



Making a Wise Investment:

The Economic Impact of Oil and Gas Incentives

IOGCC

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1. Executive Summary

Incentives are an important part of every state's economic development tool kit. These programs are little noticed by the public, unless they are part of a splashy, expensive effort to land a large employer or manufacturer. Applied properly, incentive programs can also lead to existing-business growth and the creation of new jobs. Most of the nation's oil and natural gas producing states offer incentive programs designed to encourage the exploration and production of domestic energy.

Oil and natural gas incentive programs can take many forms, but collectively they are a wise investment by the states. Incentives can bolster an energy state's economic fortunes, and they also contribute to the energy security of the United States, as a hedge against increasing dependence on imported oil.

A skeptic might ask why any incentives should be necessary when oil prices hover in the \$30/barrel range, and natural gas prices inch ever higher. To answer a question with a question: When is it not appropriate to invest in job creation, economic development and energy security?

Oil and Natural Gas: A History of Boom and Bust

Seldom has the modern world seen an industry as fraught with instability, and yet so critical to society, as the oil and natural gas industry. The history of the 20th century is replete with stories of fortunes made, and lost, in the world's oil fields. Americans are familiar with boom and bust cycles that bring wild variations in the price of gasoline and other consumer fuels. In recent years, natural gas price fluctuations have become increasingly worrisome to consumers and producers alike.

A casual observer might see this situation as a perfect example of the Law of Supply and Demand. It is an example, though an extreme one, but it has consequences that reach beyond consumers' pocketbooks.

"Cheap" energy, in the form of low oil and natural gas prices, would seem to be in everyone's best interest. In fact, many elected officials have made political hay by promising "cheap" energy no matter the cost. But there is a cost, and it behooves everyone to understand the true cost of "cheap" energy.

During periods of low energy prices (a bust), oil and natural gas companies are forced to scale back exploration and the drilling of new wells. While producers efforts are concentrated on simply maintaining the production of existing wells, poor economic conditions can lead to the abandonment of marginally-producing ("stripper") wells. Cuts in operating budgets ultimately lead to the loss of energy industry jobs.

In consuming states the focus is on the low cost of gasoline, heating oil, and natural gas. At the same time, producing states face a dour economic reality: the loss of revenue and jobs in the energy industry begins to drag down the entire economy.

Ultimately, as demonstrated in the Law of Supply and Demand, energy prices rebound as consumers use more and more of the depleting supply of oil and natural gas. In many cases, however, that price rebound is not enough to return the domestic energy industry to pre-bust conditions. Especially for the small, independent companies who produce most of America’s domestic oil and natural gas, boom times become a time to pay back bank loans that kept them afloat and retiring other debts. Plans to drill new wells are held in check by the persistent fear that another bust cycle will wipe out that investment and even put the company out of business.

There are ways to ameliorate the instability, to smooth out the peaks and valleys of the domestic oil and natural gas industry, thereby protecting jobs and bolstering states’ economies and America’s energy security.

To paraphrase a famous politician, “It’s the incentives, stupid.”

Figure 1.1

Combined Economic Effects of All Incentives*	
Total Value.....	\$157,346,679,082
(Investment required by incentives + value of subsequent hydrocarbon production)	
Taxes Invested.....	\$5,539,194,175
(Investment by states through incentivized tax reductions)	
Net Economic Effects.....	\$358,358,541,777
Earnings Derived from Net Economic Effects.....	\$56,012,015,899
(Equates to 1,333,389 jobs or annual salaries)	
Federal Income.....	\$9,017,934,372
(Additional federal tax revenue generated)	
State/Local Tax Revenue Generated	
Severance Tax.....	\$1,389,107,570
State Income Tax.....	\$513,935,060
Corporate Income Tax.....	\$889,910,389
Sales.....	\$9,808,850,209
Property Tax.....	\$119,657,319
Total.....	\$12,468,279,886

**Includes all quantifiable incentives since inception of each*

Powerful Investment Tool

Incentive programs enacted at the state level are most commonly created by establishing a lower boundary on energy prices to initiate the incentive (price trigger), or by providing a stimulus to invest in oil and natural gas production.

Incentives may be portrayed by some as a “giveaway” to the oil and natural gas industry, or as “pork barrel” politics. In fact, incentives are an investment in a state’s economic well-being. Through incentive programs, state taxes are invested in the industry which then generates a greater economic benefit to the state. Figure 1.1 illustrates the potential return on this investment.

Figure 1.1 reflects the cumulative economic effect of all quantifiable state incentives. While it is not possible to determine how many of these economic effects are caused directly by incentive programs, the incentives appear to remain “profitable” for state legislatures which enact them. The short-term lessening of potential state tax revenue pales in comparison to the greater beneficial economic impact. The \$358.3 billion in economic impact creates \$56 billion in salaries, which in turn yields 1,333,000 jobs (annual salaries). About one-third of these jobs would be direct jobs in the oil and gas industry, while two-thirds would represent years of employment in other sectors of the state economy.

It is worth noting that the federal government is a principal beneficiary of state incentives. The federal government realizes approximately \$9 billion in additional tax revenue while the states shoulder the initial investment and risk of these programs.

(Note: Section 6 includes a similar summary table shows the cumulative effect of incentives state by state.) Total value shown in Figure 1.1 (\$157.3 billion) is the combined value of investments and the value of subsequent oil and natural gas production. This total value yields \$358.3 billion in net economic effects. States have invested \$5.5 billion to help generate these economic effects through tax reductions. In other words, a \$5.5 billion investment ensured a return more than 28 times greater for state economies. In turn, states which invested the \$5.5 billion received more than \$12 billion in state and local taxes, a yield of more than \$2 for every dollar invested.

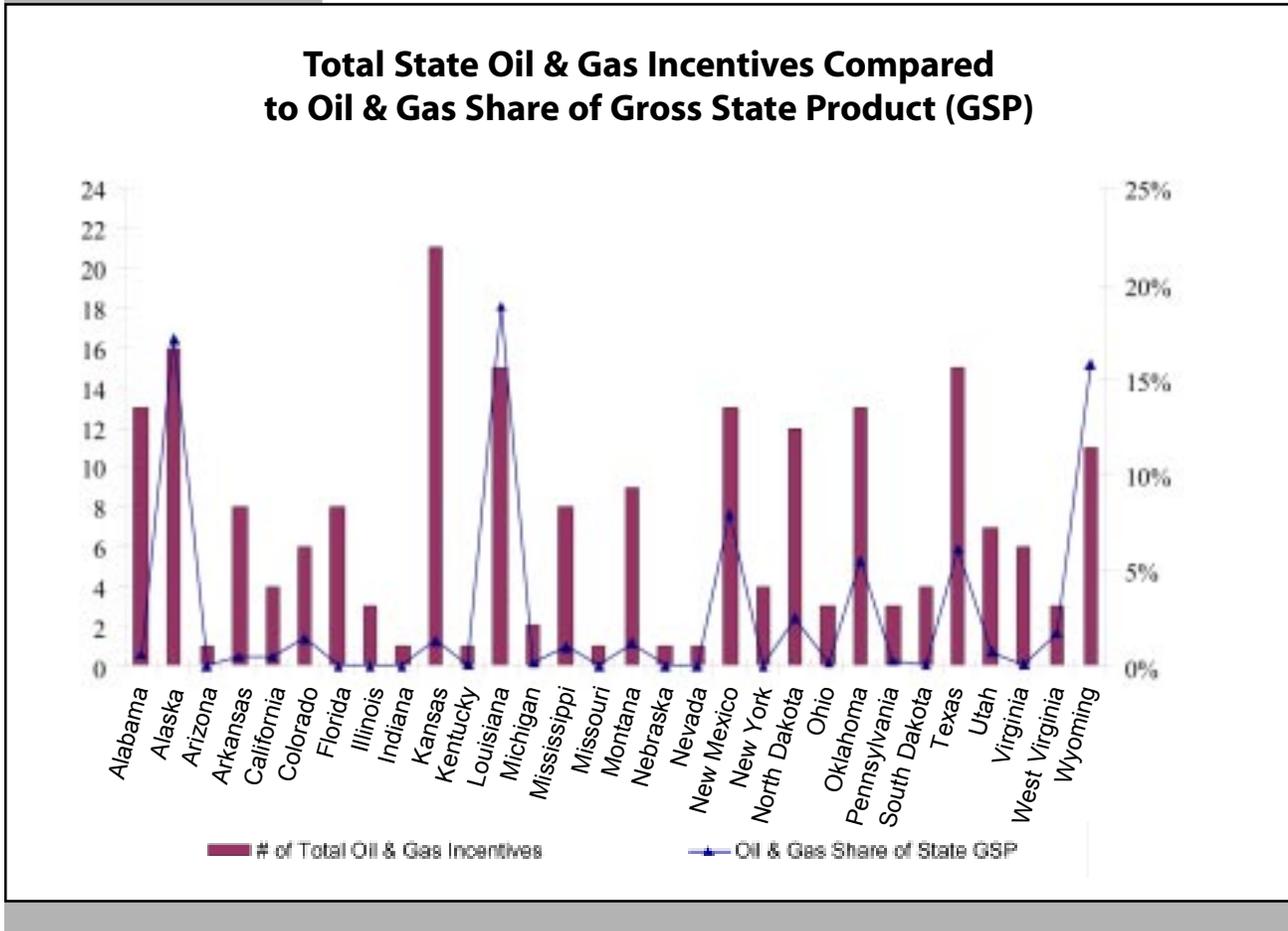
Lessons Learned

The oil and natural gas industry experienced its most recent bust during the late 1990s. During that time, oil prices fell to a level not seen since the 1930s, costing producers and producing states billions of dollars in lost revenue and taxes. The situation was tailor-made for incentives, and oil and natural gas producing states responded with many new and revised incentive programs.

Today, crude oil prices routinely exceed \$30/barrel, and natural gas prices have at times doubled and tripled. Incentive programs, which help investors mitigate their risk, can be credited in part with these increases.

One lesson to take from the late ‘90s bust: Had those new incentives been in place earlier, and had existing incentive price triggers been updated to reflect current economic realities, the bust might not have reached such an extreme level. To put it another way: why wait until the boat is on the ocean floor before bailing water? By keeping incentives in place, and setting price triggers that enact them before conditions are dire, states can ease the boom and bust cycle of the industry.

Figure 1.2



Another lesson learned: a healthy oil and natural gas industry plays a vital role in producing states. Analysis shows that producing states during the late '90s bust lost more than 29,000 high-wage jobs (typically, 50 percent to 100 percent higher than the state average).

If those who lost oil and gas jobs were able to secure employment at the average salary in the state, then these 29,000 families lost a total of \$768,286,800 in wages during the conversion from one job to another. The typical family losing an oil and gas job had its income reduced by \$26,221.

In the long term, there are no beneficiaries when oil and gas producing states suffer economic and employment losses like those of the late 1990s. American consumers may see a short-lived savings in their energy bills, but these are far outweighed by long term harm to the energy industry and to the economy.

Oil and Natural Gas Incentive Programs

It is clear, then, that properly applied incentives can be a powerful tool in stabilizing the domestic oil and natural gas industry, thereby protecting jobs, bolstering the economy and enhancing energy security.

Figure 1.3

Monetary Incentives For Investment Action or No Action Required			
State	Monetary Incentives	Investment Incentives	“No Action” Incentives
Alabama	7	6	1
Alaska	13	11	2
Arizona	1		1
Arkansas	6	4	2
California	2	1	1
Colorado	5	1	4
Florida	8	6	2
Illinois	1		1
Indiana			
Kansas	15	6	9
Kentucky	1	1	
Louisiana	15	10	5
Michigan	2		2
Mississippi	7	6	1
Missouri			
Montana	8	6	2
Nebraska	1		1
Nevada	1		1
New Mexico	8	6	2
New York			
North Dakota	11	8	3
Ohio			
Oklahoma	11	9	2
Pennsylvania			
South Dakota	3	1	2
Texas	11	9	2
Utah	7	4	3
Virginia	3	1	2
West Virginia	1	1	
Wyoming	8	6	2

It is generally impossible to totally avoid the negative effects of a disastrous fall of oil and natural gas prices. However, one successful countermeasure that can mitigate the economic damage resulting from price volatility has been the development of incentive programs to assist the oil and natural gas industry.

Thirty states offer some type of oil and natural gas incentive program. Figure 1.4 shows the correlation between share of the state economy contributed by the oil and natural gas industry and state incentive efforts. This clearly shows the relationship between a state’s Gross State Product

Figure 1.4

Non-Monetary Incentives

State	Incentives
Alabama	6
Kansas	6
New Mexico	5
New York	4
Texas	4
Alaska	3
Ohio	3
Pennsylvania	3
Virginia	3
Wyoming	3
Arkansas	2
California	2
Illinois	2
Oklahoma	2
West Virginia	2
Colorado	1
Indiana	1
Mississippi	1
Missouri	1
Montana	1
North Dakota	1
South Dakota	1

(GSP) and the number of incentives offered by that state. With few exceptions, the data show that states have a higher Gross State Product (GSP) from oil and natural gas revenues when more incentives are offered. (Figure 1.2 contains data through 2002, which is the most current data available.)

State incentives fall into two categories: those providing some type of tax benefit (monetary), and those that are beneficial while providing no direct state monetary relief. Tax benefit incentives are further classified according to the target of each incentive, its purpose, and the method used by the incentive to achieve its goal. (See Section 3).

There are 156 oil and gas incentives involving tax or royalty reductions in 25 states. Kansas and Louisiana offer 15 each, closely followed by Alaska with 13. (Figure 1.3)

Figure 1.4 shows incentives for each state that do not involve tax benefits, but provide some other type of support for the oil and gas industry. There are 57 non-monetary incentives in 22 states, including programs that reduce regulations, programs that provide information for the use of the oil and gas industry, and programs that create government support groups.

There are 48 oil-only incentives (14 states), 26 natural gas only (13 states), and 139 aimed at both (28 states).

Figure 1.5 shows states that have added incentive price triggers. Simply put, when oil or natural gas prices fall below a predetermined level, tax breaks are triggered that help offset

producers' increased costs and declining profitability. When prices rise above the trigger level, the tax breaks are removed. Thus, incentives help smooth the boom and bust cycle, easing producers' tax burden when they need help and ensuring that they pay their share when prices are high.

Many incentives have different purposes and methods. For example, some incentives promote investment action and some incentives reduce costs for wells in danger of ceasing production. In addition, a growing third group of incentives is designed to provide non-tax support for energy. Figure 1.6 shows various incentives available in each state.

Different monetary incentives can operate effectively in very different market circumstances. Investment action incentives work only when oil and gas prices are reasonable. Since price expectations typically guide investment decisions, extremely

Figure 1.5

Price-Trigger Incentives

State	Incentives
Mississippi	6
New Mexico	6
North Dakota	6
Kansas	4
Wyoming	4
Montana	2
Oklahoma	2
Texas	2
Utah	2
Louisiana	1

low prices scare away potential investors. However, prices at levels that allow expected investment returns to match or exceed the investor's benchmark can be a big factor in a positive investment decision.

On the other hand, tax breaks aimed at cost reductions make the biggest impact when oil and gas prices are low. When wells are in danger of being shut in, state incentives can be the factor that keeps them producing until conditions improve. When prices are higher, the help is beneficial, but not as crucial. Incentives give the investor a range of price sustainability over the life of the well. The investor can more accurately write his business plan for a particular development — probably the most important factor in the investor's decision-making process.

Non-tax state incentives provide support to the oil and gas industry whether prices are high or low. Individually, each incentive might have only a small impact, but collectively they provide a beneficial,

lower-cost environment that is attractive to industry. When combined with a balanced tax incentive program, states can maximize their efforts.

Figure 1.6

Types of Incentives Per State			
State	Investment Action	No Action	No Tax Benefits
Alabama	6	1	6
Alaska	11	2	3
Arizona		1	
Arkansas	4	2	2
California	1	1	2
Colorado	1	4	1
Florida	6	2	
Illinois		1	2
Indiana			1
Kansas	6	9	6
Kentucky	1		
Louisiana	10	5	
Michigan		2	
Mississippi	6	1	1
Missouri			
Montana	6	2	1
Nebraska		1	
Nevada		1	
New Mexico	6	2	5
New York			4
North Dakota	8	3	1
Ohio			3
Oklahoma	9	2	2
Pennsylvania			3
South Dakota	1	2	1
Texas	9	2	4
Utah	4	3	
Virginia	1	2	3
West Virginia	1		2
Wyoming	6	2	3

Figure 1.7, a subset of Figure 1.1, shows the effect of incentives in which an investment is required in order to qualify for a tax reduction. The industry has expended more than \$59 billion responding to incentive programs, yielding \$136.9 billion in economic effects. Industry investment is a key component in incentive programs, creating substantial economic benefits without any corresponding state tax investment. But more substantial benefits occur from oil and gas production (more than \$213 billion) after the investment is made. Most of the state investment occurs here, as the tax reduction most commonly applies to the sale of oil and gas at the well.

Figure 1.7

The Power of Investment Incentives*

Impact Without State Tax Investment:

Total Cumulative Investment.....\$59,681,797,901
(Investment by industry in response to incentives)

Net Economic Effects.....\$136,992,380,260
(With no corresponding state tax investment)

Earnings Derived from Net Economic Effects.....\$21,497,555,362
(Equates to 518,374 jobs or annual salaries)

Federal Income.....\$3,461,106,224
(Additional federal tax revenue generated)

State/Local Tax Revenue Generated.....\$4,574,140,815

Impact With State Tax Investment:

Total Cumulative Production Values.....\$94,149,404,210

Taxes Invested.....\$5,316,136,128
(Investment by states through incentivized tax reductions)

Net Economic Effects.....\$213,733,143,384

Earnings Derived from Net Economic Effects.....\$33,419,723,927
(Equates to 788,432 jobs or annual salaries)

Federal Income.....\$5,380,575,553
(Additional federal tax revenue generated)

State/Local Tax Revenue Generated.....\$7,635,811,624

**Includes all quantifiable investment-action incentives since inception of each*

Figure 1.8, also a subset of Figure 1.1, is a summary of incentives that do not require a specific investment action by industry.

Figure 1.8

Tax Incentives Requiring No Investment Action*

Total Cumulative Production Value.....	\$3,515,476,971
Taxes Invested.....	\$223,058,047
(Investment by states through incentivized tax reductions)	
Net Economic Effects.....	\$7,633,018,133
Earnings Derived from Net Economic Effects.....	\$1,094,736,610
(Equates to 26,583 jobs or annual salaries)	
Federal Income.....	\$176,252,595
(Additional federal tax revenue generated)	
State/Local Tax Revenue Generated	
Severance Tax.....	\$30,880,510
State Income Tax.....	\$11,579,200
Corporate Income Tax.....	\$7,577,281
Sales.....	\$193,598,216
Property Tax.....	\$14,691,940
Total.....	\$258,327,447

**Includes all quantifiable incentives since inception of each*

Incentives requiring no investment action generally are limited to the most marginally producing oil wells, providing a tax reduction simply for staying in business. Since these wells may be producing 10 barrels per day or less, the economic effects of keeping them in business are somewhat limited. Nevertheless, this category of incentive produces \$7.6 billion in economic effects in the adopting states.

Conclusion: Use All the Tools

States must maintain a balanced program of incentives in order to continue enjoying the economic benefits of oil and gas production. Programs should include incentives that require industry investment when prices are satisfactory, and incentives that protect marginal production when prices are unsatisfactory. Short of the complete elimination of wellhead taxes, states achieving this balance will have positioned themselves as the most competitive.

Incentives are necessary tools to enhance domestic production and curtail dependency on imported oil. One of the best examples is the use of incentives to extend the life of a producing well. Many states offer incentives to the operators of marginal wells. Those states understand that when marginal wells are shut-in, it is highly probable they will never produce again and their remaining reserves are lost.

It is not possible to isolate the incremental effects of incentives. The volume of projects before and after the incentive cannot necessarily be attributed totally to an incentive, although in some scenarios, the increment could be considered the “incentive effect.” One reason this is not precise is that other factors, such as commodity prices, also influence decisions. This study shows the tremendous benefit the oil and natural gas industry contributes to producing states and the federal government. The magnitude of benefits far outweighs the cost of incentives – a strong argument for an aggressive incentive program.

It is apparent from the economic benefits presented in this study that well-designed incentives accomplish far more than they were intended to accomplish. Incentives are currently responsible for: still-producing marginal wells; continued and new investment; development and use of new technology; drilling in deeper horizons and undeveloped areas; and many other advancements. Without specifically tailored incentives offered by the states, the oil and natural gas industry would move more swiftly to other parts of the world. Continued support of the domestic oil and natural gas industry, through the offering of these incentives, will enhance energy security by slowing the growth of dependency on foreign oil and natural gas. A strong domestic industry will also guarantee that jobs will be maintained or created. Even though the United States is not among the top 10 countries when listing oil and natural gas reserves, it is still the number one energy producing country in the world. This fact, to a large degree, is due to the incentives programs offered by the states.

2. Introduction

This publication, part of an ongoing study by the IOGCC of the economic benefits of oil and natural gas incentives adopted by the states, seeks to quantify the costs and benefits of incentive programs to determine what works, and the types of incentives that can be useful for all producing states. The focus of this report is on the effectiveness of state incentives currently being offered. It draws extensively from the 1999 IOGCC publication, *Against the Wind*, by David M. Garlick and Patricia Cleary Leo.

Before discussing specific types of incentives, it is important to understand the historical trends that have led to the current state of the domestic oil and natural gas industry.

Trendspotting: Domestic Oil & Natural Gas

While statistics from the past 20 years show that domestic oil and natural gas are diverging from historical trends, their fates remain linked (an important point when considering the ongoing importance of incentive programs).

Incentives are closely tied to the health of the oil and natural gas industry. Three simple indicators of industry health are:

- product price
- production levels
- rig count

The industry can maintain its health during periods of lower prices, lower production levels and lower rig counts if states have incentives in place that allow exploration and production of oil and natural gas to remain profitable. However, severe long-term fluctuations in any of these three indicators are detrimental to the economic health of the states and to industry. A balanced incentive program seeks to ensure that these three factors do not adversely impact industry at the same time. Incentives are intended to act as a stabilizing force that ensures the oil and natural gas industry remains a strong and viable contributor to a state's economy. A stable industry, in turn, means good paying jobs and a hedge against increasing dependence on foreign energy.

Figure 2.1 illustrates oil prices during the past 20 years. The line with squares reflects the real price, or the price adjusted for the effect of inflation. The line with dots shows the wellhead price for oil in the same period. Level prices existed until an extreme increase in 1982, so that is the base year for this illustration, and prices shown are inflation adjusted to 1982 dollars. In this section, prices for oil and natural gas are adjusted to 1982 dollars using data from the U.S. Bureau of Labor Statistics. Wellhead price data is from the U.S. Department of Energy, Energy Information Administration.

While oil prices have been relatively stable for the past three years, there have been distinct periods of volatility since 1982. In 1997-1998, the real price dropped to unprecedented low modern levels, or nearly \$6 per barrel in 1982 dollars. This represented the lowest prices since the 1930s. Comparing the average real price in 1986 to the price in 1998 shows that the 1998 price collapse was twice as severe as the 1986 fall. Since April of 1999, wellhead prices have averaged near the \$25.00 level.

