE 100
CASPER, WY 82601
(307) 234-5333
www.pawyo.org

Networking Associations

AK Oil and Gas Assoc.
121 W FIREWEED LN STE 207
ANCHORAGE, AK 99503-2035
(907) 272-1481
www.aoga.org

Am. Assoc. of Petroleum Geologists
1444 S BOULDER AVE
TULSA, OK 74119
(800) 364-2274
www.aapg.org

American Exploration and Production Council
101 CONSTITUTION AVE NW STE 700E
WASHINGTON, DC 20001
(202) 742-4540
www.axpc.us

American Petroleum Institute
1220 L ST NW
WASHINGTON, DC 20005-4070
(202) 682-8000
www.api.org

Canadian Assoc. of Petroleum Producers
350 7TH AVE SW STE 2100
CALGARY ALBERTA T2P 3N9
CANADA
(403) 267-1100
www.capp.ca

IL Petroleum Resources Board
PO BOX 941
MOUNT VERNON, IL 62864
(618) 242-2861
www.iprb.org

Int'l Assoc. of Drilling Contractors
10370 RICHMOND AVE STE 760
PO BOX 4287
HOUSTON, TX 77210
(713) 292-1945
www.iadc.org

LA Mid-Continent O & G Assoc.
730 NORTH BLVD
BATON ROUGE, LA 70802
(225) 387-3205
www.lmoga.com

Mid-Continent O & G Assoc. of Oklahoma
6701 N BROADWAY STE 300
OKLAHOMA CITY, OK 73116
(405) 843-5741
www.okmoga.com

NE Independent O & G Assoc.
414 S WALNUT ST
PO BOX 427
KIMBALL, NE 69145-1434
(308) 235-2906

North Dakota Industrial Commission Mineral Resources, Oil and Gas
600 EAST BOULEVARD AVE DEPT 405
BISMARCK, ND 58505-0840
(701) 328-8020
www.oilgas.nd.gov

Public Lands Advocacy
1155 S HAVANA ST #11-327
DENVER, CO 80012
(303) 506-1153
www.publiclandsadvocacy.org

Society of Petroleum Engineers
222 PALISADES CREEK DR
RICHARDSON, TX 75080
(800) 456-6863
www.spe.org

Stripper Well Consortium
The Pennsylvania State University
C-211 CUL
UNIVERSITY PARK, PA 16802
(814) 865-4802
www.energy.psu.edu/swc/

Texas Oil and Gas Assoc.
304 W 13TH ST
AUSTIN, TX 78701
(512) 478-6631
www.txoga.org

The IPAA Energy Education Center started with a simple idea almost a decade ago. That idea was to establish a program with public schools that would make mathematics and science more meaningful and relevant and to address the projected loss of 50 percent of engineering and geosciences professionals due to an aging workforce.

In 2012, **IPAA** announced a new partnership with the **Petroleum Equipment & Services Association (PESA)**, a vigorous supporter of the academies since their inception, to continue to expand upon our commitment to **education outreach** through the Houston-based **IPAA/PESA Energy Education Center** with current Director, Anne Ford.

Together with the support of the **Petroleum Academy Education Advisory Board** and critical corporate and individual sponsorships, the center is achieving an unprecedented level of success preparing the ***next generation*** of talented professionals who will lead the oil and gas industry forward.

The center's mission is to provide students with a multidisciplinary advanced academic learning experience in science, mathematics and the emerging technology concepts they require to pursue professional training/degrees in engineering, geology, geophysics and global energy management. The five established IPAA/PESA Petroleum Academies in the Houston and Fort Worth Independent School Districts prepare students to become effective leaders and global ambassadors by introducing them to the importance of teamwork in business dynamics.

Please join us in our continuing efforts to support this industry-changing partnership with education.

Barry Russell, IPAA President & CEO

INDUSTRY SUPPORT FOR THE PETROLEUM ACADEMIES' KEY PROGRAM COMPONENTS

- **Guest Speaker Lecture Series** Students learn from industry professionals about technical and career insight topics.w
- **Industry and College Site Visits** Students discover how engineering, geosciences and technology work together in the energy industry through site visits to energy companies, museums and colleges.
- **Industry-related Competitions** Community-based competitions provide students an opportunity to demonstrate their industry knowledge with other high-achieving high schools and college-age students.

  PetroChallenge Competition Students learn to run their own oil and gas company in this interactive computer simulation competition.

  Public Speaking Competition Students research and debate energy industry technical and current affairs topics.

  Viva Technology Competition An engineering program that introduces underclassmen and their parents to engineering concepts and careers in an interactive way.

  Engineering/Robotics Competitions Students are challenged to learn engineering concepts in a competitive, fun environment.
- **Student Camps** Financial support for engineering/geoscience camps.
- **Externship Program** The capstone component of students' academy participation where students experience a professional workplace setting in an energy company. The program also includes interview preparation, resume writing and professional workplace conduct training.
- **Especially for Teachers**

  Teacher Training Various opportunities for teachers to enhance their industry knowledge.

  Lead Teacher/Administrator Stipends Stipends recognizing each Academy Lead Teacher and Administrator.

  IPAA/PESA Teacher of the Year Award Annually recognizes outstanding Academy campus personnel.
- **Curriculum Support** Industry software and textbooks; STEM curriculum; journals; and industry on-line materials.
- **Especially for Students**

  Community Service Opportunities provided for students to become actively involved in their community.

  Energy Clubs Student formed and led.

  Scholarships for College Qualified students apply for scholarships.

  Alumni Group Graduates are invited to join the student-led group.

  IPAA Emerging Leaders Group Academy graduates are invited to join this IPAA networking group.

FOR MORE INFORMATION OR TO CONTRIBUTE TO OUR EDUCATIONAL PROGRAMS

Barry Russell, President & CEO, IPAA | brussell@ipaa.org | 202.857.4735
Anne Ford, Executive Director, IPAA/PESA Energy Education Center | aford@ipaa.org | 281.798.2334

www.ipaa.org/education

State Education Programs

Participating IPAA/PESA High School Energy Magnet Schools:

Texas

Energy Institute High School
1808 SAMPSON ST
HOUSTON, TX 77003-5434
(713) 802-4620
www.houstonisd.org/energy

Charles H. Milby High School
7414 ST LO RD
HOUSTON, TX 77033
(713) 928-7401
www.milby.org

Southwest High School
100 N UNIVERSITY DR
FORT WORTH, TX 76107
(817) 871-2000
http://southwest.fwisd.org

Westside High School
14201 BRIAR FOREST DR
HOUSTON, TX 77077-1806
(281) 920-8000
http://hs.houstonisd.org/westsidehs

Young Women's College Preparatory Academy
1906 CLEBURNE
HOUSTON, TX 77004-4131
(713) 942-1441
http://schools.houstonisd.org/YWCPA

University Energy and Geology Programs (Non-affiliated):

Alabama

The University of Alabama
Department of Geological Sciences
(205) 348-5095
geology@geo.ua.edu
www.geo.ua.edu

Alaska

University of Alaska - Fairbanks
Mining & Geological Engineering
(907) 474-7388
uaf-cemmingeo-dept@alaska.edu
cem.uaf.edu/mingeo

University of Alaska - Fairbanks
Petroleum Engineering
Dept. Chair Abhijit Dandekar
(907) 474-7734
uaf-pete-dept@alaska.edu
cem.uaf.edu/pete

Arkansas

Arkansas Tech University
Department of Physical Sciences
Dr. Cathy Baker
(479) 968-0661
cbaker@atu.edu
www.atu.edu/geology

University of Arkansas Community College at Morrilton
Petroleum Technology A.A.S. and Technical Certificate
(800) 364-1094
adm@uaccm.edu
www.uaccm.edu/Academics/Academics.htm

California

CA State University, Bakersfield
Department of Geology
Dr. Dick Baron, Department Chair
(661) 654-3059
dbaron@csub.edu
www.csub.edu/geology/

CA State University, Long Beach
Dept. of Geological Sciences
(562) 985-4809
www.csulb.edu/depts/geology

Stanford University
Department of Energy Resources Engineering
(650) 723-4744
kovscek@standord.edu
pangea.stanford.edu/departments/ere/

University of Southern California
Viterbi School of Engineering
(213) 740-4488
viterbi.admission@usc.edu
viterbi.usc.edu/academics/programs

Colorado

Colorado Mountain College
Energy Industry Training
(800) 621-8559, ext. 6950
rhaney@coloradomtn.edu
coloradomtn.edu/business_industry/energy_industry_training

Colorado School of Mines
Department of Petroleum Engineering
(303) 273-3740
dwinnbow@mines.edu
petroleum.mines.edu

Colorado School of Mines
Geoscience and Resource Engineering
(303) 273-3247
jsimbai@mines.edu
www.mines.edu/GeoscienceandResourceEngineering_GS

Mesa State College
Department of Business
(970) 248-1875
admissions@coloradomesa.edu
www.coloradomesa.edu/business/certificates.html

Western State College of Colorado
Department of Geology
Dale Orth, Department Chair
(970) 943-3437
dorth@western.edu
www.western.edu/academics/geology

Kansas

Fort Hays State University
Department of Geosciences
Dr. John Heinrichs, Chair
(785) 628-4536
jheinric@fhsu.edu
www.fhsu.edu/geo

The University of Kansas School of Engineering
Petroleum Engineering
(785) 864-4965
cpe@ku.edu
www.cpe.engr.ku.edu/petro.html

Louisiana

Louisiana State University
Craft and Hawkins Department of Petroleum Engineering
Karsten Thompson, Chair
(225) 578-6055
karsten@lsu.edu
www.pete.lsu.edu

Nicholls State University
Petroleum Engineering Technology and Safety Management
(985) 448-4739
petsm@nicholls.edu
www.nicholls.edu/petsm/

Tulane University
Freeman School of Business
(800) 223-5402
abfadmit@tulane.edu
www.freeman.tulane.edu/energy

University of Louisiana at Lafayette
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Dr. Fathi Boukadi, Department Head
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petroleum@louisiana.edu
petroleum.louisiana.edu

Missouri

Missouri University of Science and Technology
Petroleum Engineering
(573) 341-4616
rocks@mst.edu
petroleum.mst.edu

Montana

Montana Tech - University of Montana
School of Mines and Engineering
(800) 445-8324
enrollment@mtech.edu
www.mtech.edu/mines/pet_eng

New Mexico

NM Institute of Mining & Technology
Department of Petroleum and Natural
Gas Engineering
(575) 835-5412
petro@nmt.edu
infohost.nmt.edu/~petro

North Dakota

University of North Dakota
Department of Geology and
Geological Engineering
(800) 225-5863
und.info@email.und.edu
www.geology.und.edu/geoE_ugdegreedirectory.php

Ohio

Marietta College
Department of Petroleum Engineering
(740) 376-4775
petr@marietta.edu
www.marietta.edu/~petr/index.html

Oklahoma

University of Oklahoma
ConocoPhillips School of Geology
and Geophysics
(405) 325-3253
geology@ou.edu
www.ou.edu/mcee/geology.html

University of Oklahoma
Mewbourne School of Petroleum and
Geological Engineering
(405) 325-2921
mpge.ou.edu

University of Oklahoma
Price College of Business Department
of Management
(405) 325-3811
pricecollege@ou.edu
www.ou.edu/go2/academics/mfpcd.html

University of Tulsa
Collins College of Business Department
of Energy Management
Ted Jacobs, Program Director
(918) 631-3588
ted-jacobs@utulsa.edu
www.utulsa.edu/Academics/Colleges/Collins-College-of-Business

Pennsylvania

Pennsylvania State University
Dept of Energy & Mineral Engineering
(814) 865-3437
eme@psu.edu
www.eme.psu.edu/ebf/

University of Pittsburgh
Swanson School of Engineering
(412) 624-9630
che@engr.pitt.edu
www.engr2.pitt.edu/chemical

South Dakota

SD School of Mines and Technology
Geology and Geological Engineering Department
Laurie C Anderson, Chair
(605) 394-1290
lauri.anderson@sdsmt.edu
geology.sdsmt.edu

Texas

Del Mar College
Technology Education Department
(361) 698-1200
www.delmar.edu

Kilgore College
Department of Continuing Education
Bill Brantly, Jr., Director
(903) 983-8680
bbrantley@kilgore.edu
www.kilgore.edu/petro_tech.asp

Midland College
Petroleum Professional Development Center
Joan Brooks, Program Coordinator
(432) 683-2832
jbrooks@midland.edu
www.midland.edu/ppdc

Panola College
Petroleum Technology
1109 WEST PANOLA ST
CARTHAGE, TX 75633
(903) 694-4514
www.panola.edu/industrial/programs/petroleum-technology/

Texas A&M - Kingsville
Department of Chemical and Natural
Gas Engineering
Ali A. Pilehvari, Chair
(361) 593-2089
ali.pilehvari@tamuk.edu
www.tamuk.edu/engineering/departments/chen/index.html

Texas A&M University
Harold Vance Department of Petroleum
Engineering
(979) 845-2241
info@pe.tamu.edu
www.pe.tamu.edu

Texas Tech University
Department of Petroleum Engineering
M. Y. Soliman, Chair
(806) 834-8078
Mohamed.Soliman@ttu.edu
www.depts.ttu.edu/pe

Texas Tech University
Rawls College of Business - Center for
Energy Commerce
Kellie Estes, Director of Operations
(806) 834-2046
kellie.estes@ttu.edu
ec.ba.ttu.edu

University of Houston
Department of Chemical and Biomolecular
Engineering
Dr.Tom Holley, Petroleum Engr. Pgm.
(713) 743-4300
tkholley@uh.edu
www.che.uh.edu

University of Houston - Downtown
Department of Management, Marketing, and
Business
Dr. Lucille Pointer, Chair
(713) 222-5382
pointerl@uhd.edu
www.uhd.edu/academic/colleges/business/mmba/mmba_index.htm

University of Texas - Austin
Department of Petroleum and Geosystems
Engineering
Jessica Jimenez, Student Recruitment
(512) 232-9306
jessica.jimenez@mail.utexas.edu
www.pge.utexas.edu/

West Virginia

Glenville State College
Department of Land Resources
Dr. Milan C. Vavrek
(304) 462-6375
Milan.Vavrek@glenville.edu
www.glenville.edu/landresources_department.asp

West Virginia University
College of Engineering and Mineral Resources
(304) 293-4821
statler-info@mail.wvu.edu
www.pnge.cemr.wvu.edu/welcome

Wyoming

Western Wyoming Community College
Oil and Gas Technology
Paul Johnson, Division Chair
(307) 382-1784
pjohnson@wwcc.wy.edu
www.wwcc.wy.edu/academics/oilgastech

University of Wyoming - College of Engineering & Applied Science
Department of Chemical and Petroleum
Engineering
(307) 766-2500
chpe.info@uwyo.edu
www.uwyo.edu/chemical/

CANADA

University of Calgary
Haskayne School of Business
(403) 220-5685
undergrad@haskayne.ucalgary.ca
www.haskayne.ucalgary.ca/undergrad/plma

Young Professionals in Energy

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

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North Dakota

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(432) 686-3084
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+7-495-777-7707
svkurilov@tnk-bp.com

ADDITIONAL ENERGY EDUCATION & EMPLOYMENT RESOURCES

Alaska

Alaska BLM - Campbell Creek Science Center
5600 SCIENCE CENTER DR
ANCHORAGE, AK 99507-2599
(907) 267-1247
(907) 267-1258 Fax
www.blm.gov/ak/st/en/prog/sciencecenter.html

California

Energy Quest - California Energy Commission
1516 9TH ST MS-29
SACRAMENTO, CA 95814
(916) 654-4989
www.energyquest.ca.gov

Western States Petroleum Assoc. (WSPA)
1415 L ST STE 600
SACRAMENTO, CA 95814
(916) 498-7750
www.wspa.org

Colorado

Colorado School of Mines
Division of Economics and Business
816 15th ST
GOLDEN, CO 80401
(303) 273-3482
econbus.mines.edu

District of Columbia

Energy in Depth
1201 15TH STREET NW STE 300
WASHINGTON, DC 20005
(202) 346-8845
www.energyindepth.org

Energy Kids
US Department of Energy
1000 INDEPENDENCE AVE
WASHINGTON, DC 20585
(202) 586-8800
www.eia.gov/kids

Federal Energy Regulatory Commission Student Relations
(202) 502-8476
amanda.perry@ferc.gov
www.ferc.gov/careers/student-rel.asp

Louisiana

LSU Center for Energy Studies
ENERGY COAST AND ENVIROMENT BUILD-ING
NICHOLSON DRIVE EXTENSION
BATON ROUGE, LA 70803
(225) 578-4400
www.enrg.lsu.edu

Montana

Northern Montana Independent O & G Assoc.
PO BOX 488
CUT BANK, MT 59427
(406) 873-9000

Ohio

Environmental Education Council of Ohio
PO BOX 1004
LANCASTER, OH 43130
(740) 653-2649 Office
(740) 215-3376 Cell
eeco.wildapricot.org

Ohio Energy Project (OEP)
200 E WILSON BRIDGE RD STE 320
WORTHINGTON, OH 43085
(614) 785-1717
www.ohioenergy.org

Ohio O & G Energy Education Program (OOGEEP)
1718 COLUMBUS RD SW
PO BOX 187
GRANVILLE, OH 43023-0535
(740) 587-0410
www.oogeep.org

Oklahoma

Assoc. of Desk and Derrick Clubs
5321 SOUTH SHERIDAN RD STE 24
TULSA, OK 74135
(918) 622-1749
WWW.addc.org

Domestic Energy Producers Alliance
PO BOX 18359
OKLAHOMA CITY, OK 73154
(405) 424-1699
www.depausa.org

Committee for Sustaining Oklahoma's Energy Resources
500 NE 4th ST SUITE 100
OKLAHOMA CITY, OK 73104
(405) 601-2190
soerok.com

Oklahoma Energy Resources Board (OERB)
500 NE 4th ST SUITE 100
OKLAHOMA CITY, OK 73104
(800) 664-1301
info@oerb.com
www.oerb.com

University of Oklahoma

Mewbourne College of Earth & Energy
100 EAST BOYD ROOM 1510
NORMAN, OK 73019
(405) 325-3821
www.ou.edu/mcee.html

Pennsylvania

Marcellus Shale Coalition
24 SUMMIT PARK DR
PITTSBURG, PA 15275
(412) 706-5160
marcelluscoalition.org

Texas

East Texas Historical Assoc.
PO BOX 6223 SFA STATION
NACOGDOCHES, TX 75962
(936) 468-2407
www.easttexashistorical.org

Offshore Energy Center (OEC) - Ocean Star Museum
200 N DAIRY ASHFORD STE 4119
HOUSTON, TX 77079
(281) 679-8040
oec@oceanstaroec.com
www.oceanstaroec.com

Virginia

National Energy Education Development Project (NEED)
PO BOX 10101
MANASSAS, VA 20108
(800) 875-5029
www.need.org

Wisconsin

Wisconsin K-12 Energy Education Program (KEEP)
403 LRC UWSP
STEVENS POINT, WI 54481
(715) 346-4770
energy@uwsp.edu
www.uwsp.edu/cnr/wcee/keep

Wyoming

Wyoming State Historical Society
PO BOX 247
WHEATLAND, WY 82201
(307) 322-3014
www.wyshs.org

CANADA

BP - A+ for Energy
240 4TH AVE SW
CALGARY AB T2P 2H8 CANADA
(403) 233-1359
www.bp.com/en/global/aplus-for-energy.html

Oil And Gas Museums

Alabama

Choctaw Cnty Historical Museum
40 MELVIN RD
GILBERTOWN, AL 26908
(205) 459-3383
www.ohwy.com/al/c/choccohm.htm

Arkansas

AK Museum of Natural Resources
3583 SMACKOVER HWY
SMACKOVER, AR 71762
(870) 725-2877
www.amnr.org

Arkansas Museum of Science and History
500 PRESIDENT CLINTON AVE STE 150
LITTLE ROCK, AR 72201
(501) 396-7050
www.amod.org

California

Brea Museum and Heritage Center
125 WEST ELM STREET
BREA, CA 92821
(714) 256-2283
www.breamuseum.org

California Oil Museum
1001 E MAIN ST
SANTA PAULA, CA 93061
(805) 933-0076
www.oilmuseum.net

Hathaway Ranch and Oil Museum
11901 FLORENCE AVE
SANTA FE SPRINGS, CA 90670
(562) 777-3444
www.santafesprings.org/about/history/hathaway_ranch_museum.asp

Kern County Museum
3801 CHESTER AVE
BAKERSFIELD, CA 93301
(661) 437-3330
www.kcmuseum.org

Olinda Historic Museum & Park
4025 SANTA FE ROAD
BREA, CA 92821
(714) 671-4447
www.ci.brea.ca.us/index.asp?NID=438

Santa Barbara Maritime Museum
113 HARBOR WAY STE 190
SANTA BARBARA, CA 93109
(805) 962-8404
www.sbmm.org

West Kern County Museum
PO BOX 491
TAFT, CA 93268
(661) 765-6664
www.westkern-oilmuseum.org

Colorado

Museum of Nature and Science
2001 COLORADO BLVD
DENVER, CO 80205
(303) 370-6000
www.dmns.org

Illinois

Illinois Oilfield Museum
10570 N 150TH ST
OBLONG, IL 62449
(618) 592-4664
www.theonlyoblong.com/oil_field/

Museum of Science and Industry
57TH ST AND LAKE SHORE DR
CHICAGO, IL 60637
(773) 684-1414
www.msichicago.org

Wabash County Museum
320 N MARKET ST
MT CARMEL, IL 62863
(618) 262-8774
www.museum.wabash.il.us

Wood River Refinery Museum
PO BOX 76
ROXANNA, IL 62084-0076
(618) 255-3718
www.wrrhm.org

Indiana

Red Crown Mini-Museum
6TH AND SOUTH ST
LAFAYETTE, IN 47901
www.oldgas.com/info/redcrown.htm

Trump's Texaco Museum
BREWER AND WASHINGTON ST
KNIGHTSTOWN, IN 46148
(765) 345-7135

Kansas

Hill City Oil Museum
801 W MAIN STREET
HILL CITY, KS 67642
(785) 421-2448
www.grahamhistorical.ruraltel.net/oil/oil.html

Independence Historical Museum and Art Center
123 N 8TH ST
PO BOX 294
INDEPENDENCE, KS 67301
(620) 331-3515
independencehistoricalmuseum.org

Kansas Oil Museum and Hall of Fame
383 E CENTRAL AVE
EL DORADO, KS 67042
(316) 321-9333
www.kansasoilmuseum.org

Norman #1 Museum & RV Park
106 S 1ST
NEODESHA, KS 66757
(620) 325-5316
www.neodesha.com/DocumentView.aspx?DID=46

Oil Patch Museum
I-70 AND US 281
RUSSELL, KS
(785) 483-3637
www.russellks.org/attractions.html#oil

Stevens Cnty Gas & Hist. Museum
905 S ADAMS
HUGOTON, KS 67951
(620) 544-8751
stevenscountyks.com/museum

Louisiana

Int'l Petroleum Museum and Expo
PO BOX 1988
MORGAN CITY, LA 70381
(985) 384-3744
www.rigmuseum.com

LA State Oil and Gas Museum
200 S LAND AVE
OIL CITY, LA 71061
(318) 995-6845
www.sos.la.gov/HistoricalResources/VisitMuseums/LouisanaStateOilAndGasMuseum

Michigan

Henry Ford Museum
20900 OAKWOOD BLVD
DEARBORN ,MI 48124-4088
(313) 982-6001
www.hfmgv.org/museum

New Mexico

Farmington Museum
3041 E MAIN
FARMINGTON, NM 87401
(505) 599-1174
www.farmingtonmuseum.org

New York

Pioneer Oil Museum
PO BOX 332
BOLIVAR, NY 14715
(585) 610-2038
www.pioneeroilmuseum.com

Ohio

Allen County Museum and Historical Society
620 W MARKET ST
LIMA, OH 45801
(419) 222-9426
www.allencountymuseum.org

County Line Historical Society
281 N MARKET ST
BOX 614
SHREVE, OH 44616
(330) 567-2501
www.shreveohio.com/resources/county-line-historical-society

Hancock Historical Museum
422 W SANDUSKY ST
FINDLAY, OH 45840
(419) 423-4433
www.hancockhistoricalmuseum.org

Wood County Historical Center and Museum
13660 COUNTY HOME RD
BOWLING GREEN, OH 43402
(419) 352-0967
www.woodcountyhistory.org

Oklahoma

Ames Astrobleme Museum
109 E MAIN
AMES, OK 73718
(580) 753-4624

Anadarko Basin Museum of Natural History
204 N MAIN ST
ELK CITY, OK 73644
(580) 243-0437

Bartlesville Area History Museum
401 SOUTH JOHNSTONE AVE
BARTLESVILLE OK 74003
(918) 338-4290
www.bartlesvillehistory.com

Cherokee Strip Regional Heritage Center
507 S 4TH ST
ENID, OK 73701
(508) 237-1907
www.csrhc.org

Conoco Museum
501 W SOUTH AVE
PONCA CITY, OK 74601
(580) 765-8687
www.conocomuseum.com

Drumright Community Historical Museum
301 E BROADWAY
DRUMRIGHT, OK 74030
(918) 352-3002
www.drumrighthistoricalsociety.org

Frank Phillips Home
1107 CHEROKE AVE
BARTLESVILLE, OK 74003
(918) 336-2491
www.frankphillipshome.org

Greater Southwest Historical Museum
35 SUNSET DR
ARDMORE, OK 73401
(580) 226-3857
www.gshm.org

Healdton Oil Museum
315 E MAIN ST
HEALDTON, OK 73438-1836
(580) 229-0900
www.okhistory.org/sites/healdtonoil.php

Nowata County Hist. Museum
121 S PINE
NOWATA, OK 74048
(918) 273-1191
www.ohwy.com/ok/y/ynowhimu.htm

Oklahoma Historical Society
800 NAZIH ZUHDI DR
OKLAHOMA CITY, OK 73105
(405) 521-2491
www.okhistory.org

Oklahoma Oil Museum
1800 HWY 9 W
SEMINOLE, OK 74868
(405) 382-1500
www.seminoleoklahoma.com/museum

Phillips Petroleum Company Museum
410 KEELER
BARTLESVILLE, OK 74004
(918) 661-8687
www.phillips66museum.com

Sam Noble Museum of Natural History
2401 CHAUTAUQUA AVE
NORMAN, OK 73072-7029
(405) 325-4712
www.snomnh.ou.edu

Tulsa Historical Society
2445 S PEORIA
TULSA, OK 74114
(918) 712-9484
www.tulsahistory.org/learn/earlytulsa/oil

Woolaroc Museum
1925 WOOLAROC RANCH RD
BARTLESVILLE, OK 74003
(918) 336-0307
www.woolaroc.org

Pennsylvania

Barbara Morgan Harvey Center for the Study of Oil Heritage
1801 WEST FIRST ST
OIL CITY, PA 16301
(814) 393-1242
web.clarion.edu/BMHarveyCenter/HCWBuild/Harvey_Center_Web_Site/Home.html

Coolspring Power Musuem
179 COOLSPRING RD
COOLSPRING, PA 15730
(814) 849-6883
www.coolspringpowermuseum.org

Drake Well Museum
202 MUSEUM LN
TITUSVILLE, PA 16354
(814) 827-2797
www.drakewell.org

Oil Region National Heritage Area
217 ELM ST
OIL CITY, PA 16301-1412
(800) 483-6264
www.oilregion.org

Penn-Brad Oil Museum
901 SOUTH AVENUE
CUSTER CITY, PA 16725
(814) 362-1955
www.pennbradoilmuseum.com

Petroleum History Institute
PO BOX 165
OIL CITY, PA 16301-0165
www.petroleumhistory.org

Pumping Jack Museum
PO BOX 25
EMLENTON, PA 16373
(724) 867-0030
www.pumpingjack.org

Simpler Times Museum
111 SIMPLER TIMES LN
TIDIOUTE, PA 16351
(814) 484-3483

Venango Museum of Art, Science and Industry
270 SENECA ST
OIL CITY, PA 16301
(814) 676-2007
www.venangomuseum.org

Texas

Bob Bullock Texas State History Museum
1800 N CONGRESS AVE
AUSTIN, TX 78701
(512) 936-8746
www.thestoryoftexas.com

Depot Museum
514 N HIGH ST
HENDERSON, TX 75652
(903) 657-4303
www.depotmuseum.com

East Texas Oil Museum
HWY 259 AND ROSS ST
KILGORE, TX 75662
(903) 983-8295
www.easttexasoilmuseum.com

Oil and Gas Museums

Fort Worth Museum of Science and History
1600 GENDY ST
FORT WORTH, TX 76107
(817) 255-9300
www.fwmuseum.org

Gaston Museum
6558 HWY 64 W
PO BOX 301
JOINERVILLE, TX 75658
(903) 847-2205
www.gastonmuseum.org

Heritage Museum of Montgomery County
1506 I-45 NORTH FEEDER
CONROE, TX 77305-2262
(936) 539-6873
www.heritagemuseum.us

Houston Museum of Natural Science
5555 HERMANN PARK DR
HOUSTON, TX 77030
(713) 639-4629
www.hmns.org

Hutchinson County Historical Museum
618 N MAIN
BORGER, TX 79007
(806) 273-0130
www.hutchinsoncountymuseum.org

London Museum and Tea Room
690 S MAIN
NEW LONDON, TX 75682
(903) 895-4602

Luling Oil Museum
421 E DAVIS ST
LULING, TX 78648
(830) 875-1922
www.oilmuseum.org

Million Barrel Museum
400 MUSEUM BLVD
MONAHANS, TX 79756
(432) 943-8401
www.monahans.org/visitor-guide-2

Museum of the Plains
1200 N MAIN
PERRYTON, TX 79070
(806) 435-6400
www.museumoftheplains.com

Panhandle-Plains Historical Museum
2503 4TH AVE
CANYON, TX 79015
(806) 651-2244
www.panhandleplains.org

Permian Basin Petroleum Museum
1500 W INTERSTATE 20
MIDLAND, TX 79701
(432) 683-4403
www.petroleummuseum.org

Ranger Historical Preservation Society
1505 W LOOP 254
RANGER, TX 76470-0313
(254) 647-5353
www.txbusiness.com/rhps

Spindletop-Gladys City Boomtown Museum
PO BOX 10070
HWY 69 AND UNIVERSITY DR
BEAUMONT, TX 77710
(409) 880-1750
www.spindletop.org

Square House Museum
PO BOX 276
PANHANDLE, TX 79068
(806) 537-3524
www.squarehousemuseum.org

Texas Energy Museum
600 MAIN ST
BEAUMONT, TX 77701
(409) 833-5100
www.texasenergymuseum.org

Van Area Oil and Historical Museum
170 W MAIN ST
VAN, TX 75790
(903) 963-5051
www.vantexas.com/history.html

W. K. Gordon Center for Industrial History
PO BOX 218
MINGUS, TX 76463
(254) 968-1886
www.tarleton.edu/gordoncenter

West Virginia

West Virginia Oil and Gas Museum
PO BOX 1685
119 THIRD ST
PARKERSBURG, WV 26101
(304) 485-5446
www.oilandgasmuseum.com

Wyoming

Hot Springs County Museum and Cultural Center
700 BROADWAY
THERMOPOLIS, WY 82443
(307) 864-5183
www.hschistory.org

Salt Creek Oil Museum
531 PEAKE ST
MIDWEST, WY 82643
(307) 437-6633
www.wyomingtourism.org/overview/saltcreekoil-museum/4155

Tate Geological Museum
125 COLLEGE DR
CASPER, WY 82601-4699
(307) 268-2447
www.caspercollege.edu/tate

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

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

Sources: IHS for wells drilled and EIA for production.

Top Producing Congressional Districts - Crude Oil

Rank	State	District	% of US Prod
1	FOS Gulf &Pacific	7 & 3	33.5136
2	Texas	11	15.0117
3	California	20 & 22	12.6309
4	New Mexico	2	7.1793
5	Texas	19	4.1406
6	North Dakota	At Large	3.5610
7	Louisiana	3	2.4325
8	Wyoming	At Large	2.1727
9	Texas	23	2.1190
10	Texas	15	2.1151
11	Oklahoma	3	2.0353
12	Utah	2	1.8024
13	Colorado	4	1.5997
14	Texas	13	1.5364
15	Fos Gulf & Pacific	California	1.2396
16	Texas	28	1.1671
17	Oklahoma	4	0.7722
18	Texas	25	0.6877
19	Texas	1	0.5748
20	Kansas	1	0.4721
21	Montana	At Large	0.4104
22	Louisiana	4	0.4035
23	Colorado	3	0.3852
24	Louisiana	7	0.3852
25	Texas	14	0.3401
26	Texas	6	0.1603
27	Texas	22	0.1453
28	Texas	17	0.1395
29	Texas	29, 18, 7 & 9	0.1098
30	Texas	2 & 8	0.1093
31	Texas	27	0.1050
32	Texas	8	0.0997
33	New Mexico	3	0.0827
34	Texas	2	0.0734
35	Alabama	1	0.0609
36	Michigan	1	0.0548
37	Louisiana	5	0.0452
38	Oklahoma	2	0.0241
39	Texas	23 & 28	0.0240
40	Texas	12	0.0240
41	Texas	5	0.0204
42	Texas	11 & 23	0.0126
43	Texas	7 & 3	0.0082
44	Texas	17 & 6	0.0076
45	Texas	26	0.0027
46	Mississippi	3	0.0019
47	Mississippi	2 & 3	0.0004
48	Texas	12, 26, 24 & 6	0.0000
49	Arkansas	2	0.0000
50	Virginia	9	0.0000

Source: IPAA and IHS.

**Districts have been aggregated for ranking purposes and rounded in certain cases.*

Top Producing Congressional Districts - Natural Gas

Rank	State	District	% of US Prod
1	Wyoming	At Large	11.9827
2	Louisiana	4	9.4783
3	Colorado	3	7.7282
4	Texas	1	5.4493
5	FOS Gulf & Pacific	7, 3	5.1914
6	Oklahoma	3	4.7807
7	Texas	12, 26, 24 & 6	4.7597
8	New Mexico	3	4.6686
9	Texas	17	3.8764
10	Texas	13	3.7033
11	Arkansas	2	3.1731
12	Texas	23 & 28	2.9264
13	Oklahoma	2	2.8702
14	Louisiana	5	2.3864
15	Utah	2	2.3759
16	Texas	15	2.1492
17	Texas	12	2.1001
18	Texas	6	1.6931
19	Texas	26	1.4542
20	Mississippi	3	1.4501
21	Texas	23	1.3819
22	Colorado	4	1.3032
23	Texas	28	1.2530
24	Louisiana	3	1.2390
25	Kansas	1	0.9880
26	Texas	25	0.9564
27	New Mexico	2	0.8640
28	Mississippi	2 & 3	0.7976
29	Texas	11	0.7427
30	Virginia	9	0.6424
31	Louisiana	7	0.5366
32	Oklahoma	4	0.5303
33	Texas	27	0.4984
34	Alabama	1	0.4902
35	Michigan	1	0.4689
36	Texas	17 & 6	0.4406
37	Texas	14	0.4135
38	Alabama	6 & 7	0.3655
39	Arkansas	3	0.3003
40	Texas	2	0.2745
41	Texas	11 & 23	0.2635
42	Texas	8	0.2506
43	Arkansas	4	0.1952
44	Texas	2 & 8	0.1446
45	Texas	29, 18, 7 & 9	0.0943
46	West Virginia	3	0.0808
47	Texas	5	0.0781
48	Texas	22	0.0624
49	Montana	At Large	0.0579
50	Texas	19	0.0471

Source: IPAA and IHS.

**Districts have been aggregated for ranking purposes and rounded in certain cases.*

FAQs: Crude Oil and Condensate Exports

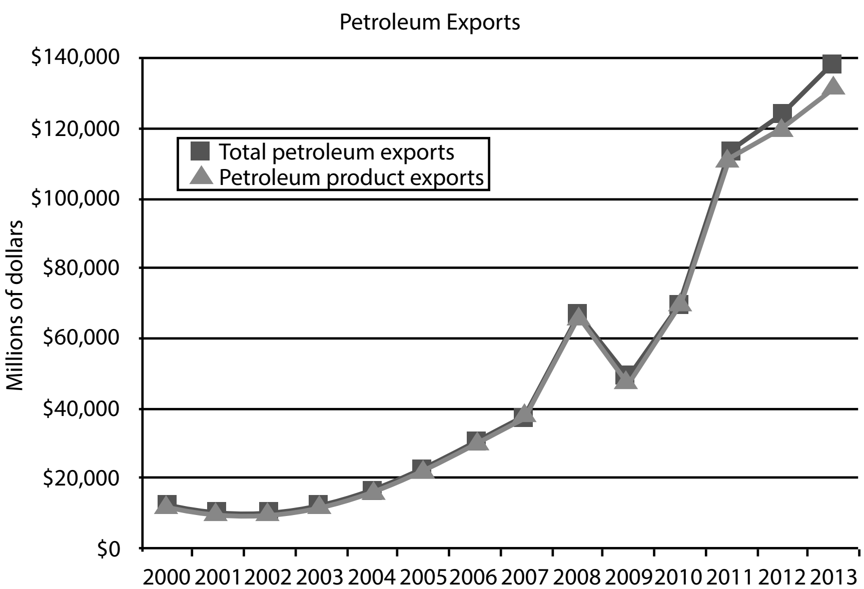
FIRST, THE BASIC RULES.

Can crude oil be exported overseas?

No, U.S. crude oil cannot be exported, with a few exceptions. Laws enacted in the 1970s generally prohibit exports of crude oil, but authorize the President to make exceptions in the national interest. Congress and the President have made such exceptions; for example, for crude oil produced in Alaska, and for exports for refining or other uses in Canada. Depending on the year, exports of crude oil have ranged in volume from 50,000 barrels per day (bpd) to nearly 300,000 bpd. But by and large, oil exports are highly restricted. The rules governing crude oil exports are administered by the U.S. Department of Commerce's Bureau of Industry and Security (BIS).

What about gasoline – can gasoline be exported?

Yes. There are no similar restrictions on exporting products made in the United States from crude oil. U.S. exports of gasoline and other refined crude oil products have climbed sharply in recent years, accounting for 8.6% of the total of all US goods exported in 2013, and generating approximately $132 billion in revenue. The U.S. exported 3.5 million barrels per day of finished petroleum products in 2013.



Besides gasoline and diesel, what kinds of products are made from crude oil?

Many products are made from crude oil. In addition to motor fuels, crude oil can be processed into asphalt, petroleum coke (a coal substitute), lubricants, waxes, and chemical feedstocks. Typically, crude oil undergoes processing at numerous facilities of many types before reaching the industrial or residential consumers in the form of finished petroleum products such as motor gasoline, jet fuel, distillate fuel oil, or lubricants.

MORE ABOUT THE BIS RULES

Where can I find the crude oil export rules?

The rules are part of the Export Administration Regulations (EAR). Specifically, the crude oil export rules are in section 754 of the EAR, which governs exports of products on the basis that they are in "short supply" in the United States. Interestingly, there are only three items that are subject to these controls: crude oil, western red cedar, and certain horses exported by sea. In each case, the export restrictions were adopted many years ago.

How do the rules work?

Under the EAR, any export of crude oil from the United States must be licensed by BIS. The rules, however, authorize BIS to issue a license only in situations where an exception applies, and in certain other circumstances. For example, BIS may approve a swap of U.S. crude oil for imported crude oil or petroleum products where specified conditions are met.

How do you know which products are covered by the export prohibition?

"Crude oil" is specifically defined in the EAR, and anything fitting within that definition is covered by export restrictions. Specifically, section 754 defines crude oil this way:

"Crude oil" is defined as a mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities and which has not been processed through a crude oil distillation tower. Included are reconstituted crude petroleum, and lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil, residual oil and other finished and unfinished oils are excluded.

What is "condensate"?

"Condensate" is a type of ultralight oil, that can behave as a gas, liquid, or mixture of these, depending on the temperature and pressure. For instance, when found in underground reservoirs, condensate is mostly a gas, but it condenses into a liquid when pumped to the surface, due to the cooler temperatures and lower pressures.

How is condensate different from crude oil?

Condensate is lighter and gassier than crude.

What do you mean "lighter?"

"Lighter" describes both the color and relative density of the liquid. The energy industry measures the lightness of various types of liquid petroleum in terms of "API gravity", with lighter liquids having a numerically-higher API gravity than "heavier" liquids. West Texas Intermediate – known as WTI – is a type of U.S. light crude oil that is well-known as a benchmark for crude oil prices. WTI has traditionally measured at an API gravity of around 40 degrees on this scale. While there is no strict legal or industry standard, generally "lease condensate" refers to petroleum liquids with an API gravity of around 50 degrees and higher.

What are the commercial uses of condensate?

Condensate is primarily used as a feedstock for chemical manufacturing or for producing motor fuel and solvents. Condensate may also be mixed with heavier crude oil to create a lighter crude oil blend.

What is a distillation tower?

Distillation is the most common industrial process for separating chemical constituents of crude oil. Typically performed in vertical cylinders known as "distillation towers", this process uses heat to separate a crude oil stream into specific subsets of carbon molecules, which can be captured at different points in the tower because of their different boiling points. These products of distillation may then be sold for different end uses. As the export ban only applies to crude oil, the BIS definition incorporates processing through a distillation tower as a clear way to draw a line between crude oil and processed products that are not subject to export restrictions. All refineries use distillation towers.

Are refineries the only facilities that use distillation towers?

No, large scale oil refineries are not the only facilities that process crude in distillation towers. Distillation towers are used to process crude oil and condensates for more specific industrial purposes.

What is a "splitter"?

The term "splitter" is sometimes used to describe distillation towers. Like distillation, splitter does not describe a specific distillation process and can be used in the context of simple or complex distillation.

RECENT NEWS ARTICLES REPORTED BIS DECISIONS CONCERNING CONDENSATE EXPORTS. WHAT ARE THE FACTS?

Did BIS license condensate exports?

No. In response to requests from two companies, BIS simply confirmed that the companies were correct in their analyses that their specific processing of ultralight condensate yielded petroleum products that are exportable without an export license. Specifically, BIS issued "Commodity Classification Decisions" regarding condensate that is processed through the specific facilities operated by the companies, which include distillation towers. Commodity Classification Decisions are issued as a matter of course by BIS so that exporters can ensure that they are properly classifying their products for export control purposes. BIS did not issue export licenses and it did not make any change in the existing rules or policies governing crude oil exports.
Do the BIS decisions mean that the government is loosening the regulations on crude oil exports?
No. BIS simply confirmed that the products resulting from processing ultralight lease condensates through the particular stabilization facilities of each of these companies, which include distillation towers, are not classified as crude oil. These decisions do not address any other situation. They do not change or ease existing rules.

What is a stabilizer?

A stabilizer is a facility that lowers the vapor pressure of certain grades of light crude oil and condensates to produce a product that meets industry standards for safe storage and transportation. The stabilization process involves heating and distillation of the condensate to extract lighter hydrocarbons, such as natural gas and natural gas liquids (e.g. ethane and propane). Processed condensate can be used as feedstock for petrochemical manufacturing or production of motor gasoline and jet fuel. It is essentially the same as naphtha, and is used for the same purposes.

Do the BIS decisions mean any crude oil that is run through a stabilizer can be exported?

No. The BIS decisions apply only to the specific facts presented by the companies that requested the determinations.

How much condensate is being produced?

Condensate production is growing, but at present represents only about 12% of total U.S. production of crude oil.

CRUDE OIL SUMMARY

Year	Production			Imports	Supply		Exports	Demand		Crude Reserves		Price
	Crude Oil	NGL	Total	Total	Other	Total		Domestic	Total	Proved Reserves	New Reserves	Oil Wellhead
					(thous. b/d)					(mill. bbls.)		($/bbl.)
1962	7,332	1,021	8,353	2,082	133	10,568	168	10,400	10,568	31,389	2,181	2.90
1963	7,542	1,098	8,640	2,123	188	10,951	208	10,743	10,951	30,970	2,174	2.89
1964	7,614	1,155	8,769	2,258	198	11,225	202	11,023	11,225	30,991	2,665	2.88
1965	7,804	1,210	9,014	2,468	217	11,699	187	11,513	11,700	31,352	3,048	2.88
1966	8,295	1,284	9,579	2,573	130	12,282	198	12,085	12,283	31,452	2,964	2.88
1967	8,810	1,409	10,219	2,537	111	12,867	307	12,560	12,867	31,377	2,962	2.92
1968	9,096	1,504	10,600	2,840	184	13,624	231	13,393	13,624	30,707	2,455	2.94
1969	9,238	1,590	10,828	3,166	376	14,370	233	14,137	14,370	29,632	2,120	3.09
1970	9,637	1,660	11,297	3,419	240	14,956	259	14,697	14,956	39,001	2,689	3.18
1971	9,463	1,694	11,157	3,925	354	15,436	224	15,213	15,437	38,063	2,318	3.39
1972	9,441	1,744	11,185	4,741	663	16,589	222	16,367	16,589	36,339	1,558	3.39
1973	9,208	1,738	10,946	6,256	337	17,539	231	17,308	17,539	35,300	2,146	3.89
1974	8,774	1,688	10,462	6,112	300	16,874	221	16,652	16,873	34,250	1,994	6.87
1975	8,375	1,632	10,007	6,056	467	16,531	209	16,322	16,531	32,682	1,318	7.67
1976	8,132	1,604	9,736	7,313	635	17,684	223	17,461	17,684	30,942	1,085	8.19
1977	8,245	1,618	9,863	8,808	4	18,674	243	18,431	18,674	31,780	1,140	8.57
1978	8,707	1,567	10,274	8,364	572	19,209	362	18,847	19,209	31,355	2,583	9.00
1979	8,552	1,583	10,135	8,456	392	18,984	471	18,513	18,984	29,810	1,410	12.64
1980	8,597	1,573	10,170	6,909	521	17,600	544	17,056	17,600	29,805	2,970	21.59
1981	8,572	1,590	10,162	5,995	495	16,653	595	16,058	16,653	29,426	2,570	31.77
1982	8,649	1,539	10,188	5,113	810	16,111	815	15,296	16,111	27,858	1,382	28.52
1983	8,688	1,547	10,235	5,051	684	15,970	739	15,231	15,970	27,735	2,897	26.19
1984	8,879	1,626	10,505	5,437	506	16,448	722	15,726	16,448	28,446	3,748	25.88
1985	8,971	1,595	10,566	5,067	874	16,507	781	15,726	16,507	28,416	3,022	24.09
1986	8,680	1,546	10,226	6,223	616	17,066	785	16,281	17,066	26,889	1,446	12.51
1987	8,349	1,591	9,940	6,678	811	17,429	764	16,665	17,429	27,256	3,240	15.40
1988	8,140	1,621	9,761	7,402	935	18,098	815	17,283	18,098	26,825	2,380	12.58
1989	7,613	1,546	9,159	8,060	964	18,184	859	17,325	18,184	26,501	2,262	15.86
1990	7,355	1,559	8,914	8,017	913	17,845	857	16,988	17,845	26,254	2,258	20.03
1991	7,417	1,659	9,076	7,626	1,012	17,715	1,001	16,714	17,715	24,682	940	16.54
1992	7,171	1,697	8,868	7,888	1,227	17,983	949	17,033	17,983	23,745	1,509	15.99
1993	6,847	1,736	8,583	8,620	1,037	18,240	1,003	17,237	18,240	22,957	1,551	14.25
1994	6,662	1,727	8,389	8,996	1,275	18,660	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	19,290	22,017	1,839	18.46
1997	6,452	1,817	8,269	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	1,079	20,620	971	19,649	20,620	22,446	2,316	21.84
2002	5,746	1,880	7,624	11,530	1,591	20,745	984	19,761	20,745	22,677	2,106	22.51
2003	5,644	1,719	7,363	12,264	1,434	21,061	1,027	20,034	21,061	21,891	1,091	27.56
2004	5,435	1,809	7,244	13,145	1,390	21,779	1,048	20,731	21,779	21,371	1,299	36.77
2005	5,186	1,717	6,903	13,714	1,350	21,967	1,165	20,802	21,967	21,757	2,119	50.28
2006	5,089	1,739	6,828	13,707	1,469	22,004	1,317	20,687	22,004	20,972	867	59.69
2007	5,077	1,783	6,860	13,468	1,785	22,113	1,433	20,680	22,113	21,317	2,036	66.52
2008	5,000	1,784	6,784	12,915	1,601	21,300	1,802	19,498	21,300	19,121	-524	94.04
2009	5,353	1,910	7,263	11,691	1,841	20,795	2,024	18,771	20,795	20,682	3,312	56.35
2010	5,471	2,074	7,545	11,793	2,195	21,533	2,353	19,180	21,533	23,267	4,352	74.71
2011	5,652	2,216	7,868	11,436	2,564	21,868	2,986	18,882	21,868	26,544	5,111	95.73
2012	**6,495**	**2,408**	**8,903**	**10,598**	**2,194**	**21,695**	**3,205**	**18,490**	**21,695**	**28,950**	**4,453**	**94.52**

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

NATURAL GAS SUMMARY

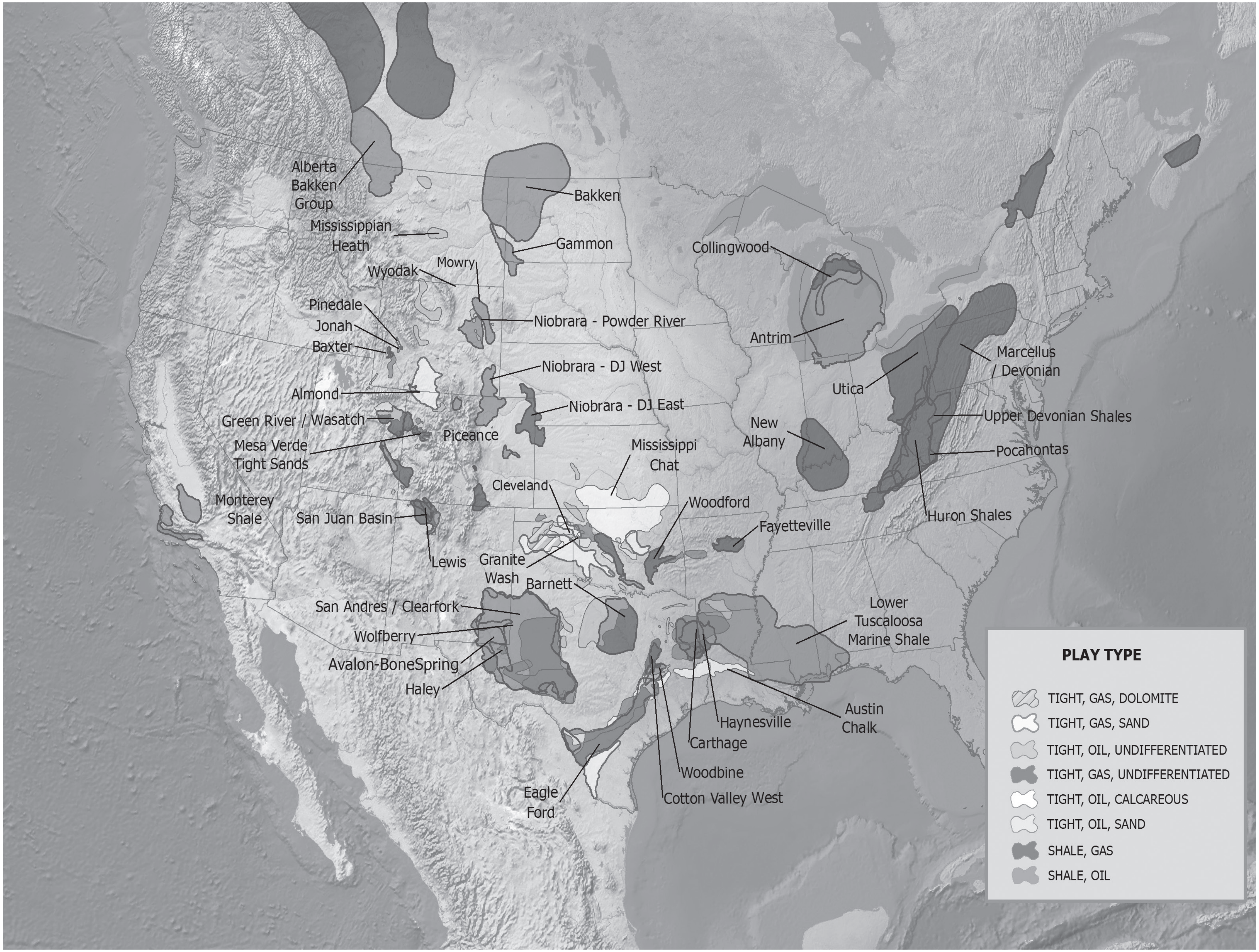
Year	Production		Extraction	Imports	Supply		Exports	Consumption	Gas Reserves		Price
	Marketed	*Dry*	*Loss*	*(Bcf)*	*Other**	*Total*			*Proved Reserves*	*New Reserves*	*Gas Wellhead ($/Mcf.)*
1962	13,877	13,253	624	402	838	14,509	16	13,267	272,279	19,750	.16
1963	14,747	14,077	670	406	899	15,399	17	13,970	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	21,921	21,015	906	821	1,388	23,294	70	21,139	290,746	37,598	.17
1971	22,493	21,610	883	935	1,427	24,052	80	21,793	278,806	10,136	.18
1972	22,532	21,624	908	1,019	1,679	24,400	78	22,101	266,085	9,791	.19
1973	22,648	21,731	917	1,033	1,456	24,297	77	22,049	249,950	6,471	.22
1974	21,601	20,713	887	959	1,624	23,373	77	21,223	237,132	8,501	.30
1975	20,109	19,236	872	953	1,687	21,949	73	19,538	228,200	10,786	.45
1976	19,952	19,098	854	964	1,640	21,767	65	19,946	216,026	7,368	.58
1977	20,025	19,163	863	1,011	1,654	21,884	56	19,521	207,413	12,978	.79
1978	19,974	19,122	852	966	1,817	21,958	53	19,627	208,033	19,425	.91
1979	20,471	19,663	808	1,253	1,620	22,592	56	20,241	200,997	12,221	1.18
1980	20,180	19,403	777	985	1,385	21,822	49	19,877	199,021	16,723	1.59
1981	19,956	19,181	775	904	1,499	21,643	59	19,404	201,730	21,446	1.98
1982	18,582	17,820	762	933	1,647	20,452	52	18,001	201,512	17,288	2.46
1983	16,884	16,094	790	918	1,523	18,590	55	16,835	200,247	14,523	2.59
1984	18,304	17,466	838	843	1,894	20,258	55	17,951	197,463	14,409	2.66
1985	17,270	16,454	816	950	2,005	19,464	55	17,281	193,369	11,891	2.51
1986	16,859	16,059	800	750	1,364	18,234	61	16,221	191,586	13,827	1.94
1987	17,433	16,621	812	993	1,484	19,152	54	17,211	187,211	11,739	1.67
1988	17,918	17,103	816	1,294	1,807	20,278	74	18,030	168,024	-2,517	1.69
1989	18,095	17,311	785	1,382	2,917	21,717	107	19,119	167,116	16,075	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
1995	19,506	18,599	908	2,841	3,333	24,927	154	22,207	165,146	19,275	1.55
1996	19,812	18,854	958	2,937	3,725	25,669	153	22,610	166,474	21,456	2.17
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	159	22,246	164,041	15,538	1.96
1999	19,805	18,832	973	3,585	2,585	25,166	163	22,405	167,406	22,293	2.19
2000	20,198	19,182	1,016	3,782	3,053	26,261	244	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	23,027	186,946	22,839	2.95
2003	19,974	19,099	876	3,944	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	22,403	192,513	22,637	5.46
2005	18,927	18,051	876	4,341	2,621	25,742	729	22,014	204,385	30,330	7.33
2006	19,410	18,504	906	4,186	1,919	25,333	724	21,699	211,085	25,245	6.39
2007	20,196	19,266	930	4,608	2,356	27,052	822	23,104	237,726	46,107	6.25
2008	21,112	20,159	953	3,984	2,465	27,571	963	23,277	244,656	27,453	7.97
2009	21,648	20,624	1,024	3,751	1,850	27,227	1,072	22,910	272,509	27,853	3.67
2010	22,382	21,316	1,066	3,741	2,321	28,515	1,137	24,087	304,625	54,355	4.48
2011	24,036	22,902	1,134	3,469	1,436	29,314	1,507	24,385	334,067	52,997	3.95
2012	**25,308**	**24,058**	**1,250**	**3,138**	**1,162**	**29,977**	**1,619**	**25,533**	**348,809**	**-26,100**	**2.66**

Sources: Energy Information Administration.
Note: Reserves estimated as of December 31 each year.
**Other natural gas supply includes supplemental gaseous fuels, net storage withdrawals, and a statistical balancing item.*

Year	Seismic Crews	Rotary Rigs	Exploratory Wells		Total Well Completions					Footage
	Working	*Active*	*New-Field Wildcats*	*Total Exploratory*	*Oil Wells*	*Gas Wells*	*Dry Wells*	*Service Holes*	*Total Wells*	*Total Drilled (mill. ft.)*
1962	3,915	1,637	6,794	10,797	21,249	5,848	16,682	2,400	46,179	198.6
1963	3,966	1,500	6,570	10,664	20,288	4,751	16,347	2,267	43,653	184.4
1964	4,102	1,502	6,623	10,747	20,620	4,855	17,488	2,273	45,236	189.9
1965	4,247	1,387	6,175	9,466	18,761	4,724	16,025	1,913	41,423	181.5
1966	3,672	1,273	6,158	10,313	16,447	4,167	15,770	2,152	38,536	165.5
1967	3,337	1,134	5,260	8,878	15,329	3,659	13,246	1,584	33,818	144.7
1968	3,268	1,169	5,205	8,879	14,331	3,456	12,812	2,315	32,914	149.3
1969	3,156	1,194	5,956	9,701	14,368	4,083	13,736	1,866	34,053	161.0
1970	2,340	1,028	4,829	7,436	13,043	4,031	11,099	1,369	29,542	142.0
1971	2,655	976	4,636	7,131	11,903	3,983	10,382	1,414	27,682	130.7
1972	3,016	1,107	5,011	7,551	11,437	5,484	11,013	1,486	29,420	142.5
1973	2,999	1,195	5,096	7,771	10,251	6,975	10,466	970	28,662	141.9
1974	3,662	1,471	5,946	8,969	13,644	7,168	12,205	1,398	34,415	153.8
1975	3,416	1,660	6,234	9,459	16,979	8,169	13,736	1,920	40,804	184.9
1976	3,140	1,658	5,856	9,317	17,697	9,438	13,805	1,674	42,614	187.3
1977	3,063	2,001	6,162	10,140	18,700	12,119	15,036	1,453	47,308	215.7
1978	4,148	2,259	6,731	11,030	19,065	14,405	16,591	1,610	51,671	238.4
1979	4,400	2,176	6,423	10,735	20,689	15,166	16,035	1,472	53,362	243.7
1980	4,962	2,910	7,332	12,870	32,120	17,132	20,234	2,076	71,562	311.4
1981	5,877	3,970	9,151	17,430	42,520	19,742	26,972	2,366	91,600	406.5
1982	5,676	3,105	7,386	15,882	39,252	18,810	25,827	2,212	86,101	375.4
1983	4,944	2,229	6,057	13,845	37,396	14,505	23,837	2,047	77,785	316.7
1984	4,655	2,428	6,528	15,138	44,472	14,962	25,549	2,251	87,234	368.8
1985	3,494	1,980	5,630	12,208	36,458	12,917	21,431	1,736	75,542	316.8
1986	2,016	964	3,484	7,156	18,598	8,055	12,362	834	39,849	177.6
1987	1,561	936	3,515	6,903	16,441	8,114	11,698	890	37,143	163.8
1988	1,512	936	3,271	6,350	13,508	8,446	10,284	953	33,191	155.2
1989	1,392	869	2,644	5,247	10,230	9,522	8,236	672	27,988	134.5
1990	1,493	1,010	2,685	5,241	12,839	11,246	8,245	802	32,330	156.0
1991	1,251	860	2,195	4,513	12,588	9,793	7,481	1,070	29,862	145.0
1992	847	721	1,762	3,468	9,402	8,163	5,862	989	23,427	119.9
1993	952	755	1,683	3,483	8,856	9,839	6,096	716	24,791	133.5
1994	1,087	775	1,618	3,624	7,348	9,375	5,096	669	21,819	125.0
1995	1,253	723	1,605	3,152	8,248	8,082	4,814	885	21,144	117.2
1996	1,307	779	1,676	3,021	8,836	9,027	4,890	791	22,753	126.4
1997	1,336	943	1,757	3,166	11,206	11,498	5,874	1,017	28,578	161.2
1998	1,566	827	1,478	2,483	7,682	11,639	4,761	838	24,082	137.2
1999	1,125	625	1,244	1,924	4,805	12,027	3,550	478	20,382	102.9
2000	63	918	1,511	2,286	8,090	17,051	4,146	930	29,287	144.4
2001	61	1,156	1,786	3,142	8,888	22,072	4,598	-	35,558	180.1
2002	54	830	1,455	2,384	6,775	17,342	3,754	-	27,871	145.2
2003	40	1,032	1,738	2,644	8,129	20,722	3,982	-	32,833	177.2
2004	43	1,192	2,015	3,404	8,789	24,186	4,082	-	37,057	204.3
2005	52	1,383	2,216	4,142	10,779	28,590	4,653	-	44,022	240.3
2006	55	1,649	2,502	4,649	13,385	32,838	5,206	-	51,429	282.7
2007	63	1,768	2,527	5,184	13,371	32,719	4,981	-	51,071	301.5
2008	76	1,879	2,386	4,957	16,633	32,264	5,423	-	54,302	334.1
2009	75	1,089	1,378	2,866	11,190	18,088	3,525	-	32,803	231.6
2010	65	1,546	1,417	2,840	15,753	16,696	4,162	-	36,611	239.2
2011	65	1,879	1,303	2,609	19,468	13,220	4,081	-	36,769	280.0
2012	**NA**	**1,919**	**1,464**	**2,666**	**26,713**	**10,256**	**4,462**	**-**	**41,431**	**343.9**

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.
**Switched to maximum U.S. active seismic crew count as per http://www.eia.gov/dnav/pet/pet_crd_seis_s1_m.htm.*

Emerging Shale Plays (2012)



2012 Key Trends for Shale Plays

Oil Plays

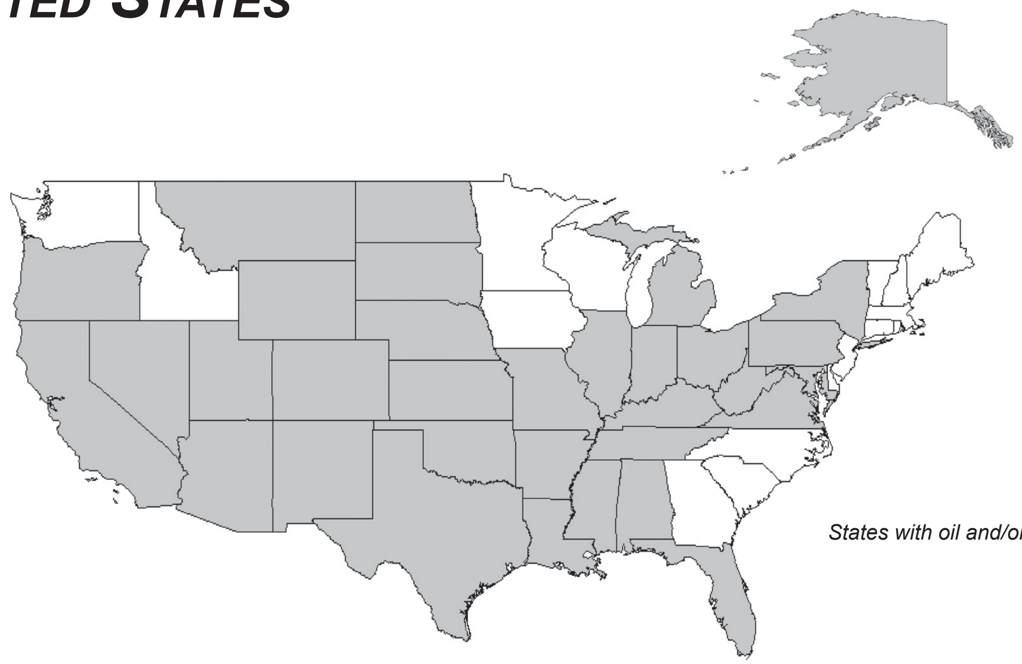
Formation	Number of Wells	Production (YTD Bls)	Top Operator
Bakken	770	27,560,385	Continental Resources Inc.
Bone Spring	197	4,378,142	Cog Operating Llc
Eagle Ford	655	34,131,106	EOG Resources Inc.
Granite Wash	960	1,683,513	Linn Operating Inc
Mississippian	275	3,020,492	SandRidge Exploration & Production Llc
Mississippian Lime	126	1,276,333	SandRidge Exploration & Production Llc
Niobrara	1,046	6,798,399	Noble Energy Inc.

Gas Plays

Formation	Number of Wells	Production (YTD Mcfs)	Top Operator
Barnett	4,727	554,904,958	Devon Energy Production Company LP
Eagle Ford	448	102,327,052	Anadarko E & P Onshore Llc
Fayetteville	2,753	723,904,627	Seeco Incorporated
Granite Wash	458	88,167,147	Chesapeake Operating Inc.
Haynesville/Bossier	685	572,296,185	Chesapeake Operating Inc.
Marcellus	605	507,664,656	Chesapeake Appalachia Llc
Woodford	418	119,457,084	Devon Energy Production Company LP

Source: IHS

United States



States with oil and/or gas production

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 — 25,283,278 MMcf	2012

Deepest producing well (ft.)

Crude oil (Texas)	27,011
Natural gas (Texas)	30,712

Year and depth of deepest well drilled (ft.)

2010 (Federal Offshore)	37,165

Cumulative number of total wells drilled

(2012 - excluding service wells)

Oil wells	1,846,848	48%
Gas wells	894,831	23%
Dry holes	1,095,606	29%
Total	3,837,285	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$2,980,433,153

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	231,472	56,422	287,894	1,504,273
Production	200,073	41,990	242,063	1,199,044

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$94.52
Natural gas ($Mcf)*	$4.73

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$224,750,223
Natural gas*	$119,706,599
Total	$344,456,822

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.71
Commercial consumers	$8.10
Industrial consumers	$3.89
Electric utilities	$3.54
City Gate	$4.73

Severance taxes paid

(2012 in thous. $)	$16,538,648

Top 10 producing counties/fields

(2012 on a BOE basis)

County	State	% US Prod
De Soto	LA	3.19
Sublette	WY	3.01
Beechey Point	AK	2.49
Green Canyon	FOS	2.43
Mississippi Canyon	FOS	2.42
Tarrent	TX	2.30
Garfield	CO	1.96
Kern	CA	1.76
Bradford	PA	1.46
Webb	TX	1.42
Johnson	TX	1.34

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	1,129	27,883	29,012
Gas	322	10,415	10,737
Dry	1,115	3,965	5,080
Total	2,566	42,263	44,829

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	9,623	213,773	223,396
Gas	2,998	110,234	113,232
Dry	5,393	20,125	25,518
Total	18,013	344,133	362,146

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	1,406
Footage (thous. ft.)	9,796
Average rotary rigs active	1,919
Permits	69,053

Worldwide rank

	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	3rd	1st
Reserves (2012)	14th	5th

Number of operators	15,397

Number of producing wells
(12/31/12)

Crude oil	456,673
Natural gas	473,457
Total	944,130

Average production

Crude oil (thous. b/d)	5,819
NGL (thous. b/d)	660
Natural gas (MMcf/d)	62,857

Total production

Crude oil (YTD bbls, in thous.)	2,123,907
Natural gas (YTD MMcf)	23,045,028

Natural gas marketed production

(MMcf)	25,283,278
Shale gas production	10,533 Bcf

Average output per producing well

Crude oil (bbls.)	4,713
Natural gas (Mcf)	46,701

Coalbed methane (YTD MMcf)	1,460,979
Oil Wells	25
Gas Wells	40,208
Daily Average (MMcf) / Well	4,002.68

Heavy oil (av. bbls/day, in thous.)	383,837
Wells	66,789
Av. bbls per day (in thous.)	1,051.60
Av. bbls per well	5,747

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	6,839	NA	6,839
Production	2,386	NA	2,386
Net annual change	4,453	NA	4,453
Proved reserves	33,403	NA	33,403

Natural gas reserves*
(as of 12/31/12 Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserve	13,726	-13,768	-42
Production	3,393	22,704	26,097
Net annual change	10,333	-36,472	-26,139
Proved reserves	53,156	269,514	322,670

Marginal oil wells

Producing marginal wells	391,181
Crude oil production in bbls. (thous.)	386,981
Crude oil production b/d (thous.)	1,060

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	366,940
Natural gas production (MMcf)	2,958,302

Mineral lease royalties, bonuses & rent

Oil	$7,477,703,268
Natural Gas	$1,575,831,141
Rent, Bonuses & Other	$1,296,406,194
Total Oil and Gas Revenues	$10,349,940,603
Total Federal Reported Revenues	$11,976,472,571
Oil and Gas Percent of Total	86%

Federal lands production shares**

Oil	25%
Natural Gas	17%
Combined on BOE basis	20%

Horizontal wells drilled	16,127
Directional wells drilled	5,894
Vertical wells drilled	22,797

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	30,056 Mmcf
CNG stations	1,432
LNG stations	105
LPG stations	2,941

Average number of employees

Oil and natural gas extraction	572,702
Refining	100,265
Transportation	120,127
Wholesale	167,829
Retail	842,153
Pipeline construction	123,806
Oilfield machinery	75,360
Total petroleum industry	2,002,242

Source: For specific methodology and source details, please see pages 11 and 136
** Canadian oil sands included*
*** NGLs are not included*

Federal Offshore

Federal Offshore planning areas

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.)

Natural gas (water depth 9,356)	25,400
Crude oil	37,165

Year and depth of deepest well drilled (ft.)

Water depth (2004)	10,011
Well depth (2012)	37,165

Cumulative number of total wells drilled

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

Oil wells	22,603	32%
Gas wells	28,123	40%
Dry holes	19,228	28%
Total	69,954	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $) $548,848,018

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	25,206	4,999	30,205	154,392
Production	18,080	3,248	21,328	75,723

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$105.62
Natural gas ($Mcf)*	$5.63

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$50,842,616
Natural gas*	$7,371,354
Total	$58,213,970

Federal Revenues

(2012, in thousands $)

Bonuses and other revenues	$ 1,184,001.1
Rents	$ 233,146.7
Royalties	$ 4,402,530.3
Total	$ 5,819,678.1

Top 10 producing fields

(2012 on a BOE basis)

Field	% Production State	% Production US
Green Canyon	23.23	2.43
Mississippi Canyon	23.16	2.42
Garden Banks	4.79	0.50
Alaminos Canyon	4.60	0.48
Viosca Knoll	3.70	0.39
Eugene Island	2.58	0.27
Main Pass	2.35	0.25
Ship Schoal	2.26	0.24
Santa Cruz Area	2.25	0.24
South Timbalier	2.11	0.22
Atwater Valley	1.93	0.20

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	6	99	105
Gas	1	40	41
Dry	44	60	104
Total	51	199	250

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	46	869	915
Gas	9	410	419
Dry	536	618	1,154
Total	591	1,896	2,488

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	49
Footage (thous. ft.)	563
Average rotary rigs active	48
Permits	635

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	19th	16th
Production	2nd	7th
Reserves (2012)	2nd	10th

Number of producing wells
(12/31/12)

Crude oil	3,439
Natural gas	1,967
Total	5,406

Average production

Crude oil (thous. b/d)	1,207
NGL (est.)	118
Natural gas (MMcf/day)	2,961

Total production

Crude oil (YTD bbls, in thous.)	441,755
Natural gas (YTD MMcf)	1,083,891

Natural gas gross withdrawals

(MMcf)	1,555,138

Average output per producing well

Crude oil (bbls.)	128,454
Natural gas (Mcf)	551,038

Producing well depth

	Oil Wells	Gas Wells
Shelf (wd <1,000 ft)	2,863	1,856
Deep (wd 1,000-4,999 ft)	486	92
Ultra Deep (wd >5,000 ft)	90	19
Total	3,439	1,967

Number of operators*

Number of operators*	98
Producing oil**	86
Producing natural gas**	93

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	585	NA	585
Production	474	NA	474
Net annual change	111	NA	111
Proved reserves	5,282	NA	5,282

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	953	-491	462
Production	535	894	1,429
Net annual change	418	-1,385	-967
Proved reserves	5,864	3,989	9,853

2012 Lease Statistics

G&G permits	49
Platform installations	9
Platform removals	284
Platforms in place	2,883

Lease characteristics

Number of Active Leases	6,750
Gulf of Mexico	6,031
Pacific	49
Alaska	670

Number of producing leases	1,160
Gulf of Mexico	1,114
Pacific	43
Alaska	3
Number of non-producing leases	5,590
Total Offshore blocks	69,780
Total Offshore acres	381,641,990

Mineral lease royalties, bonuses & rent

Oil	$5,459,357,263
Natural Gas	$483,634,710
Rent, Bonuses & Other	$919,589,588
Total Oil and Gas Revenues	$6,862,581,561
Total Federal Reported Revenues	$6,862,760,911
Oil and Gas Percent of Total	100%

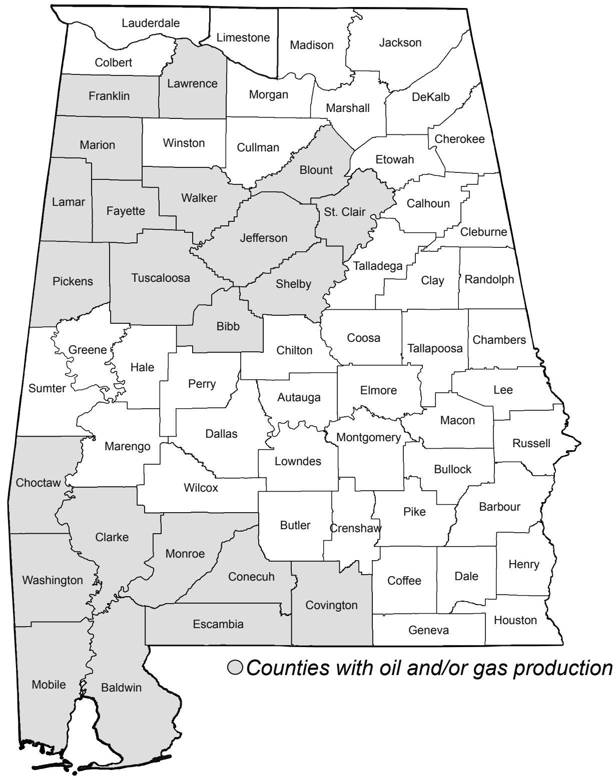
Federal lands production shares

Oil	100%
Natural Gas	100%
Combined on BOE basis	100%

Source: For specific methodology and source details, please see pages 11 and 136
** IHS*
*** BOEM*

FEDERAL OFFSHORE

ALABAMA



Background Information

Counties

Number of counties	67
With oil and/or gas production	22

First year of production

Crude oil	1944
Natural gas	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	18,750
Natural gas	23,330

Year and depth of deepest well drilled (ft.)

1995	24,275

Cumulative number of total wells drilled

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

Oil wells	1,628	10%
Gas wells	9,490	59%
Dry holes	4,887	31%
Total	16,005	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$15,190,360

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	555	459	1,014	8,257
Production	520	404	924	8,334

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$104.81
Natural gas ($Mcf)*	$4.65

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$998,315
Natural gas*	$1,003,052
Total	$2,001,367

Average natural gas price

(2012 $/Mcf)

Residential consumers	$16.20
Commercial consumers	$12.55
Industrial consumers	$4.35
Electric utilities	$3.09
City Gate	$5.18

Severance taxes paid

(2012 in thous. $)	$111,482

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Tuscaloosa	26.10	0.18
Mobile	19.04	0.13
Baldwin	17.65	0.12
Conecuh	10.48	0.07
Escambia	9.99	0.07
Jefferson	8.36	0.06
Walker	1.91	0.01
Choctaw	1.07	0.01
Monroe	1.06	0.01
Shelby	1.01	0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	23	16	39
Gas	1	82	83
Dry	29	13	42
Total	53	110	164

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	284.14	135.88	420.02
Gas	14.40	166.00	180.40
Dry	262.76	124.94	387.68
Total	561.30	426.80	988.09

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	47
Footage (thous. ft.)	490.82

Average rotary rigs active	5

Permits	185

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	24th	14th
Production	15th	15th
Reserves (2012)	16th	16th

Number of operators	80

Number of producing wells
(12/31/12)

Crude oil	597
Natural gas	6,247
Total	6,844

Average production

Crude oil (thous. b/d)	21.3
NGL (thous. b/d)	4.8
Natural gas (MMcf/d)	534.7

Total production

Crude oil (YTD bbls, in thous.)	7,781
Natural gas (YTD MMcf)	195,149

Natural gas marketed production

(MMcf)	206,686

Average output per producing well

Crude oil (bbls.)	13,033
Natural gas (Mcf)	31,239

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	91,278
Oil Wells	3
Gas Wells	5,863
Daily Average (MMcf) / Well	250.08

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	14	NA	14
Production	10	NA	10
Net annual change	4	NA	4
Proved reserves	69	NA	69

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	69	-114	-45
Production	17	204	221
Net annual change	52	-318	-266
Proved reserves	100	2,204	2,304

Marginal oil wells

Producing marginal wells	379
Crude oil production in Bbls. (thous.)	839
Crude oil production Bbls./d (thous.)	2

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	5,646
Natural gas production (MMcf)	72,386

Mineral lease royalties, bonuses & rent

Oil	$4,253,733
Natural Gas	$9,940,582
Rent, Bonuses & Other	$1,444,602
Total Oil and Gas Revenues	$15,638,917
Total Federal Reported Revenues	$23,124,988
Oil and Gas Percent of Total	68%

Federal lands production shares

Oil	<1%
Natural Gas	9%
Combined on BOE basis	7%

Horizontal wells drilled	13
Directional wells drilled	20
Vertical wells drilled	131

Natural gas vehicle fuel demand & fueling stations

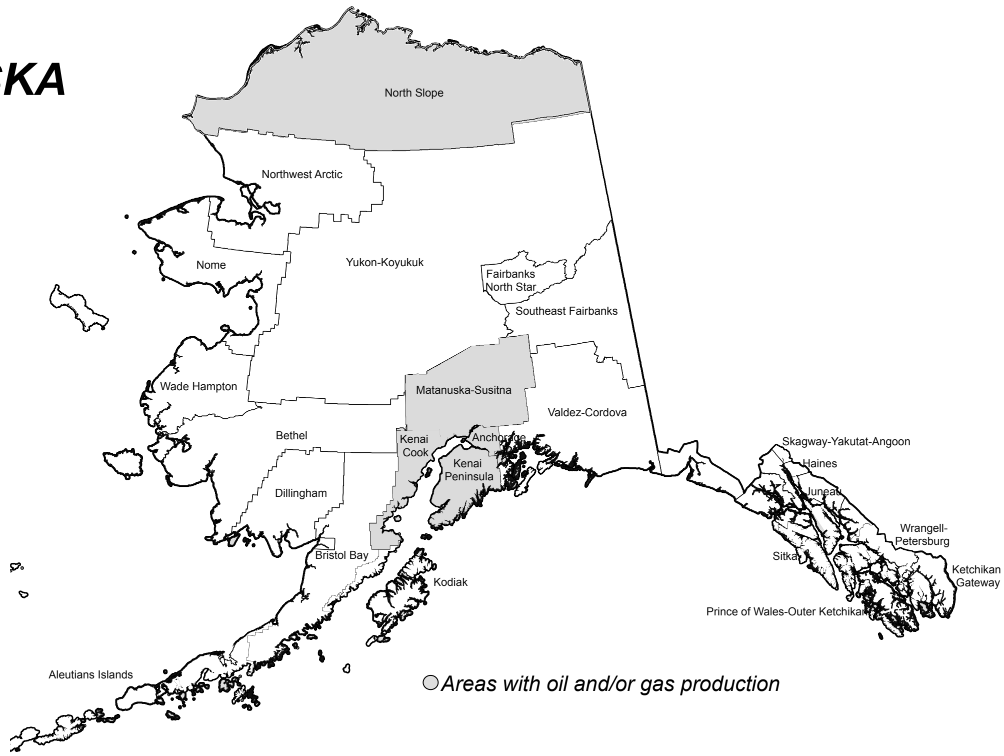
Natural gas vehicle demand	192 Mmcf
CNG stations	24
LNG stations	1
LPG stations	101

Average number of employees

Oil and natural gas extraction	1,848
Refining	1,475
Transportation	2,924
Wholesale	2,804
Retail	17,389
Pipeline construction	1,303
Oilfield machinery	0
Total petroleum industry	27,743

Source: For specific methodology and source details, please see pages 11 and 136.

ALASKA



Background Information

Areas

Number of areas	25
With oil and/or gas production	10

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	26,350
Natural gas	17,864

Year and depth of deepest well drilled (ft.)