Figure 2.1

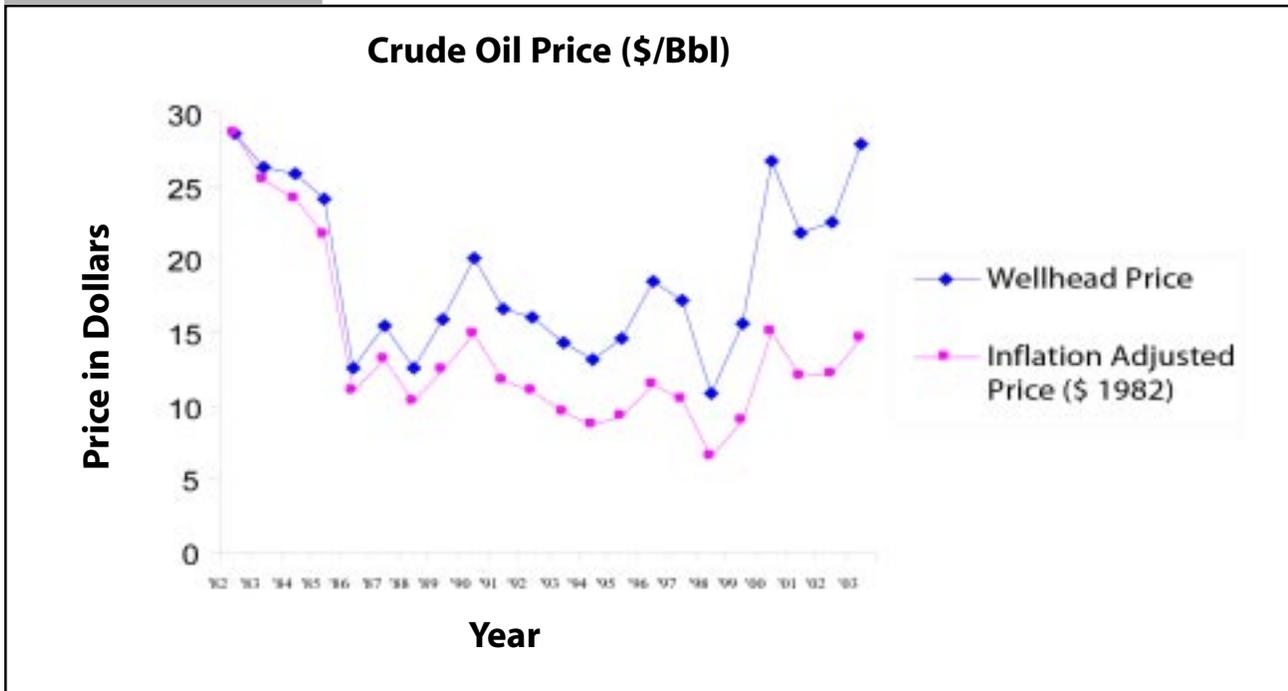


Figure 2.2

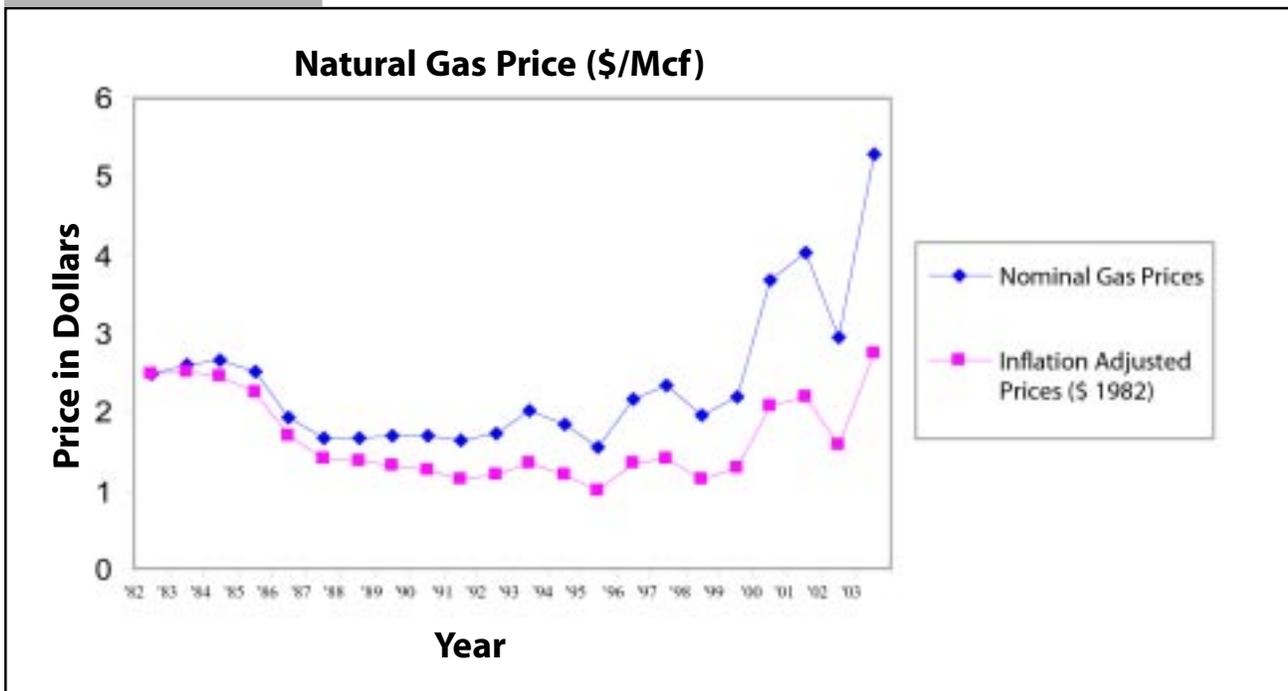


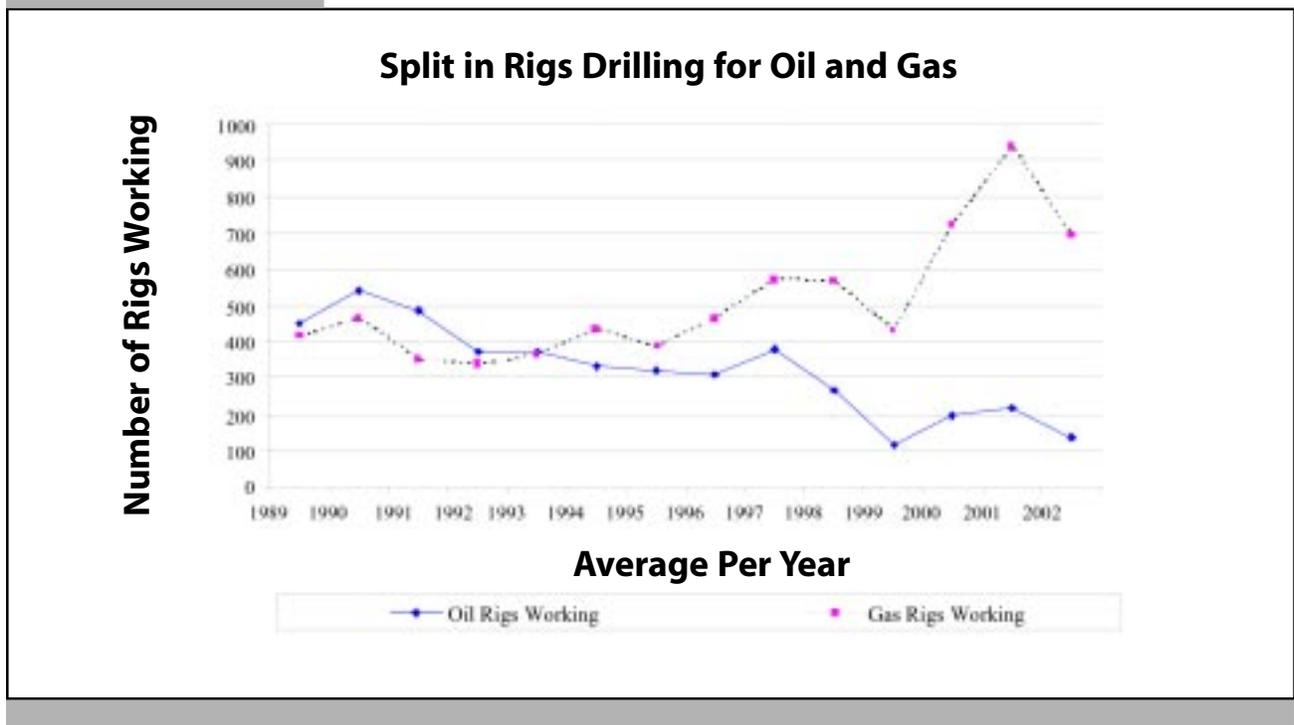
Figure 2.2 reflects changes in gas prices during the same period reviewed in Figure 2.1. As in Figure 2.1, the line with squares reflects the real price, or the price adjusted for the effects of inflation and the line with the diamonds shows the wellhead price. Generally, gas prices moved with oil during the 1970s and 1980s, but have not been linked as directly since the early 1990s.

Natural gas prices did not fall as severely as oil prices during the 1997-99 decline. On average, prices declined approximately 28 percent, or less than half of the decline experienced by oil producers. In spite of that, almost all the discussion at the time was on oil and the effects of the price decline on oil producers. Surprisingly, the gas price decline, while smaller percentage-wise, created greater drains on anticipated revenue than the oil fall.

In terms of energy, a barrel of oil will have approximately the same Btu content as 5,900 cubic feet of natural gas. Natural gas, however, has historically sold for *less* than the oil energy equivalent. This long-standing trend ended in the 1990s, as gas energy began to sell frequently at a premium to oil. During the 1997-99 oil price collapse, gas prices also fell, but not to the depths of oil. While oil prices were declining more than 50 percent, gas prices only declined by 28 percent. The data in Figures 2.1 and 2.2 reflect the fact that gas prices did not achieve the same historically low levels as oil.

A perception now exists that natural gas prices are less volatile than oil prices. A result of the fact

Figure 2.3



that oil and natural gas prices are no longer as closely linked is the noticeable divergence in the numbers of rigs exploring for the two products. Since the early 1990s, the number of drilling rigs exploring for natural gas has increased, while the number seeking oil has remained flat or has declined. Figure 2.3 illustrates this trend.

Figure 2.3 reflects the split in the type of wells being sought, that is, how many rigs are looking for oil and how many are looking for gas. Significantly, 1993 was the first year that the number of rigs looking for gas exceeded the rigs seeking oil. Since then, the two indicators have diverged further, reflecting the industry perception that gas is the fuel of the future, and that prices for gas are

relatively more stable and predictable. This chart is of interest because it illustrates that the oil and gas drilling industries are diverging; yet **the impact of a significant fall in oil prices still affects efforts to find gas**. It is important that states continue to include incentives to encourage gas exploration and development.

There are fundamental differences in oil and gas production that should be explained before proceeding. When analyzing oil production, it is possible to assume that every well that can economically produce does so at its maximum every day. This is not necessarily true for gas. A variable that impacts the gas market is the fact that unlike most oil wells, not all gas wells are producing their maximum from month to month. Gas wells traditionally produce at levels determined by seasonal demand. Historically, gas production and prices tend to peak during the summer cooling season and winter heating seasons. However it must be noted that production and prices of natural gas are now also affected by gas storage facilities.

Figure 2.4

U.S. Oil Production		
Year	Avg. Daily Production	Percentage Change
1982	8,649,000	
1983	8,688,000	+0.4%
1984	8,879,000	+2.2%
1985	8,971,000	+1.0%
1986	8,680,000	-3.2%
1987	8,349,000	-3.8%
1988	8,140,000	-2.5%
1989	7,613,000	-6.5%
1990	7,355,000	-3.4%
1991	7,417,000	+0.8%
1992	7,171,000	-3.3%
1993	6,847,000	-4.5%
1994	6,662,000	-2.7%
1995	6,560,000	-1.5%
1996	6,465,000	-1.4%
1997	6,452,000	-0.2%
1998	6,252,000	-3.1%
1999	5,881,000	-5.9%
2000	5,822,000	-1.0%
2001	5,853,000	+0.5%

These facilities generally buy gas in the off-peak months (lower prices) and hold it for the peak when prices rise. The realization that these facilities can affect the production of natural gas is illustrated by the fact that in February, one of the coldest months, production of natural gas often decreases as gas comes out of storage to meet demand.

Figure 2.4 shows the actual crude oil production as reported by the EIA starting in 1982.

Oil production in the United States declined every year from 1985 until 2001 with the exception of a .8 percent increase in 1991. As Figure 2.4 indicates, the decline rate accelerated following the fall of high oil prices attributed to the 1991 Persian Gulf War. Then, as prices increased, the production decline slowed. Production peaked at 6.486 million barrels per day in conjunction with the price peak in September 1997. This daily rate was greater than the daily average during the previous year. The United States was increasing its oil production in response to the price rise. Then, as prices fell in the months following, the decline in domestic production accelerated once again. In the 20 months from October 1997 to May 1999, U.S. crude oil production decreased a total of 9.7 percent. Annualized, this is equal to a 5.4 percent decline, or a rate 2.5 times faster than the average decline the preceding six years.

Following the price collapse of 1997 – 1999, industry began to recover and production increased. 2001 saw a modest increase and 2002 production was unchanged or only slightly lower. Increased production, as previously stated, is only one indicator of a healthy oil and natural gas industry. However, **increases in production can be attributed, in part, to a friendly regulatory climate.** This point is proven by the fact that states offer incentives that keep a producing well profitable during periods of price fluctuation. Production may remain stable, or even increase, while prices fluctuate.

Figure 2.5 shows crude oil production from marginal wells as reported by the IOGCC in its annual marginal well report (*Marginal Oil and Gas: Fuel for Economic Growth*).

The level of oil production from marginal wells (also called “stripper” wells) in the United States provides a very clear example of why incentives are important to the economy of the states and the oil and natural gas industry.

Figure 2.5 represents the same period documented in Figure 2.4, but also has production figures for 2002. The rate of decline seen in United States oil production declined every year from 1992 until 2001. As Figure 2.4 and 2.5 indicate, the decline rate for U.S. oil production and oil production from marginal wells was greatest in 1989 following the price collapse of 1986. Where the production figures differ greatly is in the effects of the price collapse experienced during the 20-month period in 1997 – 1999. U.S. oil production declined significantly in 1998, 1999 and continued to decline in 2000. However, while production from marginal oil wells declined at a significant rate in 1998, and production in 1999 was only slightly down, production in 2000 was sharply up.

Production from marginal wells decreased sharply in 2001, but rebounded in 2002. **The more stable production figures from marginal wells reflects states’ recognition of the need for incentive programs that keep marginal oil wells producing in times of price fluctuations.** This point is increasingly important — these marginally producing wells accounted for 27 percent of domestic onshore oil production in 2001 and 30 percent in 2002. As of January 1, 2002, there were over 400,000 marginal wells producing over 800,000 barrels per day. This production is equivalent to the amount of oil that was imported from Iraq before the Iraqi conflict this year.

Figure 2.5

U.S. Marginal Oil Well Production		
Year	Production (M Bbls)	Percentage Change
1982	441,951	
1983	462,013	+4.5%
1984	463,459	+0.3%
1985	455,884	-1.6%
1986	449,446	-1.4%
1987	446,837	-0.6%
1988	442,800	-0.9%
1989	386,916	-13.0%
1990	383,197	-1.0%
1991	377,288	-1.5%
1992	368,410	-2.4%
1993	355,961	-3.4%
1994	339,930	-4.5%
1995	332,288	-2.2%
1996	323,468	-2.7%
1997	322,789	-0.2%
1998	316,173	-2.1%
1999	315,514	-0.2%
2000	325,947	+3.3%
2001	316,099	-3.0%
2002	323,777	+2.4%

States realize the importance of production from marginal wells and more than half of the oil producing states have incentives directed at keeping these wells in production.

Figure 2.6

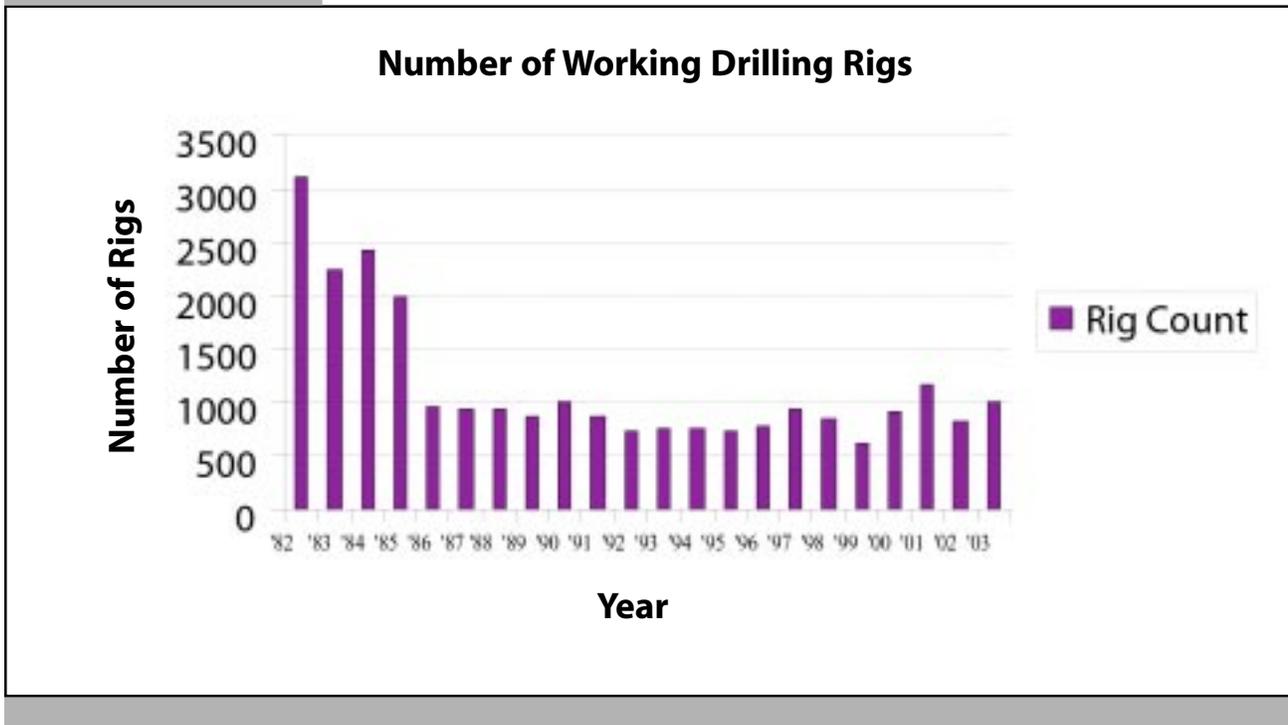


Figure 2.6 shows the number of drilling rigs working from 1982, following the drilling activity peak year of 1981 until 2003. Rig count will follow product prices, and higher prices impact the number of rigs exploring for oil and natural gas. However, a close examination of the rig count over the last 20 years shows that increases or decreases in drilling activity cannot be solely attributed to fluctuations in prices.

For the 10-year period following the price collapse of 1986, drilling activity was stable, then decreased, increased, decreased again, and finally stabilized at lower levels for five years. This is the period during which the number of rigs exploring for oil and those seeking natural gas were similar. Then beginning in the late 1990s prices for oil became volatile, while natural gas prices generally remained stable or increased. During this period the number of rigs drilling for natural gas began to far exceed those seeking oil (See Figure 2.3). It should, therefore, be noted that demand for natural gas and the price for gas are both important factors that impact rig count.

Currently, the United States is seeing an increase in total rig count. During the past year, natural gas prices have increased from \$3.89 per Mcf to \$5.705 per Mcf. The gas rig count during this same period has increased by 30 percent. At this time, rigs drilling for natural gas represent approximately 86 percent of the total number of rigs working.

As states revisit their incentive programs, it is crucial to remember that while prices may be relatively high today, history shows that a period of volatility can be just around the corner. Retaining incentive programs is a proactive step to ensure that the impact of price volatility can be softened. And while oil and natural gas appear to be on diverging paths, a balanced incentive program will continue to consider both sides of the industry.

Why Are Producing States and the Federal Government Interested In Tax Incentives?

Even during relatively stable times, states continue to enact incentive programs because they bring a healthy return on the tax dollars invested. Producing states realize that when they offer incentives to encourage exploration and production of oil and natural gas, they receive economic benefits far exceeding their investment. States offering these incentives continuously evaluate the effectiveness of their incentive programs. Ineffective incentives are repealed or allowed to lapse. Though some incentives are not successful, most achieve their goal and states benefit from the existence of those incentives. Incentives generate increased taxable income, create jobs, spur technological advances and benefit the general economic well being of the state.

Utah enacted the first incentive in 1947 in the form of a severance tax reduction. Since then, other states have implemented incentive programs designed to aid economic development. Fluctuations in price, production or activity have impacted the number of incentives enacted. Following the price collapse of 1986, passage of new incentives accelerated. In 1994 alone, 25 programs were approved by producing states followed by 24 in 1995 and 24 in 1996. As the economic health of the state and its oil and natural gas industry strengthened, the number of incentives generally decreased. With the economic distress experienced by the oil and natural gas industry from 1997 to 2002, the states responded by enacting 43 new incentives.

Figure 2.7 shows the growth of oil and gas incentive programs by year.

Producing states realize the importance of a healthy oil and natural gas industry. While the oil and gas share of the gross state product (GSP) of producing states has significantly decreased since 1981, the change since 1997 has been relatively negligible in most states. Figure 2.8 shows the percentage of the GSP contributed by oil and gas exploration and production for the states included in this survey in 1981 (just before prices began their decline), in 1997 (just before another sharp decline in prices), and in 2002 (the most recent figures available). Only states in which the percentage of the GSP is greater than 1 percent in 1981 are shown in the figures.

In 1981, eight producing states had a contribution from their oil and gas industries that represented more than 10 percent of the total state economy. In 17 states, the oil and gas industry contributed more than 1 percent of the wealth created in the state.

By 1997, only 11 states could claim that more than 1 percent of their economy was from oil and gas production and exploration. Between 1981 and 1997, seven states saw the oil and gas share of GSP drop more than 75 percent. This is the result of several factors, including declining oil and gas production, growth in other sectors of the economy, inflationary effects on oil prices and fluctuating prices.

Figure 2.7

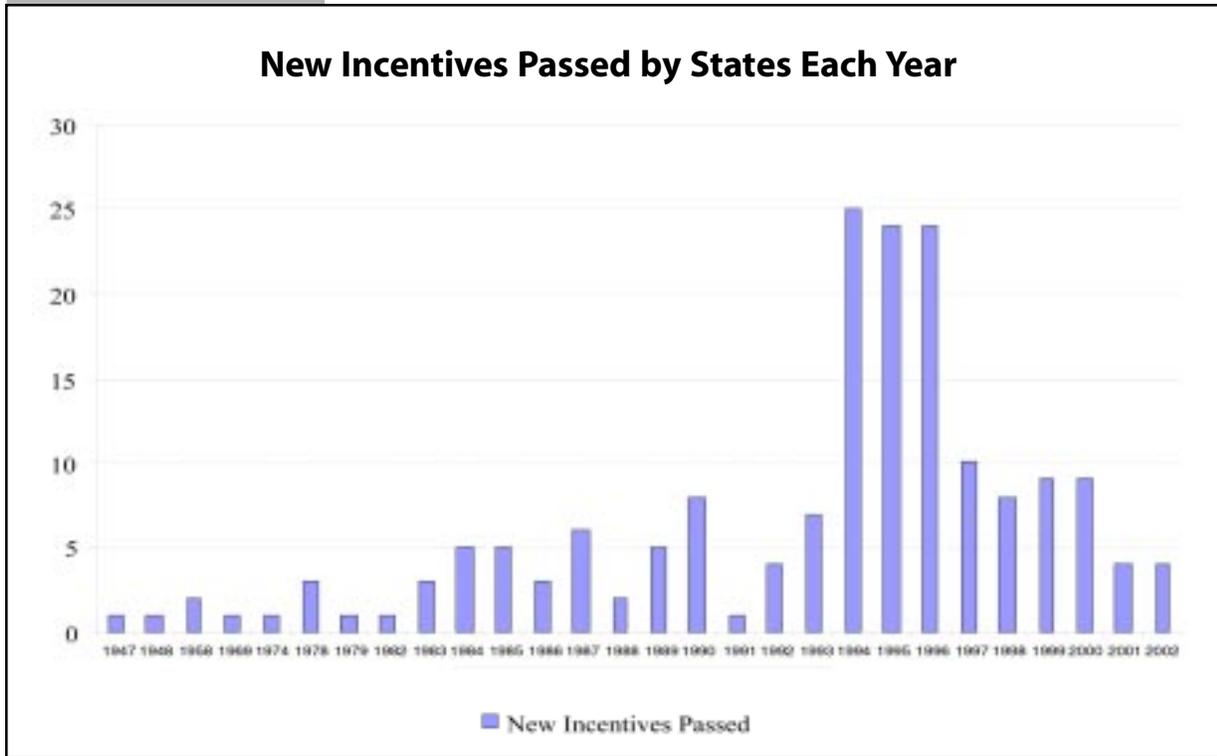
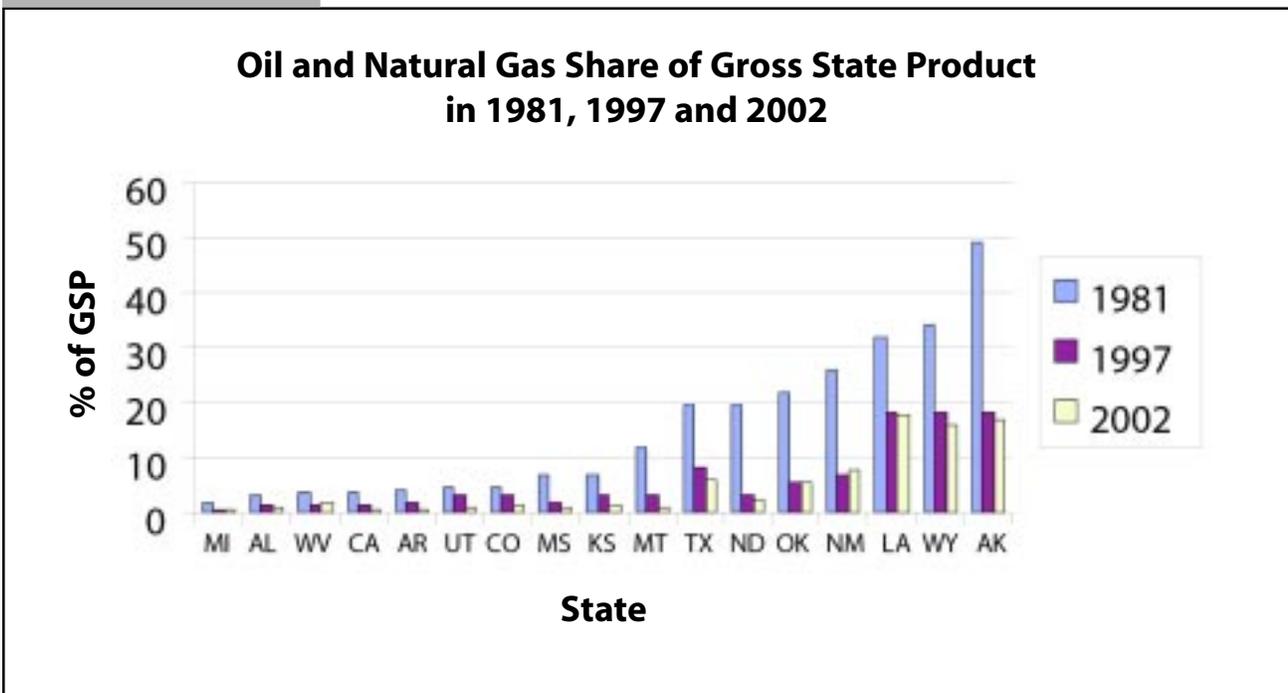


Figure 2.8



The change since 1997 is not so dramatic. Since 1997, the GSP has dropped only slightly in most states and has remained the same or slightly increased in others. It is the dramatic losses in the oil and gas industry's contribution to a state's wealth, which severely undercut its economic well being, that states are trying to arrest with incentive programs.

The federal government also has a vested interest in the well being of the energy industry. In June 2003, President George W. Bush's budget plan included a provision to grant tax incentives totaling \$9.8 billion in the next five years for domestic oil and natural gas producers. According to an advance analysis of Bush's budget, tax breaks from fiscal 2002 through fiscal 2006 will be based on long-standing U.S. tax policy designed to increase domestic production and reduce vulnerability to supply disruptions.

Joseph Mikrut, the U.S. Treasury Department's tax legislative counsel, said in testimony before a House panel, "The tax incentives contained in the present law address the drop in exploratory drilling that has occurred since the mid-1950s and the continuing loss of production from mature fields and marginal properties."

In addition, the alternative minimum tax — also known as the windfall profits tax — has been effectively eliminated for independent oil and gas producers. Mikrut also highlighted tax incentives for energy efficiency and alternative energy, which have been key to insulating the U.S. economy from oil and gas price increases over the past two years. As a rough approximation, \$ 9.8 billion in tax incentives over the next five years would yield earnings of \$4,651,080,000, increase GDP by \$26,321,820,000, and increase employment by 105,840 jobs.

Conclusion: Setting Incentive Targets

It is in the vested interest of the states and the federal government to provide tax incentives to enhance domestic oil and natural gas production. As shown in this section, production of oil and natural gas is a significant portion of the gross state product of many of the producing states. Oil and natural gas exploration generates tax revenue and produces jobs. The states and the federal government continue to seek incentive programs that will help the oil and natural gas industry remain profitable corporate citizens who contribute to the state's economic health.

As previously mentioned, incentives strive to spur exploration and production by addressing fluctuations in price, production levels and drilling activity. To this end states design incentive programs that will achieve a balance between the types and numbers of incentives and the fair amount of taxes paid by industry. This is not an easy task, but the states know they must have incentive programs in place that will keep dramatic price fluctuations from causing similar fluctuations in production levels and drilling activity.

A review of product prices, production levels and rig count gives a broad overview of the many factors that contribute to the economic stability of oil and natural gas producing states. With an understanding of these factors, the recent stability of the oil and natural gas industry can, to a large extent, be attributed to incentive programs that target these specific market indicators.

3. Demographics of State Tax Incentives

Update of State Efforts

Thirty states report some type of oil and gas incentive program. Figure 3.1 shows the correlation between the share of the state economy contributed by the oil and gas industry and state incentive efforts. While some states have undertaken a large number of oil and gas incentives with a relatively small share of gross state product (GSP) for that industry, it is most common that those states with the higher share of GSP in oil and gas also have undertaken active incentive programs.

Figure 3.1

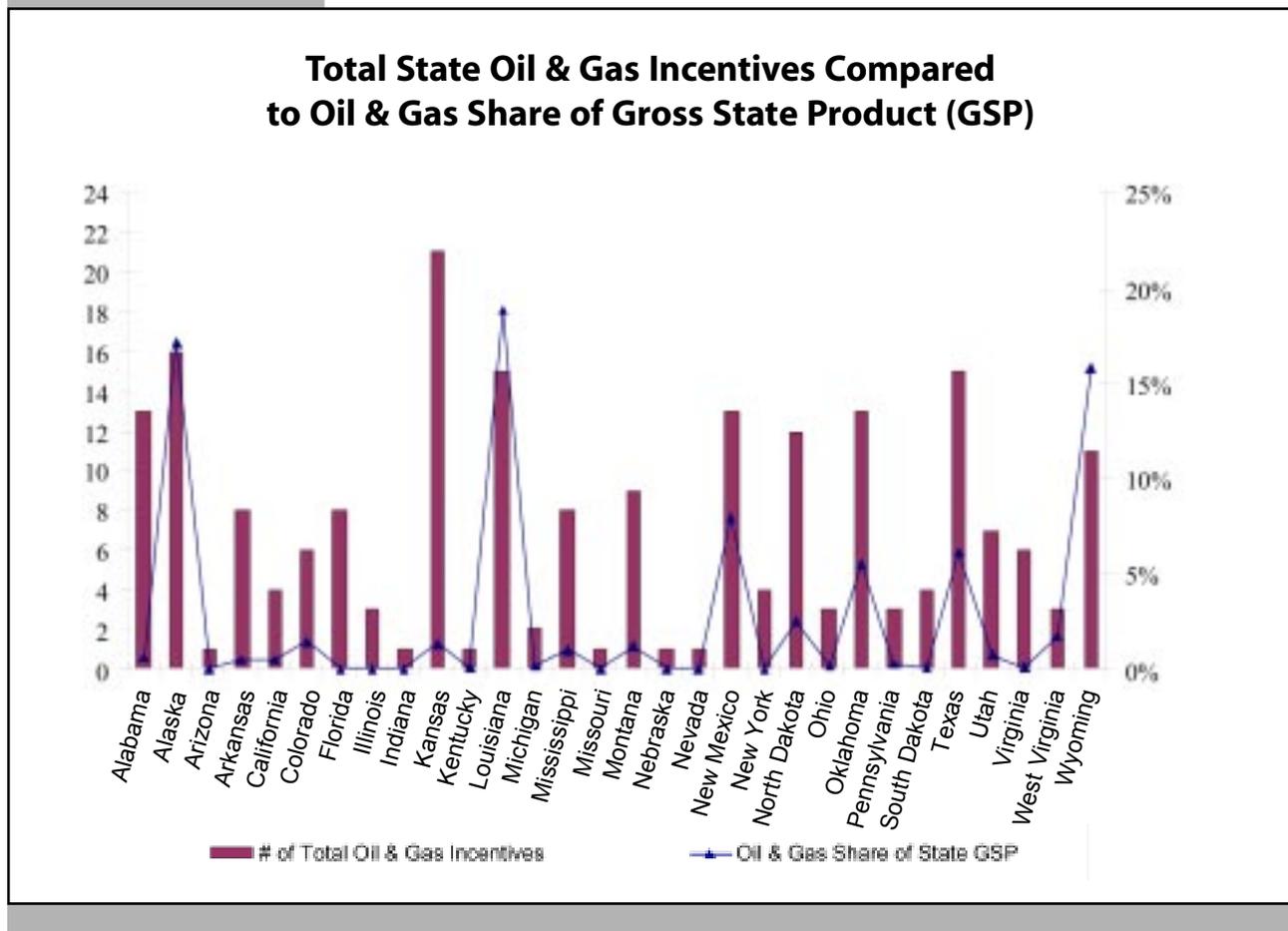


Figure 3.2 shows the number of incentives that involve some type of tax benefit to producers for each producing state in the IOGCC survey. A review of incentives as reported by the states shows some grouped together and reported as one, while others are reported as separate when they are basically identical. Incentives were examined and re-listed as separate for this study based on specific classification criteria. There are numerous ways to classify these incentives. In general, the criteria used in this study attempts to define what the states are trying to accomplish. If the goals of a singly listed state incentive varied, then the incentive was split to reflect the different purposes sought.

Basically, state incentives fall into two separate categories: those providing some type of tax benefit (monetary) and those that are beneficial while providing no direct state monetary relief. The state incentives involving tax benefits have been further classified according to the target of each

Figure 3.2

State	Monetary Incentives For Investment Action or No Action Required		
	Monetary Incentives	Investment Incentives	"No Action" Incentives
Alabama	7	6	1
Alaska	13	11	2
Arizona	1		1
Arkansas	6	4	2
California	2	1	1
Colorado	5	1	4
Florida	8	6	2
Illinois	1		1
Indiana			
Kansas	15	6	9
Kentucky	1	1	
Louisiana	15	10	5
Michigan	2		2
Mississippi	7	6	1
Missouri			
Montana	8	6	2
Nebraska	1		1
Nevada	1		1
New Mexico	8	6	2
New York			
North Dakota	11	8	3
Ohio			
Oklahoma	11	9	2
Pennsylvania			
South Dakota	3	1	2
Texas	11	9	2
Utah	7	4	3
Virginia	3	1	2
West Virginia	1	1	
Wyoming	8	6	2

incentive, its purpose and the method used by the incentive to achieve its goal. There are 156 oil and gas incentives involving tax or royalty reductions across 25 states, with Kansas and Louisiana offering the most with 15 each, closely followed by Alaska at 13.

Monetary incentives can be further classified into two groups based on purpose. Some are designed to stimulate activity by the operator to get him to go out and drill new wells, or spend money on enhanced recovery techniques, or bring an inactive well back into

production. These incentives try to draw out investment activity from operators and use a tax "carrot" as an enticement. The reduction in taxes lowers costs to the operator and weights the cost/benefit decision toward the benefit side of going ahead with the investment. From the state's

perspective, if additional investment occurs, there would be increased economic benefit from both the investment activity and any resulting increase in oil or gas production. Nineteen states offer 102 incentives designed to encourage investment.

The other 54 monetary incentives provide a tax break without requiring activity by the operator. They are designed to keep production from going offline by reducing operating costs. Marginal and high production-cost wells, are the main focus of these incentives. As long as the requirements set out by the incentive (daily production level, depth, drilling profile, profit/loss levels, etc.) are met, the production is eligible for the tax break and all the operator need do is file for it. The carrot in this case is to lower the costs to the operator and weigh the decision for shutting down the wells toward keeping it open until circumstances make operation more profitable, as in times of higher prices. Continued production also provides economic benefit to the state, so states choose to help the low-end wells to keep them producing. Again, in many situations, once a well is shut in, reservoir characteristics prevent it from ever producing again.

Figure 3.3 shows the number of incentives for each state that do not involve tax benefits, but provide some other type of support for the oil and gas industry. Of the 57 non-monetary incentives in 22 states, programs include reductions in regulations, increasing information available to the oil and gas industry, and the creation of government support groups. While these incentives do not directly lower costs to producers through a specific mechanism, most of them reduce costs by enabling better information and planning and by reducing the paperwork burdens involved with government. Four states with a smaller oil and gas presence in their economies have offered these types of incentives, even though they have no tax incentives. New York is a prime example, with a 0.02 percent oil and gas share of GSP, and offering four non-monetary incentives. States that might be unable to develop monetary incentives due to budgetary concerns could possibly provide more indirect incentives to support the oil and gas industry.

Some incentives are directed only at crude oil, others only towards natural gas, while most incentives include both. Figure 3.4 shows the number of monetary incentives that apply to oil, natural gas, or both, per state. There are 48 incentives directed at oil only (14 states), 26 at natural gas only (13 states) and 139 at both (28 states). Almost twice as many incentives target oil production, rather than gas production. This reflects the previously discussed perception that things are worse for oil. In actuality, as previously shown, the price collapse of 1997-99 was more damaging economically to gas producers than to oil producers.

State incentives also are designed to target different types of oil and gas production. Some incentives, particularly incentives for new wells, try specifically to encourage primary production (52 in 17 states), while others are directed at enhanced recovery

Figure 3.3

Non-Monetary Incentives	
State	Incentives
Alabama	6
Kansas	6
New Mexico	5
New York	4
Texas	4
Alaska	3
Ohio	3
Pennsylvania	3
Virginia	3
Wyoming	3
Arkansas	2
California	2
Illinois	2
Oklahoma	2
West Virginia	2
Colorado	1
Indiana	1
Mississippi	1
Missouri	1
Montana	1
North Dakota	1
South Dakota	1

production (24 in 15 states). Most (101 in 28 states) monetary and non-monetary incentives apply to all oil and gas production. Figure 3.5 shows the number of incentives targeting primary, enhanced recovery and all production for each state.

Monetary incentives also can be designed to restrict the direct tax benefit to a particular portion of

Figure 3.4

Incentives For Oil, Gas or Both By State			
State	Oil Only Incentives	Gas Only Incentives	Oil and Gas Incentives
Alabama			12
Alaska	3	3	10
Arizona			1
Arkansas	5	1	2
California		2	2
Colorado	3	0	3
Florida	1		7
Illinois			3
Indiana			1
Kansas	2	4	15
Kentucky			1
Louisiana	5	3	7
Michigan			2
Mississippi	2		6
Missouri			1
Montana	4		5
Nebraska	1		
Nevada			1
New Mexico	2	1	10
New York			4
North Dakota	11	1	
Ohio			3
Oklahoma	2	1	10
Pennsylvania			3
South Dakota		1	3
Texas	1	3	11
Utah			7
Virginia		3	3
West Virginia		1	2
Wyoming	6	2	4

the production stream. Tax reductions or exemptions can be applied to full production or only the incremental production resulting from some specified action. Full production stream incentives number 104, while 23 provide tax breaks to incremental production only. Limiting tax benefits to incremental production is a common feature for incentives encouraging production enhancement. These incentives require some point of comparison between production levels before and following a production enhancement

technique. These techniques include secondary and tertiary projects, workovers, new technology application, or in some cases anything done to enhance production. If the technique applied is

successful, the incentives provide a tax break on the extra production, over and above what was already being produced. This approach limits the tax loss to the state and stimulates investment in increasing production. Achieving an increase in production for the state is a primary goal of many incentives. Twenty-one of the thirty incentives designed to stimulate adoption of production enhancement techniques direct the tax breaks to the resulting incremental production only.

Figure 3.5

**Primary, Enhanced Recovery & All Production Incentives
Per State (Full Production & Incremental Only)**

State	All Production Incentives	Primary Production Incentives	Enhanced Recovery Production Incentives	Full Production Incentives	Incremental Only Incentives
Alabama	1	5	1	6	1
Alaska	6	8	1	11	2
Arizona	1				
Arkansas	6	1	1	4	2
California	3				
Colorado	4		1	1	
Florida	3	4	1	6	1
Illinois	2				
Kansas	10	1	4	6	3
Kentucky	1			1	
Louisiana	9	4	2	12	
Michigan	2			2	
Mississippi	2	5	1	7	
Missouri	1				
Montana	3	3	2	5	2
Nebraska	1			1	
Nevada	1			1	
New Mexico	7	2	1	7	1
New York		1			
North Dakota	4	5	2	7	3
Ohio	1				
Oklahoma	5	3	3	6	4
Pennsylvania	3				
South Dakota	3	1		1	
Texas	8	3	2	10	1
Utah	4	2	1	5	1
Virginia	3	1			
West Virginia	2				
Wyoming	5	3	1	5	2

Monetary incentives for investment are further structured to benefit certain types of wells. With the application of an incentive to a certain well, the benefits of undertaking a particular activity will increase, thus making it more likely to happen.

Figure 3.6 shows the different categories of wells that are the targets of the reported incentives, with 3.7 indicating the number of state programs in place for stimulating investment action, while 3.8 shows the different programs requiring no action from operators to qualify. Figure 3.9 shows the various classes of investment action that the incentives are designed to push.

Of the incentives designed for investment action, the most common across the states is designed to stimulate enhanced oil recovery (EOR) project investments. EOR requires large capital investment and can result in large production increases with both results having desirable economic benefits for the states. The second most common incentive targets inactive wells. This

Figure 3.6

Target Incentives for Wells	
Target Limited To	Incentives
All New Wells	18
All Wells	20
Deep or High-Cost Wells	5
EOR Wells	24
Existing Wells - All	10
Existing Wells - Marginal	27
Horizontal Wells	9
Inactive Fields/Wells	22
New Developmental Wells	5
New Field Discoveries	12
New Technology	4
Replacement Wells	1
Other	56

Figure 3.7

Monetary Incentives For Investment Action	
Target Limited To	Incentives
EOR Wells	23
Inactive Fields/Wells	19
All New Wells	15
New Field Discoveries	10
Horizontal Wells	9
Existing Wells - All	6
New Developmental Wells	5
Deep or High-Cost Wells	5
New Technology	4
Other	3
Replacement Wells	1
Existing Wells - Marginal	1
All Wells	1

The largest stimulus to promote a certain action is the group of new well incentives. There are 49 incentives aimed at drilling new wells, which includes discovery, horizontal, new developmental, and deep or high cost wells. The

incentive is also an attractive program for states because it brings back into production oil and gas that has dropped out. Every barrel or Mcf brought back into production is a barrel or Mcf that was not being taxed. Both the economic benefits of increased production and the avoidance of environmental or plugging costs can be realized with a successful program.

Figure 3.8

Monetary Incentives For No Action	
Target Limited To	Incentives
Existing Wells - Marginal	25
All Wells	19
Other	8
Existing Wells - All	1
EOR Wells	1

objective is clear. The resulting economic benefits from both the drilling and production of new wells can be many times larger than the benefits from a marginal well pumping a barrel per day.

Ten states have monetary incentives that encourage discoveries (new fields). Drilling for new fields makes good economic sense, because any newly discovered field would ultimately have additional wells drilled into it that may or may not be included in any tax benefits. By granting tax relief to just one well, additional taxpaying wells might be created, benefiting all levels of government as well as the economy. Despite technological advances in areas like three-dimensional (3-D) seismic

exploration, new discovery wells are still the riskiest to drill. These are the “wildcats.” The opening of global exploration has attracted oil and gas investments to the former Soviet Union, China, and the Far East where the potential rewards are much bigger with reduced geological risks (though possibly higher political risks). To keep investment dollars flowing toward finding the smaller domestic oil and natural gas fields, exploration has to become more attractive to the investor. With the typical new oil well costing more than \$400,000 and the typical gas well costing more than \$700,000, tax incentives help retain this economic support in the state.

Figure 3.9

Incentives Per Investment Action	
Operator Investment Action	Incentives
Invest in Any Drilling	32
Invest in Enhancement Techniques	30
Invest in Returning Wells to Production	20
Invest in Drilling Wildcats	13
Invest in Infill or Replacement Drilling	6
Invest in Plugging or Environmental Activity	6
Invest in New Technology	3

Figure 3.10

Incentives For New Wells	
Target Limited To	Incentives
All New Wells	18
New Field Discoveries	12
Horizontal Wells	9
New Developmental Wells	5
Deep or High-Cost Wells	5
New Technology	2
Replacement Wells	1
Other	1

Eight states have developed 18 monetary investment programs for all new wells, with Alaska having the most with five. Additionally, Alaska, Arkansas and Mississippi each have one incentive that does not involve tax benefits, but provides a regulatory or cost-reduction push towards new wells. The distinction between discovery wells and all new wells would be that new wells do not have to be drilled into a previously unknown reservoir to qualify for the tax relief (though they could be). Five states have developed incentives that specifically apply to new wells drilled into existing reservoirs. These development wells extend the knowledge of known reservoirs and can produce large quantities of oil and gas.

Five states offer breaks to encourage the drilling of deep or high cost wells. These wells generally are looking for gas reservoirs, as the presence of oil diminishes with the depth drilled. Deep reservoirs are expensive, frequently costing millions of dollars to drill. Seven states have incentives

to promote horizontal drilling, with North Dakota and Louisiana each having two. These incentives can include new horizontal wells or horizontal re-entries.

Incentives directed at stimulating investment in enhanced recovery often limit the tax benefits to a certain enhancement technique. Most common are incentives to encourage techniques in existing oil fields. Fifteen producing states have adopted 23 incentives to encourage the sizable additions to production that can occur from these expensive techniques. In general, secondary recovery consists of the injection of water in a controlled fashion into a known reservoir to displace the oil from the rock and push it to a producing well. Tertiary recovery involves even more costly techniques like steam flooding or the injection of massive quantities of carbon dioxide gas or polymer to manipulate the reservoir and improve recovery.

Figure 3.11

Enhancement Techniques	
Enhancement Technique	Incentives
Both Secondary and Tertiary	10
Tertiary Recovery	7
Waterflood (Secondary)	6
Workovers/Recompletions	4
All	3

Enormous quantities of discovered oil could be extracted utilizing these techniques. This country has the potential to improve its balance of payments deficit as well as lower its reliance on foreign oil by working to increase the use of these recovery methods. As shown in Figure 3.11, nine states have programs for both secondary and tertiary recovery, with Texas having two. Seven states have programs to encourage tertiary only while five states have

incentives directed at secondary recovery only, with Oklahoma having two. Additional state efforts, complemented by federal programs designed with the same principles in mind, could have tremendous benefit. Kansas also has one incentive, which reduces operating costs for enhanced recovery operations.

Other incentives in place that encourage enhancement of production are not EOR techniques. These incentives provide tax benefits for applying a variety of techniques to wells to increase production. Most of these give the tax exemption or reduction only to the incremental production that results from the enhancement. Some incentives limit the technique applied to workovers or re-completions, but several provide benefits for using virtually any technique.

Tax benefits granted to all qualifying wells without requiring any additional activity by the operator make up a class of 54 incentives. Such incentives can be applied across the board or limited to certain wells meeting production level or depth requirements. Marginal wells are the largest group receiving tax benefits for no action, with 25 incentives directed to these low producing wells.