2009	26,090

Cumulative number of total wells drilled

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

Oil wells	5,247	78%
Gas wells	372	6%
Dry holes	1,059	16%
Total	6,678	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $) $348,963,108

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	20,726	497	21,223	24,210
Production	16,965	429	17,394	13,778

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$98.70
Natural gas ($Mcf)*	$6.14

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$18,986,722
Natural gas*	$2,156,730
Total	$21,143,452

Average natural gas price

(2012 $/Mcf)

Residential consumers	$8.47
Commercial consumers	$8.09
Industrial consumers	$5.11
Electric utilities	$4.32
City Gate	$6.14

Severance taxes paid $6,146,113

(2012 in thous. $)

Top producing areas

(2012 on a BOE basis)

County	Areas State	% Production US
Beechey Point	70.26	2.49
Harrison Bay	17.73	0.63
Kenai Offshore	3.19	0.11
Kenai	2.84	0.10
Tyonek	2.83	0.10
Harrison Bay Offshore	1.18	0.04
Tyonek Offshore	1.00	0.04
Beechey Point Offshore	0.51	0.02
Seldovia	0.33	0.01
Barrow	0.12	<0.01

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	112	112
Gas	1	9	10
Dry	7	NA	7
Total	8	121	129

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	478.87	478.87
Gas	5.69	58.36	64.04
Dry	58.29	NA	58.29
Total	63.98	537.22	601.20

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	6
Footage (thous. ft.)	45.43
Average rotary rigs active	7
Permits	191

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	18th	22nd
Production	5th	12th
Reserves (2012)	4th	11th

Number of operators	12

Number of producing wells
(12/31/12)

Crude oil	2,420
Natural gas	189
Total	2,609

Average production

Crude oil (thous. b/d)	525.0
NGL (thous. b/d)	2.2
Natural gas (MMcf/day)	320.1

Total production

Crude oil (YTD bbls, in thous.)	191,633
Natural gas (YTD MMcf)	116,854

Natural gas marketed production

(MMcf)	3,182,159

Average output per producing well

Crude oil (bbls.)	79,187
Natural gas (Mcf)	618,275

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	-309	NA	-309
Production	191	NA	191
Net annual change	-500	NA	-500
Proved reserves	3,352	NA	3,352

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	309	148	457
Production	172	129	301
Net annual change	137	19	156
Proved reserves	8,672	995	9,667

Marginal oil wells

Producing marginal wells	168
Crude oil production in Bbls. (thous.)	315
Crude oil production Bbls./d (thous.)	1

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	0
Natural gas production (MMcf)	0

Mineral lease royalties, bonuses & rent

Oil	$15,988,129
Natural Gas	$10,078,610
Rent, Bonuses & Other	$6,213,305
Total Oil and Gas Revenues	$32,280,044
Total Federal Reported Revenues	$32,280,039
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	4%
Combined on BOE basis	1%

Horizontal wells drilled	94
Directional wells drilled	26
Vertical wells drilled	9

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	11 Mmcf
CNG stations	1
LNG stations	--
LPG stations	6

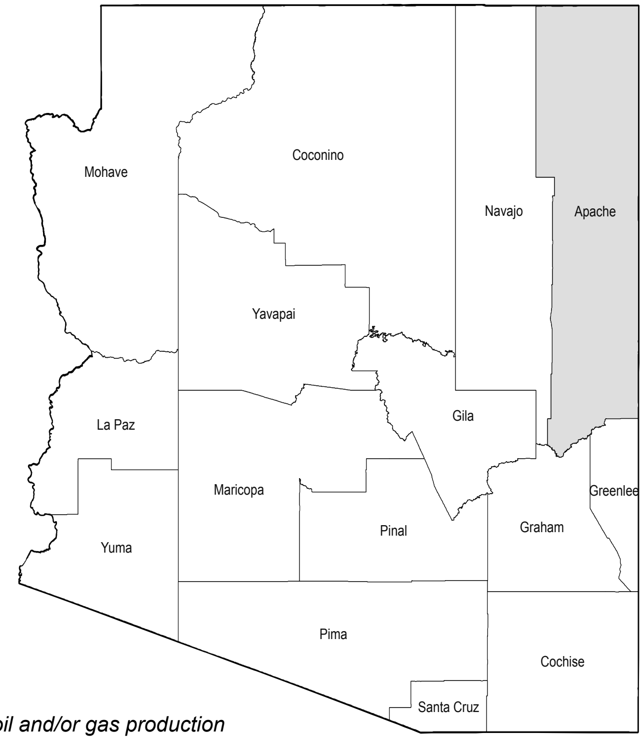
Average number of employees

Oil and natural gas extraction	13,847
Refining	0
Transportation	0
Wholesale	474
Retail	1,799
Pipeline construction	433
Oilfield machinery	0
Total petroleum industry	16,553

Source: For specific methodology and source details, please see pages 11 and 136

ALASKA

ARIZONA



○ *Counties with oil and/or gas production*

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	5,411
Natural gas	5,753

Year and depth of deepest well drilled (ft.)

1981	18,013

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

Oil wells	71	6%
Gas wells	55	5%
Dry holes	989	89%
Total	1,115	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$70,826,335

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	0	NA	NA
Production	NA	0	NA	NA

Value of Oil and Gas

Average wellhead/City Gate price*
(2012)

Crude oil ($/bbl.)	$88.87
Natural gas ($Mcf)*	$4.68

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$4,621
Natural gas*	$548
Total	$5,169

Average natural gas price
(2012 $/Mcf)

Residential consumers	$15.75
Commercial consumers	$9.35
Industrial consumers	$5.78
Electric utilities	$3.51
City Gate	$4.68

Severance taxes paid - FY $3,618
(2012 in thous. $)

Top producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Apache	100	<0.01

**City Gate price used for natural gas.*

ARIZONA

2012 Industry Statistics

Number of wells drilled

	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
Footage (thous. ft.)	NA

Average rotary rigs active	0

Permits	53

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	32nd	31st
Production	31st	31st
Reserves (2012)	26th	25th

Number of operators	2

Number of producing wells
(12/31/12)

Crude oil	24
Natural gas	3
Total	27

Average production

Crude oil (thous. b/d)	0.1
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	0.2

Total production

Crude oil (YTD bbls, in thous.)	51
Natural gas (YTD MMcf)	87

Natural gas marketed production

(MMcf)	117

Average output per producing well

Crude oil (bbls.)	2,108
Natural gas (Mcf)	28,986

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	23
Crude oil production in Bbls. (thous.)	42
Crude oil production Bbls./d (thous.)	<1

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	1
Natural gas production (MMcf)	17

Mineral lease royalties, bonuses & rent

Oil	$633,535
Natural Gas	$55,667
Rent, Bonuses & Other	$15,618
Total Oil and Gas Revenues	$704,820
Total Federal Reported Revenues	$46,620,220
Oil and Gas Percent of Total	2%

Federal lands production shares

Oil	0%
Natural Gas	0%
Combined on BOE basis	0%

Horizontal wells drilled	0
Directional wells drilled	0
Vertical wells drilled	0

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	1,717 Mmcf
CNG stations	34
LNG stations	7
LPG stations	66

Average number of employees

Oil and natural gas extraction	412
Refining	238
Transportation	271
Wholesale	1,826
Retail	15,073
Pipeline construction	400
Oilfield machinery	0
Total petroleum industry	18,220

Source: For specific methodology and source details, please see pages 11 and 136

Arkansas

○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	75
With oil and/or gas production	27

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 — 1,150,708 MMcf	2012

Deepest producing well (ft.)

Crude oil	12,878
Natural gas	19,850

Year and depth of deepest well drilled (ft.)

1992	20,661

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

Oil wells	15,849	36%
Gas wells	12,472	29%
Dry holes	15,335	35%
Total	43,656	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$13,838,160

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,878	95	1,973	23,678
Production	1,791	89	1,880	12,363

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$89.39
Natural gas ($Mcf)*	$5.36

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$584,253
Natural gas*	$6,143,460
Total	$6,727,714

Average natural gas price
(2012 $/Mcf)

Residential consumers	$11.82
Commercial consumers	$7.99
Industrial consumers	$6.38
Electric utilities	$3.19
City Gate	$5.36

Severance taxes paid

(2012 in thous. $)	$75,002

Top 10 producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Van Buren	26.81	0.88
Conway	20.16	0.66
White	19.67	0.64
Cleburne	14.17	0.46
Faulkner	6.33	0.21
Logan	2.89	0.09
Sebastian	2.89	0.09
Franklin	1.56	0.05
Columbia	1.08	0.04
Independence	0.91	0.03

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	4	120	124
Gas	1	739	740
Dry	6	60	66
Total	11	919	930

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	40.57	706.31	746.88
Gas	9.23	6,538.14	6,547.37
Dry	36.57	268.09	304.66
Total	86.37	7,512.54	7,598.91

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	3
Footage (thous. ft.)	20.68

Average rotary rigs active	21

Permits	1,047

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	17th	5th
Production	18th	9th
Reserves (2012)	20th	9th

Number of operators	301

Number of producing wells
(12/31/12)

Crude oil	1,238
Natural gas	8,699
Total	9,937

Average production

Crude oil (thous. b/d)	12.4
NGL (thous. b/d)	0.1
Natural gas (MMcf/day)	3,121.3

Total production

Crude oil (YTD bbls, in thous.)	4,508
Natural gas (YTD MMcf)	1,139,278

Natural gas marketed production

(MMcf)	1,150,708

Shale gas production	940 Bcf

Average output per producing well

Crude oil (bbls.)	3,641
Natural gas (Mcf)	130,966

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	1,212
Oil Wells	0
Gas Wells	42
Daily Average (MMcf) / Well	3.32

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	21	NA	21
Production	6	NA	6
Net annual change	15	NA	15
Proved reserves	55	NA	55

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	45	-4,228	-4,183
Production	9	1,143	1,152
Net annual change	36	-5,371	-5,335
Proved reserves	82	10,957	11,039

Marginal oil wells

Producing marginal wells	1,031
Crude oil production in Bbls. (thous.)	1,441
Crude oil production Bbls./d (thous.)	4

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	3,654
Natural gas production (MMcf)	45,414

Mineral lease royalties, bonuses & rent

Oil	-$119
Natural Gas	$4,394,576
Rent, Bonuses & Other	$798,177
Total Oil and Gas Revenues	$5,192,634
Total Federal Reported Revenues	$5,192,733
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	1%
Combined on BOE basis	1%

Horizontal wells drilled	723
Directional wells drilled	30
Vertical wells drilled	177

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	21 Mmcf
CNG stations	11
LNG stations	1
LPG stations	37

Average number of employees

Oil and natural gas extraction	6,633
Refining	632
Transportation	1,716
Wholesale	2,079
Retail	11,671
Pipeline construction	865
Oilfield machinery	0
Total petroleum industry	23,596

Source: For specific methodology and source details, please see pages 11 and 136

CALIFORNIA

○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	58
With oil and/or gas production	35*

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	24,426
Natural gas	18,114

Year and depth of deepest well drilled (ft.)

1993	24,426

Cumulative number of total wells drilled

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

Oil wells	176,896	81%
Gas wells	7,243	3%
Dry holes	35,606	16%
Total	219,745	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$311,294,912

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	31,856	1,548	33,404	46,935
Production	25,849	1,444	27,293	37,990

**Includes offshore areas*

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$104.10
Natural gas ($Mcf)*	$3.46

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$20,529,665
Natural gas*	$854,004
Total	$21,383,669

Average natural gas price

(2012 $/Mcf)

Residential consumers	$9.14
Commercial consumers	$7.05
Industrial consumers	$5.77
Electric utilities	$3.68
City Gate	$3.46

Severance taxes paid - Est. $400,000

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Kern	50.78	1.76
Kern	17.99	0.62
Los Angeles	6.88	0.24
Los Angeles Offshore	4.85	0.17
Ventura	4.11	0.14
Monterey	3.61	0.12
Fresno	2.91	0.10
Santa Barbara	1.66	0.06
Orange	1.20	0.04
Orange Offshore	0.86	0.03

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	17	2,662	2,679
Gas	1	15	16
Dry	13	37	50
Total	31	2,714	2,745

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	173.16	7,130.86	7,304.02
Gas	6.80	107.36	114.16
Dry	97.04	168.15	265.20
Total	277.00	7,406.37	7,683.38

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	10
Footage (thous. ft.)	81.41
Average rotary rigs active	44
Permits	4,626

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	3rd	19th
Production	4th	14th
Reserves (2012)	5th	17th

Number of operators	372

Number of producing wells
(12/31/12)

Crude oil	53,392
Natural gas	1,645
Total	55,037

Average production

Crude oil (thous. b/d)	539.4
NGL (thous. b/d)	0.7
Natural gas (MMcf/day)	147.1

Total production

Crude oil (YTD bbls, in thous.)	196,885
Natural gas (YTD MMcf)	53,709

Natural gas marketed production

(MMcf)	245,174
Shale gas production	101 Bcf

Average output per producing well

Crude oil (bbls.)	3,688
Natural gas (Mcf)	32,650

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

Heavy oil (YTD Bbls, in thous.)	190,606
Wells	48,653
Av. bbls per day (in thous.)	522.21
Av. bbls per well	3,918

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	165	NA	165
Production	198	NA	198
Net annual change	-33	NA	-33
Proved reserves	2,976	NA	2,976

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	-530	-179	-709
Production	155	59	214
Net annual change	-685	-238	-923
Proved reserves	1,847	272	2,119

Marginal oil wells

Producing marginal wells	41,812
Crude oil production in Bbls. (thous.)	71,748
Crude oil production Bbls./d (thous.)	197

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	973
Natural gas production (MMcf)	11,562

Mineral lease royalties, bonuses & rent

Oil	$249,147,806
Natural Gas	$6,056,556
Rent, Bonuses & Other	$3,542,653
Total Oil and Gas Revenues	$258,747,015
Total Federal Reported Revenues	$275,665,246
Oil and Gas Percent of Total	94%

Federal lands production shares

Oil	10%
Natural Gas	5%
Combined on BOE basis	9%

Horizontal wells drilled	346
Directional wells drilled	1,355
Vertical wells drilled	1,044

Natural gas vehicle fuel demand & fueling stations

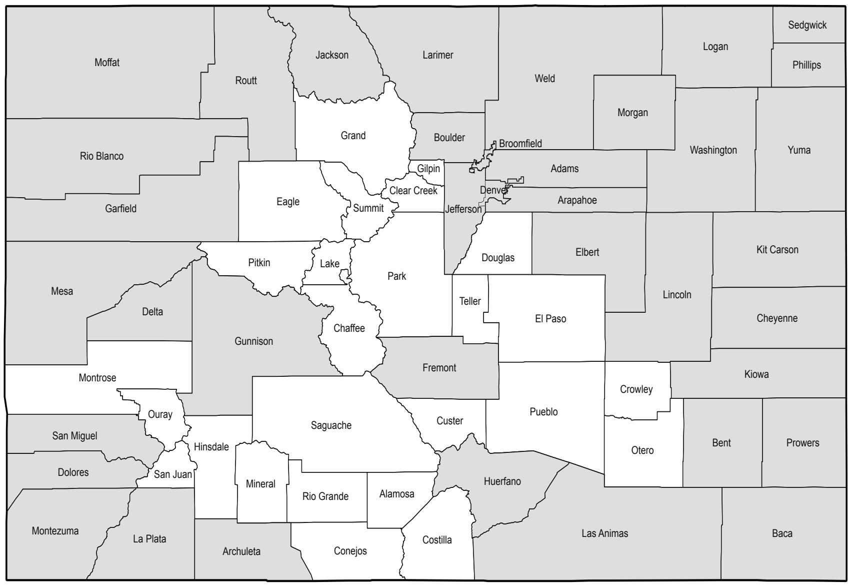
Natural gas vehicle demand	14,700 Mmcf
CNG stations	285
LNG stations	45
LPG stations	235

Average number of employees

Oil and natural gas extraction	23,317
Refining	14,649
Transportation	2,831
Wholesale	9,878
Retail	51,374
Pipeline construction	11,655
Oilfield machinery	1,688
Total petroleum industry	115,392

Source: For specific methodology and source details, please see pages 11 and 136

Colorado



○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	63
With oil and/or gas production	38

First year of production

Crude oil	1887
Natural gas	1893

Year and amount of peak production

Crude oil — 58,516 thous. bbls.	1956
Natural gas — 1,706,099 MMcf	2012

Deepest producing well (ft.)

Crude oil	16,848
Natural gas	19,710

Year and depth of deepest well drilled (ft.)

1987	22,092

Cumulative number of total wells drilled

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

Oil wells	17,872	18%
Gas wells	53,469	55%
Dry holes	26,833	27%
Total	98,174	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$38,056,853

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,732	1,726	4,458	46,937
Production	2,134	777	2,911	24,308

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$85.78
Natural gas ($Mcf)*	$4.26

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$4,229,812
Natural gas*	$7,281,942
Total	$11,511,754

Average natural gas price

(2012 $/Mcf)

Residential consumers	$8.31
Commercial consumers	$7.58
Industrial consumers	$5.79
Electric utilities	NA
City Gate	$4.26

Severance taxes paid — $163,046

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Garfield	39.47	1.96
La Plata	22.16	1.10
Weld	16.84	0.84
Rio Blanco	6.50	0.32
Las Animas	5.86	0.29
Mesa	2.66	0.13
Yuma	1.89	0.09
Moffat	1.01	0.05
Archuleta	0.78	0.04
Cheyenne	0.47	0.02

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	60	1,222	1,282
Gas	32	1,282	1,314
Dry	61	140	201
Total	153	2,644	2,797

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	526.10	10,811.38	11,337.48
Gas	228,80	9,833.70	10,062.49
Dry	286.19	791.08	1,077.28
Total	1,041.09	21,436.16	22,477.25

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	128
Footage (thous. ft.)	851.41
Average rotary rigs active	64
Permits	3,473

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	6th	3rd
Production	10th	6th
Reserves (2012)	9th	6th

Number of operators	347

Number of producing wells
(12/31/12)

Crude oil	7,085
Natural gas	47,182
Total	54,267

Average production

Crude oil (thous. b/d)	71.8
NGL (thous. b/d)	61.3
Natural gas (MMcf/day)	4,430.0

Total production

Crude oil (YTD bbls, in thous.)	26,198
Natural gas (YTD MMcf)	1,616,953

Natural gas marketed production

(MMcf)	1,706,099
Shale gas production	3 Bcf

Average output per producing well

Crude oil (bbls.)	3,698
Natural gas (Mcf)	34,271

Coalbed methane (YTD MMcf)	488,032
Oil Wells	0
Gas Wells	5,137
Daily Average (MMcf) / Well	1,337.07

Heavy oil (YTD Bbls, in thous.)	17,606
Wells	1,785
Av. bbls per day (in thous.)	48.23
Av. bbls per well	9,863

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	234	NA	234
Production	52	NA	52
Net annual change	205	NA	205
Proved reserves	760	NA	760

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	1,130	-3,844	-2,714
Production	200	1,563	1,763
Net annual change	930	-5,407	-4,477
Proved reserves	3,448	18,226	21,674

Marginal oil wells

Producing marginal wells	5,680
Crude oil production in Bbls. (thous.)	6,645
Crude oil production Bbls./d (thous.)	18

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	34,860
Natural gas production (MMcf)	348,136

Mineral lease royalties, bonuses & rent

Oil	$74,665,296
Natural Gas	$159,379,276
Rent, Bonuses & Other	$33,066,834
Total Oil and Gas Revenues	$267,111,406
Total Federal Reported Revenues	$383,372,271
Oil and Gas Percent of Total	70%

Federal lands production shares

Oil	9%
Natural Gas	20%
Combined on BOE basis	18%

Horizontal wells drilled	584
Directional wells drilled	1,710
Vertical wells drilled	530

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	283 Mmcf
CNG stations	37
LNG stations	0
LPG stations	51

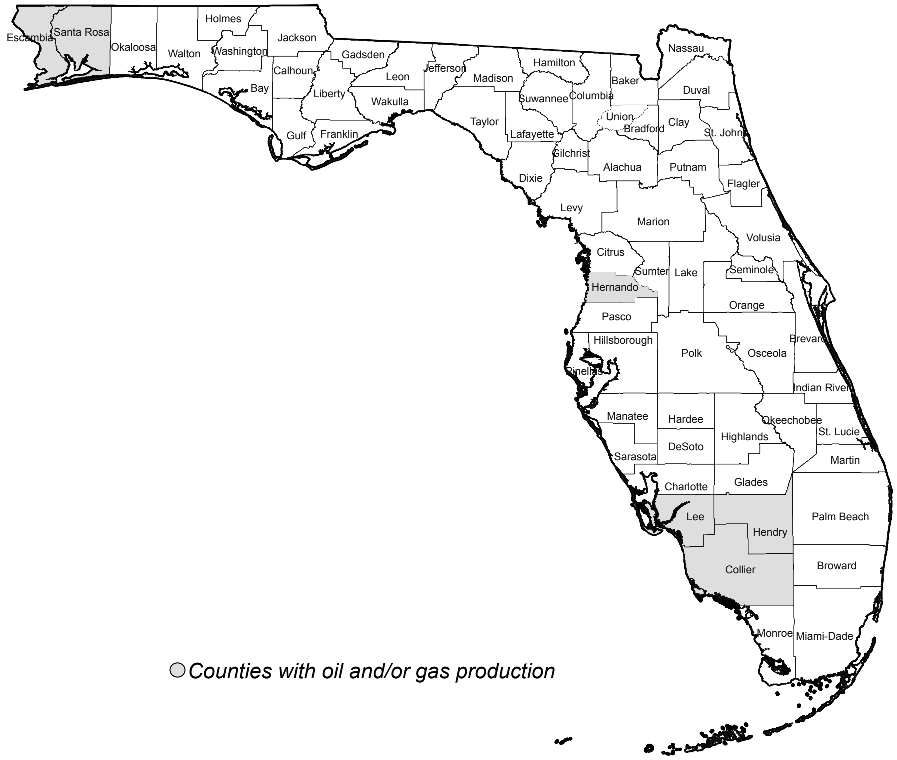
Average number of employees

Oil and natural gas extraction	25,265
Refining	220
Transportation	1,811
Wholesale	2,130
Retail	12,490
Pipeline construction	2,818
Oilfield machinery	287
Total petroleum industry	45,021

Source: For specific methodology and source details, please see pages 11 and 136

COLORADO

FLORIDA



Counties with oil and/or gas production

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	16,250
Natural gas	NA

Year and depth of deepest well drilled (ft.)

2008	18,875

Cumulative number of total wells drilled

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

Oil wells	334	26%
Gas wells	3	0%
Dry holes	945	74%
Total	1,282	100%

Cumulative crude oil wellhead value

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

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	716	81	797	645
Production	692	86	778	618

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	NA
Natural gas ($Mcf)*	$3.93

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	NA
Natural gas*	$73,416
Total	$73,416

Average natural gas price

(2012 $/Mcf)

Residential consumers	$18.31
Commercial consumers	$10.41
Industrial consumers	$6.96
Electric utilities	$4.80
City Gate	$3.93

Severance taxes paid - FY $12,206

(2012 in thous. $)

Top producing counties

(2012 on a BOE basis)

County	% Production State	US
Santa Rosa	49.28	0.02
Collier	27.78	0.01
Escambia	11.78	<0.01
Hendry	9.99	<0.01
Lee	1.16	<0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	2	1	3
Total	2	1	3

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	12.57	12.73	25.30
Total	12.57	12.73	25.30

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	NA
Footage (thous. ft.)	NA
Average rotary rigs active	1
Permits	13

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	31st	32nd
Production	25th	24th
Reserves (2012)	22nd	24th

Number of operators	7

Number of producing wells
(12/31/12)

Crude oil	75
Natural gas	0
Total	75

Average production

Crude oil (thous. b/d)	5.8
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

Total production

Crude oil (YTD bbls, in thous.)	2,133
Natural gas (YTD MMcf)	NA

Natural gas marketed production

(MMcf)	18,308

Average output per producing well

Crude oil (bbls.)	28,444
Natural gas (Mcf)	NA

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	5	NA	5
Production	3	NA	3
Net annual change	2	NA	2
Proved reserves	24	NA	24

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	-2	12	10
Production	0	0	0
Net annual change	-2	12	10
Proved reserves	0	16	16

Marginal oil wells

Producing marginal wells	11
Crude oil production in Bbls. (thous.)	29
Crude oil production Bbls./d (thous.)	<1

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	0
Natural gas production (MMcf)	0

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	--
Rent, Bonuses & Other	$29,333
Total Oil and Gas Revenues	$29,333
Total Federal Reported Revenues	$1,449,024
Oil and Gas Percent of Total	2%

Federal lands production shares

Oil	0%
Natural Gas	0%
Combined on BOE basis	0%

Horizontal wells drilled	0
Directional wells drilled	2
Vertical wells drilled	1

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	84 Mmcf
CNG stations	40
LNG stations	1
LPG stations	62

Average number of employees

Oil and natural gas extraction	955
Refining	2,601
Transportation	1,932
Wholesale	5,521
Retail	39,493
Pipeline construction	767
Oilfield machinery	61
Total petroleum industry	51,330

Source: For specific methodology and source details, please see pages 11 and 136

FLORIDA

ILLINOIS

○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	102
With oil and/or gas production	44

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	0
Natural gas	NA

Year and depth of deepest well drilled (ft.)

1976	14,942

Cumulative number of total wells drilled

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

Oil wells	80,424	56%
Gas wells	1,584	1%
Dry holes	61,803	43%
Total	143,811	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$25,707,347

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	3,588	NA	3,588	NA
Production	3,577	NA	3,577	NA

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$88.74
Natural gas ($Mcf)*	$4.11

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$790,496
Natural gas*	$8,734
Total	$799,230

Average natural gas price

(2012 $/Mcf)

Residential consumers	$8.26
Commercial consumers	$7.77
Industrial consumers	$5.64
Electric utilities	NA
City Gate	$4.11

Severance taxes paid --

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
White	11.89	0.02
Crawford	10.28	0.02
Marion	10.11	0.02
Fayette	7.63	0.01
Lawrence	7.43	0.01
Clay	5.39	0.01
Wayne	5.18	0.01
Wabash	4.53	0.01
Christian	4.02	0.01
Richland	3.50	0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	17	392	409
Gas	NA	NA	NA
Dry	55	108	163
Total	72	500	572

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	43.58	857.72	901.30
Gas	NA	NA	NA
Dry	150.83	236.18	387.01
Total	194.41	1,093.90	1,288.31

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	24
Footage (thous. ft.)	59.49

Average rotary rigs active	1

Permits	1,032

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	11th	26th
Production	16th	28th
Reserves (2012)	21st	26th

Number of operators	808

Number of producing wells
(12/31/12)

Crude oil	NA
Natural gas	NA
Total	NA

Average production

Crude oil (thous. b/d)	26.7
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

Total production

Crude oil (YTD bbls, in thous.)	9,733
Natural gas (YTD MMcf)	NA

Natural gas marketed production

(MMcf)	NA

Average output per producing well

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

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	1	NA	1
Production	4	NA	4
Net annual change	-3	NA	-3
Proved reserves	51	NA	51

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	7,187
Crude oil production in Bbls. (thous.)	5,804
Crude oil production Bbls./d (thous.)	16

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	$321,762
Natural Gas	--
Rent, Bonuses & Other	--
Total Oil and Gas Revenues	$321,762
Total Federal Reported Revenues	$321,762
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	0%
Combined on BOE basis	<1%

Horizontal wells drilled	11
Directional wells drilled	3
Vertical wells drilled	558

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	262 Mmcf
CNG stations	45
LNG stations	1
LPG stations	106

Average number of employees

Oil and natural gas extraction	2,762
Refining	5,398
Transportation	5,207
Wholesale	4,382
Retail	27,818
Pipeline construction	1,572
Oilfield machinery	12
Total petroleum industry	47,151

Source: For specific methodology and source details, please see pages 11 and 136

INDIANA

○ *Counties with oil and/or gas production*

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 — 9,075 MMcf	2011

Deepest producing well (ft.)

Crude oil	0
Natural gas	NA

Year and depth of deepest well drilled (ft.)

2008	10,064

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

Oil wells	21,551	35%
Gas wells	10,265	17%
Dry holes	29,501	48%
Total	61,317	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$4,451,009

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	561	NA	561	NA
Production	554	NA	554	NA

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$88.62
Natural gas ($Mcf)*	$4.23

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$208,257
Natural gas*	$37,283
Total	$245,540

Average natural gas price
(2012 $/Mcf)

Residential consumers	$8.94
Commercial consumers	$7.68
Industrial consumers	$6.19
Electric utilities	NA
City Gate	$4.23

Severance taxes paid $2,362
(2012 in thous. $)

Top 10 producing counties
(2012 on a BOE basis)

County	% Production State	US
Gibson	25.73	0.01
Posey	23.16	0.01
Vigo	20.12	0.01
Pike	8.09	<0.01
Vanderburgh	3.85	<0.01
Knox	3.58	<0.01
Greene	3.57	<0.01
Daviess	3.48	<0.01
Spencer	3.18	<0.01
Clay	1.48	<0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	3	71	74
Gas	1	12	13
Dry	20	29	49
Total	24	112	136

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	6.91	182.58	189.49
Gas	0.00	11.56	11.56
Dry	37.97	40.63	78.60
Total	44.88	234.77	279.65

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	12
Footage (thous. ft.)	19.03
Average rotary rigs active	1
Permits	283

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	21st	21st
Production	24th	26th
Reserves (2012)	25th	27th

Number of operators	220

Number of producing wells
(12/31/12)

Crude oil	NA
Natural gas	NA
Total	NA

Average production

Crude oil (thous. b/d)	6.4
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

Total production

Crude oil (YTD bbls, in thous.)	2,343
Natural gas (YTD MMcf)	NA

Natural gas marketed production

(MMcf)	8,814

Average output per producing well

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

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	7	NA	7
Production	1	NA	1
Net annual change	6	NA	6
Proved reserves	13	NA	13

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	1,825
Crude oil production in Bbls. (thous.)	1,312
Crude oil production Bbls./d (thous.)	4

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	$26,475
Natural Gas	--
Rent, Bonuses & Other	$17,667
Total Oil and Gas Revenues	$44,142
Total Federal Reported Revenues	$44,142
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	0%
Combined on BOE basis	<1%

Horizontal wells drilled	5
Directional wells drilled	5
Vertical wells drilled	126

Natural gas vehicle fuel demand & fueling stations

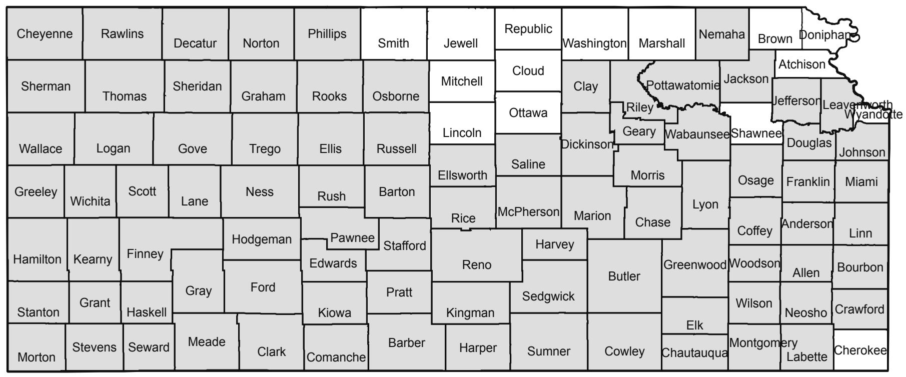
Natural gas vehicle demand	17 Mmcf
CNG stations	28
LNG stations	2
LPG stations	174

Average number of employees

Oil and natural gas extraction	510
Refining	1,215
Transportation	2,408
Wholesale	3,477
Retail	22,011
Pipeline construction	1,578
Oilfield machinery	124
Total petroleum industry	31,323

Source: For specific methodology and source details, please see pages 11 and 136

Kansas



○ *Counties 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	12,642
Natural gas	12,642

Year and depth of deepest well drilled (ft.)

2012	12,642

Cumulative number of total wells drilled

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

Oil wells	141,514	48%
Gas wells	38,713	13%
Dry holes	113,544	39%
Total	293,771	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$67,443,200

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	6,698	1,499	8,197	45,859
Production	6,387	1,391	7,778	42,334

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$87.85
Natural gas ($Mcf)*	$4.74

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$3,842,823
Natural gas*	$1,404,457
Total	$5,247,280

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.13
Commercial consumers	$8.82
Industrial consumers	$3.95
Electric utilities	$3.28
City Gate	$4.74

Severance taxes paid - FY $381,500

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Stevens	7.82	0.12
Barber	7.01	0.11
Grant	5.82	0.09
Haskell	5.43	0.09
Kearny	5.27	0.08
Finney	4.87	0.08
Ellis	3.92	0.06
Morton	3.75	0.06
Seward	2.97	0.05
Stanton	2.43	0.04

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	370	2,829	3,199
Gas	26	108	134
Dry	445	704	1,149
Total	841	3,641	4,482

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	1,920.67	6,483.89	8,404.56
Gas	145.18	364.62	509.80
Dry	1,861.19	2,241.29	4,102.48
Total	3,927.03	9,089.81	13,016.84

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	386
Footage (thous. ft.)	1,824.50
Average rotary rigs active	30
Permits	7,004

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	2nd	13th
Production	11th	13th
Reserves (2012)	13th	14th

Number of operators	1,848

Number of producing wells
(12/31/12)

Crude oil	43,844
Natural gas	21,800
Total	65,644

Average production

Crude oil (thous. b/d)	119.4
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	825.3

Total production

Crude oil (YTD bbls, in thous.)	43,596
Natural gas (YTD MMcf)	301,235

Natural gas marketed production

(MMcf)	301,235

Average output per producing well

Crude oil (bbls.)	994
Natural gas (Mcf)	13,818

Coalbed methane (YTD MMcf)	32,080
Oil Wells	15
Gas Wells	3,916
Daily Average (MMcf) / Well	87.89

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	75	NA	75
Production	43	NA	43
Net annual change	32	NA	32
Proved reserves	382	NA	382

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	229	-116	113
Production	30	273	303
Net annual change	199	-389	-190
Proved reserves	326	3,231	3,557

Marginal oil wells

Producing marginal wells	42,498
Crude oil production in Bbls. (thous.)	28,175
Crude oil production Bbls./d (thous.)	77

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	20,881
Natural gas production (MMcf)	239,615

Mineral lease royalties, bonuses & rent

Oil	$3,840,917
Natural Gas	$1,932,947
Rent, Bonuses & Other	$5,174
Total Oil and Gas Revenues	$5,779,037
Total Federal Reported Revenues	$5,768,703
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	1%
Natural Gas	2%
Combined on BOE basis	1%

Horizontal wells drilled	163
Directional wells drilled	4
Vertical wells drilled	4,314

Natural gas vehicle fuel demand & fueling stations

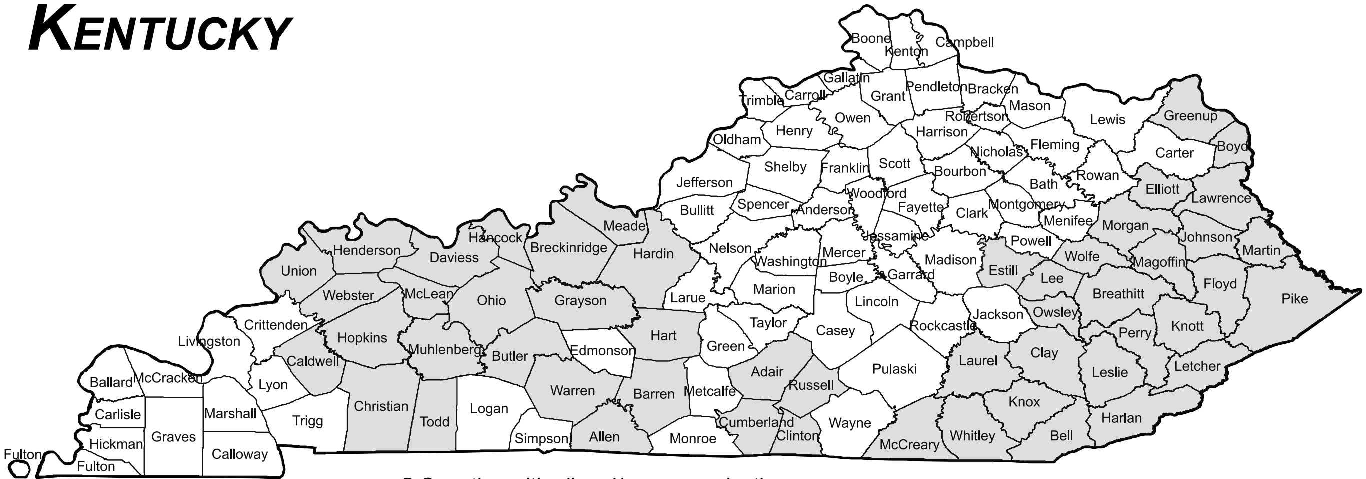
Natural gas vehicle demand	7 Mmcf
CNG stations	10
LNG stations	0
LPG stations	35

Average number of employees

Oil and natural gas extraction	9,115
Refining	2,093
Transportation	2,680
Wholesale	1,746
Retail	9,677
Pipeline construction	1,302
Oilfield machinery	0
Total petroleum industry	26,613

Source: For specific methodology and source details, please see pages 11 and 136

KENTUCKY



Counties with oil and/or gas production

Background Information

Counties

Number of counties	120
With oil and/or gas production	52

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 — 135,330 MMcf	2010

Deepest producing well (ft.)

Crude oil	NA
Natural gas	12,489

Year and depth of deepest well drilled (ft.)

1977	15,200

Cumulative number of total wells drilled

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

Oil wells	34,306	33%
Gas wells	26,820	25%
Dry holes	43,981	42%
Total	105,107	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$18,765,606

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	764	267	1,031	7,062
Production	766	277	1,042	5,844

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$87.02
Natural gas ($Mcf)*	$4.17

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$278,290
Natural gas*	$442,529
Total	$720,819

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.19
Commercial consumers	$8.28
Industrial consumers	$3.96
Electric utilities	NA
City Gate	$4.17

Severance taxes paid

(2012 in thous. $)	$28,343

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Union	29.71	0.01
Henderson	28.20	<0.01
Webster	9.31	<0.01
Muhlenberg	7.54	<0.01
Hopkins	7.24	<0.01
Daviess	6.08	<0.01
McLean	4.63	<0.01
Ohio	4.30	<0.01
Christian	1.68	<0.01
Hancock	0.61	<0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	17	292	309
Gas	NA	81	81
Dry	25	250	275
Total	42	623	665

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	34.76	486.83	521.59
Gas	NA	415.97	415.97
Dry	34.30	372.21	406.51
Total	69.05	1,275.02	1,344.07

(Note: Totals may not add due to rounding.)

New-field wildcats drilled — 19
Footage (thous. ft.) — 30.42

Average rotary rigs active — 3

Permits — 914

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	13th	15th
Production	21st	19th
Reserves (2012)	24th	19th

Number of operators — 245

Number of producing wells
(12/31/12)

Crude oil	NA
Natural gas	13,029
Total	13,029

Average production

Crude oil (thous. b/d)	2.8
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

Total production

Crude oil (YTD bbls, in thous.)	1,031
Natural gas (YTD MMcf)	102,078

Natural gas marketed production
(MMcf) — 102,078

Shale gas production — 4 Bcf

Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	7,835

Coalbed methane (YTD MMcf) — 0

Oil Wells	0
Gas Wells	0
Daily Average (MMcf) / Well	0

Heavy oil (YTD Bbls, in thous.) — NA

Wells	NA
Av. bbls per day (in thous.)	NA
Av. bbls per well	NA

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	-8	NA	-8
Production	1	NA	1
Net annual change	-9	NA	-9
Proved reserves	13	NA	13

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	-4	-520	-524
Production	1	88	89
Net annual change	-5	-608	-613
Proved reserves	93	1,422	1,515

Marginal oil wells

Producing marginal wells	1,302
Crude oil production in Bbls. (thous.)	690
Crude oil production Bbls./d (thous.)	2

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	$168,537
Natural Gas	$94,758
Rent, Bonuses & Other	$10,945
Total Oil and Gas Revenues	$274,241
Total Federal Reported Revenues	$1,837,546
Oil and Gas Percent of Total	15%

Federal lands production shares

Oil	<1%
Natural Gas	<1%
Combined on BOE basis	<1%

Horizontal wells drilled — 47

Directional wells drilled — 0

Vertical wells drilled — 618

Natural gas vehicle fuel demand & fueling stations

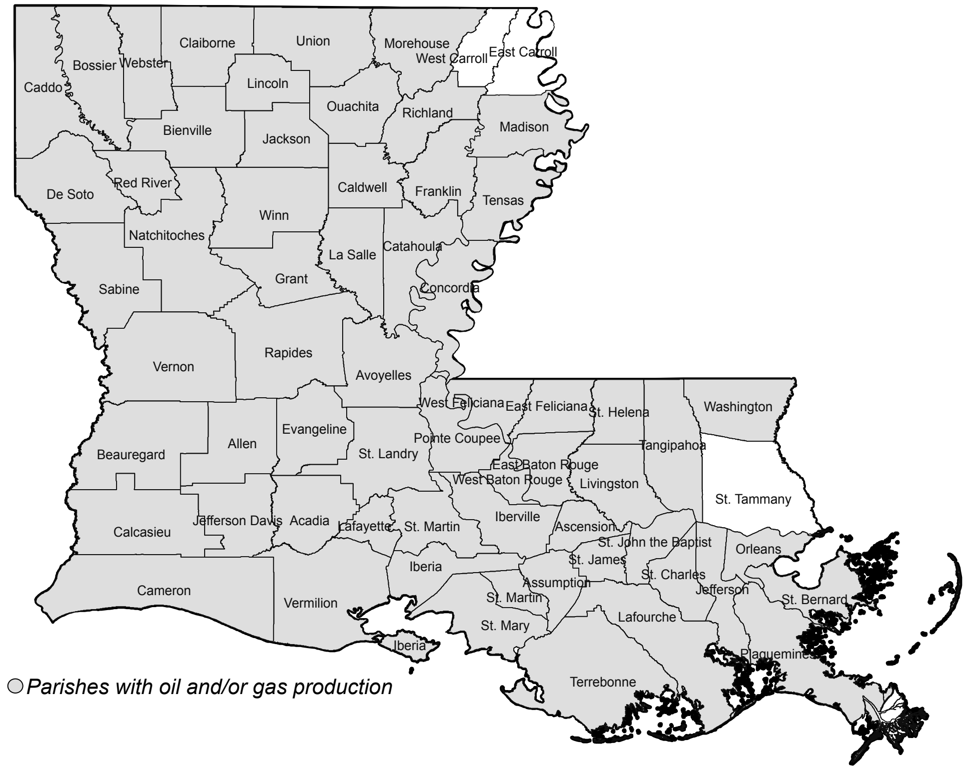
Natural gas vehicle demand	- Mmcf
CNG stations	4
LNG stations	1
LPG stations	47

Average number of employees

Oil and natural gas extraction	1,608
Refining	467
Transportation	1,800
Wholesale	2,806
Retail	16,356
Pipeline construction	809
Oilfield machinery	0
Total petroleum industry	23,846

Source: For specific methodology and source details, please see pages 11 and 136

LOUISIANA



Background Information

Parishes

Number of parishes	64
With oil and/or gas production	61

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	36,120

Year and depth of deepest well drilled (ft.)