The largest number of programs promoting production deal with the lower end of the spectrum. Inactive and marginal wells represent the “poor taxpayers” of the oil and gas industry. Inactive wells are not paying any tax because they are not producing anything to tax. Many states have realized that eliminating or reducing taxes to encourage the return of inactive wells to production actually costs the state nothing, while potentially benefiting other sectors of the economy.

Wells still producing, but approaching the end of their economic life, are called marginal wells. These may be stripper wells producing very small quantities of oil and gas, or wells capable of sizable production that have other factors increasing costs and removing profitability. For example, too much salt water may be produced along with each barrel of oil. For environmental reasons, the salt water must be properly disposed of or re-injected. Either method requires substantial costs. Hence, while a 25-barrel-per-day well is not generally considered as marginal as a three-barrel per-day well, it actually could be more marginal. If 2,500 barrels of saltwater have to be lifted a mile by the well pump each day, separated from the oil, and then disposed of properly to get 25 barrels of oil, that oil becomes very expensive to produce. States adopting incentives for these types of wells are attempting to keep the benefits of these wells flowing into the economy.

More incentive programs by more states relate to these marginal wells, which can be beneficial to the state budget. In the previous study, it had been estimated that the approximately 60,000 wells making three or fewer barrels a day in Texas add more than \$1 billion each year to the Texas economy and collectively pay a sizable amount of severance tax. Herein lies the dilemma for the states:

more marginal wells need to have their profitability increased by severance tax removal, while at the same time, the more marginal wells in the state, the more the state will depend on the tax revenue from them. In reality, this is not a dilemma. Without removing the severance tax, the probability is high of the well being shut in and becoming a non-producer.

Figure 3.12

Monetary New Technology Incentives (Not Including Horizontal)	
Incentive	Number
New Research Technology	2
Gas Research Review Committee	1
3-D Seismic	1

Figure 3.13

Monetary Other Incentives
Incentive
Act 31
Coalfield Employment Enhancement Tax Credit
Collection Wells
Extraction Tax Trigger
Flared Casinghead Gas
Natural Gas Sold Out of State
Pollution Control Equipment and Facilities Exempt
Property Taxation
Property Tax Reduction
Royalty Relief Tax Refund
Tax Offset for Property Tax

Nineteen incentives apply tax breaks to all wells and one to existing wells (would not include new wells) with no special requirements. These incentives include severance tax rate reductions, severance tax exemptions for lease use oil and gas, sales tax relief for equipment or electricity used for oil and gas production, saltwater cost credits, etc. Incentives are designed to keep production costs below revenue to maintain production. Four states have incentives to encourage new technology as shown in Figure 3.12. Horizontal drilling, while reflecting a relatively new

technology, has been in existence long enough to fall into a different category of new drilling. These technology incentives reward, through tax breaks, any efforts to develop new oil and gas extraction techniques and methods or to use the newest developments such as 3-D seismic. New technology brings economic benefits, both today and for the future.

Research and development on oil and gas occurs outside of the industry and several states have set up programs that sponsor research for oil and gas at universities or other government entities. States increasingly are adopting incentives that offer the oil and gas industry better information with easier access to data. States are increasing the use of the Internet to make more information available to users. Seventeen incentives offered by eight states are aimed at providing better information or research.

Figure 3.14

Other Non-Tax Incentives	
Cost Saving Technique	Incentive
Providing Information/Research	17
Reduction in Regulation	16
Other	8
Governmental Support Groups/Programs	6
Reduction in Paperwork	5
Reduction in Operating/Other Out-of-Pocket Costs	4

The last broad category involves “other” incentives. Unlike the incentives discussed so far, which are designed to stimulate a particular activity, these programs generally attempt to lower the financial burdens on the industry in a variety of ways. In general, they are tailored to individual state circumstances and vary accordingly. There are 56 incentives whose targets were classified as “other” because they did not fit into any category. Eleven, as shown in Figure 3.13, involved tax benefits while 45 did not.

Figure 3.15

Incentive Tax Types	
Tax Type	Incentives
Severance Tax	107
Extraction Tax	11
State Royalties	10
Property Tax	7
Sales Tax	6
Privilege Tax	5
Severance Tax or State Royalty	2
Net Proceeds Tax	2
Severance Tax, Privilege Tax	1
Sales Tax, Property Tax	1
Production Tax	1
Administrative Fee	1
Fees	1
All	1

Virtually all of the non-monetary incentives were directed at cost-savings for the oil and gas industry providing more information and research, reducing regulatory requirements, reducing paperwork requirements, and forming governmental groups or programs to support the industry. Figure 3.14 shows the number of incentives in each group, the largest being the growing number aimed at providing better information to the oil and

gas industry.

Figure 3.15 shows the various taxes that are reduced or eliminated in the state incentives. Overwhelmingly, in 107 incentives, the tax most used is the tax on production at the well, which is called the severance tax in some states and the gross production tax in others. Since most incentives are designed to achieve a goal, most frequently protecting existing production, and since this tax is not proportional to profit, it makes sense for this tax to be the one most frequently reduced. Some states that do not have severance or production taxes provide tax breaks through property tax. Royalty reduction is another incentive technique for the same reasons royalties are paid based on the amount of commodity produced, regardless of whether or not any profit occurred in its production.

Several states are adding features with price triggers to their incentives. To moderate the tax loss in times of higher prices, and help the oil and gas industry when it most needs it, during periods of low prices, states are setting up tax breaks that operate only when prices fall below certain levels. When prices rise above these levels, the tax

Figure 3.16

States With Price-Trigger Incentives	
State	Incentives
Mississippi	6
New Mexico	6
North Dakota	6
Kansas	4
Wyoming	4
Montana	2
Oklahoma	2
Texas	2
Utah	2
Louisiana	1

breaks are removed.

These price triggers are structured differently in each state. Some states set a flat price for oil and gas that is the sole determinant of whether the tax break applies. Other states add a time period, so that prices have to remain above or below a certain level for a specific time before things change. The price trigger also can be referenced to a base year to account for inflation. Kansas has an extensive incentive structure based on varying prices and different production levels for wells, the lower the prices go, the more wells qualify. Kansas also has a program with lower triggers for tertiary

Figure 3.17

Trigger Levels

Trigger Levels

- Increase qualifying wells when oil price < \$20 per barrel
- Oil price < \$12 per barrel
- Oil price < \$13 per barrel, gas price < \$1.50 per Mcf
- Oil price < \$15 per barrel or < \$18, gas price < \$1.15 or < \$1.35
- Oil price < \$16 through \$13 per barrel
- Oil price < \$17 per barrel or < \$14, gas price < \$1.75 or < \$2.10
- Oil price less than \$20 per barrel
- Oil price < \$20 per barrel or gas price < \$2.50 per Mcf
- Oil price < \$22 per barrel or gas price < \$2.75 per Mcf
- Oil price < \$24 per barrel
- Oil price < \$24 per barrel or < \$18 per barrel
- Oil price < \$25 (1997 \$) for 3 months
- Oil price < \$25 per barrel
- Oil price < \$25 per barrel and gas price < \$3.50 per Mcf
- Oil price < \$28 per barrel
- Oil price < \$30 per barrel
- Oil price < \$30 per barrel and gas price < \$3.50 Mcf
- Oil price < \$33 per barrel
- Oil price averages \$38 per barrel per month for 5 consecutive months

production. Thirty-five incentives in 10 states operate with a price trigger, as shown in Figure 3.16. Some of the 20 different trigger levels are shown in Figure 3.17. One incentive in Texas was created solely as a temporary “pull” for oil and gas as a response to the oil price drop in 1998. As the economic impact was felt on the oil and gas industry and on employment levels in many Texas towns and cities, the Legislature passed a temporary tax exemption based on price levels on the New York Mercantile Exchange. Prices for oil remained below the price cap for three months and more than \$16 million (out of a \$45 million limit) in severance taxes was given back to producers. In February 1999, Oklahoma instituted a permanent price-triggered tax rate based on monthly oil prices to act as an ongoing safety net in times of low prices.

States are continually looking at their incentive programs and quite often make changes to reflect successful results or changing market conditions. During 1999 through 2002, several states reported new incentives, extensions of current programs or other adjustments. Though not all changes have been reported to the IOGCC, and other proposals currently are under consideration by state legislatures, the following chart shows the 24 new incentive programs in 14 states that were reported to the IOGCC. Seven of the new incentives involve tax benefits while eleven incentives in ten states fall into the class of no tax benefits incentives and other industry support such as reductions in regulation and improved information.

New State Incentives

STATE	YEAR	INCENTIVE	DESCRIPTION
Alabama	2000	Carbon Sequestration Potential of Coalbed Methane Reservoirs in the Black Warrior Basin	Researchers are conducting an investigation entitled "Geologic Screening Criteria for Sequestration of Carbon Dioxide in Coal."
Alabama	2000	Unit Operations	Reduces the percentage from 3/4 to 2/3 for ratification of a unit agreement under the terms of the allocation formula established by the State Oil and Gas Board and for ratification of an addition to the unit area.
Alabama	1999	Eastern Gulf Subsalt Project, Geological Survey of Alabama	Investigators are conducting a research program called "Stratigraphic and Structural Framework of Subsalt Strata in the Mobile, Viosca Knoll (North), Pensacola and Destin Dome Areas of the Gulf of Mexico.
Alabama	2000	Coalbed Methane Fracture System Study, Geological Survey of Alabama	Researchers are conducting an investigation entitled "3-D Characterization of Natural and Induced Fractures in Coalbed Methane Reservoirs in the Black Warrior Basin in Alabama."

New State Incentives, continued

STATE	YEAR	INCENTIVE	DESCRIPTION
Alaska	2000	Stranded Gas Pipeline Carriers	Restricts common carrier status of a North Slope natural gas pipeline to intrastate transportation.
California	2002	Transfer of Pipeline Right of Way	Allows a utility to transfer easements and rights of way associated with a section of gathering pipeline to an individual producer or a cooperative of producers.
Illinois	1999	Illinois First	The initiative includes \$10 million over five years to plug abandoned oil and gas wells.
Indiana	2002	Indiana Oil and Gas Association (IOGA)/Department of Natural Resources (DNR) Advisory Board	An oil and gas operator can apply to the Advisory Board through a written proposal to take over an orphan well with the intent to produce, rework and produce, or plug the well. If the proposal is accepted and the operator chooses to plug the well, cost for materials and supplies will be reimbursed from a DNR grant awarded to IOGA.
Kansas	2000	Unitization	Empowers the Kansas Corporation Commission to unitize a pool upon request of a working interest owner under certain circumstances. First, primary production from a pool has reached a low economic level, and without introduction of artificial energy abandonment of the well is imminent; or the unitized management sought is economically feasible and necessary to prevent waste. Second, the estimated value of recovery is greater than the cost of conducting recovery. Finally, the operation is fair and equitable.
Kansas	2000	Property Taxation	Factors to be considered when assessing property taxes include age of well, quality of product produced, nearness to market, cost of operation, probable life of well, character, extent and permanency of market, quantity of product produced, number of wells operated, and other factors affecting lease value.

New State Incentives, continued

STATE	YEAR	INCENTIVE	DESCRIPTION
Kansas	2000	Incremental Production	Severance tax exemption for a period of seven years is given to the incremental production resulting from a production enhancement project begun on or after July 1, 1998.
Louisiana	2002	Severance Tax Relief	Production from oil and gas wells shall be exempt from severance tax for a period of two years when returned to service after being inactive for two or more years or having 30 days or less production during the past two years.
Louisiana	2002	Act 31	Provides exemptions from state and local sales and use taxes for repairs and/or materials used on drilling rigs and equipment used exclusively for exploration and development of minerals outside the territorial limits of the state in the Outer Continental Shelf.
Nevada	2000	Reduced Administrative Fee for New Production	Amount of administrative fee that a producer or purchaser of oil or natural gas must pay on new production is 1/2 cent per barrel of oil or per 50,000 cubic feet of natural gas.
New Mexico		Credit for Produced Water	Provides a tax credit of \$1,000 per acre/foot of cleaned produced water that is pumped into the Pecos River. Pumping of water must be in compliance with state and federal clean water regulations. Allows for an annual tax credit up to \$400,000.
New York		Natural Gas and Petroleum Exploration and Production for Economic Development	Program is designed to create economic activity in New York State through identification, development and use of indigenous natural gas and petroleum production.
North Dakota	2001	Statutory Unit Ratification	Lowers the percentage of working interest and mineral owner approval required to form and dissolve an oil production unit from 70 percent to 60 percent.

New State Incentives, continued

STATE	YEAR	INCENTIVE	DESCRIPTION
North Dakota	2001	Extraction Tax Trigger	New trigger price for excise tax incentive elimination on oil production will occur if West Texas Intermediate crude oil averages \$38 a month for five consecutive months. Trigger price will be adjusted for inflation annually by the North Dakota Tax Department. For an operator, this can immediately reduce taxes after approval. Reduction is 2.5 to 6.5 percent.
North Dakota	1999	Abandonment of Wells - Suspension of Drilling	Defines what constitutes abandonment of a well in North Dakota. Also dictates how soon after abandonment a well is to be plugged and the drill site reclaimed.
North Dakota	1999	Application for Stripper Well Property Determination	Gives requirements for an operator desiring to classify a property as a stripper well property for purposes of exempting production from extraction taxes.
North Dakota	1999	Application for Workover Project Determination	Applicants have the burden of establishing entitlement to exemption provided in NDCC 57-51.1-03 and upon completion of the workover project shall submit all information necessary for a determination by the director.
Ohio	2001	Emergency and Hazardous Chemical Inventory Form	Well owners will be deemed to have complied under the Community Right to Know Act by virtue of having filed well completion and annual production statements with the Division of Mineral Resources Management.
Oklahoma	2000	Secondary Recovery Properties	Incremental recovery from approved secondary oil or gas recovery projects begun on or after July 1, 2000, and before July 1, 2003, is exempt from paying gross production tax for up to five years, or ending upon termination of the secondary recovery process, whichever occurs first.
Pennsylvania	2001	Electronic Transactions Act	Allows for electronic submission of permit applications and required reports.

New Mexico and Texas are increasing efforts to handle oil and gas permits and data availability electronically on the Internet, while Alaska has a lot of oil and gas data available on its Web site. More and more states are following this example as the growing Internet industry makes the benefits of electronic access less costly than time-consuming human retrieval and processing.

The next chart shows the changes to current law that have taken place over the last year and a half, according to the survey by the IOGCC. Seventeen amendments were made from 2000 through 2002.

Amendments to Incentives

STATE	DATE	INCENTIVE	DESCRIPTION
Kansas	6/13/02	Venting and Flaring of Gas	Allows venting and flaring of gas from natural gas wells (including gas from coal seams) when approved by the Kansas Corporation Commission.
Kansas	1/25/02	Tests of Gas Wells	Increases daily minimum gas allowable from 150 to 250 Mcfpd and exempts such minimum gas wells from the burden of annual gas well testing (including the required 72 hour shut-in period).
Kansas	1/25/02	Gas Allowables and Drilling Unit	Increases daily allowable from 25 percent of the well's calculated absolute open-flow to 50 percent of AOF. Also raises minimum gas allowable from 150 Mcfpd to 250 Mcfpd.
Kansas	1/25/02	Temporarily Abandoned Wells; Penalty; Plugging	Allows operators more than 90 days of non-production before having to file a temporary abandonment (TA) application. Also provides framework for non-producing wells that may be fully equipped and capable of production relief from filing for TA approval up to 364 days of non-production, and extends the 90-day requirement for plugging or returning a well back into service.
Montana	2001	Marginal/Mini Stripper Wells (three barrels per day or less)	Oil from a well which produces three barrels per day or less is exempt from production taxes, except the 0.5 percent resource indemnity tax. A suspension clause eliminates this tax exemption when West Texas Intermediate crude oil prices reach \$38 per barrel for a calendar quarter and reactivates when the price drops below \$38 per barrel.

Amendments to Incentives, continued

STATE	DATE	INCENTIVE	DESCRIPTION
Montana	2001	Marginal/Stripper Wells (10-15 barrels per day)	Production tax rate on the first 10 barrels produced from a stripper oil well is 5.5 percent. Production tax rate is 9 percent on the next 10-15 barrels of oil produced from a stripper well. Lower tax rates are provided for stripper well production when the price of West Texas Intermediate crude oil remains below \$30 per barrel in a calendar year.
Oklahoma	7/02	Variable Tax Rate	Gross production tax levied on gas was changed from a fixed rate of 7 percent to a variable rate of 7 percent, 4 percent or 1 percent. Applicable rate will be determined by the average monthly price of Oklahoma gas. If the average price equals or exceeds \$2.10 per Mcf, the tax shall be 7 percent. If the average price is less than \$2.10 but is equal to or exceeds \$1.75 per Mcf, then the tax shall be 4 percent. If the average price is less than \$1.75 per Mcf, the tax shall be 1 percent.
Oklahoma	2000	Tertiary Recovery	Extended to June 30, 2003
Oklahoma	2002	Reactivation of Plugged and Abandoned Wells	Extended to June 30, 2003
Oklahoma	2002	Production Enhancement Projects	Extended to June 30, 2003
Oklahoma	2002	Horizontal Wells	Production from horizontally drilled wells is exempt until payout or for 48 months maximum. There is a rebate of 6/7 of the gross production tax paid on oil and/or gas produced from qualified horizontally drilled wells. Production eligible for this refund must have commenced from wells drilled after July 1, 2002, and prior to July 1, 2003.
Oklahoma	2002	Rebate Program Expansion for Compression and Pumping Mechanisms	Extended to June 30, 2003

Amendments to Incentives, continued

STATE	DATE	INCENTIVE	DESCRIPTION
Oklahoma	2002	Deep Wells	Production from wells drilled to depths of 12,500 feet or greater, which were spudded between July 1, 1997, and June 30, 2003, are exempt from gross production taxes for 28 months, beginning with first sale of production. There is a rebate of 6/7 of gross production tax paid on oil and/or gas produced from a qualified well drilled and completed at a depth of 12,500 feet or deeper. Production from wells completed at depths between 15,000 feet and 17,499 feet, which were spudded between July 1, 2002, and June 30, 2003, are exempt from gross production taxes for 48 months. Exemption period of 48 months begins with the date of first sales. Wells spudded between July 1, 2002, and June 30, 2003, and which are completed at 17,500 feet or greater will be exempt for 60 months.
Oklahoma	2002	New Discovery Wells	Extended to June 30, 2003
Virginia		Sales and Use Tax Exemptions	Extended to June 30, 2006
Virginia		Pollution Control Equipment and Facilities Tax Exemption	Extended to June 30, 2006
Wyoming	5/1/00	Horizontal Wells	Excludes coalbed methane wells

Kansas amended several incentives in 2002 to increase the daily allowable gas from gas wells and relaxing the condition for filing for temporary abandonment application and allowing venting and flaring of natural gas after approval from Kansas Corporation Commission. Similarly Montana, Oklahoma, Virginia and Wyoming amended several incentives and also extended some others.

States seeking to provide support for the oil and gas producers need to look carefully at the balance of their incentive programs. We've seen that incentives have different purposes and methods. These include incentives to promote investment action, and incentives to reduce costs for wells in danger of shutting in production. There is also a growing third group of incentives designed to provide support for energy in ways not involving taxes. Figure 3.18 shows the number of each group of incentives in each state.

Two monetary groups of incentives operate effectively in different market circumstances. The first group of incentives, those designed to promote investment, will work only when oil and gas prices

are reasonable. Since price expectations (usually based on current levels to some degree) are probably the major determinant of whether an investment will take place, few occur when prices are extremely low. However, when prices are at levels that allow the expected returns from an investment to match or exceed the expected cost, incentives can be a big factor in pushing the decision towards positive action by tipping the scales towards profit. On the other hand, tax breaks aimed at cost reductions make the biggest difference when oil and gas prices are low. When wells are in danger of falling out, state incentives can be the factor that keeps them hanging on until times get better. During higher prices, the help is beneficial, but not as crucial.

Non-tax state incentives provide support to the oil and gas industry during times of good prices and bad prices. Individually, each incentive might have only a small impact, but collectively they provide a highly beneficial and lower-cost environment that is attractive to industry.

Combined with a balanced tax incentive program, states can maximize their efforts.

The federal government also realizes the benefits of monetary incentives, and have several in place to encourage investors to enhance the production on federally leased lands. The benefits again are to retard the increase dependency on foreign sources of oil, and increase the economic impact to the American economy.

Figure 3.18

Types of Incentives Per State			
State	Investment Action	No Action	No Tax Benefits
Alabama	6	1	6
Alaska	11	2	3
Arizona		1	
Arkansas	4	2	2
California	1	1	2
Colorado	1	4	1
Florida	6	2	
Illinois		1	2
Indiana			1
Kansas	6	9	6
Kentucky	1		
Louisiana	10	5	
Michigan		2	
Mississippi	6	1	1
Missouri			
Montana	6	2	1
Nebraska		1	
Nevada		1	
New Mexico	6	2	5
New York			4
North Dakota	8	3	1
Ohio			3
Oklahoma	9	2	2
Pennsylvania			3
South Dakota	1	2	1
Texas	9	2	4
Utah	4	3	
Virginia	1	2	3
West Virginia	1		2
Wyoming	6	2	3

4. 2002 Analysis of State Tax Incentives

Key to State Tax Incentives

The state incentive programs are laid out in detail according to the structure developed by the study team to facilitate analysis. Each of the 212 incentives analyzed will be presented in this format. Note that the numbers after the field correspond to the numbers in the discussion that follows the example.

State (1)	Incentive Title (2)
Tax Affected (3)	Size of Tax Reduction (4)
Hydrocarbons (5)	Production Status (6)
Full Incremental (7)	Target (8)
Investment Action (9)	
Enhancement (10)	
Cost Reduction (11)	
Began (12)	Qualifying Period (13)
Incentive Time Period (14)	Price Trigger (15)
Description (16)	
Amended (if applicable) (17)	
Amendment description (18)	
State Comments (19)	

(1) State	The name of the state adopting the incentive program.
(2) Incentive Title	The title given to the incentive. In some cases the title is not the same as the name referred to by the state.
(3) Tax Affected	If the incentive provides for a reduction in taxes, this field indicates which tax(es) are affected by the incentive.
(4) Size of Tax Reduction	The actual reduction in the tax discussed in (3).
(5) Hydrocarbons	Reflects the type of hydrocarbon production affected by the incentive. Specifically, this field shows whether the incentive applies to both oil and gas production from a well, oil only, or gas only.
(6) Production Status	Describes the production status eligible for the incentive. That is whether the incentive applies to primary production, secondary production or all production

(7) Full or Incremental	In some cases, an adopted incentive may apply to the full well-stream production. In others, only the incremental production (that is additional production resulting from some sort of investment in the well) will be all that qualifies for a tax break.
(8) Target	Represents the type of well or production at which the incentive is targeted. The method of organization for the report as a whole.
(9) Investment Action	If the incentive requires an investment, this field describes the action required.
(10) Enhancement Technique	If the incentive requires an enhancement investment, this field describes the type techniques eligible for tax benefit.
(11) Cost Reduction	If the incentive provides a reduction in costs directly or indirectly, this field describes the type of cost reduction being provided.
(12) Began	The year in which the incentive was originally effective.
(13) Qualifying Period	In many cases tax incentives will limit the length of time that tax benefits can be gained. This field describes that limit if applicable.
(14) Incentive Time Period	Once the tax benefits are gained, the incentive legislation may limit the tax benefits to a certain time period. States imposing these kinds of limits thereby regain tax revenue upon the expiration of the tax benefit.
(15) Price Trigger	A recent development in incentive legislation involves the use of price triggers as a controlling mechanism. Tax benefits accrue when prices fall, and phase-out or stop completely at higher prices. This field shows whether a price trigger is used in the incentive program or not and, if so, describes it.
(16) Description	Lists the significant details of the incentive legislation.
(17) Amendment	If the incentive has been amended, gives the most recent amendment date.
(18) Amendment Description	Describes the changes made to the incentive.
(19) State Comments	If the state responded with interesting comments about their results on this particular incentive, then those are included here. In many cases, field will be blank.

Category 1
Incentives Utilizing Tax Benefits
Tax Reduction for Investment Action

Section 1: Targeting New Wells

Part 4-1: New Field Discoveries

Alabama

Tax Affected: Privilege Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Drilling Wildcats

Discovery Wells

Size of Tax Reduction: 8% to 6%
Production Status: Primary Production
Target: New Field Discoveries

Began: 1984

Incentive Time Period: 5 years from production

Qualifying Period: None

Price Trigger: None

Description: Privilege tax reduction to 6% for discovery wells after July 1, 1984. Replacement wells for discovery wells also qualify for remainder of five-year period. All new wells drilled after July 1, 1984, qualify for a privilege tax reduction to 6%.

Alaska

Tax Affected: State Royalties
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Drilling Wildcats

Cook Inlet Discovery Royalty

Size of Tax Reduction: 12.5% to 5%
Production Status: Primary Production
Target: New Field Discoveries

Began: 1996

Incentive Time Period: 10 years from discovery

Qualifying Period: None

Price Trigger: None

Description: Royalty rate reduction to 5% for oil or gas from previously undiscovered oil or gas pool. Wells must be capable of producing in payable quantities.

Alaska

Tax Affected: Severance Tax or State Royalty
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

Exploration Incentive Credit for Other Lands

Size of Tax Reduction: Varies by feet drilled
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1994

Incentive Time Period: No sunset

Qualifying Period: 7/7/94-7/7/07

Price Trigger: None

Description: Credit of up to 50% of eligible costs to operators for exploratory drilling, stratigraphical test well drilling, and for geophysical work on other lands, based on feet drilled. Credit of up to 25% for the same on private land owned by Native Alaskan regional corporations. Only for wells drilled more than three miles from another or separate targets. No more than \$5 million per project or \$30 million in credits overall. EIC credits are transferable. State Comments: "Twenty exploratory wells qualifying for credit have been drilled on state leases; credits totaling \$54.7 million have been issued. The state has received no requests for the geophysical EIC."

Florida

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

New Fields Exemption

Size of Tax Reduction: 8% to 0%
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1996

Incentive Time Period: 60 months from completion

Qualifying Period: 7/1/97-6/30/07

Price Trigger: None

Description: Production tax exemption for oil or gas wells drilled in a new field after July 1, 1997. Must be wells drilled in a new field found after July 1, 1997.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

New Pools

Size of Tax Reduction: 8% to 0%
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1983

Incentive Time Period: 24 months from production commencement

Qualifying Period: None

Price Trigger: None

Description: Severance tax exemption for production from new pools.

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

Began: 1994
 Incentive Time Period: 24 months from completion or until payout-whichever is first

Discovery Wells

Size of Tax Reduction: 12.5% to 0% for oil, 9.3 cents/Mcf to 0 for natural gas
 Production Status: Primary Production
 Target: New Field Discoveries

Qualifying Period: 10/1/94-9/30/00
 Price Trigger: None

Description: Severance tax exemption for certified new discovery oil and natural gas wells. Payout of the well is the cost of completing the well to the start of production and is determined by Department of Natural Resources.

Amended: 6/22/98

Amendment Description: Qualifying period extended until 2000.

Economic Analysis Available in Section 5 (See 5.1)

Mississippi

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

Began: 1994
 Incentive Time Period: 5 years

Discovery Wells

Size of Tax Reduction: 6% to 3%; 6% to 0%
 Production Status: Primary Production
 Target: New Field Discoveries

Qualifying Period: 4/1/94-7/1/03
 Price Trigger: Oil price is less than \$25 per barrel or less than \$20 per barrel; Gas price is less than \$3.50 per Mcf or less than \$2.50 per Mcf

Description: Severance tax exemption for oil or gas from a discovery well. Drilling or re-entry commenced between 4/1/94 and 7/1/99 is allowed full exemption if the price of oil is less than \$25 per barrel or the price of gas is less than \$3.50 per Mcf. Drilling or re-entry commenced between 7/1/99 and 7/1/03 will be taxed at 3% if the price of oil is less than \$20 per barrel or the price of gas is less than \$2.50 per Mcf.

Amended: 4/15/99

Amendment Description: Qualifying period for discovery wells extended until 2003.

State Comments: "Drilling is reported to have increased 100% since this program became effective."

Economic Analysis Available in Section 5 (See 5.2)

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

New Discovery Wells

Size of Tax Reduction: 7% to 1 %
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1995

Qualifying Period: 7/1/95-6/30/03

Incentive Time Period: 28 months from first sale Price Trigger: None

Description: 6/7ths gross production tax reduction for production from new discovery wells completed between July 1, 1995, and June 30, 2003. Oil must be in paying quantities greater than one mile from nearest producing well at same interval; gas in paying quantities greater than two miles from nearest well.

Amended: 2002

Amendment Description: Extended through June 30, 2003

Economic Analysis Available in Section 5 (See 5.3)

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

New Fields

Size of Tax Reduction: Varies
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1994

Qualifying Period: 1/1/94-12/31/94

Incentive Time Period: No sunset Price Trigger: None

Description: \$10,000 severance tax credit for any new fields discovered in 1994 after 521 had been discovered. If wells exceeded 72, the credit increased to \$25,000, and over 842, the credit was extended to each new well in the field.

State Comments: "After the incentive was in place, a computer error was found in the data used as a basis to compute the appropriate target. The target should have been 352 rather than 521. Although the target was not reached, there were 470 new fields discovered, an increase of 86% over the previous year. The incentive had no cost to the state, but it added \$2.32 billion to the economy and increased state revenues by almost \$77 million."

Utah

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats

Wildcat Wells

Size of Tax Reduction: 5% to 0%
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1990

Qualifying Period: None

Incentive Time Period: 12 months Price Trigger: None

Description: Severance tax exemption for wildcat wells.

Part 4-2: New Developmental Wells

Alabama

Tax Affected: Privilege Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Infill or Replacement Drilling

Developmental Wells

Size of Tax Reduction: 8% to 6%
Production Status: Primary Production
Target: New Developmental Wells

Began: 1984

Incentive Time Period: 5 years from production

Qualifying Period: None

Price Trigger: None

Description: Privilege tax reduction to 6% for certain development wells following discovery wells permitted after July 1, 1984. Replacement wells for development wells also qualify for remainder of five-year period. Applies to development oil wells within four years of discovery completion and depth greater than 6,000 feet, or oil and gas wells within two years and depth greater 6,000 feet. All new wells drilled after July 1, 1984, qualify for a privilege tax reduction to 6%.

Alaska

Tax Affected: State Royalties
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Infill or Replacement Drilling

Royalty Reduction for Unproduced Field

Size of Tax Reduction: 12.5% to 5%
Production Status: Primary Production
Target: New Developmental Wells

Began: 1995

Incentive Time Period: No sunset

Qualifying Period: 7/1/95-7/1/15

Price Trigger: None

Description: Royalty rate reduction to 5% for production from existing field or pool that has not previously produced. To encourage otherwise uneconomic production of oil and gas.

Florida

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Infill or Replacement Drilling

New Wells

Size of Tax Reduction: 8% to 0%
Production Status: Primary Production
Target: New Developmental Wells

Began: 1996

Incentive Time Period: 48 months from completion

Qualifying Period: 7/1/97-6/30/07

Price Trigger: None

Description: Production tax exemption for new oil or gas wells in an existing field established before July 1, 1997. No new exemptions after June 30, 2002.

Mississippi

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Infill or Replacement Drilling

Began: 1994
Incentive Time Period: 3 years

Development Wells

Size of Tax Reduction: 6% to 3%
Production Status: Primary Production
Target: New Developmental Wells

Qualifying Period: 4/1/94-7/1/03
Price Trigger: Oil price less than \$25 per barrel and gas price less than \$3.50 Mcf

Description: 50% severance tax reduction for oil or gas from a development or replacement well in connection with a discovery well. Wells must have been drilled on or after Jan. 1, 1994.

Amended: 4/15/99

Amendment Description: Qualifying period for development wells extended until 2003.

State Comments: "Thought to be effective by encouraging the economics of the well project."
Economic Analysis Available in Section 5 (See 5.4)

Utah

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Infill or Replacement Drilling

Began: 1984
Incentive Time Period: 6 months

New Wells

Size of Tax Reduction: 5% to 0%
Production Status: Primary Production
Target: New Developmental Wells

Qualifying Period: None
Price Trigger: None

Description: Severance tax exemption for new wells between Jan. 1, 1984, and Jan. 1 1990, and development wells after Jan. 1, 1990.

Part 4-3: Horizontal Wells

Florida

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Any Drilling

Began: 1996
Incentive Time Period: 60 months from completion

Horizontal Wells

Size of Tax Reduction: 8% to 0%
Production Status: Primary Production
Target: Horizontal Wells

Qualifying Period: 7/1/97-6/30/07
Price Trigger: None

Description: Production tax exemption for horizontal oil or gas wells drilled after July 1, 1997. No new exemptions after June 30, 2002.

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Horizontal Mining and Drilling Projects
 Size of Tax Reduction: 12.5% to 3.125%
 Production Status: Primary Production
 Target: Horizontal Wells

Began: 1990
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Severance tax reduction to 3.125% for working-interest owners of approved horizontal mining and drilling projects until the cumulative value of production equals 2.33 times the private investment.

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Horizontal Wells
 Size of Tax Reduction: 12.5% to 0% for oil and 9.3 cents/Mcf for natural gas
 Production Status: Primary Production
 Target: Horizontal Wells

Began: 1994
 Incentive Time Period: 24 months from completion or until payout, whichever is first

Qualifying Period:
 Price Trigger: None

Description: Severance tax exemption for horizontal wells or horizontal re-completions. Payout of the well is the cost of completing the well to the start of production and is determined by Department of Natural Resources.

Economic Analysis Available in Section 5 (See 5.5)

Montana

Tax Affected: Net Proceeds Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Horizontal Wells
 Size of Tax Reduction: 15.1%-12.8% to 0%
 Production Status: Primary Production
 Target: Horizontal Wells

Began: 1994
 Incentive Time Period: First 18 months of production

Qualifying Period: 1/1/94-1/1/02
 Price Trigger: Oil price is less than \$30 per barrel

Description: Net proceeds tax exemption for horizontal wells. Horizontal re-completions included.

State Comments: "It is reported that major producers have drilled more horizontal wells than anticipated, which may be at least partially in response to this incentive program. The recent 4% per year decline in production has nearly leveled off."

New Mexico

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1999
 Incentive Time Period: 24 months following
 initial production

Horizontal Re-Entry Wells

Size of Tax Reduction:
 Production Status: Primary Production
 Target: Horizontal Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$24 per
 barrel or less than \$18 per barrel

Description: Severance tax reduction to 1.875% or tax exemption under certain price conditions for horizontal re-completions from a vertical well after Jan. 1, 1999. Certified horizontal re-completion wells receive a tax exemption if the oil price is less than \$18 or a tax reduction if oil price greater than \$18 but less than \$24. Oil price based on the annual average posted price of West Texas Intermediate crude oil for prior fiscal year.

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1995
 Incentive Time Period: 9 months after re-
 completion

Horizontal Re-Entry Well Exemption

Size of Tax Reduction: 6.5% to 5%
 Production Status: Primary Production
 Target: Horizontal Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$33 per
 barrel

Description: Extraction tax exemption for oil from a horizontal reentry after March 31, 1995. Gross production tax of 5% still paid. Price trigger calculated on previous five-month period. Previously drilled and completed as a vertical well. Includes dry holes.

North Dakota

Tax Affected: Extraction Tax
Hydrocarbons: Oil
Full/Incremental: Full Production
Investment Action: Invest in Any Drilling

Began: 1987
Incentive Time Period: Tax exemption for 15 months, then reduced rate. Tax exemption for 24 months amended

Horizontal Wells

Size of Tax Reduction: 6.5% to 0%
Production Status: Primary Production
Target: Horizontal Wells

Qualifying Period: None
Price Trigger: Oil price is less than \$33 per barrel

Description: Extraction tax exemption for production from new horizontal wells drilled & completed after April 27, 1987, and before April 1, 1995, for first 15 months with tax reduction to 4% thereafter. Gross production tax of 5% still paid. Price trigger calculated on previous five-month period.

Amended: 4/1/95

Amendment Description: Oil produced from a horizontal well drilled and completed after March 31, 1995 is exempt from the extraction tax for the first 24 months.

State Comments: "The NDPC finds that horizontal drilling has increased. The NDPC attributes the quadrupling of drilling activity to this incentive plus new technology, new finds and good oil prices. The NCIC Oil & Gas Division statistics are expected to show an increase in permits and a decline in rate of well plugging. As an unexpected benefit, while pursuing new horizontal plays, two new plays and two new fields have been discovered."

Oklahoma

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Any Drilling

Began: 1990
Incentive Time Period: 48 months or until payout, whichever is first

Horizontal Wells

Size of Tax Reduction: 7% to 1%
Production Status: Primary Production
Target: Horizontal Wells

Qualifying Period: 7/1/90-7/1/03
Price Trigger: None

Description: 6/7ths gross production tax reduction for production from horizontal wells completed between July 1, 2002, and July 1, 2003.

Amended: 2002

Amendment Description: Production from horizontally drilled wells is exempt until payout or for 48 months maximum. There is a rebate of 6/7 of the gross production tax paid on oil and/or gas produced from qualified horizontally drilled wells. Production eligible for this refund must have commenced from wells drilled after July 1, 2002, and prior to July 1, 2003.

Economic Analysis Available in Section 5 (See 5.6)

Wyoming

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Any Drilling

Began: 1995
Incentive Time Period: 24 months

Horizontal Wells

Size of Tax Reduction: 6% to 2%
Production Status: Primary Production
Target: Horizontal Wells

Qualifying Period: 1/1/95-3/31/03
Price Trigger: Oil price is less than \$22 per barrel and the natural gas price is less than \$2.75 Mcf

Description: Severance tax reduction for the first 60 BOPD or first 360 Mcf per day of production from new or horizontal wells. Price trigger calculated on previous six-month period.
Amended: 5/1/00

Amendment Description: Excludes coalbed methane wells

State Comments: "A total of 6,785 wells were triggered by the incentive during the fiscal years 1994 through 2001. The slowing of Wyoming's rate of decline in oil production is partially attributed to this incentive."

Economic Analysis Available in Section 5 (See 5.7)

Part 4-4: Deep or High Costs Wells

Alabama

Tax Affected: Privilege Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Any Drilling

Began: 1988
Incentive Time Period: No sunset

Offshore Deep Wells

Size of Tax Reduction: 8% to 4% or 6%
Production Status: Primary Production
Target: Deep or High Cost Wells

Qualifying Period: None
Price Trigger: None

Description: Privilege tax reduction to 4% for offshore wells permitted after July 1, 1988, and depth greater than 18,000 feet, privilege tax reduction to 6% for offshore wells permitted before July 1, 1988, and depth greater than 18,000 feet. Must be drilled offshore in state waters. All new wells drilled after July 1, 1988, qualify for a privilege tax reduction to 6%.

State Comments: "There have been 15 wells drilled at greater than 18,000 feet in state waters since July 1, 1988."

Economic Analysis Available in Section 5 (See 5.8)

Florida

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1996
 Incentive Time Period: 60 months from completion

Description: Production tax exemption for oil or gas from new wells greater than 15,000 feet. No new exemptions after June 30, 2002.

Deep Wells

Size of Tax Reduction: 8% to 0%
 Production Status: Primary Production
 Target: Deep or High Cost Wells

Qualifying Period: 7/1/97-6/30/07
 Price Trigger: None

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1994
 Incentive Time Period: 24 months from completion or until payout, whichever is first

Description: Severance tax exemption for oil, gas or condensate from wells greater than 15,000 feet. Payout of the well is the cost of completing the well to the start of production and is determined by Department of Natural Resources. Extended in 1996.
Economic Analysis Available in Section 5 (See 5.9)

Deep Wells

Size of Tax Reduction: 12.5% to 0% for oil and 9.3 cents/Mcf to 0 for natural gas
 Production Status: Primary Production
 Target: Deep or High Cost Wells

Qualifying Period: 8/1/94-
 Price Trigger: None

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1994
 Incentive Time Period: 28 months from first sale
 or until payout, whichever is first

Deep Wells

Size of Tax Reduction: 7% to 1%
 Production Status: Primary Production
 Target: Deep or High Cost Wells

Qualifying Period: 7/1/94-6/30/00; 7/1/97-
 6/30/03
 Price Trigger: None

Description: Production from wells drilled to depths of 12,500 feet or greater, which were spudded between July 1, 1997, and June 30, 2003, are exempt from paying gross production taxes for 28 months beginning with the first sale of production. There is a rebate of 6/7 of the gross production tax paid on oil and/or gas produced from a qualified well drilled and completed at a depth of 12,500 feet or deeper. Production from wells completed at depths of between 15,000 feet and 17,499 feet, which were spudded between July 1, 2002, and June 30, 2003, are exempt from paying gross production taxes for 48 months. The exemption period of 48 months begins with the date of first sales. Wells spudded between July 1, 2002 and June 30, 2003 and which are completed at 17,500 feet or greater will be exempt for a period of 60 months.
Economic Analysis Available in Section 5 (See 5.10)

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1989
 Incentive Time Period: 10 years from production
 or 50% of drilling and completion costs

High Cost Gas

Size of Tax Reduction: 7.5% to varies
 Production Status: Primary Production
 Target: Deep or High Cost Wells

Qualifying Period: 5/24/89-9/1/10
 Price Trigger: None

Description: Severance tax exemption for gas from high-cost wells completed between May 24, 1989, and September 1, 1996, until August 31, 2001. Varying severance tax reduction for gas from wells completed between September 1, 1996, and September 1, 2010, based on the drilling costs of each well. Ratio of costs for well to twice the state median cost used to determine individual tax rate per well.

Amended: 8/30/99

Amendment Description: Qualifying period for high cost gas reduction extended until September 1, 2010.

State Comments: "This incentive, in combination with federal incentives, is credited with the drilling of over 12,500 new high-cost gas wells in the period since it took effect. Texas state officials estimate that Texas producers between 1989 and 1995 drilled more than 6,000 wells because of the incentive. According to the Railroad Commission, high-cost gas wells supply about 33% of Texas' total natural gas production."

Economic Analysis Available in Section 5 (See 5.11)

Part 4-5: Replacement Wells

Mississippi

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Infill or Replacement Drilling

Began: 1994
Incentive Time Period: 3 years

Replacement Wells

Size of Tax Reduction: 6% to 3%
Production Status: Primary Production
Target: Replacement Wells

Qualifying Period: 4/1/94-7/1/03
Price Trigger: Oil price is less than \$25 per barrel and natural gas price is less than \$3.50 per Mcf

Description: Severance tax exemption for oil or gas from a replacement well for wells drilled between January 1, 1994, and July 1, 2003.

Amended: 4/15/99

Amendment Description: Qualifying period extended until 2003.

Part 4-6: New Technology

Mississippi

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in New Technology

Began: 1994
Incentive Time Period: 5 years

3-D Seismic

Size of Tax Reduction: 6% to 3%
Production Status: Primary Production
Target: New Technology

Qualifying Period: 4/1/94-4/1/03
Price Trigger: Oil price is less than \$25 per barrel or less than \$20 per barrel; Gas price is less than \$3.50 per Mcf or less than \$2.50 per Mcf

Description: 50% severance tax reduction for oil or gas from a development well drilled using 3-D seismic technology. Drilling commenced between 4/1/94 and 7/1/99 is allowed tax reduction if the price of oil is less than \$25 per barrel or the price of gas is less than \$3.50 per Mcf.

Drilling or re-entry commenced between 7/1/99 and 7/1/03 is allowed tax reduction if the price of oil is less than \$20 per barrel or the price of gas is less than \$2.50 per Mcf.

Amended: 4/15/99

Amendment Description: Qualifying period for 3-D seismic wells extended until 2003.

State Comments: "Believed to have contributed to the increased use of 3-D seismic technology in Mississippi."

Economic Analysis Available in Section 5 (See 5.12)

Wyoming

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Other
 Investment Action: Invest in New Technology

Gas Research Review Committee

Size of Tax Reduction: Varies
 Production Status: All Production
 Target: New Technology

Began:

Qualifying Period: 1/1/95-6/30/99

Incentive Time Period:

Price Trigger: None

Description: Severance tax credit against severance taxes for 50% of the amount certified by the Gas Research Review Committee for research and development of natural gas projects.

State Comments: "One company qualified for in excess of \$300,000 in severance tax relief."

Part 4-7: All New Wells**Alabama**

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

New Wells

Size of Tax Reduction: 8% to 4% or 3%
 Production Status: Primary Production
 Target: All New Wells

Began: 1996

Qualifying Period: 7/1/96-7/1/02

Incentive Time Period: 5 years from production

Price Trigger: None

Description: 50% privilege tax reduction from commencement of production for new wells. Oil and gas permitted between July 1, 1996, and July 1, 2002. Severance tax is the privilege tax plus the production tax. If production previously qualified for a reduced privilege tax rate, reduced rate is cut in half.

Amended: 6/18/99

Amendment Description: Qualifying period for new wells extended until 2002.

Economic Analysis Available in Section 5 (See 5.13)

Alabama

Tax Affected: Privilege Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

New Wells

Size of Tax Reduction: 8% to 6%
 Production Status: Primary Production
 Target: All New Wells

Began: 1988

Qualifying Period: None

Incentive Time Period: 5 years from production

Price Trigger: None

Description: Privilege tax reduction to 6% for all wells after July 1, 1984. Severance tax is the privilege tax plus the production tax.

Alaska

Tax Affected: State Royalties
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1996
 Incentive Time Period: No sunset

Shallow Gas Leasing

Size of Tax Reduction: 12.5% to 6.25%
 Production Status: Primary Production
 Target: All New Wells

Qualifying Period: None
 Price Trigger: None

Description: Elimination of state bonus, reduction of annual rental at 50 cents, reduction of royalties to 6.25%, and lower bond requirement from \$1 million to \$25,000 for shallow gas sands and coalbed methane drilling. Royalty reduction applies if the shallow gas is sold to a local utility and only applies if not in competition with deeper gas.

State Comments: "The state held its first noncompetitive Shallow Gas Lease Offering on February 29, 2000. The state has issued 69 Shallow Gas leases covering approximately 356,500 acres and has 198 applications pending."

Alaska

Tax Affected: All
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1998
 Incentive Time Period: No sunset

Stranded Gas Development Act

Size of Tax Reduction: Varies by project
 Production Status: Primary Production
 Target: All New Wells

Qualifying Period: None
 Price Trigger: None

Description: Allows tailored fiscal arrangements for the specific economics of projects to develop stranded natural gas resources for a liquefied natural gas project. State royalty rate unchanged at 12.5%.

Alaska

Tax Affected: State Royalties
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1998
 Incentive Time Period: 10 years from production

Cook Inlet Royalty Reduction

Size of Tax Reduction: 12.5% to 5%
 Production Status: Primary Production
 Target: All New Wells

Qualifying Period: 8/8/98-1/1/04
 Price Trigger: None

Description: Royalty rate reduction to 5% for first 25 million barrels of oil and first 35 million Mcf of gas production from wells in certain fields. Production must begin prior to January 1, 2004. Fields are Falls Creek, Nicolas Creek, North Fork, Point Starichkof, Redoubt Shoal and West Foreland.

Alaska

Tax Affected: Severance Tax or State Royalty
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Exploration Incentive Credit for State Lands

Size of Tax Reduction: Varies by costs
 Production Status: Primary Production
 Target: All New Wells

Began: 1979

Incentive Time Period: No sunset

Qualifying Period: 7/7/94-7/7/07

Price Trigger: None

Description: Credit of up to 50% of eligible costs to operators for drilling on state lands and credit of up to 25% for drilling on federal or private land owned by Native Alaskan regional corporations. Work must be performed within two years of the lease sale and geophysical data made public. EIC credits are transferable.