1981	25,703

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

Oil wells	90,021	40%
Gas wells	55,014	24%
Dry holes	79,830	36%
Total	224,865	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$297,403,998

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	28,136	6,477	34,613	291,150
Production	19,002	4,758	23,760	158,728

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$105.97
Natural gas ($Mcf)*	$3.48

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$7,486,569
Natural gas*	$10,284,921
Total	$17,771,489

Average natural gas price
(2012 $/Mcf)

Residential consumers	$11.54
Commercial consumers	$8.44
Industrial consumers	$2.96
Electric utilities	$2.99
City Gate	$3.48

Severance taxes paid - FY $873,022
(2012 in thous. $)

Top 10 producing parishes
(2012 on a BOE basis)

Parish	% Production State	US
De Soto	35.25	3.19
Red River	11.22	1.02
Caddo	8.29	0.75
Sabine	7.14	0.65
Bossier	6.39	0.58
Bienville	5.24	0.47
Plaquemines	3.93	0.36
St Mary	2.56	0.23
Cameron	1.89	0.17
Lafourche	1.81	0.16

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	5	657	662
Gas	2	546	548
Dry	23	330	353
Total	30	1,533	1,563

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	61.40	3,108.36	3,169.75
Gas	15.47	8,309.39	8,324.86
Dry	156.47	2,180.83	2,337.31
Total	233.34	13,598.58	13,831.92

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	23
Footage (thous. ft.)	153.20

Average rotary rigs active	124

Permits	2,506

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	9th	7th
Production	8th	2nd
Reserves (2012)	11th	5th

Number of operators	918

Number of producing wells
(12/31/12)

Crude oil	17,550
Natural gas	14,277
Total	31,827

Average production

Crude oil (thous. b/d)	150.7
NGL (thous. b/d)	44.9
Natural gas (MMcf/day)	7,946.3

Total production

Crude oil (YTD bbls, in thous.)	55,011
Natural gas (YTD MMcf)	2,900,409

Natural gas marketed production

(MMcf)	2,966,843

Shale gas production	2,084 Bcf

Average output per producing well

Crude oil (bbls.)	3,135
Natural gas (Mcf)	203,153

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)	24,308
Wells	12,178
Av. bbls per day (in thous.)	66.6
Av. bbls per well	1,996

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	129	NA	129
Production	70	NA	70
Net annual change	59	NA	59
Proved reserves	584	NA	584

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	241	-5,570	-5,329
Production	107	2,974	3,081
Net annual change	134	-8,544	-8,410
Proved reserves	773	21,362	22,135

Marginal oil wells

Producing marginal wells	15,264
Crude oil production in Bbls. (thous.)	10,060
Crude oil production Bbls./d (thous.)	28

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	6,329
Natural gas production (MMcf)	66,814

Mineral lease royalties, bonuses & rent

Oil	$119,519,113
Natural Gas	$32,533,828
Rent, Bonuses & Other	$15,804,325
Total Oil and Gas Revenues	$167,857,266
Total Federal Reported Revenues	$167,857,264
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	9%
Natural Gas	2%
Combined on BOE basis	3%

Horizontal wells drilled	465
Directional wells drilled	382
Vertical wells drilled	716

Natural gas vehicle fuel demand & fueling stations

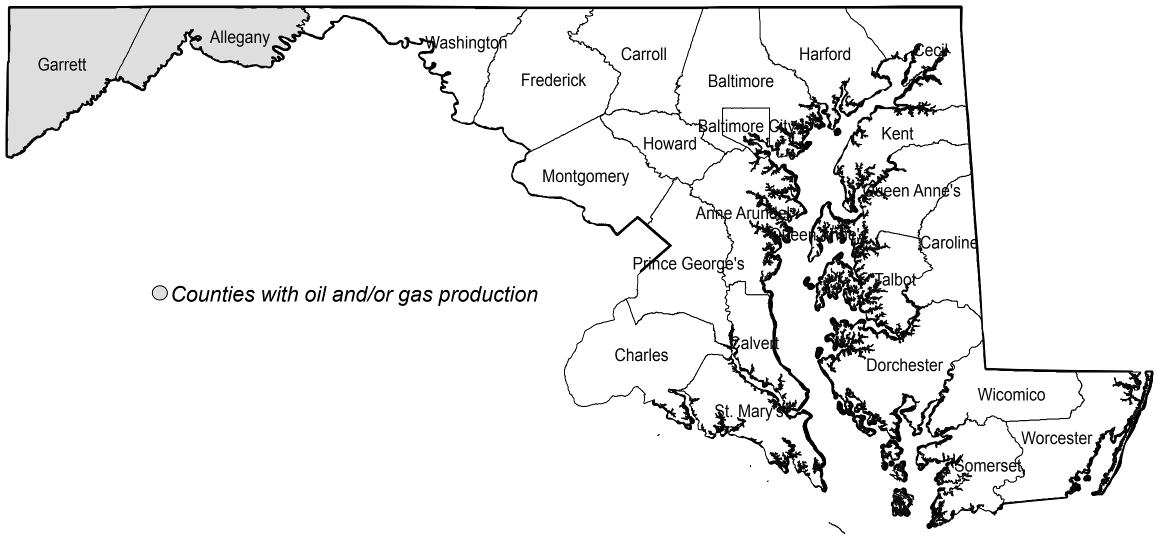
Natural gas vehicle demand	11 Mmcf
CNG stations	23
LNG stations	1
LPG stations	33

Average number of employees

Oil and natural gas extraction	51,310
Refining	11,277
Transportation	4,626
Wholesale	3,311
Retail	18,628
Pipeline construction	14,831
Oilfield machinery	9,443
Total petroleum industry	113,426

Source: For specific methodology and source details, please see pages 11 and 136

MARYLAND



Background Information

Counties

Number of counties	23
With oil and/or gas production	2

First year of production

Crude oil	--
Natural gas	1950

Year and amount of peak production

Crude oil —	--
Natural gas —4,543 MMcf	1959

Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

Year and depth of deepest well drilled (ft.)

1973	11,617

Cumulative number of total wells drilled

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

Oil wells	NA	NA
Gas wells	88	46%
Dry holes	102	54%
Total	190	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	NA

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	0	NA	NA	NA
Production	0	NA	NA	NA

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	NA
Natural gas ($Mcf)*	$5.67

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	NA
Natural gas*	$249
Total	$249

Average natural gas price

(2012 $/Mcf)

Residential consumers	$12.17
Commercial consumers	$10.00
Industrial consumers	$8.01
Electric utilities	NA
City Gate	$5.67

Severance taxes paid $2

(2012 in thous. $)

Top producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
NA	NA	NA

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	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
Footage (thous. ft.)	NA

Average rotary rigs active 0

Permits 0

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	33rd	30th
Production	NA	32nd
Reserves (2012)	27th	28th

Number of operators --

Number of producing wells
(12/31/12)

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

Total production

Crude oil (YTD bbls, in thous.)	NA
Natural gas (YTD MMcf)	NA

Natural gas marketed production

(MMcf)	34

Average output per producing well

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

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	NA
Crude oil production in Bbls. (thous.)	NA
Crude oil production Bbls./d (thous.)	NA

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	--
Rent, Bonuses & Other	$6,193
Total Oil and Gas Revenues	$6,193
Total Federal Reported Revenues	$6,193
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	--
Natural Gas	--
Combined on BOE basis	--

Horizontal wells drilled 0

Directional wells drilled 0

Vertical wells drilled 0

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	223 Mmcf
CNG stations	9
LNG stations	0
LPG stations	20

Average number of employees

Oil and natural gas extraction	487
Refining	844
Transportation	510
Wholesale	2,963
Retail	11,023
Pipeline construction	756
Oilfield machinery	0
Total petroleum industry	16,585

Source: For specific methodology and source details, please see pages 11 and 136

MARYLAND

Michigan

Background Information

Counties

Number of counties	83
With oil and/or gas production	59

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.)

2012	19,972

Cumulative number of total wells drilled

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

Oil wells	15,974	27%
Gas wells	14,924	26%
Dry holes	27,247	47%
Total	58,145	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$17,903,377

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,316	314	1,630	9,011
Production	1,271	250	1,521	6,487

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$90.91
Natural gas ($Mcf)*	$5.50

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$674,734
Natural gas*	$711,332
Total	$1,386,066

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.86
Commercial consumers	$8.35
Industrial consumers	$7.38
Electric utilities	$3.21
City Gate	$5.50

Severance taxes paid

(2012 in thous. $)	$64,628

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Otsego	20.23	0.09
Montmorency	18.20	0.08
Antrim	13.48	0.06
Jackson	6.43	0.03
Alpena	6.21	0.03
Manistee	4.34	0.02
Oscoda	3.30	0.02
Kalkaska	3.22	0.01
Alcona	2.95	0.01
Crawford	2.06	0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	10	55	65
Gas	NA	14	14
Dry	34	37	71
Total	44	106	150

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	48.39	187.23	235.63
Gas	NA	69.20	69.20
Dry	128.44	94.42	222.86
Total	176.83	350.85	527.69

(Note: Totals may not add due to rounding.)

New-field wildcats drilled — 32

Footage (thous. ft.) — 124.91

Average rotary rigs active — 2

Permits — 205

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	22nd	20th
Production	17th	18th
Reserves (2012)	15th	18th

Number of operators — 162

Number of producing wells
(12/31/12)

Crude oil	4,097
Natural gas	10,210
Total	14,307

Average production

Crude oil (thous. b/d)	20.1
NGL (thous. b/d)	2
Natural gas (MMcf/day)	326.0

Total production

Crude oil (YTD bbls, in thous.)	7,342
Natural gas (YTD MMcf)	118,972

Natural gas marketed production

(MMcf) — 129,419

Shale gas production — 106 Bcf

Average output per producing well

Crude oil (bbls.)	1,792
Natural gas (Mcf)	11,653

Coalbed methane (YTD MMcf) — NA

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

Heavy oil (YTD Bbls, in thous.) — NA

Wells	NA
Av. bbls per day (in thous.)	NA
Av. bbls per well	NA

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	19	NA	19
Production	7	NA	7
Net annual change	12	NA	12
Proved reserves	71	NA	71

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	27	-655	-628
Production	10	130	140
Net annual change	17	-785	-768
Proved reserves	94	1,687	1,781

Marginal oil wells

Producing marginal wells	3,877
Crude oil production in Bbls. (thous.)	3,260
Crude oil production Bbls./d (thous.)	9

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	9,974
Natural gas production (MMcf)	103,813

Mineral lease royalties, bonuses & rent

Oil	$294,023
Natural Gas	$1,024,189
Rent, Bonuses & Other	$93,309
Total Oil and Gas Revenues	$1,411,521
Total Federal Reported Revenues	$1,412,444
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	1%
Natural Gas	1%
Combined on BOE basis	1%

Horizontal wells drilled — 45

Directional wells drilled — 37

Vertical wells drilled — 68

Natural gas vehicle fuel demand & fueling stations

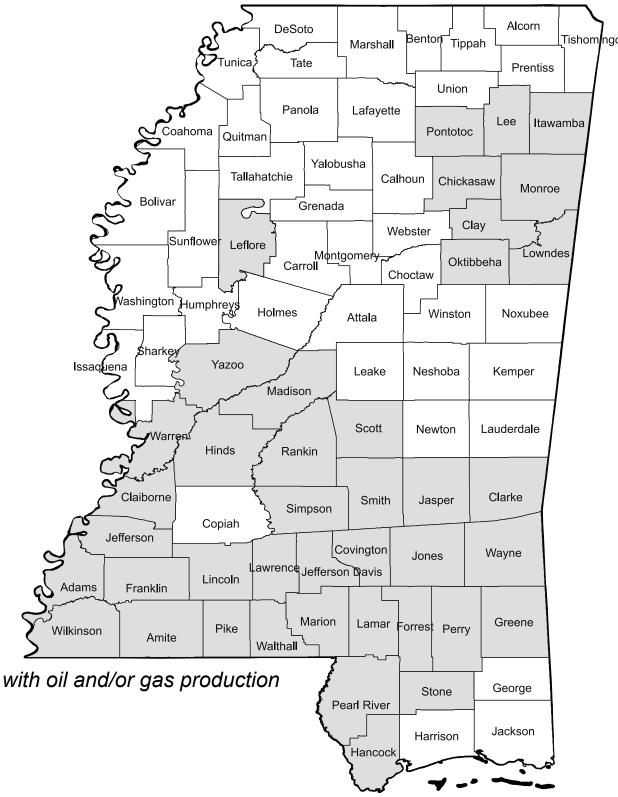
Natural gas vehicle demand	333 Mmcf
CNG stations	18
LNG stations	0
LPG stations	81

Average number of employees

Oil and natural gas extraction	2,772
Refining	1,344
Transportation	3,279
Wholesale	4,612
Retail	23,623
Pipeline construction	1,634
Oilfield machinery	0
Total petroleum industry	37,264

Source: For specific methodology and source details, please see pages 11 and 136

Mississippi



Counties with oil and/or gas production

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 12/31/12 - excluding service wells)

Oil wells	12,104	34%
Gas wells	4,565	13%
Dry holes	18,462	53%
Total	35,131	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$32,495,292

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,925	139	3,064	10,039
Production	2,681	154	2,835	9,500

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$100.80
Natural gas ($Mcf)*	$3.97

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$2,434,723
Natural gas*	$253,457
Total	$2,688,180

Average natural gas price

(2012 $/Mcf)

Residential consumers	$9.59
Commercial consumers	$7.38
Industrial consumers	$4.86
Electric utilities	NA
City Gate	$3.97

Severance taxes paid

(2012 in thous. $)	$113,044

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Rankin	43.49	0.70
Madison	23.91	0.39
Jasper	4.66	0.08
Yazoo	4.53	0.07
Wayne	4.30	0.07
Jones	2.67	0.04
Lincoln	2.48	0.04
Jefferson Davis	2.03	0.03
Lamar	1.67	0.03
Pike	1.20	0.02

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	6	96	102
Gas	NA	4	4
Dry	12	34	46
Total	18	134	152

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	69.18	754.85	824.03
Gas	NA	63.66	63.66
Dry	126.86	244.96	371.83
Total	196.04	1,063.48	1,259.52

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	12
Footage (thous. ft.)	129.77
Average rotary rigs active	11
Permits	483

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	20th	24th
Production	14th	22nd
Reserves (2012)	14th	22nd

Number of operators	158

Number of producing wells
(12/31/12)

Crude oil	2,459
Natural gas	1,716
Total	4,175

Average production

Crude oil (thous. b/d)	63.0
NGL (thous. b/d)	3.4
Natural gas (MMcf/day)	1,200.3

Total production

Crude oil (YTD bbls, in thous.)	22,982
Natural gas (YTD MMcf)	438,112

Natural gas marketed production

(MMcf)	443,896

Average output per producing well

Crude oil (bbls.)	9,346
Natural gas (Mcf)	255,310

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

Heavy oil (YTD Bbls, in thous.)	1,834
Wells	233
Av. bbls per day (in thous.)	5.02
Av. bbls per well	7,870

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	59	NA	59
Production	28	NA	28
Net annual change	31	NA	31
Proved reserves	276	NA	276

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	9	-200	-191
Production	9	56	65
Net annual change	0	-256	-256
Proved reserves	62	550	612

Marginal oil wells

Producing marginal wells	1,439
Crude oil production in Bbls. (thous.)	2,940
Crude oil production Bbls./d (thous.)	8

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	1,357
Natural gas production (MMcf)	12,531

Mineral lease royalties, bonuses & rent

Oil	$3,446,142
Natural Gas	$4,936,123
Rent, Bonuses & Other	$6,540,861
Total Oil and Gas Revenues	$14,923,126
Total Federal Reported Revenues	$14,923,126
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	1%
Natural Gas	16%
Combined on BOE basis	6%

Horizontal wells drilled	8
Directional wells drilled	48
Vertical wells drilled	96

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	1 Mmcf
CNG stations	8
LNG stations	0
LPG stations	111

Average number of employees

Oil and natural gas extraction	5,701
Refining	481
Transportation	1,656
Wholesale	1,934
Retail	13,832
Pipeline construction	2,406
Oilfield machinery	108
Total petroleum industry	26,118

Source: For specific methodology and source details, please see pages 11 and 136

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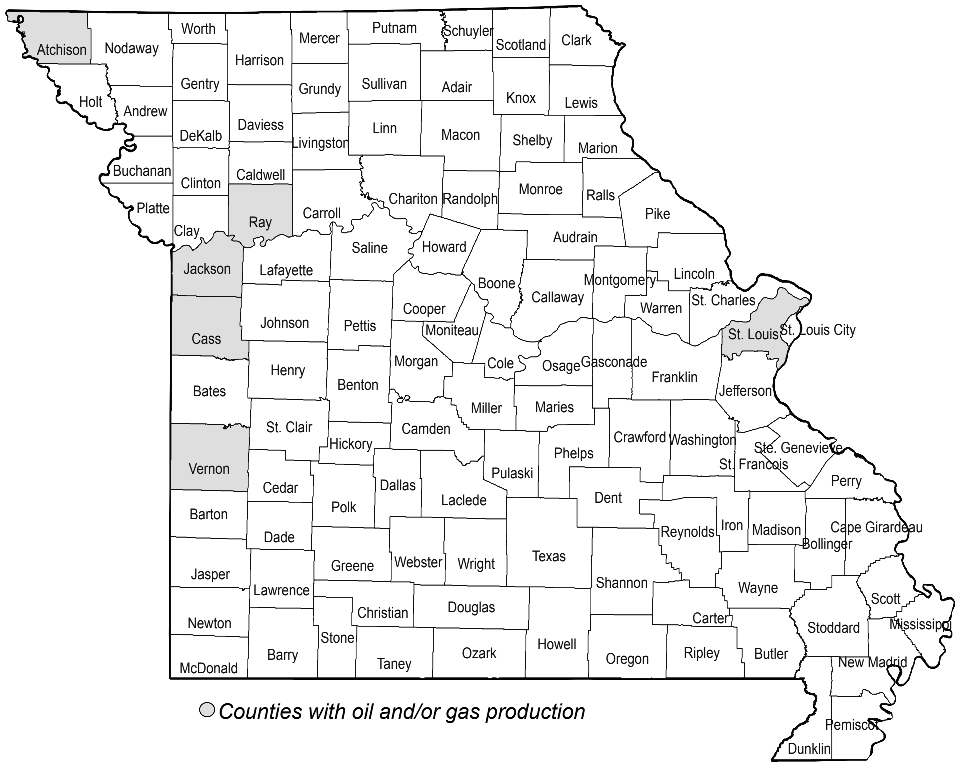


○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	114
With oil and/or gas production	6

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	NA
Natural gas	NA

Year and depth of deepest well drilled (ft.)

1988	10,089

Cumulative number of total wells drilled

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

Oil wells	2,434	28%
Gas wells	1,671	19%
Dry holes	4,503	52%
Total	8,608	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$158,037

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	7	NA	7	15

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$83.22
Natural gas ($Mcf)*	$3.97

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$14,564
Natural gas*	NA
Total	$14,564

Average natural gas price

(2012 $/Mcf)

Residential consumers	$12.25
Commercial consumers	$9.54
Industrial consumers	$7.93
Electric utilities	NA
City Gate	$5.27

Severance taxes paid --

(2012 in thous. $)

Top producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
NA	NA	NA

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	11	11
Total	NA	11	11

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	5.35	5.35
Total	NA	5.35	5.35

(Note: Totals may not add due to rounding.)

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

Average rotary rigs active	0

Permits	126

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	29th	29th
Production	30th	NA
Reserves (2012)	28th	29th

Number of operators	--

Number of producing wells*
(12/31/12)

Crude oil	405
Natural gas	8
Total	413

Average production

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

Total production*

Crude oil (YTD bbls, in thous.)	172
Natural gas (YTD MMcf)	10

Natural gas marketed production (MMcf)	0

Average output per producing well

Crude oil (bbls.)	425
Natural gas (Mcf)	1,250

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	NA
Crude oil production in Bbls. (thous.)	NA
Crude oil production Bbls./d (thous.)	NA

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	--
Rent, Bonuses & Other	--
Total Oil and Gas Revenues	--
Total Federal Reported Revenues	$11,886,825
Oil and Gas Percent of Total	0%

Federal lands production shares

Oil	0%
Natural Gas	0%
Combined on BOE basis	0%

Horizontal wells drilled	0
Directional wells drilled	0
Vertical wells drilled	11

Natural gas vehicle fuel demand & fueling stations

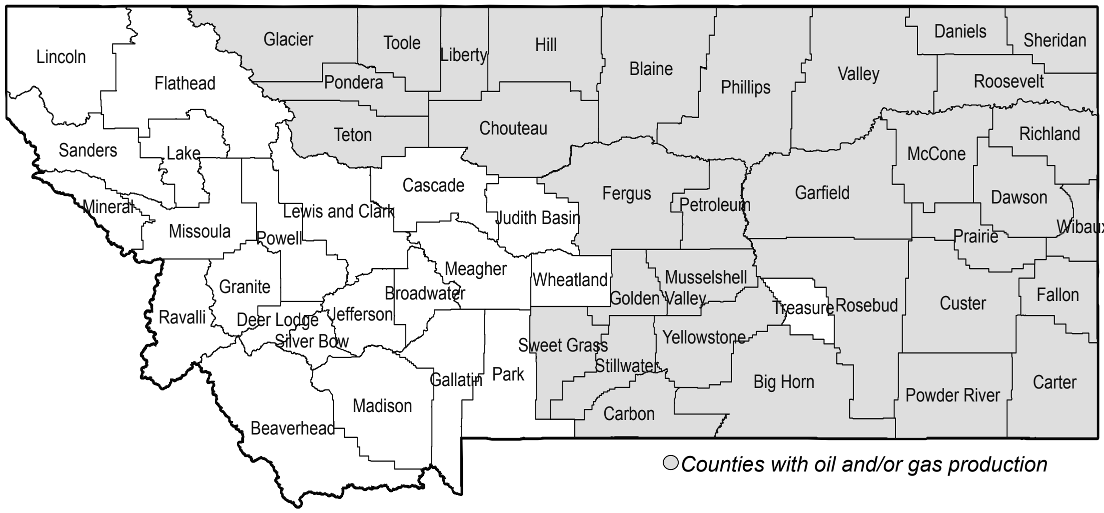
Natural gas vehicle demand	6 Mmcf
CNG stations	19
LNG stations	0
LPG stations	62

Average number of employees

Oil and natural gas extraction	187
Refining	1,166
Transportation	3,066
Wholesale	2,977
Retail	25,240
Pipeline construction	548
Oilfield machinery	0
Total petroleum industry	33,184

Source: For specific methodology and source details, please see pages 11 and 136
** State data*

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 — 116,848 MMcf	2007

Deepest producing well (ft.)

Crude oil	24,821
Natural gas	20,787

Year and depth of deepest well drilled (ft.)

2012	24,822

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

Oil wells	15,931	35%
Gas wells	11,238	25%
Dry holes	17,839	40%
Total	45,008	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$32,373,373

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,161	59	2,220	4,582
Production	1,785	50	1,835	3,916

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$82.98
Natural gas ($Mcf)*	$4.23

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$2,198,555
Natural gas*	$283,215
Total	$2,481,771

Average natural gas price
(2012 $/Mcf)

Residential consumers	$8.06
Commercial consumers	$7.98
Industrial consumers	$7.54
Electric utilities	NA
City Gate	$4.23

Severance taxes paid $210,644
(2012 in thous. $)

Top 10 producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Richland	36.69	0.21
Fallon	18.45	0.11
Roosevelt	10.41	0.06
Phillips	4.95	0.03
Sheridan	4.24	0.02
Blaine	4.09	0.02
Hill	2.82	0.02
Toole	2.34	0.01
Dawson	2.23	0.01
Wibaux	2.10	0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	59	205	264
Gas	3	14	17
Dry	30	31	61
Total	92	250	342

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	756.33	2,508.64	3,264.97
Gas	11.87	18.48	30.35
Dry	264.34	175.56	439.90
Total	1,032.54	2,702.68	3,735.22

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	69
Footage (thous. ft.)	688.97

Average rotary rigs active	20

Permits	543

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	14th	18th
Production	13th	21st
Reserves (2012)	12th	21st

Number of operators	231

Number of producing wells
(12/31/12)

Crude oil	4,838
Natural gas	6,286
Total	11,124

Average production

Crude oil (thous. b/d)	72.3
NGL (thous. b/d)	0.2
Natural gas (MMcf/day)	123.2

Total production

Crude oil (YTD bbls, in thous.)	26,389
Natural gas (YTD MMcf)	44,970

Natural gas marketed production

(MMcf)	66,961

Shale gas production	13 Bcf

Average output per producing well

Crude oil (bbls.)	5,454
Natural gas (Mcf)	7,154

Coalbed methane (YTD MMcf)	3,477
Oil Wells	1
Gas Wells	537
Daily Average (MMcf) / Well	9.53

Heavy oil (YTD Bbls, in thous.)	316
Wells	86
Av. bbls per day (in thous.)	0.87
Av. bbls per well	3,676

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	31	NA	31
Production	27	NA	27
Net annual change	4	NA	4
Proved reserves	388	NA	388

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	41	-150	-109
Production	22	45	67
Net annual change	19	-195	-176
Proved reserves	289	327	616

Marginal oil wells

Producing marginal wells	3,314
Crude oil production in Bbls. (thous.)	4,300
Crude oil production Bbls./d (thous.)	12

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	6,125
Natural gas production (MMcf)	39,415

Mineral lease royalties, bonuses & rent

Oil	$33,469,011
Natural Gas	$5,936,331
Rent, Bonuses & Other	$6,884,314
Total Oil and Gas Revenues	$46,289,656
Total Federal Reported Revenues	$112,753,454
Oil and Gas Percent of Total	41%

Federal lands production shares

Oil	10%
Natural Gas	25%
Combined on BOE basis	14%

Horizontal wells drilled	251

Directional wells drilled	7

Vertical wells drilled	84

Natural gas vehicle fuel demand & fueling stations

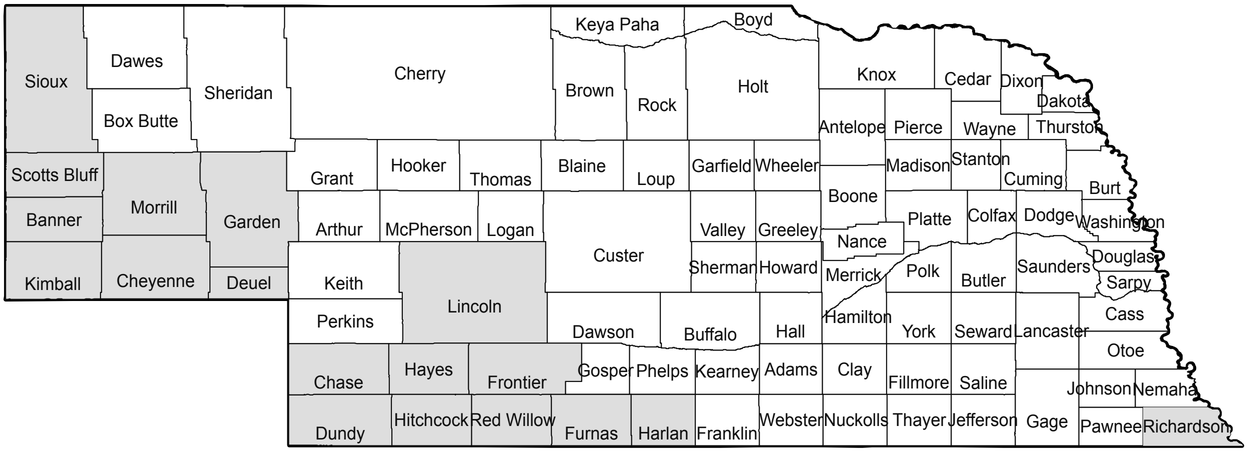
Natural gas vehicle demand	- Mmcf
CNG stations	2
LNG stations	0
LPG stations	50

Average number of employees

Oil and natural gas extraction	3,754
Refining	1,045
Transportation	790
Wholesale	967
Retail	5,121
Pipeline construction	836
Oilfield machinery	0
Total petroleum industry	12,513

Source: For specific methodology and source details, please see pages 11 and 136

NEBRASKA



○*Counties with oil and/or gas production*

Background Information

Counties

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.)

Crude oil	11,761
Natural gas	5,832

Year and depth of deepest well drilled (ft.)

1997	13,128

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

Oil wells	6,392	31%
Gas wells	580	3%
Dry holes	13,764	66%
Total	20,736	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$5,477,610

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	527	NA	527	NA
Production	516	NA	516	NA

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$84.95
Natural gas ($Mcf)*	$4.31

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$256,974
Natural gas*	$5,724
Total	$262,697

Average natural gas price
(2012 $/Mcf)

Residential consumers	$8.68
Commercial consumers	$6.19
Industrial consumers	$4.34
Electric utilities	$3.93
City Gate	$4.31

Severance taxes paid
(2012 in thous. $)

Severance taxes paid	$5,350

Top 10 producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Hitchcock	28.30	0.01
Kimball	20.23	0.01
Cheyenne	10.37	<0.01
Dundy	10.31	<0.01
Red Willow	9.91	<0.01
Banner	7.45	<0.01
Chase	2.98	<0.01
Richardson	2.96	<0.01
Morrill	1.80	<0.01
Hayes	1.75	<0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	15	46	61
Gas	NA	NA	NA
Dry	30	20	50
Total	45	66	111

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	77.45	191.98	269.43
Gas	NA	NA	NA
Dry	149.76	104.22	253.97
Total	227.21	296.20	523.40

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	33
Footage (thous. ft.)	156.34
Average rotary rigs active	1
Permits	146

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	23rd	27th
Production	22nd	29th
Reserves (2012)	23rd	30th

Number of operators	109

Number of producing wells
(12/31/12)

Crude oil	1,323
Natural gas	324
Total	1,647

Average production

Crude oil (thous. b/d)	6.9
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	3.3

Total production

Crude oil (YTD bbls, in thous.)	2,509
Natural gas (YTD MMcf)	1,221

Natural gas marketed production

(MMcf)	1,301

Average output per producing well

Crude oil (bbls.)	1,897
Natural gas (Mcf)	3,768

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	2	NA	2
Production	3	NA	3
Net annual change	-1	NA	-1
Proved reserves	20	NA	20

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	1,241
Crude oil production in Bbls. (thous.)	1,676
Crude oil production Bbls./d (thous.)	5

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	320
Natural gas production (MMcf)	1,221

Mineral lease royalties, bonuses & rent

Oil	$269,044
Natural Gas	1,857
Rent, Bonuses & Other	$28,714
Total Oil and Gas Revenues	$299,615
Total Federal Reported Revenues	$299,615
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	1%
Natural Gas	<1%
Combined on BOE basis	1%

Horizontal wells drilled	2
Directional wells drilled	0
Vertical wells drilled	109

Natural gas vehicle fuel demand & fueling stations

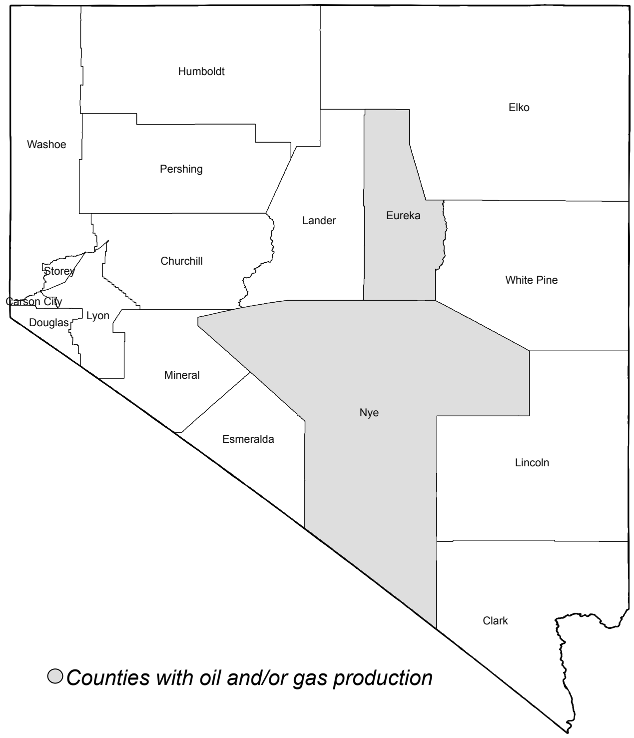
Natural gas vehicle demand	37 Mmcf
CNG stations	10
LNG stations	0
LPG stations	21

Average number of employees

Oil and natural gas extraction	301
Refining	0
Transportation	1,519
Wholesale	1,007
Retail	8,805
Pipeline construction	167
Oilfield machinery	0
Total petroleum industry	11,799

Source: For specific methodology and source details, please see pages 11 and 136

NEVADA



Counties with oil and/or gas production

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 — 53 MMcf	1991

Deepest producing well (ft.)

Crude oil	8,050
Natural gas	NA

Year and depth of deepest well drilled (ft.)

1980	19,562

Cumulative number of total wells drilled

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

Oil wells	125	14%
Gas wells	2	0%
Dry holes	771	86%
Total	898	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$1,000,124

Cumulative production & new reserves

(as of 12/31/12)

	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/City Gate price

(2012)

Crude oil ($/bbl.)	$91.02
Natural gas ($Mcf)*	NA

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$33,495
Natural gas*	NA
Total	$33,495

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.14
Commercial consumers	$7.43
Industrial consumers	$7.34
Electric utilities	$3.49
City Gate	$5.13

Severance taxes paid $875

(2012 in thous. $)

Top producing counties

(2012 on a BOE basis)

County	% Production State	US
Nye	86.49	0.01
Eureka	13.51	<0.01

*City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	1	1
Gas	NA	NA	NA
Dry	2	1	3
Total	2	2	4

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	1.20	1.20
Gas	NA	NA	NA
Dry	16.80	4.29	21.10
Total	16.80	5.49	22.30

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	2
Footage (thous. ft.)	16.80
Average rotary rigs active	1
Permits	63

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	28th	34th
Production	28th	33rd
Reserves (2012)	29th	31st

Number of operators	7

Number of producing wells
(12/31/12)

Crude oil	76
Natural gas	0
Total	76

Average production

Crude oil (thous. b/d)	1.0
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

Total production

Crude oil (YTD bbls, in thous.)	368
Natural gas (YTD MMcf)	0

Natural gas marketed production

(MMcf)	4

Average output per producing well

Crude oil (bbls.)	4,842
Natural gas (Mcf)	NA

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	49
Crude oil production in Bbls. (thous.)	88
Crude oil production Bbls./d (thous.)	<1

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	$4,194,434
Natural Gas	--
Rent, Bonuses & Other	$11,276,576
Total Oil and Gas Revenues	$15,471,010
Total Federal Reported Revenues	$21,084,936
Oil and Gas Percent of Total	73%

Federal lands production shares

Oil	100%
Natural Gas	0%
Combined on BOE basis	99%

Horizontal wells drilled	0
Directional wells drilled	0
Vertical wells drilled	4

Natural gas vehicle fuel demand & fueling stations

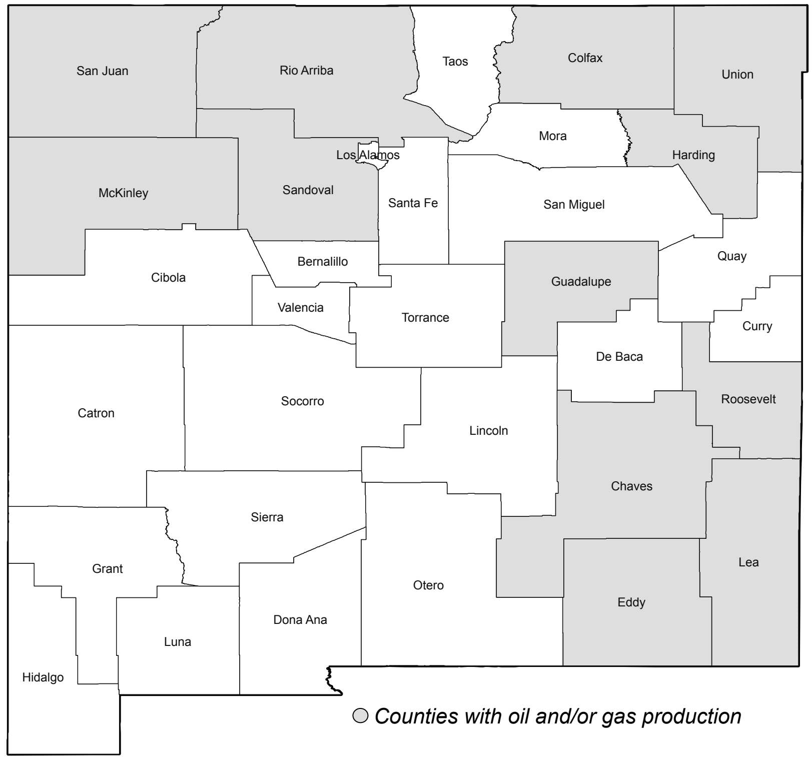
Natural gas vehicle demand	592 Mmcf
CNG stations	8
LNG stations	4
LPG stations	32

Average number of employees

Oil and natural gas extraction	264
Refining	105
Transportation	37
Wholesale	663
Retail	7,543
Pipeline construction	421
Oilfield machinery	0
Total petroleum industry	9,033

Source: For specific methodology and source details, please see pages 11 and 136

NEW MEXICO



Background Information

Counties

Number of counties	33
With oil and/or gas production	12

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	19,323
Natural gas	26,579

Year and depth of deepest well drilled (ft.)

1969	22,926

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

Oil wells	55,681	48%
Gas wells	42,383	36%
Dry holes	18,918	16%
Total	116,982	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$89,871,732

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	7,765	3,506	11,271	85,002
Production	6,863	2,653	9,516	71,579

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$88.01
Natural gas ($Mcf)*	$3.70

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$7,500,036
Natural gas*	$4,498,360
Total	$11,998,396

Average natural gas price
(2012 $/Mcf)

Residential consumers	$8.69
Commercial consumers	$6.31
Industrial consumers	$4.87
Electric utilities	NA
City Gate	$3.70

Severance taxes paid

(2012 in thous. $)	$971,900

Top producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
San Juan	31.52	1.28
Eddy	24.02	0.97
Rio Arriba	22.69	0.92
Lea	17.73	0.72
Colfax	1.86	0.08
Chaves	1.79	0.07
Roosevelt	0.19	0.01
Sandoval	0.17	0.01
McKinley	0.03	<0.01
Harding	0.00	<0.01

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	77	1,086	1,163
Gas	8	148	156
Dry	10	46	56
Total	95	1,280	1,375

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	655.02	8,146.98	8,802.00
Gas	49.79	1,050.98	1,100.77
Dry	44.31	260.28	304.60
Total	749.12	9,458.25	10,207.37

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	90
Footage (thous. ft.)	705.14

Average rotary rigs active	84

Permits	2,251

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	7th	12th
Production	7th	8th
Reserves (2012)	7th	8th

Number of operators	479

Number of producing wells
(12/31/12)

Crude oil	24,978
Natural gas	34,435
Total	59,413

Average production

Crude oil (thous. b/d)	223.3
NGL (thous. b/d)	12.3
Natural gas (MMcf/day)	2,625.9

Total production

Crude oil (YTD bbls, in thous.)	81,503
Natural gas (YTD MMcf)	958,442

Natural gas marketed production

(MMcf)	1,255,253

Shale gas production	9 Bcf

Average output per producing well

Crude oil (bbls.)	3,263
Natural gas (Mcf)	27,833

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	350,943
Oil Wells	1
Gas Wells	5,983
Daily Average (MMcf) / Well	961.49

Heavy oil (YTD Bbls, in thous.)

Heavy oil (YTD Bbls, in thous.)	16
Wells	24
Av. bbls per day (in thous.)	0.04
Av. bbls per well	653

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	195	NA	195
Production	86	NA	86
Net annual change	109	NA	109
Proved reserves	1,069	NA	1,069

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	517	-848	-331
Production	250	1,004	1,254
Net annual change	267	-1,852	-1,585
Proved reserves	2,819	11,734	14,553

Marginal oil wells

Producing marginal wells	20,255
Crude oil production in Bbls. (thous.)	24,987
Crude oil production Bbls./d (thous.)	68

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	25,314
Natural gas production (MMcf)	309,610

Mineral lease royalties, bonuses & rent

Oil	$592,562,707
Natural Gas	$298,345,969
Rent, Bonuses & Other	$66,430,428
Total Oil and Gas Revenues	$957,339,104
Total Federal Reported Revenues	$1,029,505,707
Oil and Gas Percent of Total	93%

Federal lands production shares

Oil	48%
Natural Gas	58%
Combined on BOE basis	55%

Horizontal wells drilled	529
Directional wells drilled	156
Vertical wells drilled	680

Natural gas vehicle fuel demand & fueling stations

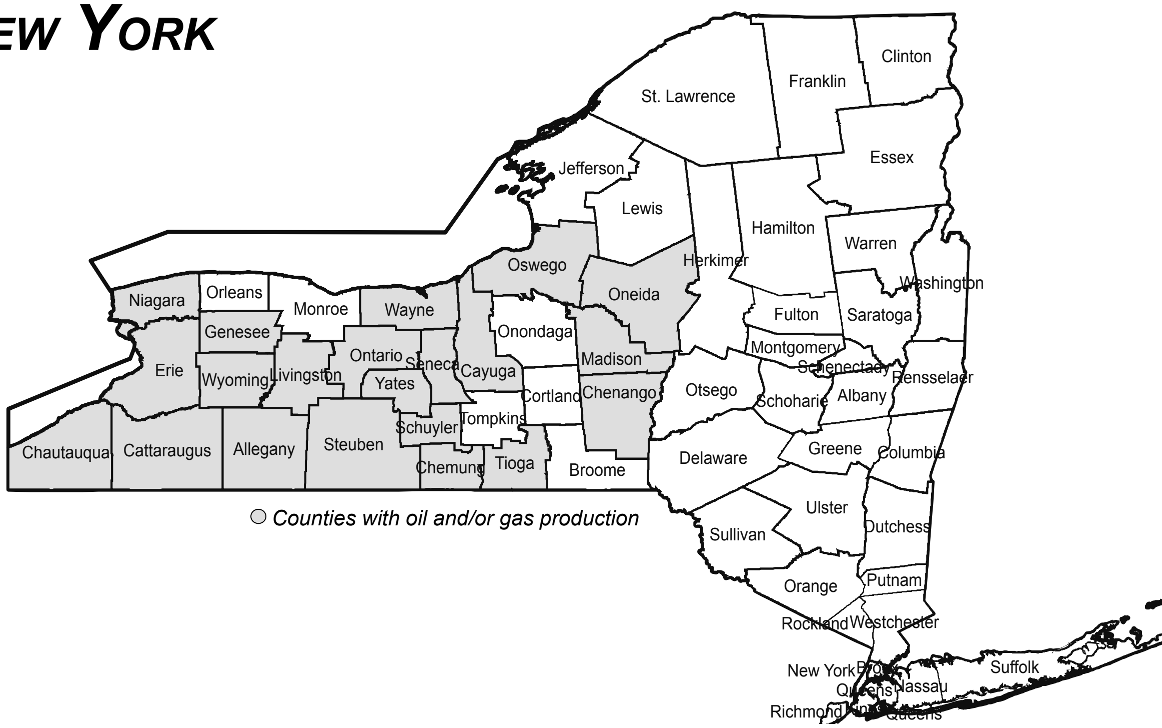
Natural gas vehicle demand	251 Mmcf
CNG stations	14
LNG stations	1
LPG stations	45

Average number of employees

Oil and natural gas extraction	18,643
Refining	33
Transportation	1,343
Wholesale	1,538
Retail	7,504
Pipeline construction	1,822
Oilfield machinery	NA
Total petroleum industry	30,883

Source: For specific methodology and source details, please see pages 11 and 136

NEW YORK



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	3,540
Natural gas	14,920

Year and depth of deepest well drilled (ft.)

2002	15,079

Cumulative number of total wells drilled

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

Oil wells	16,507	53%
Gas wells	10,855	34%
Dry holes	3,979	13%
Total	31,341	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$1,299,041

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	1,598
Production	NA	NA	NA	1,428

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	NA
Natural gas ($Mcf)*	$5.35

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	NA
Natural gas*	$141,368
Total	$141,368

Average natural gas price

(2012 $/Mcf)

Residential consumers	$12.97
Commercial consumers	$7.84
Industrial consumers	$6.92
Electric utilities	$3.95
City Gate	$5.35

Severance taxes paid --

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Chemung	23.99	0.02
Chautauqua	20.71	0.02
Steuben	19.56	0.01
Cattaraugus	8.91	0.01
Erie	8.40	0.01
Chenango	3.46	<0.01
Cayuga	3.02	<0.01
Seneca	2.92	<0.01
Genesee	2.52	<0.01
Madison	1.91	<0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	149	149
Gas	1	9	10
Dry	1	9	10
Total	2	167	169

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	237.02	237.02
Gas	2.03	23.52	25.55
Dry	4.75	31.35	36.10
Total	6.78	291.88	298.66

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	1
Footage (thous. ft.)	4.75

Average rotary rigs active	0

Permits	184

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	16th	23rd
Production	29th	23rd
Reserves (2012)	30th	23rd

Number of operators	667

Number of producing wells
(12/31/12)

Crude oil	2,857
Natural gas	7,838
Total	10,695

Average production

Crude oil (thous. b/d)	0.8
NGL (thous. b/d)	0.2
Natural gas (MMcf/day)	66.1

Total production

Crude oil (YTD bbls, in thous.)	288
Natural gas (YTD MMcf)	24,120

Natural gas marketed production

(MMcf)	26,398

Average output per producing well

Crude oil (bbls.)	101
Natural gas (Mcf)	3,077

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	-1	-41	-42
Production	1	26	27
Net annual change	-2	-67	-69
Proved reserves	6	178	184

Marginal oil wells

Producing marginal wells	2,455
Crude oil production in Bbls. (thous.)	288
Crude oil production Bbls./d (thous.)	1

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	7,194
Natural gas production (MMcf)	11,499

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	$14,080
Rent, Bonuses & Other	--
Total Oil and Gas Revenues	$14,080
Total Federal Reported Revenues	$14,080
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	0%
Natural Gas	<1%
Combined on BOE basis	<1%

Horizontal wells drilled	0
Directional wells drilled	0
Vertical wells drilled	169

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	3,877 Mmcf
CNG stations	113
LNG stations	0
LPG stations	58

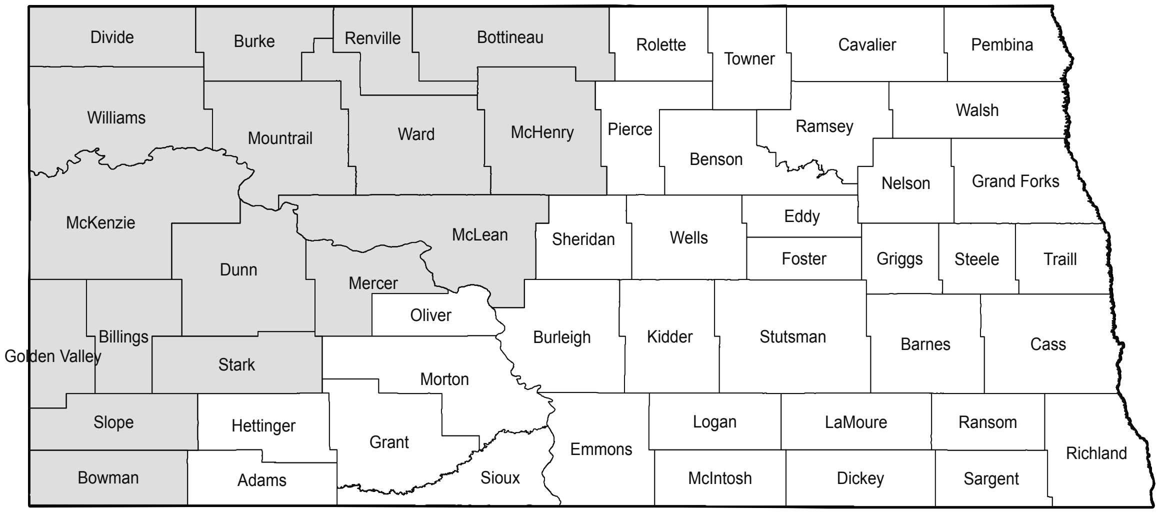
Average number of employees

Oil and natural gas extraction	1,536
Refining	1,954
Transportation	6,521
Wholesale	11,483
Retail	28,421
Pipeline construction	1,488
Oilfield machinery	0
Total petroleum industry	51,403

Source: For specific methodology and source details, please see pages 11 and 136

New York

North Dakota



○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	53
With oil and/or gas production	17

First year of production

Crude oil	1951
Natural gas	1907

Year and amount of peak production

Crude oil — 238,633 thous. bbls.	2012
Natural gas — 258,479 MMcf	2012

Deepest producing well (ft.)

Crude oil—(25,828 MD horizontal)	25,828
Natural gas—(21,070 MD horizontal)	21,525

Year and depth of deepest well drilled (ft.)

2012	25,101

Cumulative number of total wells drilled

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

Oil wells	16,427	69%
Gas wells	340	1%
Dry holes	7,258	30%
Total	24,025	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$82,250,116

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	5,933	485	6,418	6,679
Production	2,244	216	2,460	2,992

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$84.06
Natural gas ($Mcf)*	$4.43

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$20,496,434
Natural gas*	$792,988
Total	$21,289,422

Average natural gas price

(2012 $/Mcf)

Residential consumers	$7.43
Commercial consumers	$6.04
Industrial consumers	$4.48
Electric utilities	$6.44
City Gate	$4.43

Severance taxes paid

(2012 in thous. $)	$1,660,803

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Mountrail	28.56	1.15
McKenzie	23.43	0.95
Williams	16.77	0.68
Dunn	15.50	0.63
Divide	3.82	0.15
Bowman	3.24	0.13
Billings	2.17	0.09
Stark	2.10	0.08
Burke	1.99	0.08
Bottineau	0.81	0.03

*City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	126	2,055	2,181
Gas	2	NA	2
Dry	18	133	151
Total	146	2,188	2,334

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	1,957.95	34,629.91	36,587.85
Gas	26.25	NA	26.25
Dry	128.58	1,211.36	1,339.94
Total	2,112.78	35,841.27	37,954.05

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	64
Footage (thous. ft.)	779.91

Average rotary rigs active	188

Permits	3,073

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	4th	25th
Production	3rd	16th
Reserves (2012)	3rd	13th

Number of operators	158

Number of producing wells
(12/31/12)

Crude oil	8,336
Natural gas	336
Total	8,672

Average production

Crude oil (thous. b/d)	653.8
NGL (thous. b/d)	10.0
Natural gas (MMcf/day)	26.3

Total production

Crude oil (YTD bbls, in thous.)	238,633
Natural gas (YTD MMcf)	9,594

Natural gas marketed production

(MMcf)	258,479

Shale gas production	95 Bcf

Average output per producing well

Crude oil (bbls.)	28,627
Natural gas (Mcf)	28,555

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	1,366	Na	1,366
Production	251	NA	251
Net annual change	1,115	NA	1,115
Proved reserves	3,773	NA	3,773

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	1,607	-28	1,579
Production	249	8	257
Net annual change	1,615	-36	1,322
Proved reserves	3,869	105	3,974

Marginal oil wells

Producing marginal wells	2,587
Crude oil production in Bbls. (thous.)	5,636
Crude oil production Bbls./d (thous.)	15

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	280
Natural gas production (MMcf)	2,306

Mineral lease royalties, bonuses & rent

Oil	$378,063,477
Natural Gas	$7,024,384
Rent, Bonuses & Other	$59,290,831
Total Oil and Gas Revenues	$444,378,692
Total Federal Reported Revenues	$445,849,826
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	6%
Natural Gas	6%
Combined on BOE basis	6%

Horizontal wells drilled	2,239
Directional wells drilled	41
Vertical wells drilled	54

Natural gas vehicle fuel demand & fueling stations

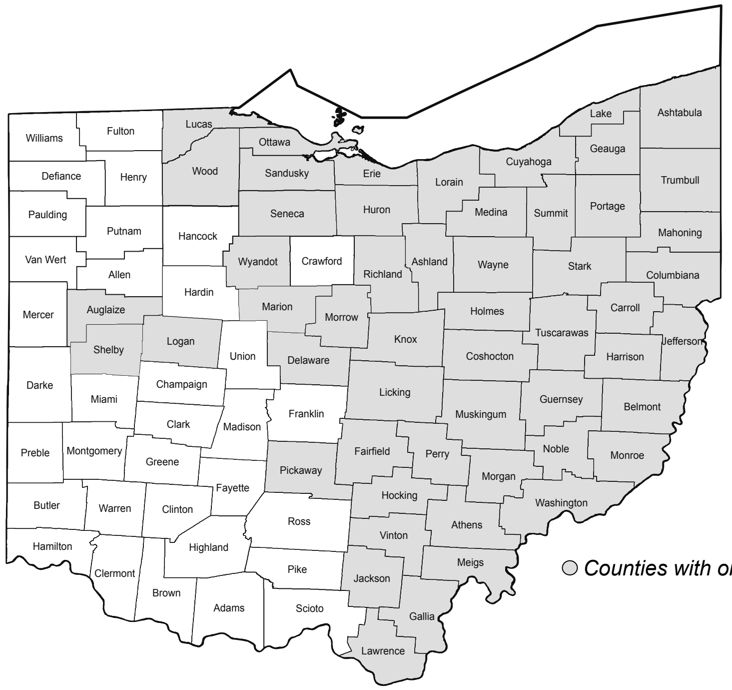
Natural gas vehicle demand	1 Mmcf
CNG stations	1
LNG stations	0
LPG stations	19

Average number of employees

Oil and natural gas extraction	15,999
Refining	0
Transportation	1,313
Wholesale	2,034
Retail	5,009
Pipeline construction	2,982
Oilfield machinery	0
Total petroleum industry	27,337

Source: For specific methodology and source details, please see pages 11 and 136

OHIO



○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	88
With oil and/or gas production	54

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	16,490
Natural gas	16,439

Year and depth of deepest well drilled (ft.)

2012	16,490

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

Oil wells	105,121	53%
Gas wells	56,786	29%
Dry holes	35,985	18%
Total	197,892	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$11,209,773

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,155	NA	1,155	10,229
Production	1,116	NA	1,116	9,354

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$92.87
Natural gas ($Mcf)*	$4.47

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$475,587
Natural gas*	$377,635
Total	$853,222

Average natural gas price
(2012 $/Mcf)

Residential consumers	$9.91
Commercial consumers	$7.11
Industrial consumers	$5.48
Electric utilities	$3.05
City Gate	$4.47

Severance taxes paid — $2,516
(2012 in thous. $)

Top 10 producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Carroll	9.48	0.02
Trumbull	7.55	0.02
Stark	7.35	0.02
Mahoning	6.63	0.02
Tuscarawas	6.39	0.02
Muskingum	5.49	0.01
Cuyahoga	4.60	0.01
Portage	4.35	0.01
Harrison	3.82	0.01
Wayne	3.63	0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	21	165	186
Gas	52	166	218
Dry	15	32	47
Total	88	363	451

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	138.76	628.36	767.12
Gas	349.85	779.83	1,129.68
Dry	57.95	84.94	142.88
Total	546.56	1,493.13	2,039.68

(Note: Totals may not add due to rounding.)

New-field wildcats drilled 7

Footage (thous. ft.) 19.07

Average rotary rigs active 18

Permits 986

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	15th	10th
Production	19th	20th
Reserves (2012)	18th	20th

Number of operators 703

Number of producing wells
(12/31/12)

Crude oil	19,985
Natural gas	25,065
Total	45,050

Average production

Crude oil (thous. b/d)	11.6
NGL (thous. b/d)	2.3
Natural gas (MMcf/day)	179.0

Total production

Crude oil (YTD bbls, in thous.)	4,242
Natural gas (YTD MMcf)	65,318

Natural gas marketed production

(MMcf) 84,668

Average output per producing well

Crude oil (bbls.)	212
Natural gas (Mcf)	2,606

Coalbed methane (YTD MMcf) NA

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

Heavy oil (YTD Bbls, in thous.) NA

Wells	NA
Av. bbls per day (in thous.)	NA
Av. bbls per well	NA

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	14	NA	14
Production	5	NA	5
Net annual change	9	NA	9
Proved reserves	64	NA	64

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	169	393	562
Production	20	65	85
Net annual change	149	328	477
Proved reserves	223	1,012	1,235

Marginal oil wells

Producing marginal wells	17,264
Crude oil production in Bbls. (thous.)	3,578
Crude oil production Bbls./d (thous.)	10

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	24,495
Natural gas production (MMcf)	47,083

Mineral lease royalties, bonuses & rent

Oil	$309,315
Natural Gas	$228,921
Rent, Bonuses & Other	$84,338
Total Oil and Gas Revenues	$622,574
Total Federal Reported Revenues	$622,573
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	1%
Combined on BOE basis	1%

Horizontal wells drilled 91

Directional wells drilled 5

Vertical wells drilled 355

Natural gas vehicle fuel demand & fueling stations

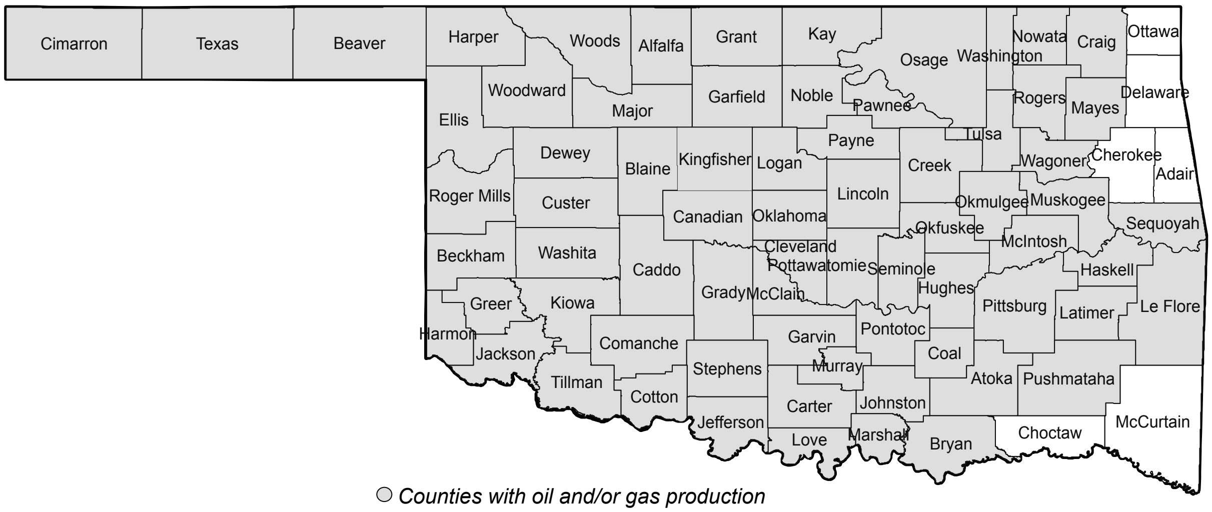
Natural gas vehicle demand	89 Mmcf
CNG stations	39
LNG stations	2
LPG stations	68

Average number of employees

Oil and natural gas extraction	5,654
Refining	4,524
Transportation	5,093
Wholesale	4,940
Retail	33,673
Pipeline construction	2,498
Oilfield machinery	355
Total petroleum industry	56,737

Source: For specific methodology and source details, please see pages 11 and 136

Oklahoma



○ *Counties with oil and/or gas production*

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	21,770
Natural gas	27,400

Year and depth of deepest well drilled (ft.)

1974	31,441

Cumulative number of total wells drilled

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

Oil wells	251,395	52%
Gas wells	91,822	19%
Dry holes	137,925	29%
Total	481,142	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$142,038,559

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	15,746	6,434	22,180	133,049
Production	14,830	4,803	19,633	121,216

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$89.97
Natural gas ($Mcf)*	$5.00

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$8,366,130
Natural gas*	$10,117,305
Total	$18,483,435

Average natural gas price

(2012 $/Mcf)

Residential consumers	$11.10
Commercial consumers	$8.95
Industrial consumers	$7.65
Electric utilities	$3.04
City Gate	$5.00

Severance taxes paid — $896,683

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	US
Pittsburg	10.91	0.61
Roger Mills	6.21	0.34
Canadian	5.94	0.33
Washita	5.34	0.30
Coal	4.73	0.27
Caddo	4.52	0.25
Blaine	4.02	0.23
Latimer	3.75	0.21
Grady	3.32	0.19
Hughs	3.31	0.19

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	70	2,025	2,095
Gas	32	740	772
Dry	14	225	239
Total	116	2,990	3,106

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	742.71	16,211.28	16,953.99
Gas	497.09	9,360.61	9,857.70
Dry	100.41	1,216.76	1,317.18
Total	1,340.21	26,788.65	28,128.87

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	35
Footage (thous. ft.)	389.99
Average rotary rigs active	196
Permits	4,828

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	5th	4th
Production	6th	4th
Reserves (2012)	6th	4th

Number of operators	2,963

Number of producing wells
(12/31/12)

Crude oil	40,513
Natural gas	38,842
Total	79,355

Average production

Crude oil (thous. b/d)	191.0
NGL (thous. b/d)	42.1
Natural gas (MMcf/day)	4,339.2

Total production

Crude oil (YTD bbls, in thous.)	69,706
Natural gas (YTD MMcf)	1,583,802

Natural gas marketed production

(MMcf)	1,861,997
Shale gas production	476 Bcf

Average output per producing well

Crude oil (bbls.)	1,721
Natural gas (Mcf)	40,775

Coalbed methane (YTD MMcf)	27,062
Oil Wells	0
Gas Wells	3,049
Daily Average (MMcf) / Well	74.14

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	215	NA	215
Production	85	NA	85
Net annual change	130	NA	130
Proved reserves	1,280	NA	1,280

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	1,639	-959	680
Production	197	1,706	1,903
Net annual change	1,442	-2,665	-1,223
Proved reserves	3,696	25,018	28,714

Marginal oil wells

Producing marginal wells	34,972
Crude oil production in Bbls. (thous.)	21,500
Crude oil production Bbls./d (thous.)	59

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	29,000
Natural gas production (MMcf)	318,838

Mineral lease royalties, bonuses & rent

Oil	$20,814,918
Natural Gas	$25,661,112
Rent, Bonuses & Other	$31,471,378
Total Oil and Gas Revenues	$77,947,408
Total Federal Reported Revenues	$82,381,695
Oil and Gas Percent of Total	95%

Federal lands production shares

Oil	<1%
Natural Gas	1%
Combined on BOE basis	1%

Horizontal wells drilled	1,912
Directional wells drilled	99
Vertical wells drilled	1,095

Natural gas vehicle fuel demand & fueling stations

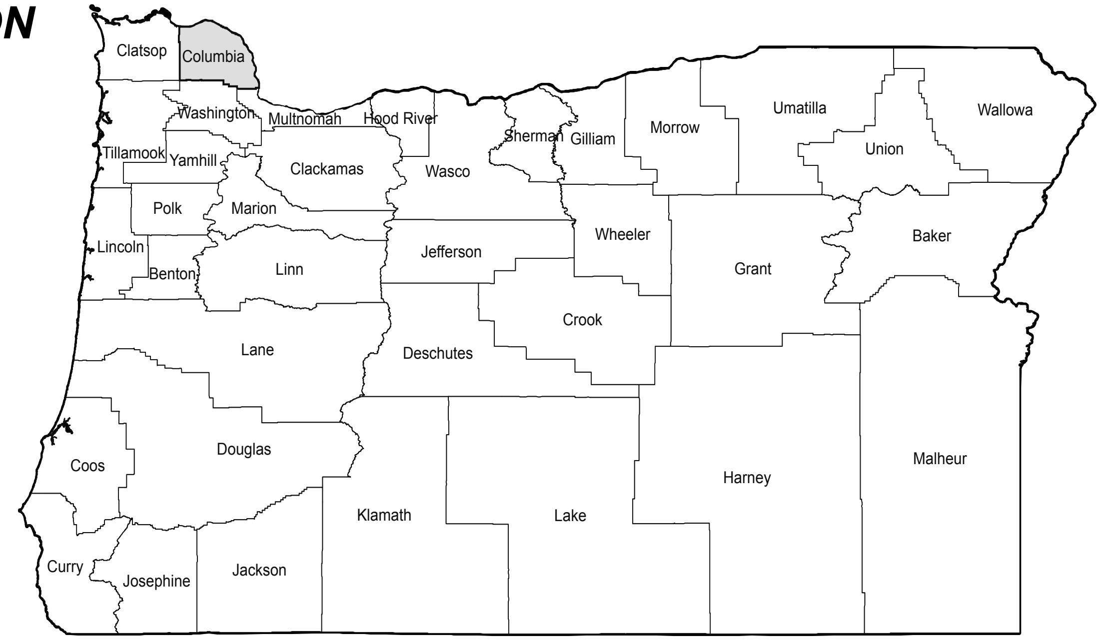
Natural gas vehicle demand	256 Mmcf
CNG stations	102
LNG stations	1
LPG stations	144

Average number of employees

Oil and natural gas extraction	56,968
Refining	2,284
Transportation	6,717
Wholesale	2,962
Retail	15,001
Pipeline construction	3,882
Oilfield machinery	9,850
Total petroleum industry	97,664

Source: For specific methodology and source details, please see pages 11 and 136

Oregon



○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	36
With oil and/or gas production	1

First year of production

Crude oil	NA
Natural gas	1979

Year and amount of peak production

Crude oil —	NA
Natural gas — 5,000 MMcf	1980/81

Deepest producing well (ft.)

Crude oil	NA
Natural gas	3,747

Year and depth of deepest well drilled (ft.)

1979	13,177

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

Oil wells	NA	NA
Gas wells	80	20%
Dry holes	324	80%
Total	404	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $) NA

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	NA	NA	NA	72

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	NA
Natural gas ($Mcf)*	$5.21

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	NA
Natural gas*	$4,012
Total	$4,012

Average natural gas price
(2012 $/Mcf)

Residential consumers	$11.22
Commercial consumers	$8.91
Industrial consumers	$5.87
Electric utilities	NA
City Gate	$5.21

Severance taxes paid $126
(2012 in thous. $)

Top producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Columbia	100	<0.01

City Gate price used for natural gas.

Oregon

2012 Industry Statistics

Number of wells drilled

	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
Footage (thous. ft.)	NA
Average rotary rigs active	0
Permits	1

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	NA	28th
Production	NA	30th
Reserves (2012)	31st	32nd

Number of operators	2

Number of producing wells

(12/31/12)

Crude oil	0
Natural gas	26
Total	26

Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	2.2

Total production

Crude oil (YTD bbls, in thous.)	0
Natural gas (YTD MMcf)	809

Natural gas marketed production

(MMcf)	809

Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	31,120

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

Petroleum reserves

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	NA
Crude oil production in Bbls. (thous.)	NA
Crude oil production Bbls./d (thous.)	NA

Marginal natural gas wells

(as of 12/31/12)

Producing marginal wells	20
Natural gas production (MMcf)	188

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	--
Rent, Bonuses & Other	$434,665
Total Oil and Gas Revenues	$434,665
Total Federal Reported Revenues	$690,597
Oil and Gas Percent of Total	63%

Federal lands production shares

Oil	--
Natural Gas	--
Combined on BOE basis	--

Horizontal wells drilled	0
Directional wells drilled	0
Vertical wells drilled	0

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	144 Mmcf
CNG stations	14
LNG stations	1
LPG stations	31

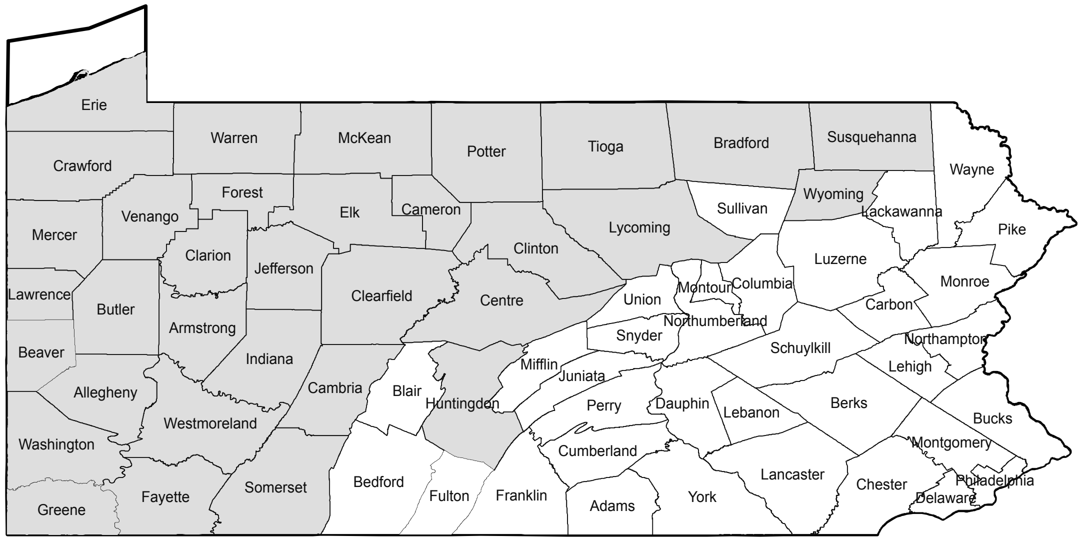
Average number of employees

Oil and natural gas extraction	20
Refining	376
Transportation	0
Wholesale	1,405
Retail	9,906
Pipeline construction	225
Oilfield machinery	0
Total petroleum industry	11,932

Source: For specific methodology and source details, please see pages 11 and 136

OREGON

PENNSYLVANIA



○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	67
With oil and/or gas production	33

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 — 2,234,530 MMcf	2012

Deepest producing well (ft.)

Crude oil	21,296
Natural gas	27,696

Year and depth of deepest well drilled (ft.)

1901	22,568

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

Oil wells	62,533	42%
Gas wells	79,632	53%
Dry holes	7,235	5%
Total	149,400	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$6,994,359

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,418	143	1,561	54,011
Production	1,372	8	1,380	17,848

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	$88.41
Natural gas ($Mcf)*	$5.52

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$380,163
Natural gas*	$12,456,962
Total	$12,837,125

Average natural gas price
(2012 $/Mcf)

Residential consumers	$11.99
Commercial consumers	$10.24
Industrial consumers	$9.58
Electric utilities	$3.15
City Gate	$5.52

Severance taxes paid --
(2012 in thous. $)

Top producing counties
(2012 on a BOE basis)

County	% Production State	US
Bradford	23.27	1.46
Susquehanna	19.26	1.21
Lycoming	10.30	0.65
Washington	10.06	0.57
Tioga	9.03	0.56
Greene	8.93	0.21
Westmoreland	3.32	0.19
Wyoming	2.96	0.12
Fayette	1.94	0.09
Clearfield	1.47	0.09

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	5	721	726
Gas	81	1,435	1,516
Dry	66	85	151
Total	152	2,241	2,393

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	7.33	1,189.85	1,197.18
Gas	871.41	15,105.19	15,976.60
Dry	56.00	128.49	184.49
Total	934.74	16,423.53	17,358.27

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	85
Footage (thous. ft.)	449.39
Average rotary rigs active	84
Permits	3,658

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	8th	2nd
Production	20th	3rd
Reserves (2012)	17th	2nd

Number of operators	566

Number of producing wells
(12/31/12)

Crude oil	13,382
Natural gas	50,192
Total	63,574

Average production

Crude oil (thous. b/d)	4.2
NGL (thous. b/d)	6.9
Natural gas (MMcf/day)	6,100.5

Total production

Crude oil (YTD bbls, in thous.)	1,528
Natural gas (YTD MMcf)	2,226,666

Natural gas marketed production

(MMcf)	2,234,530
Shale gas production	1,068 Bcf

Average output per producing well

Crude oil (bbls.)	114
Natural gas (Mcf)	44,363

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	28	NA	28
Production	5	NA	5
Net annual change	23	NA	23
Proved reserves	67	NA	67

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	2	12,075	12,077
Production	11	2,242	2,253
Net annual change	-9	9,833	9,824
Proved reserves	125	36,418	36,543

Marginal oil wells

Producing marginal wells	12,109
Crude oil production in Bbls. (thous.)	1,490
Crude oil production Bbls./d (thous.)	4

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	46,193
Natural gas production (MMcf)	122,837

Mineral lease royalties, bonuses & rent

Oil	$50,052
Natural Gas	$57,434
Rent, Bonuses & Other	$19,505
Total Oil and Gas Revenues	$126,992
Total Federal Reported Revenues	$126,992
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	<1%
Combined on BOE basis	<1%

Horizontal wells drilled	1,381
Directional wells drilled	7
Vertical wells drilled	1,005

Natural gas vehicle fuel demand & fueling stations

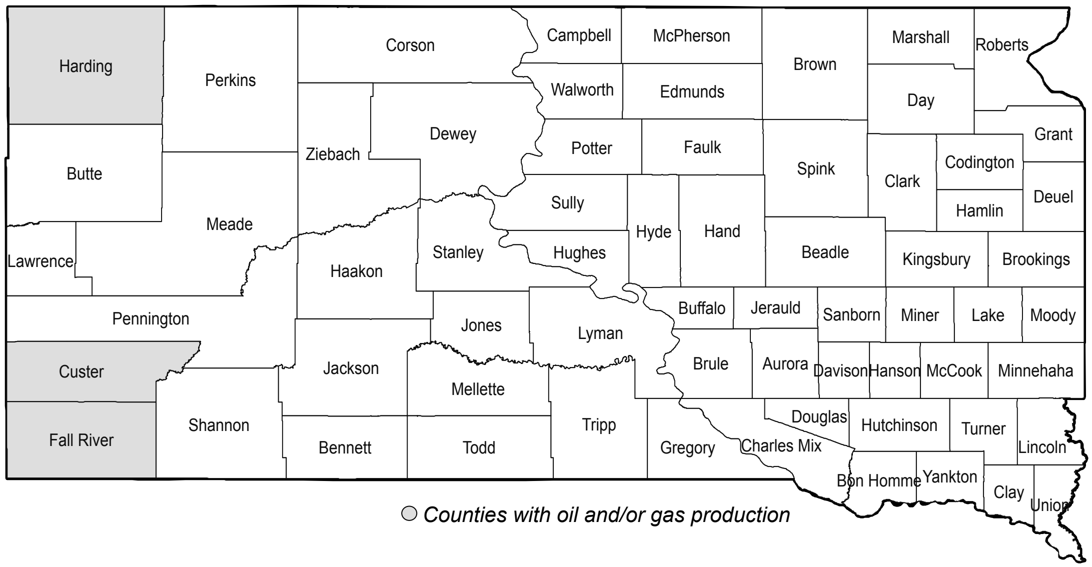
Natural gas vehicle demand	298 Mmcf
CNG stations	39
LNG stations	0
LPG stations	71

Average number of employees

Oil and natural gas extraction	21,276
Refining	6,011
Transportation	6,436
Wholesale	9,694
Retail	38,078
Pipeline construction	7,711
Oilfield machinery	431
Total petroleum industry	89,637

Source: For specific methodology and source details, please see pages 11 and 136

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 — 1,730 thous. bbls. **	2012
Natural gas — 15,108 MMcf	2012

Deepest producing well (ft.)

Crude oil	18,392
Natural gas	11,352

Year and depth of deepest well drilled (ft.)

2012	18,392

Cumulative number of total wells drilled

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

Oil wells	509	26%
Gas wells	164	8%
Dry holes	1,280	66%
Total	1,953	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$1,687,715

Cumulative production & new reserves

(as of 12/31/12)

	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/City Gate price

(2012)

Crude oil ($/bbl.)	$83.10
Natural gas ($Mcf)*	$4.67

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$145,757
Natural gas*	$70,447
Total	$216,204

Average natural gas price

(2012 $/Mcf)

Residential consumers	$8.39
Commercial consumers	$6.45
Industrial consumers	$5.37
Electric utilities	$3.54
City Gate	$4.67

Severance taxes paid — $6,988

(2012 in thous. $)

Top producing counties

(2012 on a BOE basis)

County	% Production State	US
Harding	98.87	0.03
Fall River	1.06	<0.01
Custer	0.08	<0.01

**City Gate price used for natural gas.*
*** State data*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	1	21	22
Gas	NA	NA	NA
Dry	1	NA	1
Total	2	21	23

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	3.23	188.40	191.63
Gas	NA	NA	NA
Dry	3.31	NA	3.31
Total	6.54	188.40	194.93

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	2
Footage (thous. ft.)	6.54
Average rotary rigs active	1
Permits	26

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	27th	NA
Production	26th	25th
Reserves (2012)	32nd	33rd

Number of operators	17

Number of producing wells
(12/31/12)

Crude oil	161
Natural gas	95
Total	256

Average production

Crude oil (thous. b/d)	4.7
NGL (thous. b/d)	0.1
Natural gas (MMcf/day)	2.0

Total production

Crude oil (YTD bbls, in thous.)	1,730
Natural gas (YTD MMcf)	747

Natural gas marketed production

(MMcf)	15,108

Average output per producing well

Crude oil (bbls.)	10,746
Natural gas (Mcf)	7,862

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	60
Crude oil production in Bbls. (thous.)	171
Crude oil production Bbls./d (thous.)	<1

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	93
Natural gas production (MMcf)	563

Mineral lease royalties, bonuses & rent

Oil	$2,022,574
Natural Gas	$53,248
Rent, Bonuses & Other	$1,754,316
Total Oil and Gas Revenues	$3,830,138
Total Federal Reported Revenues	$3,830,138
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	11%
Natural Gas	1%
Combined on BOE basis	5%

Horizontal wells drilled	21
Directional wells drilled	0
Vertical wells drilled	2

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	- Mmcf
CNG stations	0
LNG stations	0
LPG stations	17

Average number of employees

Oil and natural gas extraction	160
Refining	12
Transportation	273
Wholesale	1,169
Retail	5,902
Pipeline construction	54
Oilfield machinery	0
Total petroleum industry	7,558

Source: For specific methodology and source details, please see pages 11 and 136

TENNESSEE

○ *Counties with oil and/or gas production*

Background Information

Counties

Number of counties	95
With oil and/or gas production	12

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 — 5,825 MMcf	2012

Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

Year and depth of deepest well drilled (ft.)

1982	11,540

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

Oil wells	3,115	23%
Gas wells	4,035	30%
Dry holes	6,414	47%
Total	13,564	100%

Cumulative crude oil wellhead value**
(as of 12/31/12 - thous. $) $499,086

Cumulative production & new reserves
(as of 12/31/12)

	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/City Gate price*
(2012)

Crude oil ($/bbl.)	$87.86
Natural gas ($Mcf)*	$4.35

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	$21,271
Natural gas*	$25,339
Total	$57,935

Average natural gas price
(2012 $/Mcf)

Residential consumers	$9.95
Commercial consumers	$8.36
Industrial consumers	$4.94
Electric utilities	$2.90
City Gate	$4.35

Severance taxes paid - FY $1,531
(2012 in thous. $)

Top producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
NA	NA	NA

**City Gate price used for natural gas.*
*** State data*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	35	35
Gas	NA	22	22
Dry	4	72	76
Total	4	129	133

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	55.01	55.01
Gas	NA	99.99	99.99
Dry	4.89	123.10	127.99
Total	4.89	278.10	282.98

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	2
Footage (thous. ft.)	1.26
Average rotary rigs active	0
Permits	158

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	26th	17th
Production	27th	27th
Reserves (2012)	33rd	34th

Number of operators	--

Number of producing wells
(12/31/12)

Crude oil	1,239
Natural gas	1,103
Total	2,342

Average production

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

Total production

Crude oil (YTD bbls, in thous.)**	338
Natural gas (YTD MMcf)***	5,800

Natural gas marketed production (MMcf)	5,825

Average output per producing well

Crude oil (bbls.)	272.8
Natural gas (Mcf)	NA

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

Marginal oil wells

Producing marginal wells	NA
Crude oil production in Bbls. (thous.)	NA
Crude oil production Bbls./d (thous.)	NA

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	NA
Natural gas production (MMcf)	NA

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	--
Rent, Bonuses & Other	--
Total Oil and Gas Revenues	--
Total Federal Reported Revenues	--
Oil and Gas Percent of Total	--

Federal lands production shares

Oil	0%
Natural Gas	0%
Combined on BOE basis	0%

Horizontal wells drilled	10
Directional wells drilled	0
Vertical wells drilled	123

Natural gas vehicle fuel demand & fueling stations

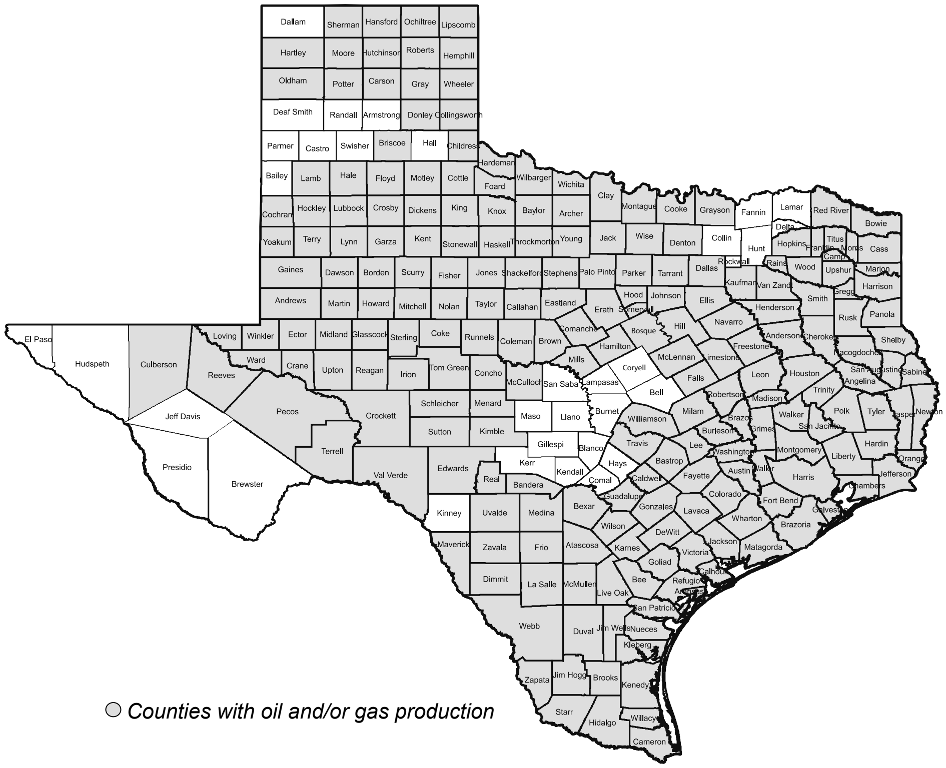
Natural gas vehicle demand	17 Mmcf
CNG stations	16
LNG stations	2
LPG stations	91

Average number of employees

Oil and natural gas extraction	292
Refining	589
Transportation	2,348
Wholesale	3,212
Retail	20,535
Pipeline construction	731
Oilfield machinery	0
Total petroleum industry	27,707

Source: For specific methodology and source details, please see pages 11 and 136
*** EIA data*
**** State data*

TEXAS



Counties with oil and/or gas production

Background Information

Counties

Number of counties	254
With oil and/or gas production	220

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.)