Montana

Tax Affected: Net Proceeds Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

New Wells

Size of Tax Reduction: 15.45%-15.1% to 0%;
 15.1%-12.8% to 0%
 Production Status: Primary Production
 Target: All New Wells

Began: 1987

Incentive Time Period: First 12 months of production

Qualifying Period: None

Price Trigger: None

Description: Net proceeds tax exemption for oil or gas from new wells.
 State Comments: "The incentive is a factor in the more favorable tax climate for new production, and keeps Montana competitive with neighboring states for drilling dollars."

Montana

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

New Wells

Size of Tax Reduction: 15.45%-15.1% to 0%;
 15.1%-12.8% to 0%
 Production Status: Primary Production
 Target: All New Wells

Began: 1995

Incentive Time Period: First 12 months of production

Qualifying Period: None

Price Trigger: None

Description: Severance tax exemption for oil or gas from new wells drilled after March 31, 1995.
 State Comments: "There is evidence of increased mineral leasing activity, 3-D seismic activity, recent drilling permits showing wildcat well plans and permits for drilling in counties that have had little recent drilling activity prior to the incentive."

New Mexico

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1999
 Incentive Time Period: 24 months following
 Initial production

New Wells

Size of Tax Reduction: 3.75% to 1.875% or
 0%
 Production Status: Primary Production
 Target: All New Wells

Qualifying Person: None
 Price Trigger: Oil price is less than \$24 per
 barrel or less than \$18 per barrel

Description: Severance tax reduction to 1.875% or tax exemption under certain price conditions for new oil or gas wells drilled after January 1, 1999. Certified new wells receive a tax exemption if oil price is less than \$18 or a tax reduction if oil price is greater than \$18 but less than \$24. Oil price based on the annual average posted price of West Texas Intermediate crude oil for prior fiscal year.

State Comments: "The Oil Conservation Division expects approximately 508 wells to be drilled in fiscal year 1999. If an incentive increases this total to 533, an increase of just over 4%, the State would receive more in gross receipts revenue than would be due in severance taxes on all the production from 508 new wells. In addition, the communities in the producing regions would see considerable additional activity."

New Mexico

Tax Affected: Privilege Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1999
 Incentive Time Period: No sunset

New Well Tax Credit

Size of Tax Reduction: \$15,000
 Production Status: All Production
 Target: All New Wells

Qualifying Period: 1/1/99-1/1/00
 Price Trigger: None

Description: Oil and Gas Emergency School Tax one-time credit of \$15,000 for the first 600 oil and gas wells that began drilling after Jan. 1, 1999, and completed before July 1, 2000.

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1987
 Incentive Time Period: Tax exemption for 15 months, then reduced rate

New Wells

Size of Tax Reduction: 6.5% to 0%, then 4%
 Production Status: Primary Production
 Target: All New Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$33 per barrel

Description: Extraction tax exemption for production from wells drilled & completed after April 27, 1987, for first 15 months with tax reduction to 4% thereafter. Gross production tax of 5% still paid. Price trigger calculated on previous five-month period.

State Comments: "According to the NDPC, North Dakota was the only state in 1995 to increase oil production after 10 consecutive years of decline. The most significant incentives have been the 15-month holiday for new wells drilled after April 1987, the incremental exemption for EOR, and the 24-month holiday for all horizontal after March 1995."

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Began: 1997
 Incentive Time Period: 60 months

Tribal Lands Oil Tax Exemption

Size of Tax Reduction: 6.5% to 0%
 Production Status: Primary Production
 Target: All New Wells

Qualifying Period: None
 Price Trigger: None

Description: Extraction tax exemption for initial oil production if the well is on a reservation, trust land for tribe or land held by tribe. Gross production tax of 5% still paid.

South Dakota

Tax Affected: State Royalties
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Oil and Gas Royalty Increment Status

Size of Tax Reduction:
 Production Status: Primary Production
 Target: All New Wells

Began: 1993
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Lower state royalty rates on state lands when no lease has been issued for 10 years, no exploration permit for five years, and no production within the immediate area. There cannot have been oil or gas production on the state-owned land or land within the immediate area. The rate may be lowered to 1/16th for the first three years, 1/12th for the second three years, and a minimum of 1/8th thereafter.

State Comments: "It is believed to have been very effective in increasing the number of leases granted on certain lands that otherwise would have remained unleased. According to the Department of Environment and Natural Resources, this is reflected in oil and gas auctions in the state's Hyde and Buffalo counties."

Texas

Tax Affected: State Royalties
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Any Drilling

Royalty Reduction

Size of Tax Reduction: Varies
 Production Status: Primary Production
 Target: All New Wells

Began:
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Royalty rate reduction for production early in the lease term for state lands. Submerged rate is 20% in first two years, 22% in years three and four. Uplands first year is 20%, second is 22.5%. School Land Board rule.

State Comments: "It is reported that more activity occurs earlier in the terms of leases since the rule took effect than prior to the implementation."

Wyoming

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Any Drilling

Began: 1993
Incentive Time Period: 24 months

New Wells

Size of Tax Reduction: 6% to 2%
Production Status: Primary Production
Target: All New Wells

Qualifying Period: 7/1/93-3/31/03
Price Trigger: Oil price is less than \$22 per barrel and the gas price is less than \$2.75 per Mcf

Description: Severance tax reduction for the first 60 BOPD or first 360 Mcf per day of production from new wells. Price trigger calculated on previous six months.

Amended: 4/1/98

Amendment Description: Extended to 3/31/2003

State Comments: "A total of 6,785 wells were triggered by the incentive during the fiscal years 1994 through 2001. The slowing of Wyoming's rate of decline in oil production is partially attributed to this incentive."

Economic Analysis Available in Section 5 (See 5.14)

Section 2: Targeting Existing Wells

Part 4-8: EOR Wells

Alabama

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Incremental Production Only
Investment Action: Invest in Enhancement Techniques
Enhancement: Both Secondary and Tertiary

Began: 1985
Incentive Time Period: No sunset

Enhanced Recovery

Size of Tax Reduction: 8% to 4%, 8% to 6%
Production Status: Enhanced Recovery Production
Target: EOR Wells

Qualifying Period: None
Price Trigger: None

Description: Severance tax reduction to 4% of value for natural gas and 6% of value for any oil produced or developed from a qualified EOR project. Only incremental qualifies for tax reduction. Severance tax is the privilege tax plus the production tax.

Economic Analysis Available in Section 5 (See 5.15)

Alaska

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Both Secondary and Tertiary

Enhanced Oil Recovery

Size of Tax Reduction: Up to 15% at 50%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began:
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: 50% severance tax reduction on incremental production from EOR projects. Only incremental qualifies for tax reduction.

Arkansas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Both Secondary and Tertiary

Enhanced Oil Recovery

Size of Tax Reduction: 5% to 2.5%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1995
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: 50% severance tax reduction on incremental production from approved EOR projects. Only incremental attributable to the project qualifies for tax reduction.

Colorado

Tax Affected: Property Tax
 Hydrocarbons: Oil
 Full/Incremental: Other
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Both Secondary and Tertiary
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Secondary/Tertiary Recovery Property Tax Reduction

Size of Tax Reduction: 100% to 75% assess
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1978
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Property tax assessment reduction to 75% of the annual gross production value. Includes recycling.

Florida

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 8% to 5%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 1996
 Incentive Time Period: No sunset

Qualifying Period: 7/1/97-6/30/07
 Price Trigger: None

Description: Severance tax reduction to 5% for incremental production attributable to a tertiary project.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Both Secondary and Tertiary

Incremental Production

Size of Tax Reduction:
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 2000
 Incentive Time Period: 7 years

Qualifying Period: 7/1/98 -
 Price Trigger: Price of oil is less than \$20 per barrel, price of gas is less than \$2.50/Mcf

Description: Severance tax exemption for a period of seven years is given to the incremental production resulting from a production enhancement project begun on or after July 1, 1998. The credit does not apply in any fiscal year if in the preceding calendar year the price exceeded, in the case of oil, \$20 per barrel; or, in the case of natural gas, \$2.50 per Mcf.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 4.33% to 0%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began:
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for production from a tertiary process. Tertiary recovery process means the process or processes described in subparagraphs (1) through (9) of 10 C.F.R. 212.78(c) as in effect on June 1, 1979.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Waterflood (Secondary)

Marginal Secondary Recovery

Size of Tax Reduction: 4.33% to 0%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 1998
 Incentive Time Period: Annual application for one-year period

Qualifying Period: None
 Price Trigger: Oil price is less than \$16 through \$14 per barrel

Description: Severance tax exemption for secondary wells whose average production per well per lease less than 6 BOPD at all prices and depths; for wells greater than 2,000 feet with production less than 7 BOPD; wells greater than 2,000 feet with production less than 8 BOPD if the price of oil is less than \$16, wells greater than 2,000 feet with production less than 9 BOPD if the price of oil is less than \$15, wells with production less than 10 BOPD if the price of oil is less than \$14.

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Waterflood (Secondary)

Produced Water Injection

Size of Tax Reduction: 20%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 1991
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: 20% severance tax reduction for oil and gas produced from wells in which produced water is injected into the reservoir to increase recovery. Enacted to reduce produced water discharge by providing a severance tax saving for producers.

Amended: 7/1/98

Amendment Description: Deletion of requirement that the produced water utilized to increase oil and gas recovery be from same reservoir and field.

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 12.5% to 0%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1983
 Incentive Time Period: Until payout

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for production from a qualified tertiary project until the project has reached payout. Payout is calculated for the total of production from investment costs, expenses not to include primary and secondary operations, and interest at commercial rates.

State Comments: "One project that has taken place has investment of \$30 million."
Economic Analysis Available in Section 5 (See 5.16)

Mississippi

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Both Secondary and Tertiary

Enhanced Oil Recovery

Size of Tax Reduction: 6% to 3%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1994
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: 50% severance tax reduction for oil produced by EOR permitted after April 1, 1994.
Economic Analysis Available in Section 5 (See 5.17)

Montana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Waterflood (Secondary)

Secondary Recovery

Size of Tax Reduction: 15.1%-12.8% to 8.5%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1994
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Severance tax reduction to 8.5% for incremental secondary production. Suspended when the price of West Texas Intermediate crude oil exceeds \$30 per barrel for a calendar quarter and reactivates when the price of oil drops below \$30 per barrel.

Montana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 15.1%-12.8% to 5.8%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1994
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Severance tax reduction to 5.8% for incremental tertiary production. Suspended when the price of West Texas Intermediate crude oil exceeds \$30 per barrel for a calendar quarter and reactivates when the price of oil drops below \$30 per barrel.

State Comments: "Oil production for 1995 was virtually flat, with 1994 production stemming an annual decline of 4% per year in previous years. This incentive coupled with the horizontal wells incentive is credited with stemming this decline."

New Mexico

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Both Secondary and Tertiary

Enhanced Oil and Gas Recovery

Size of Tax Reduction: 3.75% to 1.875%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1992
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: Less than \$28 per barrel

Description: 50% severance tax reduction for oil produced from the date of positive EOR production response until project terminated. Required OCD approval and response certification. Based on the annual average posted price of West Texas Intermediate crude oil for prior fiscal year.

Amended: 1/1/94

Amendment Description: Expanded to include projects other than carbon dioxide.

Economic Analysis Available in Section 5 (See 5.18)

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 6.5% to 0%, 6.5% to 4%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 1987
 Incentive Time Period: Tax exemption for 10 years, then reduced rate

Qualifying Period: None
 Price Trigger: None

Description: Extraction tax exemption for tertiary recovery projects. Non-incremental oil from a qualified tertiary project is taxed at 4% if production response is 15% and after 10 years. Gross production tax of 5% still paid. Exemption from the date incremental production commences. State Comments: "Secondary and tertiary projects have increased significantly."

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Waterflood (Secondary)

Secondary Recovery

Size of Tax Reduction: 6.5% to 0%, 6.5% to 4%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 1987
 Incentive Time Period: Tax exemption for five years, then reduced rate

Qualifying Period: None
 Price Trigger: None

Description: Extraction tax exemption for secondary recovery projects. Non-incremental oil from a qualified secondary project is taxed at 4% if production response is 25% and after five years. Gross production tax of 5% still paid. Exemption from the date incremental production commences. Exemption from the date incremental production commences.

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Waterflood (Secondary)

Secondary Recovery

Size of Tax Reduction: 7% to 1%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1993
 Incentive Time Period: 10 years or until payout,
 whichever is first

Qualifying Period: 7/1/93-6/30/00
 Price Trigger: None

Description: 6/7 gross production tax reduction for incremental production from approved secondary oil or gas projects. Project payback provides for recovery of capital expenses starting in 1989 and 50% of operating expenses starting in 1993.

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Waterflood (Secondary)

Secondary Recovery Properties

Size of Tax Reduction:
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 2000
 Incentive Time Period: 5 years or termination of
 secondary recovery process, whichever occurs
 first

Qualifying Period: 7/1/00-7/1/03
 Price Trigger: None

Description: Incremental recovery from approved secondary oil or gas recovery projects begun on or after July 1, 2000, and before July 1, 2003, is exempt from paying the gross production tax for up to five years, or ending upon termination of the secondary recovery process, whichever occurs first.

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 7% at 1%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1993
 Incentive Time Period: 10 years or until
 payout, whichever is first

Qualifying Period: 7/1/93-6/30/03
 Price Trigger: None

Description: 6/7 gross production tax reduction for incremental production from approved tertiary oil or gas projects. Project payback provides for recovery of capital expenses starting in 1989 and 50% of operating expenses starting in 1993. Administrative expenses and capital expenses of pipelines built to transport carbon dioxide to a project are excluded.

Amended: 2000

Amendment Description: Extended to June 30, 2003.

State Comments: "There have been limited but increasing numbers of applications for this refund."

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Both Secondary and Tertiary

Enhanced Oil Recovery

Size of Tax Reduction: 4.6% to 2.3%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1989
 Incentive Time Period: No sunset

Qualifying Period: 9/1/89-12/31-07
 Price Trigger: None

Description: 50% severance tax exemption for oil from new EOR & incremental production from expanded EOR projects with positive production response. RRC must approve and certify positive production response. Must apply for certification within three years from project approval for secondary and five years for tertiary.

Amended: 9/1/97

Amendment Description: Qualifying period for EOR project to apply for reduced rate is extended to December 31, 2007.

Economic Analysis Available in Section 5 (See 5.19)

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Both Secondary and Tertiary

Co-production Oil and Gas

Size of Tax Reduction: 4.6% to 2.3%, 7.5% to 0%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1993
 Incentive Time Period: 10 years from positive response for oil, gas through 8/31/01

Qualifying Period: 9/1/93-1/1/94
 Price Trigger: None

Description: 50% severance tax reduction for co-production oil after positive response. Severance tax exemption for co-production gas. Co-production oil and gas are produced from an enhanced recovery project in which water and hydrocarbons are removed together from a reservoir.

State Comments: "This incentive pertains to a very small number of producers."
Economic Analysis Available in Section 5 (See 5.20)

Utah

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Both Secondary and Tertiary

Enhanced Recovery

Size of Tax Reduction: 5% to 2.5%
 Production Status: Enhanced Recovery
 Production
 Target: EOR Wells

Began: 1996
 Incentive Time Period: No sunset

Qualifying Period: After 1/1/90
 Price Trigger: None

Description: 50% reduction in severance tax for incremental production for oil or gas EOR project.

Wyoming

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement Techniques
 Enhancement: Tertiary Recovery

Tertiary Recovery

Size of Tax Reduction: 6% to 4%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Began: 1985

Qualifying Period: 7/1/85-3/31/01

Incentive Time Period: 5 years from first tertiary production

Price Trigger: None

Description: Severance tax reduction to 4% for incremental oil production from tertiary projects. Projects must have been certified after July 1, 1985, and before March 31, 2003.

State Comments: "During periods of strong and stable oil prices the incentive was used frequently, otherwise application was scanty. In the first 12 years for which records are available, 141,544,800 barrels of tertiary oil will qualify for this exemption."

Economic Analysis Available in Section 5 (See 5.21)

Part 4-9: Inactive Fields/Wells**Alaska**

Tax Affected: State Royalties
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Royalty Reduction for Shut-In Oil or Gas

Size of Tax Reduction: 12.5% to 3%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1995

Qualifying Period: 7/1/95-7/1/15

Incentive Time Period: No sunset

Price Trigger: None

Description: Royalty rate reduction to 3% for production from shut-in oil or gas.

Alaska

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

One-Year Inactive Wells

Size of Tax Reduction: Up to 15% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began:

Qualifying Period: 12 months

Incentive Time Period: No sunset

Price Trigger: None

Description: Severance tax exemption for wells inactive for 12 months that resume production. Production must be restored in a zone that was previously productive.

Arkansas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Began: 1995
 Incentive Time Period: No sunset

Idle Fields

Size of Tax Reduction: 5% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for all zones that were once productive for an inactive oilfield returned to production. All zones, horizons and formations that were once productive but have ceased to produce.

Arkansas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Began: 1995
 Incentive Time Period: 10 years from return to production

One-Year Inactive Wells

Size of Tax Reduction: 5% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for wells inactive for 12 consecutive months that resume production.

California

Tax Affected: Property Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Investment Action: Invest in Returning Wells to Production

Began: 1997
 Incentive Time Period: No sunset

Idle and Orphan Wells Assessment Abeyance

Size of Tax Reduction: Varies
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: None

Description: 10-year abeyance of assessment on oil and gas from orphan and wells inactive for five years that are returned to production. Also delay of bond coverage by operator for 90 days on orphan wells.

State Comments: "Positive response; nearly 1.2 million barrels of oil were exempted from the oil and gas assessment for 1999."

Florida

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Two-Year Inactive Wells

Size of Tax Reduction: 8% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1996

Qualifying Period: 7/1/97-6/30/07

Incentive Time Period: 48 months from return to production

Price Trigger: None

Description: Production tax exemption for wells idle for 2 years or more prior to July 1, 1997, that resume production.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Three-Year Inactive Wells

Size of Tax Reduction: 4.33% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1996

Qualifying Period: Before 7/1/96

Incentive Time Period: 10 years from return to production

Price Trigger: None

Description: Severance tax exemption for wells inactive for three years that resume production. Well must have been inactive prior to July 1, 1993. No more than one month of production in last 36 prior to filing for approval.

Kentucky

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Two-Year Inactive Wells

Size of Tax Reduction: 4.5% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1998

Qualifying Period: None

Incentive Time Period: No sunset

Price Trigger: None

Description: Severance tax exemption for oil and gas wells inactive for two years or plugged and abandoned. Producers allowed to test well for 60 days before posting bond.
 State Comments: "No impact on the oil and gas industry in Kentucky...primarily due to the low oil prices throughout 1998. With the low oil prices, the incentives were not enough to make any project economical"

Louisiana

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Returning Wells to Production

Severance Act Relief; Act 74
Size of Tax Reduction:
Production Status: All Production
Target: Inactive Fields/Wells

Began: 2002
Incentive Time Period: 2 years

Qualifying Period: 7/1/02 – 6/30/06
Price Trigger: None

Description: Production from oil and gas wells shall be exempt from severance tax for a period of two years when returned to service after being inactive for two or more years or having 30 days or less of production during the past 2 years. The tax relief is intended at bringing inactive wells back to production.

Louisiana

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Investment Action: Invest in Returning Wells to Production

Two-Year Inactive Wells
Size of Tax Reduction: 12.5% to 0% for oil, 9.3 cents/Mcf to 0 for gas
Production Status: All Production
Target: Inactive Fields/Wells

Began: 1994
Incentive Time Period: 5 years from return to production

Qualifying Period: 8/1/94-6/30/00
Price Trigger: None

Description: Severance tax exemption for wells inactive for two years or more. Wells which have produced less than 30 days in the past two years are eligible.

Amended: 6/22/98

Amendment Description: Qualifying period for inactive wells extended until 2000.

Economic Analysis Available in Section 5 (See 5.22)

Mississippi

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Began: 1994
 Incentive Time Period: 3 years from return to production

Two-Year Inactive Wells

Size of tax Reduction: 6% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: 4/1/94-7/1/03
 Price Trigger: Oil price is less than \$25 per barrel or less than \$20 per barrel; Gas price is less than \$3.50 per Mcf or less than \$2.50 per Mcf

Description: Severance tax exemption for wells inactive for two years prior to certification. Wells cannot have produced more than 30 days in a 12 consecutive month period during the two years and must be from a previously produced pool as of April 1, 1994.

Amended: 4/15/99

Amendment Description: Qualifying period for two-year inactive wells extended until 2003.

State Comments: "Operators are attempting to restore inactive wells to producing status in greater numbers."

Economic Analysis Available in Section 5 (See 5.23)

Montana

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Began: 1995
 Incentive Time Period: First 24 months of production

Inactive Wells

Size of Tax Reduction: 15.45%-15.1% to 0%, 15.1%-12.8% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for production from idle wells brought back into production.

New Mexico

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Began: 1995
 Incentive Time Period: No sunset

Production Restoration

Size of Tax Reduction: 3.75% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$24 per barrel

Description: Severance tax exemption for wells that had fewer than 31 days of production in any period of twenty-four consecutive months after January 1, 1993. Based on the annual average posted price of West Texas Intermediate crude oil for prior fiscal year.

State Comments: "The Oil Conservation Division believes that without this incentive, these wells would likely be plugged and abandoned."

Economic Analysis Available in Section 5 (See 5.24)

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Began: 1995
 Incentive Time Period: 10 years from return to production

Two-Year Inactive Wells

Size of Tax Reduction: 6.5% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$33 per barrel

Description: Extraction tax exemption for production from oil wells that have been inactive for at least two years. Gross production tax of 5% still paid. Price trigger calculated on previous five-month period.

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Reactivation of Plugged and Abandoned Wells

Size of Tax Reduction: 7% at 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1994
 Incentive Time Period: 28 months from return to production

Qualifying Period: 7/1/94-7/1/03
 Price Trigger: None

Description: Gross production tax exemption for production from a qualifying well that was plugged and abandoned. Well must be within 1,320 feet and in original spacing unit of previously producing well that has been plugged & abandoned.

Amended: 2001

Amendment Description: Extended to June 30, 2003.

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Two-Year Inactive Wells

Size of Tax Reduction: 7% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1994
 Incentive Time Period: 28 months from return to production

Qualifying Period: 7/1/94-7/1/03
 Price Trigger: Oil price is less than \$30 per barrel and gas price is less than \$3.50 per Mcf

Description: 6/7ths gross production tax reduction for wells inactive for two years brought back to production after July 1, 1994. Wells must be brought back before July 1, 2003.

State Comments: "There has been a modest number of applications by operators, indicating that this program has had limited effect in bringing idle wells back into production."

Economic Analysis Available in Section 5 (See 5.25)

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Two-Year Inactive Wells

Size of Tax Reduction: 4.6% to 0%, 7.5% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1997
 Incentive Time Period: 10 years from return to production

Qualifying Period: 9/1/97-8/31/09
 Price Trigger: None

Description: Severance tax exemption for any oil or gas well inactive for 24 months upon return to production. Well cannot have produced more than one month in last 24 months. RRC has until February 28, 2010, to designate well as two-year inactive.

Amended: 6/19/99

Amendment Description: Qualifying period for two-year inactive wells extended to 8/31/09.
Economic Analysis Available in Section 5 (See 5.26)

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Returning Wells to Production

Three-Year Inactive Wells

Size of Tax Reduction: 4.6% to 0%, 7.5% to 0%
 Production Status: All Production
 Target: Inactive Fields/Wells

Began: 1993
 Incentive Time Period: 10 years from return to production

Qualifying Period: 9/1/93-8/31/95
 Price Trigger: None

Description: Severance tax exemption for any oil or gas well inactive for 36 months upon return to production. Well cannot have produced more than one month in last 36 months.

State Comments: "Following enactment, 6,071 wells were returned to production (compared to 368 in prior year) between September 1993 and February 1996, with an annual average of 2,428 reactivated wells. This increase of 670% is valued at an estimate \$565 million at the wellhead and approximately \$1.65 billion to the economy of Texas each year. This benefit to the state is estimated to be enough to create 10,792 jobs."