1983	29,670

Cumulative number of total wells drilled

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

Oil wells	633,254	53%
Gas wells	220,339	19%
Dry holes	333,190	28%
Total	1,186,783	100%

Cumulative crude oil wellhead value

(as of 12/31/12) -thous. $)	$819,172,170

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	80,867	23,635	104,502	499,260
Production	71,271	18,549	89,820	462,365

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$92.50
Natural gas ($Mcf)*	$4.30

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$66,987,298
Natural gas*	$32,144,629
Total	$99,131,926

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.55
Commercial consumers	$6.63
Industrial consumers	$3.02
Electric utilities	$2.99
City Gate	$4.30

Severance taxes paid - FY $3,778,160

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	US
Tarrant	7.80	2.30
Webb	4.81	1.42
Johnson	4.53	1.34
Karnes	2.90	0.86
Panola	2.82	0.83
Wheeler	2.77	0.82
Wise	2.43	0.72
Denton	2.39	0.70
DeWitt	2.31	0.68
La Salle	2.14	0.63

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	63	12,065	12,128
Gas	21	3,368	3,389
Dry	143	1,371	1,514
Total	227	16,804	17,031

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	351.11	112,610.18	112,961.29
Gas	184.99	42,970.65	43,155.64
Dry	972.49	9,374.34	10,346.84
Total	1,508.59	164,955.17	166,463.76

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	139
Footage (thous. ft.)	926.86
Average rotary rigs active	899
Permits	25,216

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	1st	1st
Reserves (2012)	1st	1st

Number of operators	4,665

Number of producing wells
(12/31/12)

Crude oil	178,530
Natural gas	105,977
Total	284,507

Average production

Crude oil (thous. b/d)	1,671.6
NGL (thous. b/d)	303.7
Natural gas (MMcf/day)	18,831.3

Total production

Crude oil (YTD bbls, in thous.)	610,129
Natural gas (YTD MMcf)	6,873,426

Natural gas marketed production

(MMcf)	8,153,931
Shale gas production	2,900 Bcf

Average output per producing well

Crude oil (bbls.)	3,418
Natural gas (Mcf)	64,858

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	78
Oil Wells	0
Gas Wells	6
Daily Average (MMcf) / Well	0.21

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	3,735	NA	3,735
Production	742	Na	742
Net annual change	2,993	NA	2,993
Proved reserves	11,101	NA	11,101

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	6,818	-9,665	-2,847
Production	1,292	6,840	8,132
Net annual change	5,526	-16,505	-10,979
Proved reserves	19,033	74,442	93,475

Marginal oil wells

Producing marginal wells	158,710
Crude oil production in Bbls. (thous.)	168,082
Crude oil production Bbls./d (thous.)	460

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	66,441
Natural gas production (MMcf)	723,150

Mineral lease royalties, bonuses & rent

Oil	$11,099,942
Natural Gas	$21,220,459
Rent, Bonuses & Other	$1,197,733
Total Oil and Gas Revenues	$33,518,134
Total Federal Reported Revenues	$33,518,135
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	<1%
Natural Gas	1%
Combined on BOE basis	1%

Horizontal wells drilled	6,581
Directional wells drilled	733
Vertical wells drilled	9,717

Natural gas vehicle fuel demand & fueling stations

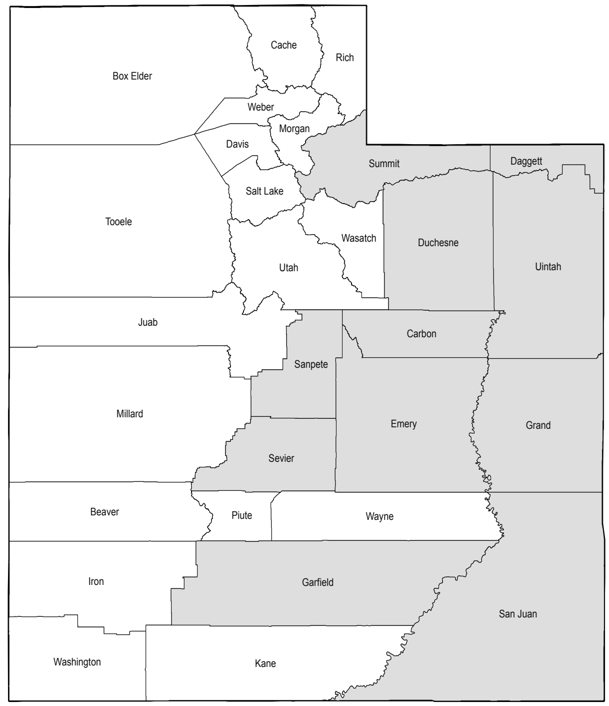
Natural gas vehicle demand	2,209 Mmcf
CNG stations	91
LNG stations	13
LPG stations	479

Average number of employees

Oil and natural gas extraction	267,302
Refining	24,763
Transportation	24,654
Wholesale	18,111
Retail	74,240
Pipeline construction	39,413
Oilfield machinery	52,646
Total petroleum industry	501,129

Source: For specific methodology and source details, please see pages 11 and 136

UTAH



○ *Counties 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 — 490,997 MMcf	2012

Deepest producing well (ft.)

Crude oil	20,600
Natural gas	18,510

Year and depth of deepest well drilled (ft.)

1982	21,874

Cumulative number of total wells drilled

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

Oil wells	10,214	41%
Gas wells	9,666	38%
Dry holes	5,257	21%
Total	25,137	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$29,089,990

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,912	1,981	3,893	16,462
Production	1,328	491	1,819	8,878

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$82.73
Natural gas ($Mcf)*	$5.50

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$2,504,072
Natural gas*	$2,697,162
Total	$5,201,233

Average natural gas price

(2012 $/Mcf)

Residential consumers	$8.70
Commercial consumers	$7.00
Industrial consumers	$4.69
Electric utilities	$3.04
City Gate	$5.50

Severance taxes paid $71,974

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	US
Uintah	59.06	0.99
Carbon	15.18	0.25
Duchesne	14.50	0.24
San Juan	5.04	0.08
Sevier	2.23	0.04
Emery	1.82	0.03
Grand	1.01	0.02
Summit	0.92	0.02
Garfield	0.15	<0.01
Daggett	0.09	<0.01

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	84	503	587
Gas	12	448	460
Dry	13	29	42
Total	109	980	1,089

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	743.42	3,775.11	4,518.53
Gas	61.75	4,007.35	4,069.10
Dry	58.61	124.28	182.89
Total	863.78	7,906.73	8,770.52

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	66
Footage (thous. ft.)	528

Average rotary rigs active	37

Permits	2,395

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	10th	9th
Production	12th	11th
Reserves (2012)	10th	12th

Number of operators	118

Number of producing wells
(12/31/12)

Crude oil	4,692
Natural gas	7,306
Total	11,998

Average production

Crude oil (thous. b/d)	75.0
NGL (thous. b/d)	7.9
Natural gas (MMcf/day)	1,189.4

Total production

Crude oil (YTD bbls, in thous.)	27,373
Natural gas (YTD MMcf)	434,145

Natural gas marketed production

(MMcf)	490,997

Average output per producing well

Crude oil (bbls.)	5,834
Natural gas (Mcf)	59,423

Coalbed methane (YTD MMcf)	47,737
Oil Wells	2
Gas Wells	873
Daily Average (MMcf) / Well	130.79

Heavy oil (YTD Bbls, in thous.)	152
Wells	19
Av. bbls per day (in thous.)	0.42
Av. bbls per well	7,992

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	149	NA	149
Production	31	NA	31
Net annual change	118	NA	118
Proved reserves	700	NA	700

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	143	16	159
Production	51	441	492
Net annual change	92	-425	-333
Proved reserves	1,001	6,774	7,775

Marginal oil wells

Producing marginal wells	3,325
Crude oil production in Bbls. (thous.)	6,705
Crude oil production Bbls./d (thous.)	18

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	3,692
Natural gas production (MMcf)	55,167

Mineral lease royalties, bonuses & rent

Oil	$271,200,873
Natural Gas	$100,539,400
Rent, Bonuses & Other	$52,946,803
Total Oil and Gas Revenues	$424,687,076
Total Federal Reported Revenues	$465,696,131
Oil and Gas Percent of Total	91%

Federal lands production shares

Oil	36%
Natural Gas	60%
Combined on BOE basis	54%

Horizontal wells drilled	53

Directional wells drilled	720

Vertical wells drilled	316

Natural gas vehicle fuel demand & fueling stations

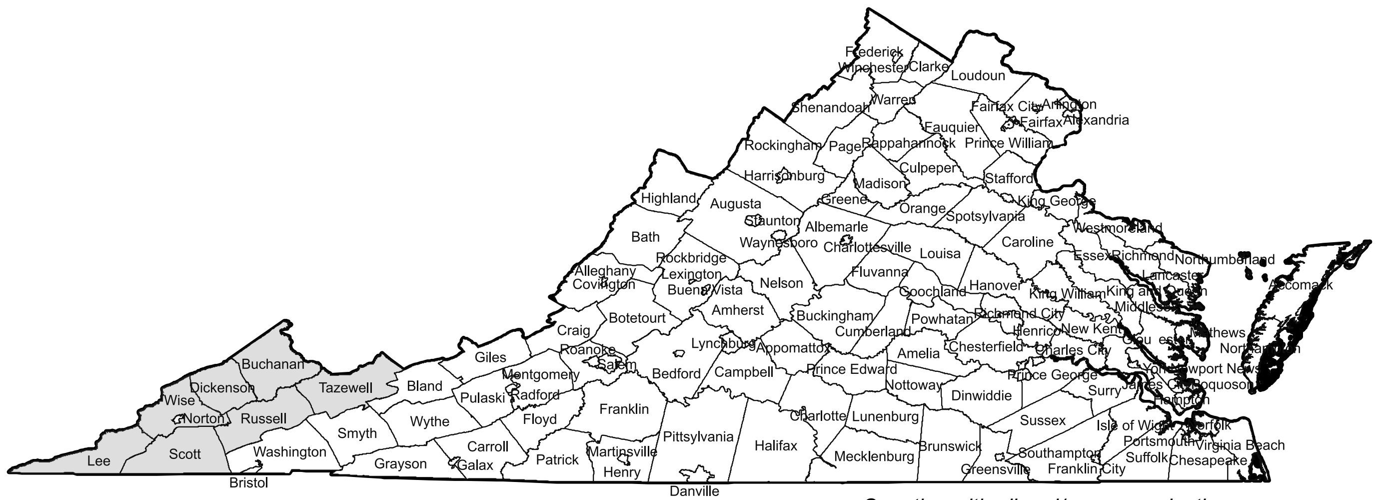
Natural gas vehicle demand	290 Mmcf
CNG stations	87
LNG stations	7
LPG stations	24

Average number of employees

Oil and natural gas extraction	6,397
Refining	1,043
Transportation	1,125
Wholesale	978
Retail	8,947
Pipeline construction	1,050
Oilfield machinery	355
Total petroleum industry	19,895

Source: For specific methodology and source details, please see pages 11 and 136

Virginia



Counties with oil and/or gas production

Background Information

Counties

Number of counties	95
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 — 151,094 MMcf	2011

Deepest producing well (ft.)

Crude oil	NA
Natural gas	10,134

Year and depth of deepest well drilled (ft.)

1977	17,003

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

Oil wells	156	2%
Gas wells	8,870	95%
Dry holes	341	3%
Total	9,367	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$11,097

Cumulative production & new reserves
(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	4,055
Production	NA	NA	NA	2,084

Value of Oil and Gas

Average wellhead/City Gate price
(2012)

Crude oil ($/bbl.)	NA
Natural gas ($Mcf)*	$5.64

Wellhead/City Gate value of production
(2012 in thous. $)

Crude oil	NA
Natural gas*	$825,724
Total	$825,724

Average natural gas price
(2012 $/Mcf)

Residential consumers	$12.42
Commercial consumers	$8.77
Industrial consumers	$5.29
Electric utilities	$3.38
City Gate	$5.64

Severance taxes paid --
(2012 in thous. $)

Top producing counties
(2012 on a BOE basis)

County	% Production State	% Production US
Buchanan	53.35	0.22
Dickenson	22.46	0.09
Tazewell	10.41	0.04
Russell	7.96	0.03
Wise	5.63	0.02
Lee	0.11	<0.01
Scott	0.08	<0.01

*City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	164	164
Dry	NA	NA	NA
Total	NA	164	164

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	494.20	494.20
Dry	NA	NA	NA
Total	NA	494.20	494.20

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	NA
Footage (thous. ft.)	NA
Average rotary rigs active	1
Permits	190

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	30th	11th
Production	32nd	17th
Reserves (2012)	34th	15th

Number of operators*	21

Number of producing wells
(12/31/12)

Crude oil	0
Natural gas	7,857
Total	7,857

Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	400.8

Total production

Crude oil (YTD bbls, in thous.)	NA
Natural gas (YTD MMcf)	146,307

Natural gas marketed production

(MMcf)	146,307

Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	18,621

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude 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 12/31/12) (Bcf)

	Associated Dissolved	Non-Associated	Total Gas
New reserves	0	-100	-100
Production	0	153	153
Net annual change	0	-253	-253
Proved reserves	0	2,579	2,579

Marginal oil wells

Producing marginal wells	NA
Crude oil production in Bbls. (thous.)	NA
Crude oil production Bbls./d (thous.)	NA

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	6,734
Natural gas production (MMcf)	88,485

Mineral lease royalties, bonuses & rent

Oil	--
Natural Gas	-$80,585
Rent, Bonuses & Other	$30,596
Total Oil and Gas Revenues	-$49,989
Total Federal Reported Revenues	$92,179
Oil and Gas Percent of Total	-54%

Federal lands production shares

Oil	0%
Natural Gas	<1%
Combined on BOE basis	<1%

Horizontal wells drilled	9
Directional wells drilled	0
Vertical wells drilled	155

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	267 Mmcf
CNG stations	21
LNG stations	0
LPG stations	64

Average number of employees

Oil and natural gas extraction	1,581
Refining	555
Transportation	1,717
Wholesale	4,216
Retail	29,201
Pipeline construction	1,969
Oilfield machinery	0
Total petroleum industry	39,239

Source: For specific methodology and source details, please see pages 11 and 136
** State data*

West Virginia

Background Information

Counties

Number of counties	55
With oil and/or gas production	48

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 — 538,424 MMcf	2012

Deepest producing well (ft.)

Crude oil	15,176
Natural gas	17,129

Year and depth of deepest well drilled (ft.)

1974	20,222

Cumulative number of total wells drilled

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

Oil wells	17,662	18%
Gas wells	70,566	73%
Dry holes	8,210	9%
Total	96,438	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$3,705,665

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	648	541	1,189	36,638
Production	625	437	1,062	22,098

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$87.16
Natural gas* ($Mcf)	$4.99

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$224,263
Natural gas*	$2,693,901
Total	$2,918,164

Average natural gas price

(2012 $/Mcf)

Residential consumers	$10.83
Commercial consumers	$9.39
Industrial consumers	$3.56
Electric utilities	$3.33
City Gate	$4.99

Severance taxes paid $99,234

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	US
Harrison	22.71	0.34
Wetzel	11.49	0.17
Doddridge	10.60	0.16
Marshall	9.09	0.14
Upshur	3.95	0.06
Taylor	3.90	0.06
McDowell	3.43	0.05
Marion	2.87	0.04
Logan	2.66	0.04
Wyoming	2.59	0.04

City Gate price used for natural gas.

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	NA	37	37
Gas	39	435	474
Dry	1	5	6
Total	40	477	517

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	NA	118.46	118.46
Gas	443.81	4,207.67	4,651.48
Dry	6.15	21.75	27.90
Total	449.95	4,347.89	4,797.84

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	25
Footage (thous. ft.)	300.45

Average rotary rigs active	26

Permits	853

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	25th	8th
Production	23rd	10th
Reserves (2012)	19th	7th

Number of operators	634

Number of producing wells
(12/31/12)

Crude oil	3,071
Natural gas	52,888
Total	55,959

Average production

Crude oil (thous. b/d)	3.0
NGL (thous. b/d)	4.1
Natural gas (MMcf/day)	1,457.6

Total production

Crude oil (YTD bbls, in thous.)	1,079
Natural gas (YTD MMcf)	532,031

Natural gas marketed production

(MMcf)	538,424

Shale gas production	192 Bcf

Average output per producing well

Crude oil (bbls.)	351
Natural gas (Mcf)	10,060

Coalbed methane (YTD MMcf)

Coalbed methane (YTD MMcf)	2,115
Oil Wells	0
Gas Wells	100
Daily Average (MMcf) / Well	5.79

Heavy oil (YTD Bbls, in thous.)

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

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	9	NA	9
Production	3	NA	3
Net annual change	6	NA	6
Proved reserves	57	NA	57

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	-29	4,977	4,948
Production	2	597	599
Net annual change	-31	4,380	4,349
Proved reserves	21	14,860	14,881

Marginal oil wells

Producing marginal wells	2,478
Crude oil production in Bbls. (thous.)	632
Crude oil production Bbls./d (thous.)	2

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	51,401
Natural gas production (MMcf)	178,948

Mineral lease royalties, bonuses & rent

Oil	$1
Natural Gas	$328,069
Rent, Bonuses & Other	$486,725
Total Oil and Gas Revenues	$814,795
Total Federal Reported Revenues	$814,795
Oil and Gas Percent of Total	100%

Federal lands production shares

Oil	0%
Natural Gas	<1%
Combined on BOE basis	<1%

Horizontal wells drilled	330
Directional wells drilled	14
Vertical wells drilled	173

Natural gas vehicle fuel demand & fueling stations

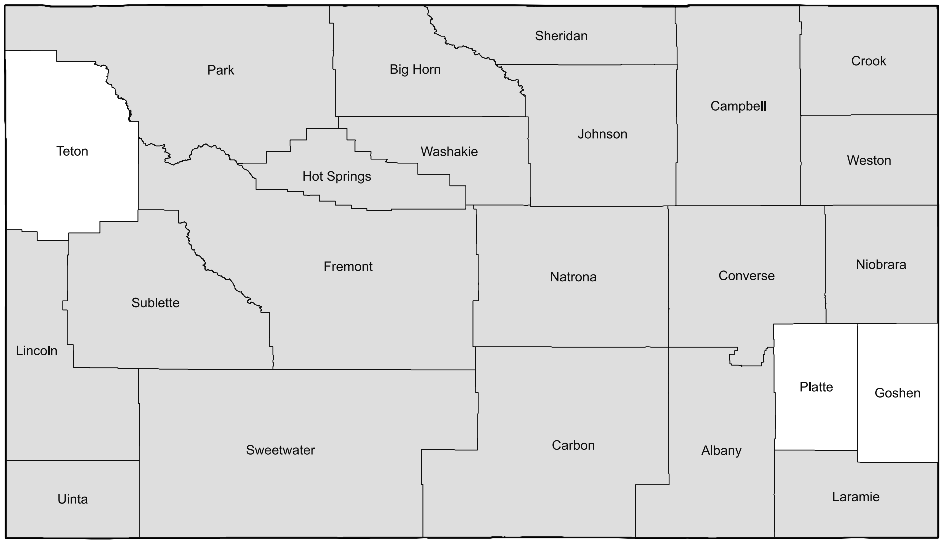
Natural gas vehicle demand	--
CNG stations	4
LNG stations	0
LPG stations	12

Average number of employees

Oil and natural gas extraction	6,422
Refining	503
Transportation	1,976
Wholesale	976
Retail	9,531
Pipeline construction	3,943
Oilfield machinery	0
Total petroleum industry	23,351

Source: For specific methodology and source details, please see pages 11 and 136

Wyoming



○ *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 — 2,335,328 MMcf	2009

Deepest producing well (ft.)

Crude oil	22,454
Natural gas	25,175

Year and depth of deepest well drilled (ft.)

2001	25,830

Cumulative number of total wells drilled

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

Oil wells	35,577	31%
Gas wells	50,709	43%
Dry holes	30,846	26%
Total	117,132	100%

Cumulative crude oil wellhead value

(as of 12/31/12 - thous. $)	$93,343,247

Cumulative production & new reserves

(as of 12/31/12)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	7,541	2,782	10,323	71,986
Production	7,006	1,620	8,626	44,126

Value of Oil and Gas

Average wellhead/City Gate price

(2012)

Crude oil ($/bbl.)	$80.70
Natural gas ($Mcf)*	$4.03

Wellhead/City Gate value of production

(2012 in thous. $)

Crude oil	$4,667,446
Natural gas*	$8,149,768
Total	$12,817,214

Average natural gas price

(2012 $/Mcf)

Residential consumers	$8.42
Commercial consumers	$6.72
Industrial consumers	$4.87
Electric utilities	NA
City Gate	$4.03

Severance taxes paid — $522,039

(2012 in thous. $)

Top 10 producing counties

(2012 on a BOE basis)

County	% Production State	% Production US
Sublette	45.73	3.01
Johnson	11.53	0.76
Sweetwater	10.01	0.66
Fremont	7.30	0.48
Campbell	6.77	0.45
Carbon	4.39	0.29
Lincoln	2.67	0.18
Uinta	2.43	0.16
Park	1.90	0.12
Natrona	1.80	0.12

**City Gate price used for natural gas.*

2012 Industry Statistics

Number of wells drilled

	Exploratory	Development	Total
Oil	76	245	321
Gas	6	574	580
Dry	35	152	187
Total	117	971	1,088

Total footage drilled
(thous. ft.)

	Exploratory	Development	Total
Oil	980.49	1,955.95	2,936.44
Gas	73.37	6,177.80	6,251.17
Dry	275.13	483.64	758.77
Total	1,328.99	8,617.39	9,946.38

(Note: Totals may not add due to rounding.)

New-field wildcats drilled	84
Footage (thous. ft.)	991.34

Average rotary rigs active	47

Permits	2,338

Statewide rank

	Crude Oil	Natural Gas
Wells drilled	12th	6th
Production	9th	5th
Reserves (2012)	8th	3rd

Number of operators	399

Number of producing wells
(12/31/12)

Crude oil	11,711
Natural gas	29,026
Total	40,737

Average production

Crude oil (thous. b/d)	124.5
NGL (thous. b/d)	33.1
Natural gas (MMcf/day)	5,689.6

Total production

Crude oil (YTD bbls, in thous.)	45,448
Natural gas (YTD MMcf)	2,076,703

Natural gas marketed production

(MMcf)	2,247,086

Average output per producing well

Crude oil (bbls.)	3,881
Natural gas (Mcf)	71,546

Coalbed methane (YTD MMcf)	416,965
Oil Wells	3
Gas Wells	14,702
Daily Average (MMcf) / Well	1,142.37

Heavy oil (YTD Bbls, in thous.)	8,616
Wells	1,996
Av. bbls per day (in thous.)	23.6
Av. bbls per well	4,316

2012 Latest Available Data

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

	Crude Oil	NGL	Total
New reserves	70	NA	70
Production	57	NA	57
Net annual change	13	NA	13
Proved reserves	932	NA	932

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

	Associated Dissolved	Non-Associated	Total Gas
New reserves	440	-3,631	-3,191
Production	52	2,051	2,103
Net annual change	388	-5,682	-5,294
Proved reserves	706	30,930	31,636

Marginal oil wells

Producing marginal wells	9,266
Crude oil production in Bbls. (thous.)	13,049
Crude oil production Bbls./d (thous.)	36

Marginal natural gas wells
(as of 12/31/12)

Producing marginal wells	15,395
Natural gas production (MMcf)	152,309

Mineral lease royalties, bonuses & rent

Oil	$426,675,553
Natural Gas	$446,827,637
Rent, Bonuses & Other	$81,695,069
Total Oil and Gas Revenues	$955,198,259
Total Federal Reported Revenues	$2,180,963,700
Oil and Gas Percent of Total	44%

Federal lands production shares

Oil	57%
Natural Gas	71%
Combined on BOE basis	69%

Horizontal wells drilled	214
Directional wells drilled	490
Vertical wells drilled	384

Natural gas vehicle fuel demand & fueling stations

Natural gas vehicle demand	20 Mmcf
CNG stations	11
LNG stations	0
LPG stations	18

Average number of employees

Oil and natural gas extraction	17,217
Refining	1,105
Transportation	971
Wholesale	779
Retail	3,749
Pipeline construction	3,268
Oilfield machinery	0
Total petroleum industry	27,089

Source: For specific methodology and source details, please see pages 11 and 136

Rotary Rigs Operating

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	3	3	4	5	5	4	4	5	7	5
Alaska	10	10	9	8	8	8	8	8	7	7
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	2	6	9	24	45	50	44	39	34	21
California	22	24	27	33	35	41	23	32	45	44
Colorado	39	54	74	89	107	114	50	58	72	64
Florida	1	1	2	0	0	1	1	1	1	1
Hawaii	NA	NA	1	0	0	0	1	0	0	0
Illinois	0	0	0	0	0	0	1	2	1	1
Indiana	0	0	0	0	2	2	2	3	1	1
Iowa	1	0	0	0	0	0	0	0	0	0
Kansas	9	7	7	10	14	11	20	20	29	30
Kentucky	4	5	5	7	9	10	10	6	5	3
Louisiana	157	167	182	189	177	167	151	192	165	124
Maryland	0	0	0	0	1	0	0	0	0	0
Michigan	3	3	3	2	1	1	0	0	2	2
Mississippi	8	10	10	10	14	13	10	11	9	11
Montana	14	20	24	21	17	11	3	7	9	20
Nebraska	0	1	0	0	0	0	0	2	1	1
Nevada	1	2	2	1	2	3	3	6	3	1
New Mexico	65	67	83	94	78	79	44	62	79	84
New York	3	5	4	6	6	6	2	1	0	0
North Dakota	14	15	20	32	39	68	50	114	168	188
Ohio	8	7	9	8	13	12	8	7	11	18
Oklahoma	129	159	152	179	188	200	94	128	180	196
Oregon	0	0	0	0	0	1	0	0	1	0
Pennsylvania	10	9	13	16	16	23	42	85	110	84
South Dakota	0	1	2	1	1	2	0	1	1	1
Tennessee	0	0	0	1	5	4	2	0	0	0
Texas	449	506	615	746	834	898	433	662	841	899
Utah	14	22	28	40	41	42	18	27	28	37
Virginia	1	1	2	1	3	5	4	2	1	1
Washington	0	0	0	1	0	1	1	0	0	0
West Virginia	16	15	17	26	32	27	22	23	21	26
Wyoming	54	74	78	99	74	74	40	40	48	47
TOTAL U.S.	**1,032**	**1,192**	**1,383**	**1,649**	**1,768**	**1,879**	**1,089**	**1,546**	**1,879**	**1,919**
ONSHORE	**923**	**1,095**	**1,290**	**1,559**	**1,695**	**1,814**	**1,045**	**1,515**	**1,847**	**1,871**
OFFSHORE	**109**	**97**	**93**	**90**	**73**	**65**	**44**	**31**	**32**	**48**

Source: Baker Hughes.
Note: Averages may not add up to total due to rounding.

New-Field Wildcat Wells Drilled

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	17	22	17	26	35	24	32	50	43	47
Alaska	10	8	15	8	10	13	9	2	3	6
Arizona	0	1	4	1	1	0	0	0	0	0
Arkansas	10	14	10	34	39	30	11	11	0	3
California	27	30	29	18	17	18	8	7	2	10
Colorado	48	68	136	102	132	86	43	46	59	128
Florida	1	0	2	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	1	0	2	0	0
Illinois	32	31	34	31	22	20	12	12	17	24
Indiana	17	19	19	39	33	30	34	26	10	12
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	158	169	225	275	249	305	208	306	317	386
Kentucky	133	176	242	313	227	168	95	39	15	19
Louisiana	62	60	58	52	52	30	19	25	26	23
Michigan	19	23	18	28	21	34	15	33	34	32
Mississippi	33	30	33	30	42	25	17	12	18	12
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	120	148	160	140	107	81	30	28	59	69
Nebraska	15	16	19	21	22	55	17	23	23	33
Nevada	3	6	6	1	5	5	2	3	0	2
New Mexico	60	76	46	67	46	44	38	52	68	90
New York	26	54	30	30	45	50	32	29	6	1
North Dakota	4	26	44	101	98	87	83	58	86	64
Ohio	5	2	16	21	41	34	12	7	7	7
Oklahoma	96	104	108	181	256	273	102	62	74	35
Oregon	0	1	0	0	0	0	0	0	0	0
Pennsylvania	43	126	188	224	349	293	185	374	145	85
South Dakota	5	1	7	4	13	16	6	1	5	2
Tennessee	42	27	37	82	62	28	12	8	2	2
Texas	436	473	468	392	315	383	233	244	189	139
Utah	11	22	32	50	49	49	27	33	39	66
Virginia	8	3	2	10	28	8	0	0	0	0
Washington	0	0	0	0	2	0	0	0	0	0
West Virginia	18	29	27	43	56	53	25	21	20	25
Wyoming	82	90	80	77	62	52	36	34	78	84
Federal Offshore	83	82	72	62	58	52	70	33	28	49
TOTAL U.S.	**1,624**	**1,937**	**2,184**	**2,463**	**2,494**	**2,346**	**1,383**	**1,581**	**1,373**	**1,455**

Source: IHS.
Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

Exploratory Wells Drilled

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	23	36	27	35	49	36	40	52	51	53
Alaska	12	13	19	14	18	14	10	3	3	8
Arizona	0	1	4	1	1	0	0	0	0	0
Arkansas	12	19	18	45	47	45	19	11	1	11
California	52	69	74	44	36	26	20	12	6	31
Colorado	81	104	206	159	177	124	56	62	97	153
Florida	1	0	2	0	0	0	0	0	0	2
Georgia	0	0	0	0	0	0	0	0	0	0
Idaho	NA	NA	NA	NA	NA	1	NA	2	0	0
Illinois	44	47	50	72	84	61	51	54	48	72
Indiana	37	24	40	58	69	79	80	57	18	24
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	289	341	418	457	479	608	423	557	587	841
Kentucky	188	302	448	598	464	353	286	101	26	42
Louisiana	72	73	70	65	67	56	33	30	35	30
Michigan	23	27	24	34	31	52	24	55	45	44
Mississippi	41	34	44	40	53	32	19	15	23	18
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	186	237	278	254	188	145	48	43	76	92
Nebraska	22	18	30	32	34	71	25	39	40	45
Nevada	3	6	6	1	4	4	2	3	0	2
New Mexico	100	103	98	118	75	69	48	58	74	95
New York	33	57	41	30	78	49	40	45	12	2
North Dakota	23	54	72	165	236	217	135	182	163	146
Ohio	27	28	56	66	147	116	80	42	76	88
Oklahoma	209	253	278	334	601	672	302	217	226	116
Pennsylvania	81	307	513	657	993	765	402	513	254	152
South Dakota	5	4	9	4	13	19	7	1	5	2
Tennessee	57	58	75	120	143	105	45	21	11	4
Texas	795	774	743	696	618	702	385	333	261	227
Utah	34	47	68	123	83	86	44	56	71	109
Virginia	10	2	7	20	53	14	0	0	0	0
Washington	0	0	0	0	2	0	0	0	0	0
West Virginia	41	146	200	215	285	250	134	69	29	40
Wyoming	141	130	132	119	86	79	45	49	89	117
Federal Offshore	83	84	77	59	67	118	87	36	32	51
TOTAL U.S.	**2,644**	**3,404**	**4,136**	**4,623**	**5,187**	**4,974**	**3,065**	**2,718**	**2,359**	**2,617**

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	371	405	416	407	505	131	250	201	165	111
Alaska	165	193	155	121	133	25	135	129	109	121
Arizona	0	0	0	0	1	0	0	0	0	0
Arkansas	216	278	299	417	470	1,048	1,107	1,120	1,029	919
California	1,928	2,161	2,234	2,464	2,343	2,640	1,603	1,965	2,447	2,714
Colorado	1,511	1,892	2,506	2,845	3,269	3,790	2,431	2,624	2,978	2,644
Florida	0	0	1	0	0	1	1	1	6	1
Illinois	308	277	379	411	353	434	232	334	421	500
Indiana	145	125	128	72	80	134	93	111	104	112
Kansas	1,339	1,542	1,867	2,709	2,770	3,634	2,011	2,382	3,071	3,641
Kentucky	752	573	680	805	850	885	712	694	674	623
Louisiana	1,003	1,188	1,381	1,569	1,565	1,714	1,138	1,342	1,655	1,533
Michigan	353	403	505	524	450	450	194	116	45	106
Mississippi	240	237	255	253	280	241	144	168	148	134
Missouri	1	0	0	0	0	0	0	35	0	11
Montana	644	504	682	863	672	427	209	230	148	250
Nebraska	16	32	46	34	132	163	49	60	95	66
Nevada	0	0	0	0	0	1	1	0	0	2
New Mexico	1,526	1,686	1,812	1,914	1,763	1,619	1,014	1,022	1,328	1,280
New York	46	77	133	227	288	339	203	281	216	167
North Dakota	199	168	227	322	278	500	473	997	1,572	2,188
Ohio	493	525	539	637	684	890	521	408	341	363
Oklahoma	2,783	2,884	3,248	3,671	2,992	3,507	1,813	2,068	2,360	2,990
Oregon	0	0	0	0	0	1	4	4	0	0
Pennsylvania	2,505	2,290	2,908	3,611	3,210	3,425	2,327	2,448	2,346	2,241
South Dakota	3	8	34	21	36	25	17	24	0	21
Tennessee	198	146	163	168	32	137	73	71	85	129
Texas	8,592	9,522	10,800	12,272	13,784	16,033	9,351	11,694	14,626	16,804
Utah	381	554	709	880	877	1,116	597	883	822	980
Virginia	358	361	318	531	654	621	522	414	389	164
Washington	0	2	0	0	0	0	0	0	0	0
West Virginia	974	1,081	1,212	1,584	1,562	1,576	860	582	468	477
Wyoming	2,768	3,717	4,330	4,024	2,977	2,941	1,841	1,837	1,477	971
Federal Offshore	630	615	551	483	415	370	253	46	177	199
TOTAL U.S.	**30,189**	**33,653**	**39,880**	**46,499**	**45,946**	**50,376**	**31,347**	**34,291**	**39,422**	**42,462**

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	394	441	443	440	554	348	290	253	216	164
Alaska	176	206	173	132	148	145	145	132	112	129
Arizona	0	1	4	1	2	0	0	0	0	0
Arkansas	228	304	334	495	830	1,093	1,126	1,131	1,030	930
California	1,978	2,221	2,296	2,494	2,367	2,666	1,623	1,977	2,453	2,745
Colorado	1,593	1,992	2,710	3,003	3,440	3,914	2,487	2,686	3,075	2,797
Florida	0	0	3	0	0	1	1	1	6	3
Georgia	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	2	0	1	0	0
Illinois	354	324	424	478	437	495	283	388	469	572
Indiana	182	149	163	117	113	213	173	168	122	136
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	1,631	1,887	2,283	3,161	3,249	4,242	2,434	2,939	3,658	4,482
Kentucky	925	842	949	1,294	1,269	1,238	998	795	700	665
Louisiana	1,075	1,261	1,451	1,633	1,630	1,770	1,171	1,372	1,690	1,563
Michigan	376	430	528	558	482	502	218	171	195	150
Mississippi	281	270	299	293	332	273	163	183	171	152
Missouri	1	0	0	0	0	0	0	35	0	11
Montana	831	752	969	1,118	862	572	257	273	224	342
Nebraska	38	50	75	65	165	234	74	99	135	111
Nevada	3	3	5	1	2	5	3	3	0	4
New Mexico	1,624	1,789	1,906	2,028	1,838	1,688	1,062	1,080	1,402	1,375
New York	78	136	160	242	350	388	243	326	228	169
North Dakota	222	221	300	487	519	717	608	1,179	1,735	2,334
Ohio	515	549	577	684	806	1,006	601	450	417	451
Oklahoma	2,992	3,135	3,524	3,995	3,588	4,179	2,115	2,285	2,586	3,106
Oregon	0	0	0	0	0	1	4	4	0	0
Pennsylvania	2,575	2,496	3,344	4,260	4,169	4,190	2,729	2,961	2,600	2,393
South Dakota	8	12	41	25	48	44	24	25	20	23
Tennessee	252	202	234	285	71	242	118	92	96	133
Texas	9,378	10,284	11,532	13,409	14,392	16,735	9,736	12,027	14,887	17,031
Utah	416	601	777	1,005	961	1,202	641	939	893	1,089
Virginia	368	363	324	545	705	635	522	414	389	164
Washington	0	2	0	0	2	0	0	0	0	0
West Virginia	1,015	1,225	1,408	1,791	1,824	1,826	994	651	497	517
Wyoming	2,911	3,843	4,460	4,134	3,061	3,020	1,886	1,886	1,566	1,088
Federal Offshore	807	786	716	638	555	488	340	248	209	250
TOTAL U.S.	**32,833**	**37,057**	**44,016**	**51,122**	**51,133**	**55,350**	**34,412**	**37,175**	**41,781**	**45,079**

Source: IHS.
Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	485	502	557	493	488	506	507	528	554	597
Alaska	2,283	2,384	2,505	2,465	2,402	2,479	2,518	2,498	2,477	2,420
Arizona	24	21	23	25	22	24	23	22	21	24
Arkansas	2,718	2,143	2,138	2,505	2,487	1,494	1,488	1,415	1,195	1,238
California	47,060	47,666	48,239	49,705	50,591	52,268	51,866	51,327	52,082	53,392
Colorado	5,133	5,140	5,088	5,049	4,999	5,038	4,942	5,029	5,727	7,085
Florida	96	67	76	65	64	66	59	73	79	75
Kansas	41,261	40,167	40,024	40,349	40,782	41,661	41,792	42,272	42,743	43,844
Louisiana	17,991	17,569	17,463	17,999	17,751	18,156	17,315	17,388	17,393	17,550
Michigan	3,790	3,761	3,887	3,847	3,875	3,755	3,774	3,885	4,092	4,097
Mississippi	1,664	1,685	1,647	1,788	1,937	2,082	3,872	2,418	2,442	2,459
Montana	3,713	3,918	4,052	4,272	4,873	5,033	4,535	4,563	4,624	4,838
Nebraska	1,222	1,224	1,211	1,229	1,211	1,234	1,199	1,202	1,289	1,323
Nevada	71	68	71	68	74	75	71	71	72	76
New Mexico	19,652	20,034	20,553	21,219	21,644	22,134	22,563	23,017	23,863	24,978
New York	3,117	3,095	3,270	2,767	3,190	2,816	2,632	2,890	3,011	2,857
North Dakota	3,519	3,779	3,506	3,512	4,841	4,198	4,565	5,315	6,522	8,336
Ohio	17,165	17,147	17,436	17,867	16,192	17,742	17,015	19,181	19,682	19,985
Oklahoma	53,530	52,326	51,869	54,408	51,160	41,382	38,502	38,325	40,134	40,153
Pennsylvania	NA	NA	NA	NA	NA	NA	5,390	11,018	8,590	13,382
South Dakota	143	145	162	153	163	151	145	147	156	161
Texas	154,932	152,693	152,045	153,455	154,569	158,433	160,173	162,417	169,174	178,530
Utah	2,217	2,433	2,685	2,953	3,107	3,351	3,548	3,885	4,146	4,692
West Virginia	1,469	2,099	2,115	2,107	2,613	2,485	2,284	2,633	2,671	3,071
Wyoming	11,688	11,743	12,147	12,813	12,094	12,011	11,798	11,533	11,479	11,711
Federal Offshore	3,957	3,840	3,631	3,146	3,554	3,574	3,289	3,358	3,417	3,439
TOTAL U.S.	**398,900**	**395,649**	**396,400**	**404,259**	**404,683**	**402,148**	**405,865**	**416,427**	**427,635**	**450,673**

Source: IHS. Total includes onshore and offshore counts.