Economic Analysis Available in Section 5 (See 5.27)

Wyoming

Tax Affected: Severance Tax
Hydrocarbons: Oil
Full/Incremental: Full Production
Investment Action: Invest in Returning Wells to Production

Two-Year Inactive Wells

Size of Tax Reduction: 6% to 1.5%
Production Status: All Production
Target: Inactive Fields/Wells

Began: 1995
Incentive Time Period: 5 years from return to production

Qualifying Period: None
Price Trigger: Oil price is less than \$25 per barrel

Description: Severance tax reduction to 1.5% for oil production from wells idle for two years upon return. Wells must have been idle for at least two years prior to January 1, 1995. Price trigger calculated on previous six-month period.

State Comments: "If these wells had never been placed back on production, the state would not have even collected 1.5% severance tax, much less 6%."

Economic Analysis Available in Section 5 (See 5.28)

Part 4-10: New Technology

Alaska

Tax Affected: Severance Tax
Hydrocarbons: Oil
Full/Incremental: Incremental Production Only

New Research Technology

Size of Tax Reduction: Up to 15% to 0%
Production Status: All Production
Target: New Technology

Began:
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax exemption for incremental production in an active field due to new research technology. Only incremental qualifies for tax reduction.

Arkansas

Tax Affected: Severance Tax
Hydrocarbons: Oil
Full/Incremental: Incremental Production Only
Investment Action: Invest in New Technology

New Research Technology

Size of Tax Reduction: 5% to 0%
Production Status: All Production
Target: New Technology

Began: 1995
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax exemption for incremental production in an active field due to new research technology. Only incremental qualifies for tax reduction.

Part 4-11: Existing Wells-All

Kansas

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Incremental Production Only
Investment Action: Invest in Enhancement
Techniques
Enhancement: All

Incremental Production

Size of Tax Reduction: 4.33% to 0%
Production Status: All Production
Target: Existing Wells-All

Began: 1998

Incentive Time Period: 7 years from startup date

Qualifying Period: None

Price Trigger: Oil price is less than \$20 per barrel or gas price is less than \$2.50 per Mcf

Description: Severance tax exemption on incremental production over base production resulting from a production enhancement project, if price of oil is less than \$20 or gas is less than \$2.50. Base production is the average monthly production for the prior 12 months. Credit does not apply if the price exceeds trigger in preceding calendar year. Enhancements include workovers, recompletions, secondary recovery projects, addition of mechanical devices to dewater a gas or oil well, replacement or enhancement of surface equipment, installation or enhancement of compression equipment, line looping or other techniques, new discoveries of oil or gas which are discovered as a result of the use of new technology including three-dimensional seismic.

New Mexico

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Incremental Production Only
Investment Action: Invest in Enhancement
Techniques
Enhancement: Workovers/Recompletions

Well Workovers

Size of Tax Reduction: 3.75% to 2.45%
Production Status: All Production
Target: Existing Wells-All

Began: 1995

Incentive Time Period: No sunset

Qualifying Period: None

Price Trigger: Oil price is less than \$24 per barrel

Description: Severance tax reduction to 2.45% for incremental oil and gas from qualified workovers after June 16, 1995. Based on the annual average posted price of West Texas Intermediate crude oil for prior fiscal year.

Amended: 7/1/99

Amendment Description: Workover tax rate increased from 1.875% to 2.45%

State Comments: "A 1999 industry survey showed that a workover increased production by approximately 300% on average."

Economic Analysis Available in Section 5 (See 5.29)

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Workovers/Recompletions

Began: 1989
 Incentive Time Period: Tax exemption for 12 months, then reduced rate

Workovers

Size of Tax Reduction: 6.5% to 0%, then 4%
 Production Status: All Production
 Target: Existing Wells-All

Qualifying Period: None
 Price Trigger: Oil price is less than \$33 per barrel

Description: Extraction tax exemption for incremental oil production from qualifying workover projects for first 12 months with tax reduction to 4% thereafter. Gross production tax of 5% still paid. Price trigger calculated on previous five-month period. Exemption beginning the third month after completion. Wells producing less than 50 BOPD during the last six months qualify. Project must cost more than \$65,000 and production must increase 50% in first two months. State Comments: "There has been a slight increase since implementation of this program."

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: All

Began: 1994
 Incentive Time Period: 28 months from installation

Production Enhancement Projects

Size of Tax Reduction: 7% to 1%
 Production Status: All Production
 Target: Existing Wells-All

Qualifying Period: 7/1/94-7/1/03
 Price Trigger: None

Description: 6/7 gross production tax reduction for incremental oil production after workovers, recompletions or fracturing projects to existing wells. Incremental defined as production above base production of average monthly production for prior 12 months or the average monthly production for the month in which the well produced.

Amended: 2002

Amendment Description: Extended through June 30, 2003.

State Comments: "There has been increasing application of production enhancement projects by operators during the period this incentive has been available."

Economic Analysis Available in Section 5 (See 5.30)

Utah

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Workovers/Recompletions

Workovers/Recompletions

Size of Tax Reduction:
 Production Status: All Production
 Target: Existing Wells-All

Began: 1990
 Incentive Time Period: Annual limit

Qualifying Period: 1/1/90-12/31/04
 Price Trigger: None

Description: Severance tax credit of 20% of expenses of recompletion or workover, not greater than \$50,000 per well per year before December 31, 1994, and not greater than \$30,000 between January 1, 1995, and December 31, 2004.

State Comments: "This is an effective and widely used incentive."

Wyoming

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Incremental Production Only
 Investment Action: Invest in Enhancement
 Techniques
 Enhancement: Workovers/Recompletions

Workovers/Recompletions

Size of Tax Reduction: 6% to 2%
 Production Status: All Production
 Target: Existing Wells-All

Began: 1993
 Incentive Time Period: 24 months

Qualifying Period: 7/1/93-3/31/03
 Price Trigger: None

Description: Severance tax reduction to 2% for incremental oil or gas production from workovers or recompletions. Workover or recompletion must be performed between July 1, 1993, and March 31, 2003.

Amended: 4/1/98

Amendment Description: Extended to 3/31/2003

State Comments: "Proponents insist that this is a strong incentive for a company to take steps to improve the quality of a well, increase production and hence the economic life of a well. This benefits the state and county as well as the operator."

Economic Analysis Available in Section 5 (See 5.31)

Part 4-12: Existing Wells-Marginal

Texas

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Incremental Production Only
Investment Action: Invest in Enhancement Techniques
Enhancement: All

Incremental Production

Size of Tax Reduction: 4.6% to 2.3%, 7.5% to 3.75%
Production Status: All Production
Target: Existing Wells-Marginal

Began: 1997
Incentive Time Period: No sunset

Qualifying Period: 9/1/97-12/31/98
Price Trigger: Oil price is less than \$25 per barrel (1997 \$) for three months

Description: 50% severance tax reduction on incremental production for oil leases less than 7 BOE in 1996. Includes casinghead 6 Mcf/barrel. Ratio determined for incremental volumes. Primary technique must expend greater than \$5,000.
Economic Analysis Available in Section 5 (See 5.32)

Part 4-13: Other

Louisiana

Tax Affected: Severance Tax
Hydrocarbons: Oil
Full/Incremental: Other
Investment Action: Invest in Plugging or Environmental Activity
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Salvage Oil

Size of Tax Reduction: 12.5% to 3.125%
Production Status: All Production
Target: All Wells

Began: 1986
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax reduction to 3.125% for salvage oil reclaimed by permitted class-one reclamation facilities. Prohibition against a person or affiliate actually engaged in severing of oil, gas or other natural resources from participating in this program.

Louisiana

Tax Affected: Sales Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production
 Investment Action:

Act 31

Size of Tax Reduction:
 Production Status: All Production
 Target: Other

Began: 2002
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Provides exemptions from state and local sales and use taxes for repairs and/or materials used on drilling rigs and equipment used exclusively for exploration and development of minerals outside the territorial limits of the state in the Outer Continental Shelf.

Texas

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production
 Investment Action:
 Enhancement: Other

Flared Casinghead Gas

Size of Tax Reduction: 7.5% to 0%
 Production Status: All Production
 Target: Other

Began: 1997
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for gas if an operator markets casinghead gas previously vented or flared for 12 months. Must have been vented or flared in compliance with RRC rules and regulations.

Economic Analysis Available in Section 5 (See 5.33)

Virginia

Tax Affected: Sales Tax, Property Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Investment Action: Invest in Plugging or Environmental Activity

Pollution Control Equipment and Facilities Exempt

Size of Tax Reduction: 4% to 0%, varies
 Production Status: All Production
 Target: Other

Began: 1994
 Incentive Time Period: No sunset

Qualifying Period: 7/1/94-6/30/06
 Price Trigger: None

Description: State and local sales tax exemption and eligibility for local property tax exemption for certified pollution control equipment and facilities for oil and gas. Certified by Department of Mines, Minerals & Energy to be in conformity with state requirements.

State Comments: "Some producers have increased investment in Virginia as a result of the approximately \$25,000 to \$30,000 (\$100 to \$150 per well) annual savings."

Category 2
Incentives Utilizing Tax Benefits
Tax Reduction No Investment Action

Section 3: Targeting Existing Wells

Part 4-14: Existing Wells-Marginal

Alabama

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production

Marginal/Stripper Wells

Size of Tax Reduction: 8% to 6%
Production Status: All Production
Target: Existing Wells-Marginal

Began: 1985
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax reduction for wells producing 25 BOPD or less, or 200 MCFPD of natural gas. Severance tax is the privilege tax plus the production tax.

Alaska

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production

Economic Limit Factor

Size of Tax Reduction: Varies by field
Production Status: All Production
Target: Existing Wells-Marginal

Began: 1989
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax rate reduction by a field's Economic Limitation Factor as production diminishes. Lower tax rates based on daily per-well production and the productivity of the field. Effective severance tax rate of zero on all but largest fields.

Alaska

Tax Affected: State Royalties
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production

Royalty Reduction for Increasing Costs

Size of Tax Reduction: 12.5% to 3%
Production Status: All Production
Target: Existing Wells-Marginal

Began: 1995
Incentive Time Period: No sunset

Qualifying Period: 7/1/95-7/1/15
Price Trigger: None

Description: Royalty rate reduction to 3% for production from existing field or pool as costs per barrel increase. To prolong economic life.

Arkansas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1983
 Incentive Time Period: No sunset

Description: Severance tax reduction to 4% for wells producing an average of less than 10 BOPD. Average production in any calendar month is less than 10 BOPD.

Marginal/Stripper Wells

Size of Tax Reduction: 5% to 4%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Colorado

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1985
 Incentive Time Period: No sunset

Description: Severance tax exemption for oil wells producing less than 10 BOPD. Also property tax.

Marginal/Stripper Wells

Size of Tax Reduction: 5% to 0%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Colorado

Tax Affected: Property Tax
 Hydrocarbons: Oil
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1985
 Incentive Time Period: No sunset

Description: Property tax credit for 87.5% of ad valorem tax for oil well producing less than 10 BOPD. Also severance tax.

Property Tax Credit

Size of Tax Reduction: 100% to 87.5% assess
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Florida

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Began: 1986
 Incentive Time Period: No sunset

Description: Severance tax reduction to 5% for oil wells producing less than 100 BOPD. Stripper gas is taxed at \$0.12 per Mcf.

Marginal/Stripper Wells

Size of Tax Reduction: 8% to 5%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Kansas

Tax Affected: Property Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other

Marginal Wells Property Tax

Size of Tax Reduction: 100%
 Production Status: All Production
 Target: Existing Wells-Marginal

Began: 1992
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger:

Description: Property tax exemption other than royalty interests for all leases whose average production per well per lease is less than 3 BOPD and wells greater than 2,000 feet with production less than 5 BOPD.

Amended: 1/1/98

Amendment Description: The average daily production per well per lease was increased from 2 BOPD to 3 BOPD per producing well for wells less than 2,000 feet and 5 barrels or less per producing well which has a completion depth of 2,000 feet or more.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Marginal/Stripper Wells

Size of Tax Reduction: 4.33% to 0%
 Production Status: All Production
 Target: Existing Wells-Marginal

Began:
 Incentive Time Period: Annual application for one-year period

Qualifying Period: None
 Price Trigger: Oil price is less than \$16 through \$13 per barrel

Description: Severance tax exemption for all wells whose average production per well per lease is less than 5 BOPD at all prices and depths and for wells greater than 2,000 feet with production less than 6 BOPD.

Amended: 5/1/98

Amendment Description: The average daily production per well per lease was increased from 2 BOPD to 5 BOPD for all depths and prices; increased from 3 BOPD to 6 BOPD for wells greater than 2,000 feet at all prices; exemption was added for wells greater than 2,000 feet with production less than 7 BOPD average per well per lease if the price of oil is less than \$16, wells greater than 2,000 feet with production less than 8 BOPD if the price of oil is less than \$15, wells greater than 2,000 feet with production less than 9 BOPD if the price of oil is less than \$14, and for wells greater than 2,000 feet with production less than 10 BOPD if the price of oil is less than \$13.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production

Began:
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 4.33% to 0%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for gas from wells with a daily average gross value of under \$81 a day. Average daily production during a calendar month for a well that has not been significantly curtailed by reason of mechanical failure or other disruption of production.

Amended: 5/1/98

Amendment Description: The exemption for gas was increased to wells that have an average daily gross value of less than \$87 rather than \$81 per day.

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1948
 Incentive Time Period: No sunset

Incapable Oil with Saltwater Wells

Size of Tax Reduction: 12.5% to 6.25%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: 7/94-6/30/03
 Price Trigger: None

Description: 50% severance tax reduction for wells capable of less than 25 BOPD with at least a 50% saltwater cut. Renewed in 1996.

Economic Analysis Available in Section 5 (See 5.34)

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1974
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 12.5% to 0% or 3.125%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: 7/94-6/30/03
 Price Trigger: Oil price is less than \$20 per barrel

Description: Severance tax reduction to 3.125% for oil wells producing less than 10 BOPD.

Amended: 6/1/94

Amendment Description: Added severance tax exemption for stripper oil when average posted price for a 30-day period is less than \$20 per barrel.

Economic Analysis Available in Section 5 (See 5.35)

Louisiana

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production

Began: 1958
 Incentive Time Period: No sunset

Description: Severance tax reduction to \$0.013 per Mcf for gas wells producing less than 250 Mcf per day and to \$0.03 per Mcf for casinghead gas from oil wells having less than 50 pounds of wellhead pressure or producing by artificial methods. Includes gas lift or pumping.
Economic Analysis Available in Section 5 (See 5.36)

Incapable Wells Gas Rates

Size of Tax Reduction: 9.3 cents/Mcf to 1.3 cents/Mcf
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Michigan

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Began: 1996
 Incentive Time Period: No sunset

Description: Severance tax reduction from 6.6% to 4% for wells producing less than 10 BOPD and from 5% to 4% for stripper gas wells.

Marginal/Stripper Wells

Size of Tax Reduction: 6.6% to 4%, 5% to 4%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Michigan

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Began: 1996
 Incentive Time Period: No sunset

Description: Severance tax reduction from 6.6% to 4% for wells producing less than 20 BOPI with average depth of greater than 2,000 and less than 4,000 feet, wells producing less than 25 BOPD with average depth greater than 4,000 and less than 6,000 feet, wells less than 30 BOPD with average depth of greater than 6,000 and less than 8,000 feet, and wells less than 35 BOPD with average depth greater than 8,000 feet.

Marginal/Stripper Properties

Size of Tax Reduction: 6.6% to 4%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Mississippi

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1999
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 6% to 2%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: 4/15/99-4/15/03
 Price Trigger: Oil price is less than \$12 per barrel

Description: Severance tax reduction to 2% for oil from wells producing less than 20 BOPD with a depth of less than 7,500 feet and wells producing less than 40 BOPD with a depth greater than 7,500 feet.

Montana

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1995
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 15.1%-12.8% to 0%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: Oil price is less than \$30 per barrel

Description: Severance tax exemption for the first 3 barrels of oil per day from a well producing less than 10 BOPD.

Nebraska

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began:
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 3% to 2%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Description: Severance tax reduction to 2% for oil wells producing less than 10 BOPD.

New Mexico

Tax Affected: Severance Tax, Privilege Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Marginal/Stripper Wells

Size of Tax Reduction: 3.75% to 1.875% or
 2.8125% for oil, 3.15% to 1.58% or 2.36% for
 gas
 Production Status: All Production
 Target: Existing Wells-Marginal

Began: 1995
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: Oil price is less than \$15 per
 barrel or less than \$18; gas price is less than
 \$1.15 or less than \$1.35

Description: Severance tax and privilege tax reduction based on various price levels for oil and natural gas from oil wells producing less than 10 BOPD or less than 10 BOEPD or gas wells producing less than 60 MCFPD. Oil price based on the annual average posted price of West Texas Intermediate crude oil for prior fiscal year with a 50% reduction if less than \$15 or a 75% reduction if greater than \$15 and less than \$18. Gas price based on the average annual taxable value of natural gas per Mcf in the prior calendar year with 50% reduction of less than \$1.15 or a 75% reduction if greater than \$1.15 and less than \$1.35.

New Mexico

Tax Affected: State Royalties
 Hydrocarbons: Oil
 Full/Incremental: Full Production

State Royalty Reductions

Size of Tax Reduction: 12.5% to 5%
 Production Status: All Production
 Target: Existing Wells-Marginal

Began: 1994
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Royalty rate reduction to 5% for oil wells on state oil and gas leases under certain conditions.

State Comments: "From December 1, 1995, to December 1, 1998, New Mexico State Land Office (NMSLO) approved 57 applications, involving 115 marginal wells on 58 state leases for 16 different applicants. Of the 115 wells that have qualified for the reduced royalty rate, 63 have expired and were not renewed, leaving 52 wells currently in the program. Operators indicated that approximately 46% (24 total wells) of the 52 wells in this program would be plugged and abandoned with the royalty reduction program. An SLO analysis indicates that the average well receiving approval may realize a slight increase in its primary productive life and produce some incremental productive reserves, but that the royalty revenue due to the reserve increase would not be sufficient to offset the initial revenue loss from royalty reduction."

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1987
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 6.5% to 0%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Description: Extraction tax exemption for oil from wells producing less than 10 BOPD with depth less than 6,000 feet, wells producing less than 20 BOPD with a depth greater than 6,000 feet and less than 10,000 feet, and wells less than 30 BOPD with a depth greater than 10,000 feet. Gross production tax of 5% still paid. Production level is average daily production for the last 12 months. Stripper wells must be certified by the NDIC.

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1999
 Incentive Time Period:

Economically-At-Risk Oil Leases

Size of Tax Reduction: 7% to 1%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: 1996-7/1/00
 Price Trigger: None

Description: 6/7 gross production tax reduction for a lease operating at a net loss or net profit that is less than severance tax paid prior year.

Texas

Tax Affected: State Royalties
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Began: 1995
 Incentive Time Period: 2 years after reduction granted, extension of reduction can be granted after 2 years

Marginal Wells on State Lands

Size of Tax Reduction:
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: Oil price is less than \$25 per barrel

Description: Royalty rate reduction by the Texas School Land Board for leases producing less than 15 BOPD or less than 90 MCF per day per well.

Amended: 9/1/99

Amendment Description: Two-year period limitation is replaced by a term prescribed by Land Board.

Utah

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Began: 1984
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 5% to 0%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for oil wells producing less than 20 BOPD and gas wells producing less than 60 Mcf per day. 90 day average production. Does not apply if exemption prevents the severance tax from being a deduction for federal tax purposes.

Wyoming

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1995
 Incentive Time Period: No sunset

Marginal/Stripper Wells

Size of Tax Reduction: 6% to 4%
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: Increase qualifying wells when oil price is less than \$20 per barrel

Description: Severance tax reduction to 4% for wells producing less than 15 BPOD when the price of oil is less than \$20 and wells producing less than 10 BOPD when the price of oil is greater than \$20. Annual production average.

State Comments: "In 1982, taxable stripper production was almost 6% of the total taxable production. That number increased to 17% in 1999, when 6,785,000 barrels of oil qualified for this reduction. The importance of this incentive continues to grow as Wyoming's fields continue to mature."

Economic Analysis Available in Section 5 (See 5.37)

Part 4-15: Existing Wells-All**Part 4-16: EOR Wells****Kansas**

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1994
 Incentive Time Period: No sunset

Recovery Use Gas Exemption

Size of Tax Reduction: 4.33% to 0%
 Production Status: Enhanced Recovery Production
 Target: EOR Wells

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for natural gas used in injection projects or for fuel in recovery operations.

Part 4-17: All Wells

Arkansas

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1969
Incentive Time Period: No sunset

Saltwater Disposal Costs

Size of Tax Reduction: Varies with costs
Production Status: All Production
Target: All Wells

Qualifying Period: None
Price Trigger: None

Description: Severance tax credit for saltwater disposal costs. Costs include depreciation, maintenance, costs of services, labor, supplies, utilities and other operating expenses.

California

Tax Affected: Severance Tax
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began:
Incentive Time Period:

Lease Use Gas

Size of Tax Reduction: 100%
Production Status: All Production
Target: All Wells

Qualifying Period: None
Price Trigger: None

Description: Severance tax exemption for lease use gas. Gas used on site for pressure maintenance or other producing operations.

Colorado

Tax Affected: Fees
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1996
 Incentive Time Period: No sunset

Levy Reduction and Fee Eliminations

Size of Tax Reduction: Varies
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Elimination and reduction of oil and gas levies and fees. Elimination of 0.2 mills environmental response fund levy, all drilling permit fees, recompletion permit fees, pit and other environmental permit fees, change of operator fees, hearing fees, reduction in conservation fund levy.

State Comments: "The cumulative levy reductions and fee eliminations since 1996 and made possible through severance tax funds have reduced the annual costs to industry by over \$1 million."

Florida

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began:
 Incentive Time Period:

Lease Use Oil and Gas

Size of Tax Reduction: 8% to 0%
 Production Status: All Production
 Target: All Wells

Qualifying Person: None
 Price Trigger: None

Description: Severance tax exemption for lease use oil or gas.

Illinois

Tax Affected: Sales Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1996
 Incentive Time Period: No sunset

Oilfield Equipment Sales Tax Relief

Size of Tax Reduction: 100%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Sales tax exemption for oilfield equipment. Illinois does not have a severance tax on oil or gas production.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began:
 Incentive Time Period: No sunset

Lease Use Gas

Size of Tax Reduction: 4.33% to 0%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for lease use gas. Also exempt for domestic and agricultural use on the lease or production union where severed.

Kansas

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other

Began: 1994
 Incentive Time Period: No sunset

Severance Tax Rate Reduction

Size of Tax Reduction: 7% to 4.33%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Annual stepped reduction on severance tax from 7% to 4.33% over a three-year period. Final reduction in July 1996.

Kansas

Tax Affected: Sales Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1994
 Incentive Time Period: No sunset

Electricity and Utilities for Oil and Gas Sales Tax

Size of Tax Reduction: 100%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Sales tax exemption for electricity and other utilities used for oil and gas.

Louisiana

Tax Affected: Severance Tax
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Natural Gas Used in Operations
Size of Tax Reduction: 9.3 cents or less/Mcf to 0
Production Status: All Production
Target: All Wells

Began: 1958
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax exemption for natural gas used in field operation, in the production of any natural resources in the state, and in carbon black manufacturing.
Amended: 1/1/74
Amendment Description: Added production of natural resources.

Louisiana

Tax Affected: Severance Tax
Hydrocarbons: Natural Gas
Full/Incremental: Other

Adjusted Natural Gas Tax Rate for Capable Wells
Size of Tax Reduction: 9.3 cents or less/Mcf to 0
Production Status: All Production
Target: All Wells

Began: 1990
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Annual stepped reduction on natural gas capable well severance tax rate using an indexing mechanism based on the change in natural gas prices in the prior year. Rate dropped from 10.1 cents to 9.34 cents per Mcf effective July 1, 1998. Minimum adjusted rate is 7 cents per Mcf.

Montana

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Lease Use Oil and Gas
Size of Tax Reduction: 15.45%-15.1% to 0%, 15.1%-12.8% to 0%
Production Status: All Production
Target: All Wells

Began:
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Severance tax exemption for lease use oil or gas. Crude oil or gas used in connection with operations.