Producing Natural Gas Wells

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	4,460	4,784	5,122	5,523	5,728	6,070	6,214	6,297	6,289	6,247
Alaska	NA	NA	NA	NA	NA	190	203	196	191	189
Arizona	6	7	4	5	5	5	4	4	3	3
Arkansas	3,704	3,959	4,298	4,481	4,955	5,913	6,652	7,412	8,124	8,699
California	1,467	1,497	1,579	1,715	1,806	1,840	1,841	1,748	1,745	1,645
Colorado	20,821	22,693	25,570	28,407	31,920	36,805	39,296	42,927	45,690	47,182
Kansas	16,998	17,740	18,417	19,891	20,978	21,908	22,140	21,849	21,910	21,800
Kentucky	11,510	12,298	11,754	12,771	16,140	13,727	13,622	12,941	12,941	13,029
Louisiana	8,367	8,734	9,385	10,679	11,245	11,879	12,859	13,288	13,701	14,277
Michigan	8,282	8,524	9,009	9,444	9,792	10,050	10,349	10,253	10,310	10,210
Mississippi	1,151	1,284	1,469	1,574	1,714	1,786	2,112	1,762	1,742	1,716
Montana	4,864	5,299	5,716	6,200	6,206	6,277	6,705	6,722	6,542	6,286
Nebraska	108	112	115	117	195	328	356	295	299	324
New Mexico	26,687	28,160	29,723	31,246	32,535	33,625	34,163	34,306	34,402	34,435
New York	6,517	6,707	6,661	6,764	7,138	7,391	7,401	7,509	7,544	7,838
North Dakota	111	133	208	371	303	347	350	350	343	336
Ohio	22,613	22,212	22,151	23,123	20,507	23,384	22,631	24,701	25,243	25,065
Oklahoma	30,551	32,214	34,081	36,358	38,164	39,800	39,817	39,443	39,339	38,842
Oregon	16	16	14	13	12	21	23	26	27	26
Pennsylvania	NA	NA	NA	NA	NA	NA	32,076	55,215	45,646	50,192
South Dakota	58	60	60	62	64	84	87	100	98	95
Texas	70,056	74,550	79,879	86,272	93,126	100,631	102,471	103,697	104,986	105,977
Utah	3,392	3,715	4,171	4,781	5,257	6,040	6,323	7,037	6,893	7,306
Virginia	3,421	3,856	4,238	5,007	5,748	6,322	7,068	7,454	7,747	7,857
West Virginia	39,763	41,309	44,172	41,364	47,476	44,974	47,569	50,765	49,682	52,888
Wyoming	21,099	23,749	26,475	29,875	31,747	33,628	33,294	31,253	30,595	29,026
Federal Offshore	4,277	4,137	3,878	3,367	3,487	3,255	2,756	2,635	2,350	1,967
TOTAL U.S.	**310,299**	**327,749**	**348,333**	**369,410**	**396,248**	**402,553**	**444,760**	**490,185**	**484,383**	**493,457**

Source: IHS. Data not available for certain states.

Crude Oil Production

(thous. Bbls.)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	4,970	4,662	5,197	5,276	4,951	5,560	5,054	5,275	6,552	7,781
Alaska	362,371	335,740	335,740	269,150	262,427	248,800	236,522	217,932	203,981	191,633
Arizona	45	50	48	53	41	50	45	38	36	51
Arkansas	6,586	5,845	5,388	5,292	5,249	5,791	5,202	4,246	3,926	4,508
California	247,393	239,485	228,811	222,874	217,986	214,120	206,195	198,675	193,113	196,885
Colorado	12,682	12,014	11,764	11,357	10,756	10,875	10,192	11,174	16,203	26,198
Florida	3,263	2,875	2,585	2,349	2,080	1,985	696	1,750	2,026	2,133
Illinois	11,707	10,699	8,899	10,324	9,609	9,430	9,099	9,067	9,158	9,733
Indiana	1,870	1,729	1,595	1,714	1,723	1,855	1,803	1,837	1,972	2,343
Kansas	33,711	33,802	33,897	35,621	36,434	39,575	39,448	40,320	41,355	43,596
Kentucky	1,347	1,210	1,215	1,181	2,618	1,034	1,004	936	920	1,031
Louisiana	58,658	56,983	50,835	49,443	52,528	48,626	47,487	49,388	52,127	55,011
Michigan	6,230	5,763	5,744	5,686	5,394	6,023	5,846	6,420	6,720	7,342
Mississippi	15,678	15,635	16,402	16,103	19,034	20,859	21,915	22,958	23,184	22,982
Montana	19,309	24,674	32,655	36,027	34,815	31,480	27,771	25,226	24,070	26,389
Nebraska	2,810	2,520	2,405	2,297	2,333	2,389	2,234	2,197	2,415	2,509
Nevada	492	463	446	426	410	436	455	425	408	368
New Mexico	57,004	56,723	54,530	53,661	53,300	54,648	56,133	60,917	67,308	81,503
New York	94	110	92	188	267	294	228	227	306	288
North Dakota	28,413	30,142	34,092	36,763	42,249	58,384	75,200	107,205	148,383	238,633
Ohio	4,521	4,264	4,250	4,372	3,958	4,175	3,572	4,078	3,894	4,242
Oklahoma	56,770	54,899	52,288	53,947	51,093	53,234	48,999	54,071	58,284	69,706
Oregon	0	0	0	0	0	0	0	0	0	0
Pennsylvania	NA	NA	NA	NA	NA	NA	783	1,575	979	1,528
South Dakota	1,239	1,356	1,415	1,394	1,653	1,642	1,646	1,575	1,617	1,730
Texas	359,907	351,459	347,614	346,079	341,763	352,904	349,087	367,312	446,532	610,129
Utah	12,089	13,718	15,298	15,965	16,957	18,438	19,646	21,743	23,359	27,373
West Virginia	768	586	676	788	1,030	987	446	881	916	1,079
Wyoming	43,174	41,689	41,452	42,287	41,992	40,054	38,489	42,057	41,767	45,488
Federal Offshore	505,364	476,795	427,167	431,321	427,571	395,233	543,395	537,735	456,297	441,755
TOTAL U.S.	1,858,465	1,785,890	1,722,500	1,661,939	1,650,220	1,628,881	1,758,592	1,797,329	1,837,808	2,123,907
DAILY AVG.	5,092	4,879	4,719	4,553	4,521	4,450	4,818	4,924	5,035	5,819

Source: IHS.
Notes: Daily Average derived from IHS data.

Natural Gas Production

(MMcf)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	355,701	324,437	301,634	290,530	264,468	252,449	230,405	223,853	201,860	195,149
Alaska	NA	NA	NA	NA	NA	NA	149,289	139,299	126,570	116,854
Arizona	183	218	154	522	590	457	626	122	105	87
Arkansas	153,236	170,222	182,452	192,991	262,629	442,536	674,387	920,787	1,067,730	1,139,278
California	83,695	75,362	81,952	90,504	89,845	84,317	80,584	70,406	62,339	53,709
Colorado	997,085	1,062,396	1,120,614	1,217,865	1,273,254	1,476,152	1,536,385	1,620,565	1,656,713	1,616,953
Kansas	431,149	405,594	386,067	378,032	371,782	379,647	362,162	335,570	314,526	301,235
Kentucky	83,452	85,668	79,419	85,840	95,247	95,013	107,449	104,733	104,733	102,078
Louisiana	1,252,126	1,266,290	1,219,382	1,290,156	1,279,855	1,302,007	1,471,968	2,111,650	2,918,796	2,900,409
Michigan	178,082	170,023	161,614	159,295	151,701	145,875	137,571	132,173	126,172	118,972
Mississippi	157,847	170,157	183,103	206,269	268,328	331,699	336,382	389,751	458,783	438,112
Montana	78,092	87,046	91,456	93,199	88,833	78,197	78,366	69,893	59,104	44,970
Nebraska	1,183	1,217	939	898	1,282	2,814	2,713	2,093	1,819	1,221
New Mexico	1,375,603	1,372,580	1,358,029	1,352,226	1,294,420	1,243,420	1,176,047	1,081,223	1,013,359	958,442
New York	35,725	45,785	53,535	39,741	54,586	46,221	40,309	31,895	28,267	24,120
North Dakota	12,823	13,329	13,150	17,216	18,546	21,099	18,338	16,519	11,474	9,594
Ohio	68,428	66,562	60,451	62,021	55,657	61,208	57,949	61,602	64,020	65,318
Oklahoma	1,412,925	1,446,878	1,486,872	1,557,944	1,595,177	1,670,055	1,671,430	1,563,328	1,469,052	1,583,802
Oregon	734	468	457	624	371	663	818	1,459	1,343	809
Pennsylvania	NA	NA	NA	NA	NA	NA	226,017	535,986	1,213,565	2,226,666
South Dakota	523	509	428	438	453	1,222	1,752	1,536	1,035	747
Texas	4,962,056	5,072,699	5,319,815	5,647,050	6,214,058	7,075,389	6,913,702	6,715,482	6,856,592	6,873,426
Utah	257,510	264,789	281,368	321,626	348,601	403,310	408,665	393,587	411,516	434,145
Virginia	80,086	85,752	89,217	102,798	112,224	127,373	140,700	147,156	150,404	146,307
West Virginia	183,091	195,084	215,145	205,051	234,103	237,956	252,895	282,126	387,479	532,031
Wyoming	1,636,903	1,735,410	1,839,625	1,948,640	2,091,822	2,325,182	2,399,101	2,370,892	2,219,664	2,076,703
Fed. Offshore	3,715,894	3,355,752	2,594,879	2,376,086	2,292,279	1,905,309	1,914,239	1,731,131	1,373,902	1,083,891
TOTAL U.S.	17,514,132	17,474,227	17,121,757	17,637,562	18,460,111	19,709,570	20,282,800	21,054,798	22,300,922	23,045,028

Source: IHS. Data not available for certain states. Data is dry natural gas production.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	304	320	387	320	308	317	323	341	350	379
Alaska	151	140	144	153	163	177	161	182	198	168
Arizona	23	19	22	24	21	23	22	21	20	23
Arkansas	2,427	1,910	1,925	2,256	2,264	1,266	1,277	1,247	1,035	1,031
California	31,770	33,010	34,338	36,161	37,433	39,453	39,521	39,618	40,769	41,812
Colorado	4,344	4,384	4,334	4,331	4,302	4,304	4,252	4,266	4,757	5,680
Florida	33	11	15	8	12	12	38	17	16	11
Illinois	5,107	5,148	4,964	5,270	7,062	7,109	7,092	7,129	7,106	7,187
Indiana	1,043	1,051	995	1,061	1,790	1,792	1,796	1,825	1,806	1,825
Kansas	40,607	39,386	39,250	39,602	39,921	40,575	40,657	41,203	41,523	42,498
Kentucky	981	965	947	994	1,375	1,415	1,424	1,329	1,328	1,302
Louisiana	15,587	15,129	15,288	15,680	15,533	16,086	15,301	15,388	15,283	15,264
Michigan	3,502	3,508	3,665	3,640	3,689	3,590	3,588	3,696	3,879	3,877
Mississippi	822	850	883	965	1,033	1,126	1,141	1,337	1,397	1,439
Montana	2,731	2,817	2,853	2,943	2,945	3,066	3,085	3,125	3,215	3,314
Nebraska	1,140	1,177	1,157	1,182	1,152	1,178	1,131	1,142	1,210	1,241
Nevada	42	40	45	45	51	49	45	42	47	49
New Mexico	16,181	16,602	17,114	17,777	18,278	18,576	18,792	19,024	19,560	20,255
New York	2,249	2,164	1,966	2,077	2,279	2,513	2,340	2,563	2,714	2,455
North Dakota	2,163	2,412	2,164	2,183	2,249	2,321	2,359	2,475	2,591	2,587
Ohio	15,162	15,308	15,360	15,803	16,225	15,679	14,839	16,734	16,931	17,264
Oklahoma	49,700	48,542	47,937	48,269	47,029	35,010	34,118	33,962	33,859	34,972
Pennsylvania	NA	NA	NA	NA	NA	NA	4,827	9,959	7,859	12,109
South Dakota	61	64	75	71	70	54	48	53	60	60
Texas	139,807	138,498	138,295	140,374	142,134	145,240	146,530	148,828	154,489	158,710
Utah	1,442	1,582	1,756	1,982	2,116	2,367	2,553	2,777	2,952	3,325
West Virginia	1,201	1,722	1,480	1,689	1,975	2,124	1,946	2,193	2,243	2,478
Wyoming	9,355	9,473	9,911	10,528	9,775	9,688	9,404	9,266	9,087	9,266
Federal Offshore	640	648	755	621	609	676	583	573	580	600
TOTAL U.S.	**348,575**	**346,876**	**348,021**	**356,209**	**361,793**	**355,786**	**359,193**	**370,315**	**376,864**	**391,181**

Source: IHS.
Notes: A marginal oil well is defined as a well producing 15 barrels/day or less.

Marginal Oil Well Production

(thous. Bbls.)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	754	740	809	706	693	708	698	752	763	839
Alaska	243	264	193	322	287	364	350	348	398	315
Arizona	32	24	37	40	27	37	32	25	27	42
Arkansas	2,881	3,042	3,046	2,882	2,898	1,895	1,875	1,713	1,406	1,441
California	62,889	64,825	66,663	69,810	71,058	73,049	71,214	69,787	70,854	71,748
Colorado	4,199	4,188	4,028	3,983	3,666	3,848	3,713	3,657	4,351	6,645
Florida	46	27	25	20	37	28	26	34	34	29
Illinois	5,267	5,104	4,249	5,159	5,791	5,732	5,702	5,564	5,653	5,804
Indiana	1,063	1,020	916	1,085	1,372	1,272	1,308	1,355	1,304	1,312
Kansas	25,016	24,607	24,541	25,301	24,810	25,673	25,709	26,018	26,481	28,175
Kentucky	698	701	677	671	773	740	761	679	668	690
Louisiana	9,773	9,547	10,029	9,543	9,915	9,781	9,398	9,713	9,867	10,060
Michigan	3,374	3,427	3,443	3,425	3,289	3,395	3,289	3,250	3,289	3,260
Mississippi	1,966	2,010	2,121	2,207	2,324	2,522	2,514	2,835	2,882	2,940
Montana	3,350	3,352	3,508	3,531	3,540	3,676	3,685	3,872	3,961	4,300
Nebraska	1,777	1,842	1,711	1,676	1,575	1,620	1,568	1,564	1,591	1,676
Nevada	90	91	103	117	130	114	110	95	111	88
New Mexico	20,825	21,045	21,788	22,312	22,646	22,850	22,752	22,887	23,482	24,987
New York	94	110	92	193	270	294	228	277	306	288
North Dakota	4,815	4,531	4,601	4,811	4,955	5,224	5,144	5,374	5,475	5,636
Ohio	3,871	3,669	3,716	3,732	3723	3,740	3,147	3,578	3,530	3,578
Oklahoma	37,636	36,618	34,834	35,189	34,423	23,856	22,138	22,879	21,648	21,500
Pennsylvania	NA	NA	NA	NA	NA	NA	783	1,439	943	1,490
South Dakota	208	217	229	212	179	138	139	148	162	171
Texas	145,505	142,581	142,740	145,877	147,623	151,286	151,249	154,301	158,156	168,082
Utah	3,110	3,391	3,908	4,168	4,816	5,332	5,535	5,874	6,244	6,705
West Virginia	343	384	422	463	581	582	421	633	624	632
Wyoming	13,383	13,289	13,448	13,349	13,409	13,375	12,696	12,732	12,693	13,049
Fed. Offshore	1,527	1,528	1,889	1,372	1,416	1,679	1,313	1,351	1,367	1,499
TOTAL U.S.	**354,735**	**352,166**	**353,755**	**362,155**	**366,229**	**362,808**	**357,497**	**362,734**	**368,271**	**386,981**

Source: IHS.
Notes: A marginal oil well is defined as a well producing 15 barrels/day or less.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	2,889	3,187	3,639	4,164	4,563	5,023	5,280	5,465	5,563	5,646
Arizona	2	2	2	2	2	2	1	2	1	1
Arkansas	2,383	2,519	2,736	2,892	2,996	3,346	3,406	3,441	3,502	3,654
California	701	720	777	836	899	987	1,014	959	986	973
Colorado	14,729	16,105	18,560	20,477	22,939	25,918	27,794	30,711	32,977	34,860
Kansas	11,891	13,531	15,083	17,196	18,776	20,006	20,501	20,549	20,881	20,881
Kentucky	11,329	12,129	11,616	12,617	8,444	NA	NA	12,470	NA	NA
Louisiana	4,219	4,330	4,645	4,851	5,146	5,454	5,684	6,028	6,170	6,329
Michigan	7,028	7,454	8,143	8,663	9,220	9,808	10,066	9,985	10,049	9,974
Mississippi	684	808	933	1,063	1,194	1,286	1,299	1,345	1,353	1,357
Montana	4,262	4,533	4,790	5,272	5,334	5,625	6,187	6,365	6,277	6,125
Nebraska	105	108	111	114	176	325	353	292	297	320
New Mexico	16,501	17,636	19,191	20,460	21,995	23,068	23,602	24,376	24,848	25,314
New York	6,165	6,421	6,429	6,640	6,898	7,076	7,085	7,178	7,227	7,194
North Dakota	73	79	104	156	188	210	222	241	258	280
Ohio	22,159	21,845	22,082	24,992	20,001	22,862	22,083	24,187	24,446	24,495
Oklahoma	20,321	21,716	23,393	24,955	26,707	28,135	28,692	29,326	29,482	29,000
Oregon	10	11	11	10	9	15	16	20	18	20
Pennsylvania	NA	NA	NA	NA	NA	NA	31,095	53,686	43,129	46,193
South Dakota	57	59	60	62	63	72	70	87	89	93
Texas	42,003	44,648	47,299	50,945	54,462	58,127	60,479	62,475	64,788	66,441
Utah	1,650	1,802	2,105	2,394	2,657	2,925	3,028	3,198	3,487	3,692
Virginia	2,702	3,085	3,438	4,117	4,802	5,251	5,906	6,268	6,542	6,734
West Virginia	38,843	40,451	43,242	40,544	46,507	43,844	46,225	49,527	48,403	51,401
Wyoming	11,127	13,443	15,526	18,060	19,592	20,554	19,788	17,257	16,662	15,395
Federal Offshore	809	796	890	723	735	892	713	658	649	568
TOTAL U.S.*	**222,642**	**237,418**	**254,805**	**272,205**	**275,861**	**290,811**	**330,589**	**376,087**	**358,084**	**366,940**

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.*
** Totals may not add due to rounding.*

Marginal Natural Gas Production

(Mmcf)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	44,565	47,877	53,491	60,237	66,314	71,335	73,061	72,987	72,294	72,386
Arizona	37	28	30	26	21	17	17	23	21	17
Arkansas	30,260	33,485	36,095	38,061	39,750	43,409	42,460	43,771	44,899	45,414
California	8,910	9,084	9,713	10,121	11,405	12,000	12,090	12,013	11,666	11,562
Colorado	172,671	195,752	219,516	244,131	259,934	292,816	308,372	332,373	351,968	348,136
Kansas	178,241	202,041	222,510	240,039	250,779	264,373	262,210	255,529	249,155	239,615
Kentucky	75,513	78,805	73,076	78,304	NA	NA	87,570	77,934	NA	NA
Louisiana	39,256	40,053	43,622	47,268	50,148	54,796	58,113	63,246	66,373	66,814
Michigan	114,313	117,082	123,811	124,848	128,265	126,805	120,181	114,548	109,645	103,813
Mississippi	11,223	12,821	13,051	14,679	16,053	16,358	15,122	14,651	13,478	12,531
Montana	37,138	37,945	40,639	43,571	43,672	47,551	53,071	52,183	47,652	39,415
Nebraska	871	833	745	809	1,282	2,741	2,713	2,093	1,819	1,221
New Mexico	210,703	229,172	247,133	261,701	274,675	288,130	293,344	301,286	306,932	309,610
New York	11,015	10,892	10,885	11,582	12,755	13,604	13,949	13,676	12,724	11,499
North Dakota	679	967	1,726	2,262	22,64	2,342	2,509	2,718	2,577	2,306
Ohio	55,331	53,979	50,250	52,003	47,802	52,085	48,039	52,241	50,442	47,083
Oklahoma	257,931	270,739	288,113	304,086	320,222	331,595	333,142	328,652	324,210	318,838
Oregon	113	117	138	158	134	258	234	305	213	188
Pennsylvania	NA	NA	NA	NA	NA	NA	101,553	159,049	129,602	122,837
South Dakota	483	466	428	438	420	488	416	607	535	563
Texas	479,600	508,976	538,749	583,720	623,976	664,340	681,630	697,279	715,654	723,150
Utah	25,294	27,679	30,932	35,244	36,895	41,334	44,089	47,301	51,297	55,167
Virginia	36,924	40,141	43,994	53,268	61,584	70,117	78,627	84,462	86,220	88,485
West Virginia	152,036	161,214	175,204	167,499	189,735	185,857	188,459	190,133	176,331	178,948
Wyoming	136,706	157,753	174,246	187,707	195,370	191,676	167,793	158,461	156,722	152,309
Federal Offshore	9,897	9,722	11,030	8,802	9,109	10,182	7,556	7,621	7,503	6,395
TOTAL U.S.*	2,091,600	2,247,334	2,408,367	2,570,029	2,642,563	2,784,208	2,908,750	3,085,140	2,989,935	2,958,302

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.*
** Totals may not add due to rounding.*

(thous. $)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	228,197	288,714	418,677	475,658	510,000	729,774	397,192	536,485	887,560	998,315
Alaska	8,509,077	11,027,864	14,890,978	15,425,817	16,819,997	22,536,136	12,813,555	15,879,039	20,235,057	18,986,722
Arizona	1,252	1,917	2,605	3,383	2,892	4,692	2,620	2,989	3,332	4,621
Arkansas	191,995	246,862	322,656	358,122	387,492	552,642	306,798	407,100	514,884	584,253
California	6,572,500	8,243,870	11,113,988	12,240,536	14,032,040	19,354,014	11,620,044	15,005,196	19,853,328	20,529,665
Colorado	660,511	909,842	1,285,105	1,561,888	1,737,878	2,659,532	1,577,593	2,369,759	3,453,173	4,229,812
Florida	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Illinois	340,354	425,520	522,598	616,283	630,927	880,862	504,444	663,523	819,333	790,496
Indiana	52,929	67,006	88,112	102,666	113,067	170,787	100,393	133,625	175,154	208,257
Kansas	973,514	1,326,556	1,806,486	2,165,442	2,439,357	3,644,711	2,147,236	2,931,025	3,673,846	3,842,823
Kentucky	69,059	93,817	125,356	136,492	169,558	240,351	144,121	177,917	200,036	278,290
Louisiana	2,731,264	3,343,113	4,043,624	4,719,199	5,456,018	7,355,128	4,078,018	5,271,859	7,326,101	7,486,569
Michigan	188,765	232,922	307,636	354,684	376,879	599,682	345,163	508,639	644,675	674,734
Mississippi	489,035	660,171	920,601	1,081,120	1,434,785	2,165,489	1,378,967	1,839,953	2,432,013	2,434,723
Missouri	2,169	3,269	4,239	4,989	4,862	8,312	5,001	10,290	9,963	14,564
Montana	553,711	952,616	1,730,144	2,055,693	2,251,347	2,837,788	1,466,568	1,779,390	2,140,020	2,198,555
Nebraska	78,818	96,242	126,550	133,564	146,591	210,648	113,879	162,076	217,290	256,974
Nevada	12,098	14,807	19,078	24,836	26,194	39,885	23,442	NA	NA	33,495
New Mexico	1,965,707	2,532,292	3,222,025	3,670,813	4,080,972	5,788,812	3,490,899	4,945,797	6,480,945	7,500,036
New York*	4,163	6,698	10,764	20,260	26,395	42,375	18,126	28,728	32,967	NA
North Dakota*	860,714	1,224,352	1,867,871	2,262,555	2,942,287	5,566,976	4,285,810	7,943,877	13,575,889	20,496,434
Ohio*	159,132	221,392	302,212	340,990	371,431	551,097	328,746	350,201	440,604	475,587
Oklahoma	1,942,380	2,496,955	3,384,253	3,965,896	4,224,583	6,159,850	3,790,538	5,091,941	6,973,370	8,366,130
Pennsylvania	72,994	94,634	134,242	165,748	195,160	289,796	175,106	225,175	295,298	380,163
South Dakota*	35,799	52,109	74,405	72,279	104,529	148,352	84,144	110,878	140,634	145,757
Tennessee	8,260	13,162	14,765	10,956	18,565	31,655	14,207	18,514	21,271	32,596
Texas	11,671,255	15,233,492	20,653,108	24,059,332	26,713,037	39,300,858	22,903,576	32,579,635	46,008,717	66,987,298
Utah	378,241	580,176	900,170	1,070,242	1,220,547	1,908,310	1,152,147	1,679,780	2,192,398	2,504,072
Virginia	131	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	41,557	66,589	91,160	108,859	134,002	202,119	83,711	130,303	185,758	224,263
Wyoming	1,41,591	1,827,236	2,362,448	2,820,972	3,157,769	4,567,132	2,696,745	3,625,780	4,565,550	4,667,446
TOTAL U.S.	56,775,943	73,145,201	95,169,783	110,863,550	123,267,281	172,069,387	110,096,630	149,399,903	197,484,672	224,750,223
Federal Offshore	16,837,886	20,726,267	24,807,599	30,083,818	33,000,716	43,996,966	34,397,063	45,127,640	52,683,003	50,842,616

*Source: * EIA price and production data used in addition to state data when EIA not available. Total does not include Federal Offshore.*
Note: U.S. data is based on national production and cost data.

Natural Gas Revenues

(thous. $)	2003	2004	2005	2006	2007	2008	2009	2010	2011*	2012*
Alabama	1,874,005	2,160,750	2,751,780	2,166,685	2,011,828	2,488,581	1,019,645	994,277	1,134,370	1,003,052
Alaska***	1,180,314	1,613,895	2,314,590	2,574,952	2,440,521	2,944,486	1,163,436	1,186,296	2,326,149	2,156,730
Arizona	1,918	1,695	1,596	3,593	3,917	3,708	2,271	752	993	548
Arkansas	876,827	1,062,552	1,383,270	1,737,984	1,867,611	3,893,925	2,332,235	3,558,290	6,722,769	6,143,460
California	1,699,569	1,807,542	2,366,396	2,039,402	2,033,399	2,484,410	1,095,237	1,396,916	1,118,291	854,004
Colorado	4,591,234	5,622,814	8,418,829	7,361,265	5,678,549	2,702,429	4,812,015	6,250,381	8,089,625	7,281,942
Florida	NA	NA	NA	NA	NA	NA	NA	NA	76,684	73,416
Illinois	NA	NA	NA	NA	NA	NA	NA	NA	10,796	8,734
Indiana	7,920	21,426	28,560	17,555	20,843	35,634	19,954	28,092	45,103	37,283
Kansas	1,813,807	1,961,778	2,455761	2,081,557	2,081,840	2,564,024	1,120,030	1,373,566	1,709,456	1,404,457
Kentucky	397,740	495,802	634,718	841,676	701,462	960,857	NA	604,925	643,579	442,529
Louisiana	7,616,250	8,065,364	11,301,539	9,432,555	9,572,037	12,024,667	5,915,679	9,348,719	17,175,598	10,284,921
Maryland	216	213	342	366	NA	NA	NA	199	213	249
Michigan	950,318	999,772	1,383,894	NA	2,241,113	1,532,255	602,645	496,937	853,841	711,332
Mississippi	686,912	369,348	451,962	414,032	492,182	850,441	328,826	307,417	431,066	253,457
Missouri	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Montana	320,881	436,397	709,021	624,033	668,371	843,968	310,454	318,642	381,329	283,215
Nebraska	4,609	4,753	4,922	NA	7,557	19,170	8,637	8,879	10,010	5,724
New Mexico	7,314,308	8,113,719	11,368,097	9,944,998	10,628,430	12,148,114	5,767,127	6,874,424	5,592,610	4,498,360
New York**	208,872	321,429	429,300	399,137	486,237	449,861	188,814	166,530	187,989	141,368
North Dakota	196,596	315,202	441,479	360,380	365,149	525,286	222,040	320,801	491,336	792,988
Ohio**	564,282	601,665	754,213	668,941	668,641	668,681	387,273	361,705	434,508	377,635
Oklahoma	7,744,030	9,139,845	11,819,425	10,674,385	10,885,012	14,462,499	6,557,953	8,606,715	10,709,893	10,117,305
Oregon	3,275	1,817	1,930	2,745	2,155	4,147	3,284	6,922	7,849	4,012
Pennsylvania	NA	NA	NA	NA	NA	NA	NA	NA	8,230,518	12,456,962
South Dakota	5,493	6,001	7,380	6,163	7,184	13,053	NA	NA	9,628	70,447
Tennessee	9,412	14,490	21,010	18,055	26,135	41,595	20,981	22,376	25,371	25,339
Texas	27,161,677	29,542,446	39,836,828	36,616,945	42,520,234	58,897,676	25,980,287	31,561,882	38,338,332	32,144,629
Utah	1,101,718	1,456,558	2,156,757	1,912,277	1,452,939	2,666,431	1,501,268	1,827,550	2,598,742	2,697,162
Virginia**	397,612	NA	NA	NA	NA	NA	NA	NA	1,003,264	825,724
West Virginia	814,718	928,892	1,563,234	1,617,050	1,585,922	1,822,189	1,163,518	1,034,179	2,329,279	2,693,901
Wyoming	6,357,383	7,897,327	11,245,715	10,624,776	8,942,992	15,605,471	7,940,115	9,913,758	10,041,312	8,149,768
TOTAL U.S.	73,901,897	106,565,501	138,735,606	124,027,817	127,523,075	169,066,547	79,287,260	100,270,791	135,324,662	119,706,599
Federal Offshore	21,703,151	21,890,964	23,223,588	20,652,221	20,354,037	21,222,830	9,121,165	10,305,541	10,513,980	7,371,354

Source: EIA wellhead price and marketed production data. Total does not include Federal Offshore.
**Post 2010, City Gate prices used due to the unavailability of wellhead prices*
***State data used when EIA not available.*
**** Alaska natural gas is reinjected.*
Note: U.S. data is based on national production and cost data.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	13	9	16	15	2	12	19	22	19	13
Alaska	107	140	133	114	106	101	100	101	89	94
Arkansas	3	6	17	123	465	691	963	910	826	723
California	125	140	139	165	220	263	151	207	309	346
Colorado	7	3	21	29	44	49	64	83	281	584
Georgia	0	0	0	0	0	0	0	0	0	0
Florida	0	0	1	0	0	1	1	1	5	0
Illinois	4	2	2	1	0	9	2	10	6	11
Indiana	5	4	16	23	48	40	46	70	8	5
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	0	4	2	25	29	5	7	7	20	163
Kentucky	1	5	11	9	44	229	268	225	142	47
Louisiana	26	60	34	37	36	96	390	738	901	465
Michigan	16	39	79	121	90	136	42	47	56	45
Mississippi	0	1	2	8	23	48	14	25	7	8
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	204	290	348	358	312	130	31	76	129	251
Nebraska	0	0	0	0	1	0	0	0	0	2
Nevada	0	0	0	0	0	0	0	0	0	0
New Mexico	36	49	95	163	218	230	145	275	417	529
New York	1	4	7	5	16	27	19	9	14	0
North Dakota	180	152	248	397	469	724	609	1,121	1,661	2,239
Ohio	2	3	1	6	5	12	4	4	21	91
Oklahoma	242	383	526	673	761	1, 073	671	833	1,369	1,912
Oregon	0	0	0	0	0	0	0	0	0	0
Pennsylvania	3	0	0	6	9	55	310	978	1,240	1,381
South Dakota	3	10	35	23	50	24	11	9	14	21
Tennessee	0	0	1	0	0	9	32	27	22	10
Texas	866	1,243	1,641	2,254	3,392	4,237	2,771	3,703	5,376	6,581
Utah	4	5	11	6	18	28	13	22	27	53
Virginia	0	2	2	0	1	8	31	21	25	9
Washington	0	0	0	0	0	0	0	0	0	0
West Virginia	5	1	4	5	26	184	185	228	247	330
Wyoming	18	15	59	64	47	52	22	38	145	214
TOTAL U.S.	**1,871**	**2,570**	**3,451**	**4,630**	**5,432**	**8,473**	**6,921**	**9,752**	**13,376**	**16,127**

Source: IHS.

Directional Wells

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	4	8	11	12	17	23	5	18	22	20
Alaska	60	58	26	20	30	36	33	29	22	26
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	16	22	25	29	27	18	9	20	20	30
California	925	1,073	1,022	979	1,112	1,090	495	1,036	1,149	1,355
Colorado	411	609	833	1,205	1,649	2,395	1,729	1,800	2,169	1,740
Florida	1	0	2	0	0	0	1	0	1	2
Georgia	0	0	0	0	0	0	0	0	0	0
Illinois	5	6	1	2	1	3	0	1	1	3
Indiana	0	1	4	1	1	0	0	0	4	5
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	0	0	1	3	0	3	0	0	2	4
Kentucky	0	1	0	2	4	4	0	0	0	0
Louisiana	380	420	483	510	499	403	209	242	289	382
Michigan	45	52	64	71	59	60	28	46	40	37
Mississippi	26	47	53	37	44	48	24	59	50	48
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	12	19	24	23	40	27	2	22	4	7
Nebraska	0	0	1	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	1	0	0
New Mexico	109	108	130	163	128	166	167	175	186	529
New York	11	31	19	12	29	23	1	0	0	0
North Dakota	3	7	4	10	13	2	4	21	38	41
Ohio	23	18	29	22	35	30	21	31	25	5
Oklahoma	158	187	248	272	217	217	111	77	108	99
Oregon	0	0	0	0	1	1	2	2	0	0
Pennsylvania	1	2	6	5	26	37	3	7	9	7
South Dakota	0	0	0	1	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0	0	0
Texas	729	893	899	877	946	1,031	612	683	611	733
Utah	17	24	34	105	150	250	214	404	566	720
Virginia	0	0	1	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0	0	0
West Virginia	2	6	3	5	10	10	1	1	0	14
Wyoming	139	252	368	444	500	642	588	689	703	490
TOTAL U.S.	**3,077**	**3,844**	**4,291**	**4,810**	**5,538**	**6,519**	**4,259**	**5,364**	**6,019**	**5,894**

Source: IHS.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	405	452	436	437	541	312	271	218	175	131
Alaska	10	8	9	8	12	8	12	2	1	9
Arizona	0	1	5	1	2	1	0	0	0	0
Arkansas	207	283	308	399	382	423	191	202	184	177
California	938	1,052	1,219	1,524	1,317	1,471	1,021	756	995	1,044
Colorado	1,172	1,389	1,897	1,858	2,032	1,674	792	843	625	503
Florida	0	0	2	0	0	0	0	0	0	1
Georgia	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	1	0	2	0	0
Illinois	343	329	443	514	468	504	301	378	462	558
Indiana	187	155	168	190	150	192	142	97	110	126
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	1,704	2,119	2,730	3,960	3,875	4,343	2,427	2,930	3,636	4,314
Kentucky	983	938	1,330	1,561	1,454	1,352	757	586	558	618
Louisiana	679	790	947	1,116	1,247	1,279	582	395	500	716
Michigan	329	376	413	435	375	387	165	104	99	68
Mississippi	261	227	251	258	272	182	125	100	114	96
Missouri	21	31	17	28	22	208	56	35	0	11
Montana	616	449	600	755	525	425	226	175	91	84
Nebraska	39	50	75	68	165	235	74	99	135	109
Nevada	3	6	8	1	5	8	4	2	0	4
New Mexico	1,487	1,634	1,708	1,742	1,521	1,330	766	639	799	680
New York	71	125	199	403	464	417	236	328	214	169
North Dakota	43	65	53	104	65	39	19	39	36	54
Ohio	505	564	721	949	1,025	1,002	590	421	371	355
Oklahoma	2,604	2,642	2,822	3,173	2,703	3,025	1,371	1,374	1,109	1,095
Oregon	0	1	0	0	0	1	2	2	0	0
Pennsylvania	2,768	3,103	3,952	4,689	4,847	4,696	2,729	2,033	1,346	1,005
South Dakota	6	4	7	7	12	23	16	16	6	2
Tennessee	273	216	254	332	324	243	93	66	74	123
Texas	7,913	8,318	9,361	10,620	10,472	11,632	6,453	7,683	8,900	9,717
Utah	392	574	730	900	793	936	421	514	300	316
Virginia	398	411	439	626	764	631	572	393	363	155
Washington	0	2	0	0	2	0	0	0	0	0
West Virginia	1,067	1,320	1,496	1,978	2,033	1,749	853	465	249	173
Wyoming	2,749	3,554	4,009	3,693	2,516	2,339	1,269	1,165	718	384
TOTAL U.S.	**28,173**	**31,188**	**36,609**	**42,329**	**40,385**	**41,068**	**22,536**	**22,062**	**22,170**	**22,797**

Source: IHS.

WELL SUMMARY*

Year	Horizontal Wells	Directional Wells	Vertical Wells
2002	1,346	2,993	24,343
2003	1,884	3,868	27,996
2004	2,599	4,767	30,829
2005	3,529	4,958	36,311
2006	4,640	4,916	42,350
2007	6,353	5,428	40,590
2008	8,293	6,366	40,753
2009	6,729	4,442	21,856
2010	9,755	5,228	22,183
2011	13,376	6,019	22,170
2012	**16,127**	**5,894**	**22,797**

**Data in state and national tables may differ due to date tabulated. Source: IHS.*

Severance and Production Taxes

(thous. $)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	92,695	101,184	132,300	177,280	139,380	192,752	111,004	90,613	106,500	111,482
Alaska	1,093,356	651,900	863,000	1,199,500	2,208,400	6,879,000	3,112,000	2,871,000	4,552,901	6,146,113
Arkansas	8,355	9,802	15,078	15,078	14,928	21,427	28,209	70,455	79,968	75,022
Arizona	8,377	8,993	9,899	10,022	6,761	5,488	3,214	3,016	3,300	3,618
California	214,473	188,753	268,796	328,876	471,185	467,130	400,000*	400,000*	400,000*	400,000*
Colorado	23,613	107,145	134,050	196,668	126,244	139,551	273,028	63,702	137,589	163,046
Florida	5,469	6,084	8,278	9,527	9,288	13,386	7,995	3,928	10,055	12,206
Indiana	590	845	1,119	1,215	1,350	2,082	1,213	1,629	2,102	2,362
Kansas	84,212	116,677	148,855	148,855	131,217	421,100	388,600	330,700	385,900	381,500
Kentucky	17,800	22,170	28,630	42,586	38,538	55,036	30,878	35,001	35,162	28,343
Louisiana	480,749	677,320	714,729	885,402	981,229	1,017,654	895,855	744,867	722,828	873,022
Maryland	1	1	4	4	3	1	5	4	2	2
Michigan	54,651	56,186	66,749	88,143	67,796	103,928	44,434	57,195	68,843	64,628
Mississippi	43,413	62,631	84,409	6,809	8,364	129,821	109,514	93,463	113,491	113,044
Montana	75,454	114,218	180,077	204,129	242,776	327,932	172,189	206,024	213,770	210,644
Nebraska	1,845	2,191	2,926	2,796	2,894	5,855	2,874	3,660	5,149	5,350
Nevada	248	356	527	577	576	907	538	418	797	875
New Mexico	571,862	737,200	926,884	1,169,271	987,921	1,282,483	1,361,237	1,431,086	922,600	971,900
North Dakota	66,846	73,914	157,500	166,147	185,970	534,700	403,100	749,100	1,296,100	1,660,803
Ohio	2,900	2,691	2,615	2,554	2,452	2,501	2,569	2,555	2,590	2,516
Oklahoma	600,980	701,156	875,653	1,168,598	1,001,328	1,266,655	1,174,211	869,129	978,167	896,683
Oregon	89	72	79	90	117	364	305	390	370	126
South Dakota	1,522	1,658	2,507	3,256	3,153	5,527	5,894	4,746	5,558	6,988
Tennessee	592	592	813	1,041	1,838	1,952	1,342	1,532	1,495	1,531
Texas	1,492,743	1,887,879	2,338,380	3,200,807	2,730,513	4,121,527	2,292,249	1,775,739	2,677,552	3,778,160
Utah	28,689	39,356	57,116	77,074	70,178	70,919	77,831	60,392	65,640	71,974
West Virginia	30,475	41,544	53,557	84,947	80,294	87,606	91,505	70,507	72,947	99,234
Wyoming	370,381	504,731	713,456	660,461	595,031	947,880	488,568	635,511	657,802	522,039
TOTAL U.S.	5,372,380	6,117,250	7,787,983	9,851,714	10,109,721	18,105,163	11,480,372	10,576,364	13,519,180	16,538,648

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. Totals may not add due to rounding. Some taxes may include other commodities - for example Arizona's Transaction Privilege Tax includes taxes paid on coal, sand and gravel transactions in addition to oil and natural gas. Nevada's tax has been revised to include the Net Proceeds of Minerals Tax. Texas oil tax includes oil production tax, oil regulation tax and oil well service tax; gas tax includes natural gas production tax and gas utility pipeline tax.
**California data estimated post-2008*

($/bbl.)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	28.97	38.79	53.26	63.16	71.10	96.71	55.25	75.54	105.99	104.81
Alaska	23.93	33.17	47.21	57.03	63.81	90.19	54.41	72.33	98.79	98.70
Arizona	26.63	36.86	52.09	61.51	67.26	90.24	56.96	74.72	NA	NA
Arkansas	26.57	36.67	50.86	58.67	64.25	90.91	53.07	71.01	87.51	89.39
California	26.29	34.32	48.26	54.78	64.73	90.21	56.11	74.51	102.50	104.10
Colorado	30.71	40.38	55.34	63.80	67.04	90.80	52.33	72.75	88.26	85.78
Florida	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Illinois	29.10	38.74	51.20	59.70	65.66	93.48	55.47	73.18	88.73	88.74
Indiana	28.38	38.18	51.02	59.31	65.47	91.92	55.65	72.82	88.15	88.62
Kansas	28.68	39.18	53.41	60.74	66.85	92.08	54.41	72.43	88.52	87.85
Kentucky	27.21	36.82	49.45	58.33	63.60	90.87	55.24	70.63	86.00	87.02
Louisiana	30.31	40.08	53.57	63.88	71.18	100.74	59.10	78.25	106.20	105.97
Michigan	29.18	39.14	53.67	60.89	66.87	95.75	56.39	74.91	92.40	90.91
Mississippi	27.46	37.03	49.58	59.35	68.65	94.60	58.29	76.41	100.43	100.80
Missouri	26.45	37.15	49.87	57.34	60.77	83.96	53.20	70.48	84.43	83.22
Montana	28.66	38.53	52.66	56.69	64.64	89.96	52.96	70.24	88.61	82.98
Nebraska	28.63	38.42	52.38	57.77	62.78	87.99	50.93	69.65	85.48	84.95
Nevada	24.54	31.98	42.68	58.30	64.20	91.48	53.52	NA	NA	NA
New Mexico	29.52	39.25	52.84	61.74	68.94	96.23	57.08	75.64	90.93	88.01
New York	28.91	39.40	54.64	63.51	69.46	109.78	53.47	76.00	89.10	NA
North Dakota	29.27	39.30	52.38	56.69	65.30	88.68	53.75	70.26	88.74	84.06
Ohio	28.18	38.27	53.47	62.89	68.09	96.43	56.35	73.68	90.79	92.87
Oklahoma	29.72	39.95	54.46	63.11	69.31	96.15	56.56	75.18	90.94	89.97
Pennsylvania	29.60	39.48	54.57	64.02	70.00	96.76	56.56	69.80	87.16	88.41
South Dakota	28.94	38.40	50.65	51.85	62.78	87.42	50.75	69.04	87.08	83.10
Tennessee	26.56	36.46	45.57	57.06	65.37	92.02	53.01	72.04	86.82	87.86
Texas	29.13	38.79	52.61	61.31	68.30	96.85	57.40	76.23	91.99	92.50
Utah	28.88	39.35	53.98	59.70	62.48	86.58	50.22	68.09	83.45	82.73
Virginia	26.23	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	28.06	38.38	53.75	63.07	67.27	95.07	55.77	70.74	86.56	87.16
Wyoming	26.63	35.10	45.63	53.25	58.34	86.07	52.30	68.10	83.45	80.70
TOTAL U.S.	**27.56**	**36.77**	**50.28**	**59.69**	**66.52**	**94.02**	**56.35**	**74.71**	**95.73**	**94.52**

Source: IHS.

Natural Gas Wellhead/City Gate Prices

($/Mcf)	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011****	**2012****
Alabama	5.93	6.66	9.28	7.57	7.44	9.65	4.32	4.46	5.80	5.18
Alaska	2.41	3.42	4.75	5.79	5.63	7.39	2.93	3.17	6.53	6.14
Arizona*	4.33	5.12	6.86	5.70	5.98	7.09	3.19	4.11	5.91	4.68
Arkansas	5.17	5.68	7.26	6.43	6.61	8.72	3.43	3.84	6.27	5.36
California	5.04	5.65	7.45	6.47	6.62	8.38	3.96	4.87	4.47	3.46
Colorado	4.54	5.21	7.43	6.12	4.57	6.94	3.21	3.96	4.94	4.26
Florida*	NA	NA	NA	NA	NA	NA	NA	NA	5.07	3.93
Illinois*	NA	NA	NA	NA	NA	NA	NA	NA	5.09	4.11
Indiana	5.41	6.30	9.11	6.01	5.78	7.58	4.05	4.13	4.97	4.23
Kansas	4.33	4.94	6.51	5.61	5.69	6.85	3.16	4.23	5.53	4.74
Kentucky	4.54	5.26	6.84	8.83	7.35	8.42	NA	4.47	5.18	4.17
Louisiana	5.64	5.96	8.72	6.93	7.02	8.73	3.82	4.23	5.67	3.48
Maryland	4.50	6.25	7.43	7.63	6.97	7.46	7.45	4.63	6.26	5.67
Michigan*	4.01	3.85	5.30	NA	8.46	5.63	3.92	3.79	6.18	5.50
Mississippi	5.13	5.83	8.54	6.84	6.70	8.80	3.73	4.17	5.29	3.97
Missouri	6.12	6.99	8.67	8.53	7.53	8.03	7.06	6.17	5.85	5.27
Montana	3.73	4.51	6.57	5.53	5.72	7.50	3.16	3.64	5.11	4.23
Nebraska	3.17	3.22	4.29	NA	4.86	6.22	2.97	3.98	5.11	4.31
Nevada	5.67	6.77	8.5	8.64	8.72	9.44	7.93	7.19	6.77	5.13
New Mexico	4.56	4.97	6.91	6.18	6.88	8.40	4.17	5.32	4.52	3.70
New York	5.78	6.98	7.78	7.13	8.85	8.94	4.21	4.65	6.04	5.35
North Dakota	3.53	5.73	8.40	6.52	6.67	8.55	3.74	3.92	5.06	4.43
Ohio	5.90	6.65	9.03	7.75	7.59	7.88	4.36	4.63	5.51	4.47
Oklahoma	4.97	5.52	7.21	6.32	6.24	7.56	3.53	4.71	5.67	5.00
Oregon	4.48	3.89	4.25	4.42	5.27	5.33	4.00	4.92	5.84	5.21
Pennsylvania*	NA	NA	NA	NA	NA	NA	NA	NA	6.28	5.52
South Dakota	4.98	5.49	7.44	6.40	7.22	7.94	NA	NA	5.21	4.67
Tennessee	5.22	6.90	9.55	6.78	6.63	8.85	3.83	4.35	5.23	4.35
Texas	5.18	5.83	7.55	6.60	6.98	8.51	3.81	4.70	5.39	4.30
Utah*	4.11	5.24	7.16	5.49	3.86	6.15	3.38	4.23	5.68	5.50
Virginia*	4.65	NA	NA	NA	NA	NA	NA	NA	6.64	5.64
West Virginia*	4.34	4.71	7.07	7.17	6.86	7.42	4.40	3.90	5.91	4.99
Wyoming	4.13	4.96	6.86	5.85	4.65	6.86	3.40	4.30	4.65	4.03
TOTAL U.S.	**4.88**	**5.46**	**7.33**	**6.39**	**6.25**	**7.96**	**3.67**	**4.48**	**5.63**	**4.73**

Source: Energy Information Administration and State Sources.*
***City Gate price used for natural gas post 2010.*

Refiner Acquisition Cost of Crude Oil

($/bbl.)	Domestic	Imported	Composite
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
2007	69.65	67.04	67.94
2008	98.47	92.77	94.74
2009	59.49	59.17	59.29
2010	78.01	75.86	76.69
2011	100.71	102.63	101.87
2012	**100.93**	**100.72**	**101.09**

Source: Energy Information Administration.

Retail Gasoline Prices

(¢/gal.)	Excluding Taxes	Taxes	Pump Price
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	44.4	257.2
2007	234.5	45.1	279.6
2008	277.5	47.1	324.6
2009	188.8	46.5	235.3
2010	230.1	48.1	278.2
2011	305.0	47.1	352.1
2012	**315.4**	**46.4**	**361.8**

Source: Energy Information Administration. Pump price quoted for unleaded regular.

Refiner Acquisition Cost of Crude Oil

World Crude Oil Reserves

(mill. bbls.)	United States	Canada	Latin America	Middle East	Africa	Asia Pacific	Western Europe	Eastern Europe & FSU	Total World
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	115,150	739,205	114,073	33,366	14,695	99,992	1,317,447
2007	20,972	178,592	121,507	748,286	114,838	34,350	13,157	99,997	1,331,698
2008	21,317	178,092	133,188	745,998	117,064	34,006	12,546	99,997	1,342,207
2009	19,121	175,214	135,044	753,358	119,114	40,137	12,198	99,998	1,354,182
2010	19,121	175,214	247,532	752,918	123,609	40,251	10,974	99,996	1,469,615
2011	20,682	173,625	249,176	799,607	124,209	45,360	10,704	100,059	1,523,225
2012	**28,950**	**173,105**	**336,193**	**797,157**	**127,739**	**45,356**	**10,875**	**120,030**	**1,693,405**

Source: Oil & Gas Journal Worldwide Reserves & Production Report. Estimated proved reserves as of 1/1 of stated year. Totals may not add due to rounding. Canadian reserves include oil sands after 2001.

World Crude Oil Reserves

Wholesale Prices—Total U.S.

	Motor Gasoline	Kerosene	Jet Fuel Distillate	Fuel Oil Residual	Average Of Four Products (¢/gal.)	Average Of Four Products ($/bbl.)	Crude Oil ($/bbl.)
	(¢/gal.)						
1961	11.62	11.49	9.10	4.85	9.21	3.87	2.89
1962	11.52	11.42	9.11	4.78	9.13	3.84	2.90
1963	11.35	11.51	9.18	4.61	9.01	3.79	2.89
1964	11.27	10.93	8.65	4.50	8.83	3.71	2.88
1965	11.52	11.28	9.04	4.81	9.12	3.83	2.86
1966	11.59	11.49	9.09	4.73	9.15	3.84	2.88
1967	11.84	11.96	9.71	4.53	9.33	3.92	2.92
1968	11.55	12.03	9.84	4.30	9.14	3.84	2.94
1969	11.80	11.98	10.06	4.20	9.27	3.89	3.09
1970	12.33	12.43	10.45	6.14	10.20	4.28	3.18
1971	12.70	12.90	10.75	7.76	10.94	4.59	3.39
1972	12.70	12.87	10.61	7.60	10.87	4.57	3.39
1973	14.72	14.08	12.61	8.45	12.49	5.25	3.89
1974	25.53	24.02	22.57	20.43	23.48	9.86	6.87
1975	30.27	27.41	26.09	22.03	27.03	11.35	7.67
1976	33.82	31.67	30.38	21.66	29.55	12.41	8.19
1977	36.99	35.81	34.41	25.87	33.21	13.95	8.57
1978	39.22	37.23	35.66	23.00	33.72	14.16	9.00
1979	56.84	56.60	54.47	33.63	49.50	20.79	12.64
1980	87.40	80.26	78.21	44.43	72.77	30.56	21.59
1981	101.63	101.03	97.20	61.17	88.75	37.28	31.77
1982	94.56	97.18	91.95	57.80	83.27	34.97	28.52
1983	86.97	85.12	80.05	57.30	76.94	32.31	26.19
1984	81.14	84.75	79.62	59.14	74.49	31.29	25.88
1985	81.11	81.69	76.66	56.41	73.06	30.69	24.09
1986	47.74	49.92	44.91	36.23	43.97	18.47	12.51
1987	53.22	56.75	52.25	45.36	50.89	21.37	15.40
1988	50.31	50.72	46.10	38.72	46.22	19.41	12.58
1989	59.15	60.78	56.02	40.87	53.28	22.38	15.86
1990	72.13	73.37	67.82	50.99	65.20	27.38	20.03
1991	64.24	64.79	59.81	40.94	56.61	23.78	16.54
1992	60.90	62.78	58.12	41.67	54.81	23.02	15.99
1993	54.85	59.98	55.54	40.22	50.82	21.34	14.25
1994	52.95	57.67	53.22	42.50	50.09	21.04	13.19
1995	55.51	58.15	53.74	47.41	51.63	21.68	14.62
1996	68.29	74.02	69.64	53.78	64.43	27.06	18.46
1997	66.21	62.26	66.81	54.69	62.19	26.12	17.23
1998	52.60	45.00	43.90	28.00	42.38	17.80	10.87
1999	64.50	53.30	53.60	35.40	51.70	21.71	15.56
2000	96.30	88.00	89.60	56.60	82.63	34.70	26.72
2001	88.60	76.30	77.90	47.60	72.60	30.49	21.84
2002	82.80	71.60	71.80	53.00	69.80	29.32	22.51
2003	100.20	87.10	88.20	66.10	85.40	35.87	27.56
2004	128.80	120.80	117.80	68.10	108.88	45.73	36.77
2005	167.00	172.30	172.00	97.10	152.10	63.93	50.28
2006	196.90	196.10	199.10	113.60	176.95	74.10	59.69
2007	218.20	217.10	219.00	135.00	197.00	82.87	66.52
2008	259.00	302.00	297.00	186.60	261.15	109.68	94.04
2009	176.70	171.90	170.70	134.20	163.38	68.62	56.35
2010	216.50	218.50	220.80	169.70	206.38	86.68	74.71
2011	286.70	301.40	302.50	233.60	281.05	118.04	95.73
2012	**292.90**	**308.00**	**310.30**	**238.90**	**287.53**	**120.76**	**94.52**

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.

(mill. bbls.)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	103.0	112.4	111.1	112.2	111.6	107.4	101.7	104.8	103.9	102.5
Alaska	50.0	58.9	58.7	60.3	57.0	49.2	45.4	48.8	47.5	45.3
Arizona	98.9	103.2	108.3	110.4	109.5	106.4	99.5	98.6	97.5	95.6
Arkansas	65.3	66.8	66.2	66.3	66.9	66.0	63.5	64.6	63.7	61.0
California	694.5	685.6	698.3	706.7	711.1	677.0	654.6	653.3	642.9	620.2
Colorado	86.4	93.3	92.3	95.8	97.4	94.0	90.1	92.4	90.7	90.0
Connecticut	79.0	85.0	81.8	74.2	72.4	66.7	65.1	63.8	61.3	58.7
Delaware	24.4	23.0	24.5	22.8	22.5	21.3	17.4	17.6	19.3	18.9
Dist. of Columbia	5.4	5.6	5.3	4.3	4.2	3.6	3.7	4.0	3.7	3.1
Florida	348.5	379.3	387.1	370.3	358.4	329.7	309.7	330.1	309.9	294.8
Georgia	190.3	199.6	207.3	201.8	197.0	185.5	193.9	200.7	190.2	176.2
Hawaii	46.7	49.1	51.3	51.6	52.9	42.6	40.9	41.5	43.8	42.4
Idaho	25.7	28.8	29.5	30.6	30.6	29.3	28.5	30.8	30.4	29.8
Illinois	234.2	245.4	266.7	256.3	255.4	246.8	235.4	236.7	231.5	225.9
Indiana	163.1	160.7	159.6	160.1	157.4	150.9	145.5	144.7	144.5	138.1
Iowa	74.3	84.1	86.1	87.8	84.3	82.1	82.7	83.7	84.1	81.0
Kansas	81.6	79.3	62.5	64.5	80.5	77.0	76.6	77.2	80.1	78.3
Kentucky	119.0	131.3	131.0	131.5	130.8	123.1	121.4	119.3	117.0	113.8
Louisiana	362.3	384.7	374.0	413.6	399.7	369.7	336.4	361.7	359.1	329.1
Maine	47.3	46.6	47.6	42.9	43.0	38.7	37.9	37.0	36.3	32.9
Maryland	104.3	108.5	111.9	102.8	102.5	99.0	100.9	97.5	92.9	90.8
Massachusetts	131.4	133.5	135.0	122.6	124.1	119.7	109.5	111.9	109.7	103.1
Michigan	186.7	189.8	191.4	180.0	180.8	167.3	161.1	160.7	157.5	154.9
Minnesota	128.6	132.4	133.4	129.7	130.7	125.1	117.4	117.4	115.8	116.1
Mississippi	88.0	87.1	83.0	85.7	84.4	77.8	76.0	79.0	76.8	78.6
Missouri	139.5	141.4	141.0	139.6	140.8	133.6	127.2	127.0	123.8	120.6
Montana	28.6	32.2	33.5	35.4	38.1	33.7	32.0	31.2	32.0	31.3
Nebraska	43.1	44.2	43.0	43.1	43.5	42.2	40.1	41.3	44.2	44.4
Nevada	44.4	48.3	51.2	54.0	53.6	49.9	46.1	45.3	40.4	41.1
New Hampshire	36.6	37.7	35.4	32.1	32.0	32.1	31.0	29.8	29.2	27.5
New Jersey	205.9	210.5	222.2	216.6	230.2	219.7	195.5	201.7	205.3	183.6
New Mexico	45.5	47.2	47.1	49.6	53.2	49.8	47.7	48.3	49.2	49.4
New York	313.5	330.8	325.3	286.9	289.9	279.0	264.5	251.1	238.7	241.8
North Carolina	169.2	175.8	178.3	173.9	175.4	174.7	161.0	162.8	155.0	149.4
North Dakota	22.6	25.0	25.7	25.4	26.5	26.3	24.0	28.0	33.8	37.0
Ohio	245.0	242.6	240.3	242.1	242.2	233.0	219.5	221.9	219.3	214.0
Oklahoma	98.9	97.4	104.8	111.0	103.9	103.2	90.7	91.9	98.4	99.1
Oregon	65.3	67.5	69.0	70.3	69.8	68.4	67.9	65.8	64.8	63.3
Pennsylvania	261.9	269.7	273.6	264.0	261.4	250.0	241.8	242.6	233.1	223.8
Rhode Island	18.6	18.1	17.9	17.2	16.9	17.3	18.0	17.5	15.5	14.8
South Carolina	91.0	104.9	101.3	102.5	100.0	98.4	100.3	97.9	93.3	92.1
South Dakota	21.3	21.6	22.4	22.1	22.7	22.1	22.7	22.0	22.2	22.5
Tennessee	137.6	140.6	145.5	146.7	145.9	135.7	127.0	130.7	131.9	127.2
Texas	1,239.3	1,285.0	1,232.0	1,248.1	1,245.8	1,145.5	1,143.5	1,232.2	1,256.9	1,280.0
Utah	49.7	50.4	52.8	56.9	55.6	53.0	49.7	49.3	53.1	51.6
Vermont	16.3	17.9	17.3	17.0	16.7	15.7	16.3	15.7	15.3	14.6
Virginia	171.4	183.3	184.0	179.4	181.2	168.7	158.6	158.1	147.7	153.3
Washington	131.5	136.1	140.3	145.4	150.5	145.0	140.2	138.7	136.2	139.2
West Virginia	38.5	42.5	42.3	43.4	43.3	41.5	38.0	38.0	35.8	35.1
Wisconsin	109.7	115.4	114.8	113.2	113.7	110.6	103.6	104.5	101.3	98.6
Wyoming	28.0	27.3	27.9	30.0	30.7	31.4	29.6	30.0	29.9	30.7
Total U.S.	**7,312.2**	**7,587.6**	**7,592.8**	**7,550.9**	**7,548.3**	**7,136.3**	**6,851.6**	**7,000.7**	**6,916.6**	**6,767.4**

Source: Energy Information Administration.

Natural Gas Consumption

(MMcf.)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alabama	350,983	382,663	353,193	391,103	420,399	410,273	462,414	541,134	604,495	671,252
Alaska	414,234	406,319	432,972	373,849	369,966	341,887	342,259	333,312	335,458	343,110
Arizona	272,921	349,622	321,584	358,068	392,954	399,188	369,739	330,913	288,802	332,080
Arkansas	246,916	215,124	213,609	233,869	226,440	234,900	244,192	271,515	284,077	295,810
California	2,269,405	2,406,889	2,248,256	2,315,720	2,395,674	2,405,264	2,328,504	2,273,129	2,153,188	2,403,385
Colorado	436,253	440,378	470,321	450,832	504,775	504,784	523,726	501,351	466,680	443,367
Connecticut	154,075	162,642	168,067	172,682	180,181	166,800	185,055	199,426	230,035	229,159
Delaware	46,177	48,057	46,904	43,190	48,155	48,162	50,148	54,826	79,717	101,676
Dist. of Columbia	32,814	32,227	32,085	29,049	32,966	31,881	33,178	33,251	32,863	28,572
Florida	689,986	734,178	778,209	891,611	917,245	942,700	1,055,341	1,158,451	1,217,688	1,328,469
Georgia	379,761	394,986	412,560	420,469	441,107	425,042	462,798	530,031	522,898	615,769
Hawaii	2,732	2,774	2,795	2,783	2,850	2,701	2,608	2,627	2,618	2,689
Idaho	69,868	75,335	74,540	75,709	81,937	88,515	85,198	83,326	82,544	89,004
Illinois	998,486	953,207	969,642	893,998	965,591	1,000,501	956,066	966,679	986,866	938,144
Indiana	527,037	526,701	531,111	496,303	535,795	551,423	506,943	573,866	630,669	650,180
Iowa	230,161	226,819	241,340	238,454	293,274	325,772	315,186	311,075	306,909	295,183
Kansas	281,346	256,779	255,123	264,253	286,538	282,904	286,972	275,184	279,724	262,170
Kentucky	223,226	225,470	234,080	211,048	229,798	225,295	206,833	232,099	223,034	224,591
Louisiana	1,307,548	1,346,429	1,309,728	1,292,761	1,376,700	1,313,717	1,265,911	1,436,835	1,496,694	1,552,752
Maine	70,832	86,136	61,673	64,035	63,183	70,145	70,333	77,575	71,691	68,267
Maryland	197,024	194,725	202,509	182,294	201,053	196,069	196,510	212,019	193,986	208,949
Massachusetts	403,991	372,532	378,068	370,664	408,704	406,719	395,852	432,298	449,195	416,350
Michigan	924,819	916,629	913,827	803,336	798,126	779,603	735,341	746,749	776,466	790,149
Minnesota	371,261	359,898	367,825	352,570	388,335	425,351	394,134	422,968	420,770	419,529
Mississippi	265,842	282,051	301,663	307,305	364,068	355,007	364,323	438,733	433,538	474,190
Missouri	262,529	263,945	268,040	252,697	272,536	296,059	264,867	280,180	272,583	255,875
Montana	68,473	66,829	68,355	73,879	73,822	76,422	75,801	72,024	78,218	73,399
Nebraska	118,922	115,011	119,070	129,885	150,809	171,005	163,474	168,944	171,777	158,758
Nevada	185,846	214,984	227,149	249,608	254,406	264,596	275,468	259,252	249,971	273,504
New Hampshire	54,147	61,172	70,484	62,549	62,132	71,178	59,951	60,378	69,979	72,069
New Jersey	612,890	620,806	602,388	547,206	618,965	614,908	620,789	654,458	660,743	652,060
New Mexico	221,021	223,575	220,717	223,635	234,236	246,665	241,194	241,137	246,417	244,584
New York	1,101,618	1,098,056	1,080,215	1,097,160	1,187,060	1,180,357	1,142,625	1,198,127	1,217,324	1,223,058
North Carolina	218,642	224,796	229,715	223,032	237,354	243,091	247,047	304,148	307,803	363,945
North Dakota	60,907	59,986	53,050	53,336	59,453	63,096	54,564	66,394	72,462	72,741
Ohio	848,388	825,753	825,961	742,360	806,350	792,246	740,925	784,293	823,546	842,959
Oklahoma	540,103	538,576	582,536	624,400	658,379	687,988	659,305	675,727	655,920	691,992
Oregon	212,556	234,997	232,562	222,608	251,927	268,484	248,864	239,324	199,419	215,830
Pennsylvania	689,992	696,175	691,591	659,754	752,401	749,883	809,706	879,365	965,743	1,037,979
Rhode Island	78,456	72,609	80,764	77,204	87,972	89,256	92,744	94,110	100,455	95,475
South Carolina	146,641	163,787	172,032	174,806	175,701	170,076	190,927	220,235	229,498	244,850
South Dakota	43,881	41,679	42,555	40,739	53,938	65,257	66,185	72,563	73,605	70,237
Tennessee	257,315	231,133	230,338	221,626	221,118	229,934	216,944	257,443	264,230	277,290
Texas	4,074,323	3,932,971	3,526,380	3,459,579	3,543,067	3,568,024	3,407,195	3,594,337	3,712,710	3,890,807
Utah	154,125	155,891	160,275	187,400	219,701	224,187	214,220	219,214	222,227	223,040
Vermont	8,400	8,685	8,372	8,056	8,867	8,624	8,638	8,443	8,610	8,192
Virginia	262,970	277,434	299,746	274,175	319,913	299,364	319,136	375,420	373,444	410,107
Washington	249,599	262,485	264,754	263,395	272,613	298,140	310,426	285,727	264,588	264,252
West Virginia	126,986	122,267	117,136	113,085	115,973	111,479	109,652	113,179	115,360	129,611
Wisconsin	394,711	383,316	410,250	372,462	398,370	409,378	387,066	372,898	393,734	402,656
Wyoming	115,358	107,060	108,314	108,481	140,912	142,705	142,794	150,106	156,457	153,383
Total U.S.	22,276,502	22,402,546	22,014,435	21,699,071	23,103,793	23,277,001	22,910,072	24,086,798	24,477,430	25,533,449

Source: Energy Information Administration. Total Consumption - includes Lease & Plant Fuel and Pipeline and Distribution Use.

Energy Consumption By State 2012

Trillion BTU	Petroleum	Natural Gas	Coal	Nuclear	Renewable Energy	Other*	Total	% Petroleum and Natural Gas
Alabama	542.7	682.0	546.2	428.0	247.3	-541.5	1,904.7	64.30
Alaska	254.3	347.2	15.5	NA	20.3	NA	637.3	94.38
Arizona	489.0	339.1	420.6	334.6	128.2	-304.5	1,407.0	58.86
Arkansas	320.8	300.2	296.2	162.4	115.7	-131.0	1,064.3	58.35
California	3,284.0	2,456.3	43.8	193.9	805.7	857.0	7,640.7	75.13
Colorado	468.7	456.1	370.1	NA	106.4	51.1	1,452.4	63.67
Connecticut	302.3	236.3	9.3	179.0	39.8	-36.4	730.3	73.75
Delaware	99.3	104.4	17.4	NA	7.0	45.5	273.6	74.45
Dist. of Columbia	16.0	29.4	0.1	NA	0.9	122.9	169.3	26.82
Florida	1,529.4	1,348.4	483.0	187.3	307.2	209.6	4,064.9	70.80
Georgia	913.4	624.3	435.5	355.7	227.2	234.7	2,790.8	55.10
Hawaii	238.0	0.2	16.6	NA	25.5	NA	280.0	84.98
Idaho	157.6	90.3	5.2	NA	158.7	107.4	519.2	47.75
Illinois	1,170.1	936.8	969.2	1,010.2	223.2	-445.7	3,863.8	54.53
Indiana	729.1	654.8	1,192.9	NA	144.7	64.1	2,785.6	49.68
Iowa	407.8	266.3	422.6	45.6	364.3	-57.0	1,449.6	46.50
Kansas	389.2	267.9	307.5	86.8	89.0	-13.8	1,126.6	58.33
Kentucky	597.4	231.3	909.7	NA	74.0	58.2	1,870.6	44.30
Louisiana	1,722.0	1,575.5	238.8	164.1	126.2	82.0	3,908.6	84.37
Maine	171.1	70.5	1.3	NA	139.1	-2.9	379.1	63.73
Maryland	467.0	216.6	192.4	142.3	70.0	298.1	1,386.4	49.31
Massachusetts	532.6	430.9	24.0	61.4	89.7	247.4	1,386.0	69.52
Michigan	785.6	803.6	621.6	293.6	162.2	37.9	2,704.5	58.76
Minnesota	607.2	427.5	257.9	125.2	227.7	178.8	1,824.3	56.72
Mississippi	419.2	479.9	82.5	76.5	83.5	-8.2	1,133.4	79.33
Missouri	627.8	258.9	768.4	112.3	80.9	-35.7	1,812.6	48.92
Montana	167.9	75.2	157.4	NA	128.6	-137.4	391.7	62.06
Nebraska	236.6	161.8	272.6	60.8	137.2	-8.4	860.6	46.29
Nevada	212.3	281.4	52.9	NA	67.9	25.5	640.0	77.14
New Hampshire	138.0	74.4	14.2	85.8	47.1	-75.6	283.9	74.82
New Jersey	974.0	670.8	25.6	347.0	87.5	167.0	2,271.9	72.40
New Mexico	253.6	250.2	263.1	NA	42.7	-122.9	687.0	73.38
New York	1,272.6	1,261.0	72.3	427.3	391.8	88.4	3,513.4	72.11
North Carolina	753.9	367.9	534.6	412.7	181.8	232.0	2,482.9	45.18
North Dakota	201.7	71.9	406.3	NA	99.8	-226.8	552.9	49.48
Ohio	1,127.4	869.6	1,018.8	179.1	133.3	358.2	3,686.4	54.17
Oklahoma	534.6	712.8	327.5	NA	129.1	-135.2	1,568.8	79.51
Oregon	331.8	220.6	28.1	NA	507.3	-101.9	985.9	56.03
Pennsylvania	1,176.0	1,079.5	1,093.3	787.8	171.9	-677.7	3,630.8	62.12
Rhode Island	75.8	98.4	NA	NA	7.3	0.1	181.6	95.93
South Carolina	475.1	250.5	298.6	536.0	132.3	-121.3	1,571.2	46.18
South Dakota	118.6	71.5	35.6	NA	145.3	5.4	376.4	50.50
Tennessee	666.5	281.2	423.1	263.0	177.0	286.4	2,097.2	45.19
Texas	5,918.4	3,992.0	1,498.9	402.8	514.2	-44.4	12,281.9	80.69
Utah	276.8	232.6	322.3	NA	27.6	-67.1	792.2	64.30
Vermont	73.0	8.3	NA	52.3	30.0	-34.7	128.9	63.07
Virginia	794.6	424.0	222.2	301.0	134.5	479.3	2,355.6	51.73
Washington	743.3	271.7	42.8	97.8	1,039.1	-138.0	2,056.7	49.35
West Virginia	185.1	140.0	759.1	NA	50.9	-412.4	722.7	44.98
Wisconsin	508.7	410.3	373.3	149.8	167.1	124.7	1,733.9	53.00
Wyoming	169.5	158.6	490.1	NA	54.7	-326.0	546.9	59.99
Total U.S.	**34,627.6**	**26,070.9**	**17,380.7**	**8,061.8**	**8,670.5**	**159.4**	**94,970.9**	**63.91**

Source: EIA.
Note: Totals may not equal sum of components due to independent rounding. Renewable Energy includes conventional hydroelectric power, biomass (wood and biomass waste, fuel ethanol, and losses and co-products from fuel ethanol production), geothermal, solar thermal and photo voltaic, and wind energy. Other includes Net Interstate Flow of Electricity/Losses and Net Electricity Imports.*

Industry Employment—2012

	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	1,848	0	1,475	539	1,303	2,385	2,804	17,389	27,743
Alaska	13,847	0	0	0	433	0	474	1,799	16,553
Arizona	412	0	238	271	400	0	1,826	15,073	18,220
Arkansas	6,633	464	168	445	865	1,271	2,079	11,671	23,596
California	23,317	12,504	2,145	2,831	11,655	0	11,566	51,374	115,392
Colorado	25,265	0	220	788	2,818	1,023	2,417	12,490	45,021
Connecticut	25	0	258	187	275	1,078	4,789	5,938	12,550
Delaware	10	0	104	0	0	0	848	2,286	3,248
Dist. of Columbia	0	0	0	0	0	0	0	459	459
Florida	955	37	2,564	212	767	1,720	5,582	39,493	51,330
Georgia	228	26	898	404	1,084	1,859	3,725	27,179	35,403
Hawaii	0	0	0	0	72	0	576	2,317	2,965
Idaho	163	0	0	74	199	275	699	6,010	7,420
Illinois	2,762	2,924	2,474	1,118	1,572	4,089	4,394	27,818	47,151
Indiana	510	0	1,215	537	1,578	1,871	3,601	22,011	31,323
Iowa	16	65	356	387	195	582	1,718	18,779	22,098
Kansas	9,115	1,426	667	845	1,302	1,835	1,746	9,677	26,613
Kentucky	1,608	0	467	910	809	890	2,806	16,356	23,846
Louisiana	51,310	9,113	2,164	2,868	14,831	1,758	12,754	18,628	113,426
Maine	9	13	364	89	47	82	3,302	7,250	11,156
Maryland	487	273	571	0	758	510	2,963	11,023	16,585
Massachusetts	111	0	596	148	334	3,217	6,370	12,027	22,803
Michigan	2,772	582	762	965	1,634	2,314	4,612	23,623	37,264
Minnesota	99	1,462	687	413	1,075	1,662	3,062	23,285	31,745
Mississippi	5,701	0	481	991	2,406	665	2,045	13,832	26,118
Missouri	187	51	1,115	294	548	2,772	2,977	25,240	33,184
Montana	3,754	1,045	0	466	836	324	967	5,121	12,513
Nebraska	301	0	0	135	167	1,384	1,007	8,805	11,799
Nevada	264	0	105	37	421	0	663	7,543	9,033
New Hampshire	26	0	87	0	0	200	2,513	4,524	7,350
New Jersey	343	1,542	1,090	334	1,055	4,024	5,055	17,207	30,650
New Mexico	18,643	0	33	203	1,822	1,140	1,538	7,504	30,883
New York	1,536	37	1,917	345	1,488	6,176	11,483	28,421	51,403
North Carolina	520	0	672	267	1,479	2,094	5,703	27,975	38,710
North Dakota	15,999	0	0	479	2,982	834	2,034	5,009	27,337
Ohio	5,654	1,677	2,847	1,035	2,498	4,058	5,295	33,673	56,737
Oklahoma	56,968	1,367	917	1,942	3,882	4,775	12,812	15,001	97,664
Oregon	20	0	376	0	225	0	1,405	9,906	11,932
Pennsylvania	21,276	2,070	3,941	2,163	7,711	4,273	10,125	38,078	89,637
Rhode Island	0	0	0	0	96	0	937	1,813	2,846
South Carolina	212	54	309	104	179	873	2,117	16,671	20,519
South Dakota	160	0	0	67	54	206	1,169	5,902	7,558
Tennessee	292	0	589	592	731	1,756	3,212	20,535	27,707
Texas	267,302	21,503	3,260	16,753	39,413	7,901	70,757	74,240	501,129
Utah	6,397	1,043	0	273	1,050	852	1,333	8,947	19,895
Vermont	0	0	0	0	0	0	1,485	3,754	5,239
Virginia	1,581	73	482	374	1,969	1,343	4,216	29,201	39,239
Washington	308	1,859	576	0	878	1,176	2,975	13,133	20,905
West Virginia	6,422	0	503	1,237	3,943	739	976	9,531	23,351
Wisconsin	117	0	257	367	699	681	2,901	22,883	27,905
Wyoming	17,217	1,056	49	749	3,268	222	779	3,749	27,089
Total U.S.	**580,480**	**71,363**	**40,073**	**44,575**	**124,284**	**115,716**	**246,697**	**842,942**	**2,066,130**

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 Petroleum Products. Pipeline Construction and Oilfield Machinery separated out on state pages. State page Refining includes Oil and Greases.

Data Sources & Notes

The editorial staff gratefully acknowledges the following sources of data that appear on the individual state pages.

Average Production (dry)	IHS
Average output per producing well	IHS
Cumulative production (marketed) & Reserves (wet after lease separation)	Energy Information Administration (EIA)
Cumulative wells drilled	IHS & State Data
Cumulative wellhead value	Energy Information Administration (EIA)
Coalbed methane and Heavy oil	IHS
Deepest wells drilled	IHS & State Data
End-use natural gas prices	Energy Information Administration (EIA)
Federal (Offshore) lease data	Bureau of Ocean Energy Management
Federal leases & royalties	Department of Interior and Minerals Management Service
Federal production shares	Office of Natural Resources Revenue, Department of Interior
First and peak production years	EIA and IHS
Marginal wells	IHS
Mineral lease revenues, bonuses & rent	Office of Natural Resources Revenue, Department of Interior
Natural gas marketed production	Energy Information Administration (EIA)
Natural gas vehicle production and station data	Energy Information Administration (EIA) and National Renewable Energy Laboratory
Number of employees	IPAA survey & Bureau of Labor Statistics
Operator	IHS. Defined as a company or individual who last reported.
Petroleum reserve position	Energy Information Administration (EIA)
Permits and Horizontal wells	IHS
Producing wells	IHS & State Data
Rotary drilling rigs	Baker Hughes, Inc.
State maps	State data and IHS data for producing entities by county.
Severance and production taxes	IPAA survey
Shale Gas	Energy Information Administration (EIA)
Statewide rankings	Energy Information Administration (EIA) for production and reserves. IHS data for wells drilled.
Total Production (dry)	IHS
Wellhead and City Gate prices and value	Energy Information Administration (EIA) and IPAA, State Data
Wells and footage drilled	IHS & State Data
Well summary and wells by type	IHS
Worldwide rank	BP Statistical Energy review and Oil and Gas Journal

Abbreviations

bbl. = barrel

b/d = barrels per day

Mcf = thousand cubic feet

MMcf = million cubic feet

Bcf = billion cubic feet

Tcf = trillion cubic feet

BTU = 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
- = 5,631 cubic feet of natural gas
- = 0.22 ton of bituminous coal

One cubic foot of natural gas:
- = 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
- = 25,437 cubic feet of natural gas

One metric ton of crude oil:
- = 2,205 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

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 - A range of petroleum products heavier than gasoline or jet fuel that includes heating 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.

Heavy Oil - A type of high-viscosity crude that may, or may not, naturally flow into a well bore. The limit for heavy oils has been set between 0.1 API gravity and 20.9 API gravity.

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 15 barrels of crude oil or 90 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) or Natural Gas Plant Liquids* - Hydrocarbons, such as LPG or natural gasoline, found with natural gas that are recoverable by absorption, cryogenic expansion or other means.

Natural Gas Marketed Production - Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring, nonhydrocarbon gases removed in treating and processing operations, and quantities vented and flared.

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 ship fuel and 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 unmarketable.

Wildcat Well - A type of exploratory well drilled in an unproven area where there has been no previous production.

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With more than **400 corporate members** and **10,000 individual members**, IPAA offers the lowest cost, yet most **efficient** results blending IPAA members' unique strengths with IPAA staff expertise.

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- Energy in Depth (EID)
- Energy Tax Facts (ETF)
- Endangered Species Watch
- Government Affairs Strategy Group (GASG)
- Government Relations Industry Team (GRIT)
- Relationships in Government (RIG)
- Grassroots Network – 50,000
- Litigation Fund
- Congressional Testimony
- Cooperating Associations
- Congressional Call-Up

2 ANALYTICAL CAPABILITY

- Declaration of Independents
- International Primers & Surveys
- U.S. Petroleum Statistics
- Oil and Gas in Your State
- Supply and Demand Reports
- IPAA Environmental Compliance System
- Industry Research & Analysis (Profile of Independent Producers)

3 BUILDING FOR THE FUTURE

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  - Milby High School
  - Westside High School
  - Southwest High School
  - Young Women's College Preparatory Academy
- Wildcatters' Ball
- National Energy Education Development Project (NEED)
- IPAA Emerging Leaders
- Executive Leadership Programs

4 NETWORKING

- IPAA Annual and Midyear Meetings
- North American Prospect Expo (NAPE)
- Oil and Gas Investment Symposia (OGIS)
- Private Capital Conference (PCC)
- Rockies Energy Lunch Action Series (REAL)
- Houston IPAA/Tipro Leaders in Industry Luncheon Series
- Dallas/Ft. Worth Leaders in Industry Luncheon Series
- Wildcatters' Sporting Clays
- Texas Wildcatters' Open
- IPAA Access TV
- Natural Gas Council
- CEO Briefings
- Association Council
- Supply & Demand Meetings

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