Nevada

Tax Affected: Administrative Fee
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Reduced Administrative Fee for New Production

Size of Tax Reduction: One-half cent per barrel of oil or 50,000 cubic feet of natural gas
Production Status: All Production
Target: All Wells

Began: 2000
Incentive Time Period: One year

Qualifying Period: None
Price Trigger: None

Description: Amount of the administrative fee that a producer or purchaser of oil or natural gas must pay on new production is one-half cent per barrel of oil or per 50,000 cubic feet of natural gas. New production is defined as production from new wells or existing wells completed in new intervals as determined by the Commission on Mineral Resources. Any qualifying well will receive will receive a reduced administrative fee for one full year. Upon completion of a qualifying well, the producer will submit a Form 5, "Well Completion Report." The production date as reported on Form 5 will be the effective date for the reduced fee.

North Dakota

Tax Affected: Extraction Tax
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Lease Use Gas

Size of Tax Reduction: 6.5% to 0%
Production Status: All Production
Target: All Wells

Began: 1986
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Production tax exemption for lease use gas.
Amended: 7/1/89

Oklahoma

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other

Began: 1995
 Incentive Time Period: No sunset

Variable Tax Rate

Size of Tax Reduction: 7% to 4%, 7% to 1%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$17 per barrel or less than \$14 per barrel; Gas price is less than \$2.10 per Mcf or less than \$1.75 per Mcf

Description: Variable tax rate for oil production based on the monthly average price of oil. If oil price is greater than \$17 per barrel, no reduction and tax rate is 7%. If oil price is less than \$17 per barrel, but greater than \$14, the tax rate is 4%. If oil price is less than \$14, tax rate is 1%.

Amended: 7/02

Amendment Description: If the average price of Oklahoma gas equals or exceeds \$2.10 per Mcf, the tax shall be 7%. If the average price of Oklahoma gas is less than \$2.10 but is equal to or exceeds \$1.75 per Mcf, then the tax shall be 4%. If the average price of Oklahoma gas is less than \$1.75 per Mcf, then the tax shall be 1%.

South Dakota

Tax Affected: Sales Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1982
 Incentive Time Period: No sunset

Oil Field Services

Size of Tax Reduction: 4% to 3%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Description: 1% sales tax exemption for oil field services.

Amended: 7/1/91

State Comments: "This incentive is thought to have had little impact."

Utah

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other

Began: 1992
 Incentive Time Period: No sunset

Graduated Severance Tax Rate

Size of Tax Reduction: 5% to 3%
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: Oil price is less than \$13 per barrel; gas price is less than \$1.50 per Mcf

Description: Graduated oil severance tax at 3% for prices less than \$13 per barrel and 5% for prices greater than \$13. Graduated gas severance tax at 3% for prices less than \$1.50 per Mcf and 5% for prices greater than \$1.50.

Utah

Tax Affected: Severance Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Full Production

Began: 1947
 Incentive Time Period: Annual Limit

Field Exemption

Size of Tax Reduction: \$50,000 per year
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Severance tax reduction on first \$50,000 in gross value annually for each well or field.

Virginia

Tax Affected: Sales Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1994
 Incentive Time Period: No sunset

Sales and Use Tax Exemptions

Size of Tax Reduction: 4.5% to 0%
 Production Status: All Production
 Target: All Wells

Qualifying Period: 7/1/94-6/30/06
 Price Trigger: None

Description: State and local sales tax exemption for supplies and equipment used directly in drilling, refining or processing of gas or oil and reclamation of well area. Raw materials, fuel, power, energy, supplies, machinery, tools and repair/parts. Exemption includes all phases of production and processing including gathering, until gas is pipeline quality.

State Comments: "Initial, onetime revenue impact for Virginia's economy is estimated at \$1 million. The 1996 impact is estimated at \$250,000 to \$325,000 (approximately \$2,300 to \$2,700 per conventional well, and \$1,400 to \$1,800 per coalbed methane well). As a result, some producers have increased investment in Virginia."

West Virginia

Tax Affected: Sales Tax
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1989
 Incentive Time Period: No sunset

Direct Use Sales Tax Exemption

Size of Tax Reduction:
 Production Status: All Production
 Target: All Wells

Qualifying Period: None
 Price Trigger: None

Description: Sales tax exemption for purchases used directly in the production of oil and gas.
 Amended: 1/1/94
 Amendment Description: Clarified includes subcontractors.

Part 4-18: Other

Arizona

Tax Affected: Property Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Property Tax Reduction

Size of Tax Reduction: 100% to 25%
Production Status: All Production
Target: Other

Began: 1996
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Reduction in valuation to 28% of value for property tax on real property used by producing oil, gas and geothermal. Rate decreases by 1 % per year until 2000, where holds at 25%.

State Comments: "The tax assessment ratio reduction is effective in achieving tax equity."

Colorado

Tax Affected: Severance Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Tax Offset for Property Tax

Size of Tax Reduction: Varies, 5% to 1%, on average
Production Status: All Production
Target: Other

Began: 1978
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Credit allowed against 5% severance tax for property taxes paid. Effective severance tax rate reduced to 1%. When the local property taxes (ad valorem taxes which are assessed based on 87.5% of the value of production) are above 5.7% they completely offset state severance tax obligation.

Kansas

Tax Affected: Property Tax
Hydrocarbons: Both Oil and Gas
Full/Incremental: Full Production
Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Property Taxation

Size of Tax Reduction:
Production Status: All Production
Target: Other

Began: 2000
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: Factors to be considered when assessing property tax include the age of the well, quality of product produced, nearness to market, the cost of operation, the probable life of the well, character, extent and the permanency of the market, the quantity of product produced, the number of wells being operated, and other factors affecting the value of the lease.

North Dakota

Tax Affected: Extraction Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 2001
 Incentive Time Period: No sunset

Extraction Tax Trigger

Size of Tax Reduction:
 Production Status: Primary Production
 Target: Other

Qualifying Period:
 Price Trigger: Oil price averages \$38 per barrel per month for 5 consecutive months

Description: The new trigger price for excise tax incentive elimination on oil production will occur if West Texas Intermediate crude oil averages \$38 per month for five consecutive months. The trigger price will be adjusted for inflation on an annual basis by the North Dakota Tax Department. For an operator, this can immediately reduce taxes after approval. The reduction is 2.5-6.5%.

Wyoming

Tax Affected: Severance Tax
 Hydrocarbons: Oil
 Full/Incremental: Full Production

Began: 1990
 Incentive Time Period: No sunset

Collection Wells

Size of Tax Reduction: 6% to 1.5%
 Production Status: Primary Production
 Target: Other

Qualifying Period: 3/16/90-1/1/99
 Price Trigger: None

Description: Severance tax reduction to 1.5% for oil production from collection wells.
 Amended: 1/1/95
 Amendment Description: Extended to 1999.
 State Comments: "Applications for this incentive have been limited, but 261,416 barrels of oil were produced in the seven years for which statistics are available."

Section 4: All Other**Part 4-19: Other****Kansas**

Tax Affected: Property Tax
 Hydrocarbons: Natural Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1998
 Incentive Time Period: No sunset

Royalty Relief Tax Refund

Size of Tax Reduction: 100%
 Production Status: All Production
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: Royalty owners receive relief from paying ad valorem tax arising from FERC ordered statements of refund.

South Dakota

Tax Affected: Severance Tax
Hydrocarbons: Natural Gas
Full/Incremental: Other

Began: 1978
Incentive Time Period: No sunset

Natural Gas Sold Out of State
Size of Tax Reduction:
Production Status: All Production
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Effective elimination of severance tax on gas sold out of state by imposing tax at the time gas is sold or consumed.

Amended: 7/1/91

State Comments: "Very little impact, as very little natural gas is sold out of state."

Virginia

Tax Affected: Production Tax
Hydrocarbons: Natural Gas
Full/Incremental: Other

Began: 1996
Incentive Time Period: No sunset

Coalfield Employment Enhancement Tax Credit
Size of Tax Reduction:
Production Status: All Production
Target: Other

Qualifying Period: 7/1/96-1/1/07
Price Trigger: None

Description: Tax credit of one cent per MMBtu of *coalbed* methane production.

State Comments: "Production of coalbed methane has increased since this incentive was passed."

Category 3

Incentives With No Tax Benefits

Section 5: Targeting New Wells

Part 4-20: Reduction in Regulation

Alaska

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Investment Action: Invest in Any Drilling
Cost Reduction: Reduction in Regulation

Began: 1997
Incentive Time Period: No sunset

Areawide Lease Sales
Size of Tax Reduction:
Production Status: All Production
Target: All New Wells

Qualifying Period: None
Price Trigger: None

Description: Set an established time each year for lease within a geographical area. Designed for better planning.

State Comments: "While no comparative statistics are available, the program has been well received by industry."

Alaska

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Investment Action: Invest in Drilling Wildcats
 Cost Reduction: Reduction in Regulation

Exploration License Program

Size of Tax Reduction:
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1996
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Exclusive right to explore new unexplored areas between 10,000 and 500,000 acres in size for up to 10 years. Applicant willing to spend the most on exploration wins license. No licensee may hold more than two million acres at one time.

Arkansas

Tax Affected:
 Hydrocarbons: Natural Gas
 Full/Incremental: Full Production
 Investment Action: Invest in Drilling Wildcats
 Cost Reduction: Reduction in Regulation

Discovery Gas Wells

Size of Tax Reduction:
 Production Status: Primary Production
 Target: New Field Discoveries

Began: 1994
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Increased allowable from 50% to 75% for newly discovered fields or deeper zones in existing fields.

State Comments: "No new discoveries have been made since adoption."

Part 4-21: Reduction in Operating/Other Out-Of-Pocket Costs**Arkansas**

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Investment Action: Invest in Any Drilling
 Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Financial Responsibility

Size of Tax Reduction:
 Production Status: All Production
 Target: All New Wells

Began: 1995
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Reduction in operator financial responsibility by amended rule from \$15,000 to \$3,000 for each Intent to Drill or change in operator.

State Comments: "The lowering of this requirement is thought to have helped bring new oil and gas operators to the state."

Mississippi

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Investment Action: Invest in Any Drilling

Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1984

Incentive Time Period: No sunset

Force Integration-Risk Compensation

Size of Tax Reduction:

Production Status: Primary Production

Target: All New Wells

Qualifying Period: None

Price Trigger: None

Description: Penalty on the interest owners of who would not consent to drilling of a well, of 100% cost recovery plus 150% over and above cost. 33% of the drilling right's owners must voluntarily consent to the drilling of the proposed well.

Amended: 4/20/98

Amendment Description: Cost recovery was increased to 200%, or a total recovery of 300% attributable to each non-consenting owner.

Part 4-22: Governmental Support Groups/Programs**New York**

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Investment Action: Invest in Drilling Wildcats

Cost Reduction: Governmental Support Groups/Programs

Began: 1998

Incentive Time Period:

Natural Gas and Petroleum ExplorationTarget Development

Size of Tax Reduction:

Production Status: Primary Production

Target: Other

Qualifying Period: None

Price Trigger:

Description: Solicitation of projects to identify drillable exploration targets in NY.

Section 6: Targeting Existing Wells

Part 4-23: Reduction in Regulation

California

Tax Affected:
Hydrocarbons: Both Oil and Gas
Investment Action: Invest in Plugging or Environmental Activity
Cost Reduction: Reduction in Regulation

Began: 1999
Incentive Time Period: No sunset

Idle and Orphan Wells Bond Requirements

Size of Tax Reduction:
Production Status: All Production
Target: Inactive Fields/Wells

Qualifying Period: None
Price Trigger: None

Description: Provide more options for bond requirements for operators to prevent operators from abandoning wells to be plugged by state. Operators who orphan wells for the state to plug will forfeit more money. Costs and requirements depend on the size of the operator and the wells in question.

Missouri

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Investment Action: Invest in Plugging or Environmental Activity
Cost Reduction: Reduction in Regulation

Began: 1994
Incentive Time Period: No sunset

Plugging

Size of Tax Reduction:
Production Status: All Production
Target: Existing Wells-All

Qualifying Period: None
Price Trigger: None

Description: In lieu of fines for regulatory violations, operators are offered the opportunity to do community service by plugging orphan wells selected by the state.

New Mexico

Tax Affected:
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Began: 1998
Incentive Time Period:

Rule Revisions

Size of Tax Reduction:
Production Status: All Production
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Amendment to gas proration and well testing rules in San Juan Basin.

Ohio

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Investment Action: Invest in Plugging or
 Environmental Activity
 Cost Reduction: Reduction in Regulation

Began: 1995
 Incentive Time Period:

Plugging

Size of Tax Reduction:
 Production Status: All Production
 Target: Existing Wells-All

Qualifying Period: None
 Price Trigger: None

Description: Severance tax exemption for all zones that were once productive for an inactive oilfield returned to production. All zones, horizons and formations that were once productive but have ceased to produce.

Texas

Tax Affected:
 Hydrocarbons: Natural Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Regulation

Began: 1997
 Incentive Time Period: No sunset

Marginal Gas Wells

Size of Tax Reduction:
 Production Status: All Production
 Target: Existing Wells-Marginal

Qualifying Period: None
 Price Trigger: None

Description: Exemption from production limitations for certain gas wells producing less than 250,000 cubic feet per day. Cannot be in a field for which special rules are in effect.

West Virginia

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Regulation

Began: 1993
 Incentive Time Period:

Bona Fide Future Use Program

Size of Tax Reduction:
 Production Status: All Production
 Target: Inactive Fields/Wells

Qualifying Period: None
 Price Trigger: None

Description: Wells idle for 12 months can be designated as bona fide future use and not required to be plugged.

Part 4-24: Reduction in Operating/Other Out-Of-Pocket Costs

Pennsylvania

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Investment Action: Invest in Returning Wells to Production

Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1997

Incentive Time Period: No sunset

Grandfathering Pre-Act Wells from Bonding

Size of Tax Reduction:

Production Status: All Production

Target: Existing Wells-All

Qualifying Period: None

Price Trigger: None

Description: No bonding requirement for any well drilled prior to July 18, 1995, or for on-site disposal of residual wastes at these well sites.

Pennsylvania

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Investment Action: Invest in Returning Wells to Production

Cost Reduction: Reduction in Operating/Other out-of-pocket costs

Began: 1992

Incentive Time Period: No sunset

Orphan Wells

Size of Tax Reduction:

Production Status: All Production

Target: Inactive Fields/Wells

Qualifying Period: None

Price Trigger: None

Description: Permit fees waiver for producers who return a state orphan well to production.
State Comments: "One producer in Pittsburgh has taken advantage of the program. There have been other inquiries to the Department of Environmental Protection."

Section 7: All Other

Part 4-25: Reduction in Regulation

Alaska

Tax Affected:
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Natural Gas Pipeline

Size of Tax Reduction:
Production Status: Other
Target: Other

Began: 2000
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: The guarantee of pipeline capacity for an LNG export project is an incentive for developers of natural gas that is now stranded on the North Slope.

California

Tax Affected:
Hydrocarbons: Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Transfer of Pipeline Right of Way

Size of Tax Reduction:
Production Status: Other
Target: Other

Began: 2002
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: This law is to facilitate the transfer of gas gathering systems. It allows a utility to transfer easements and right of ways associated with a section of gathering pipeline to an individual producer or a co-operative of producers.

New Mexico

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Efficiency of Permitting Process

Size of Tax Reduction:
Production Status: All Production
Target: Other

Began:
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: Reduction on processing time for permit applications and hearing orders. Seminars for operators for accurate and complete filings.

South Dakota

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Began: 1996
Incentive Time Period:

Voluntary Environmental Audit
Size of Tax Reduction:
Production Status: All Production
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Voluntary environmental audit privilege providing limited immunity for violations. To encourage self-evaluation. The Department of Environment and Natural Resources is prohibited from prosecuting violations discovered and reported within 30 days if they are corrected within 60 days.

Virginia

Tax Affected:
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Began: 1990
Incentive Time Period: No sunset

Direct Sales of Natural Gas by Producers
Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Producers of natural gas may sell directly to as many as 35 customers without having to become certified as a public utility.

Amended: 7/1/97

Amendment Description: Raised customer limit from 10 to 35.

State Comments: "Several companies have extended service under this program."

Virginia

Tax Affected:
Hydrocarbons: Natural Gas
Full/Incremental: Other
Cost Reduction: Reduction in Regulation

Began: 1997
Incentive Time Period: No sunset

Consent to Stimulate Coalbed Methane
Size of Tax Reduction:
Production Status: Primary Production
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Lessened requirement for a coalbed methane producer to get consent from all coal operators under certain conditions. Consent can be assumed in certain conditions.

Wyoming

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Investment Action: Invest in Plugging or
 Environmental Activity
 Cost Reduction: Reduction in Regulation

Environmental Audit Privilege

Size of Tax Reduction:
 Production Status: All Production
 Target: Other

Began: 1995
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Immunity for oil and gas companies from fines and penalties for violations that are reported with remediation plans.

Part 4-26: Reduction in Paperwork**Montana**

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Paperwork

Tax Simplification

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 1996
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Streamlined accounting procedures for oil and gas taxes. Five different production taxes consolidated into single rate per well or field that can be filed on a single return. Established standard quarterly reporting date of 60 days following the end of a calendar quarter. State Comments: "The new tax system is significantly more efficient. Positive feedback has been received and further simplification may take place."

Ohio

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Reduction in Paperwork

Emergency and Hazardous Chemical
Inventory Form

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 2001
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Well owners will be deemed to have complied under the Community Right to Know Act by virtue of having filed well completion and annual production statements with the Division of Mineral Resources Management.

Pennsylvania

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Paperwork

Electronic Transactions Act

Size of Tax Reduction:
Production Status: All Production
Target: Other

Began: 2000
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: Allows for the electronic submission of permit applications and required reports.

Texas

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Paperwork

Paperwork Reduction

Size of Tax Reduction:
Production Status: All Production
Target: Other

Began: 1995
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: Delay in payment of state royalties until \$100 or 12 months

Texas

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Reduction in Paperwork

Severance Tax Administration

Size of Tax Reduction:
Production Status: Other
Target: Other

Began: 2001
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Removal of accelerated biennial due date ("speed-up") for natural gas severance taxes and penalties for speed-up late payments. Eliminates early payment of natural gas tax in odd-numbered years.

Part 4-27: Providing Information/Research

Alabama

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Providing Information/Research

Assessment of Hydrocarbon Potential

Size of Tax Reduction:
Production Status: Other
Target: Other

Began: 1999
Incentive Time Period:

Qualifying Period: None
Price Trigger: None

Description: Investigators are conducting a research program called “Stratigraphic and Structural Framework of Subsalt Strata in the Mobile, Viosca Knoll (North), Pensacola and Destin Dome Areas of the Gulf of Mexico.” In onshore areas some sandstone units have porosity exceeding 20% at depths greater than 17,000 feet. In offshore areas, subsalt strata are imaged below broad salt pillows in seismic reflection data sets.

Alabama

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Providing Information/Research

Basin Analysis Project

Size of Tax Reduction:
Production Status: Other
Target: Other

Began: 1997
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: Basin Analysis Project geologic and engineering data.

Alabama

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Providing Information/Research

Carbon Sequestration

Size of Tax Reduction:
Production Status: Other
Target: Other

Began: 2000
Incentive Time Period: No sunset

Qualifying Period: None
Price Trigger: None

Description: The investigation is designed to determine the feasibility of using carbon dioxide extracted from coal-fired power plants for enhanced coalbed methane recovery. Coalbed methane reservoirs are especially attractive sited for carbon sequestration and carbon sequestration in coalbearing strata provides a basis for a market-based environmental solution that can result in expansion of natural gas reserves in coalbed methane fields by as much as 40%.

Alabama

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

Core and Sample Library

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 1975
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Core and Sample Library available to producers to counteract loss of infrastructure in the independent industry. Core samples for use by operators and researchers.

Alabama

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

Quantify Effects of Hydraulic Fracturing and Water Production

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 2000
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Researchers are conducting an investigation entitled “3-D Characterization of Natural and Induced Fractures in Coalbed Methane Reservoirs in the Black Warrior Basin in Alabama.” The study is intended to identify boundary conditions that facilitate coalbed methane operations while protecting shallow aquifers.

Kansas

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

University of Kansas Energy Research Center

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began:
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Integrated energy research program focused on petroleum with the Kansas Geological Survey. Program has contracted more than \$6.6 million in support of energy research. Staffs in 19 university departments conduct energy research.

Kansas

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

Began: 1987
 Incentive Time Period:

Technical Information Services

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: Kansas Geological Survey. Public access to petroleum data, including scout tickets and well log data. Includes Well Sample Library.

Kansas

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

Began:
 Incentive Time Period:

Petroleum Research Section

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: Kansas Geological Survey. Research and instructional services for petroleum industry. Operates the Kansas Well Core Library, which is open to the public.

Kansas

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

Began: 1995
 Incentive Time Period:

Digital Petroleum Atlas

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: Starting with Kansas and extending into the adjoining mid-continent region. 80% federal funds and 20% state general funds.

Amended: 8/1/96

Amendment Description: New appropriation.

New Mexico

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Providing Information/Research

Began: 1996
Incentive Time Period:

Electronic Availability of OCD Records

Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Development of Internet for information and filing.

New Mexico

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Providing Information/Research

Began: 1997
Incentive Time Period:

Oil Conservation Division

Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Efforts to increase reliability, timeliness, and usefulness of information in ONGARD system and reduce errors in filing, encourage electronic filing of production reports, institute more timely notification process.

New York

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Providing Information/Research

Began: 1975
Incentive Time Period:

New York State Energy Research and Development Authority

Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Grants for research to expand the use of New York State's indigenous and renewable energy resources. Over last 3 years, NYSERDA has provided \$1.5 million for 30 gas and petroleum projects.

New York

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Cost Reduction: Providing Information/Research

Natural Gas and Petroleum Exploration and
Production for Economic Development
Program

Size of Tax Reduction:

Production Status: Other

Target: Other

Began:

Incentive Time Period:

Qualifying Period:

Price Trigger:

Description: The program is designed to create economic activity in New York State through the identification, development and use of indigenous natural gas and petroleum production.

Oklahoma

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Cost Reduction: Providing Information/Research

Oklahoma Commission on Marginally
Producing Wells

Size of Tax Reduction:

Production Status: Other

Target: Other

Began: 1992

Incentive Time Period:

Qualifying Period: None

Price Trigger: None

Description: Commission to collect and distribute information on stripper production. Funded by small oil and gas taxes from non-exempt production. Producers can opt out of paying.

Texas

Tax Affected:

Hydrocarbons: Both Oil and Gas

Full/Incremental: Other

Cost Reduction: Providing Information/Research

Texas Oil and Gas Production Database
(ACTI)

Size of Tax Reduction:

Production Status: Other

Target: Other

Began: 1998

Incentive Time Period:

Qualifying Period: None

Price Trigger: None

Description: Monthly database developed to provide quick and easy access to Texas oil and gas information over the Internet. Data available monthly to lease level.

Virginia

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

Virginia Department of Mines, Minerals and Energy

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 1835
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Division of Mineral Resources conducts research and provides information on coreholes, geology and a database on all wells.

State Comments: "Customers continually rate the services of the division as very useful."

Wyoming

Tax Affected:
 Hydrocarbons: Oil
 Full/Incremental: Other
 Cost Reduction: Providing Information/Research

State-Funded Demonstration Project

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 1996
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: State-funded demonstration project of new technology of hydraulic fracture technique for sandstone formations.

Part 4-28: Government Support Groups/Programs**Illinois**

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Government Support Groups/Programs

Crude Oil Marketing and Education Act

Size of Tax Reduction:
 Production Status: All Production
 Target: Other

Began: 1998
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Voluntary program of 1/10 of 1% of gross revenue of crude oil sales into a fund. One-half of the fund for abandoned site cleanup & one-half for energy education in public schools. Modeled after the Oklahoma Energy Resources Board.

New York

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Government Support
Groups/Programs

Began: 1997
Incentive Time Period:

Exploration and Drilling Technology
Partnership

Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Seeks to create an innovative link between advanced technology developers and NY natural gas and petroleum producers.

Ohio

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Government Support
Groups/Programs

Began: 1998
Incentive Time Period:

Ohio Oil and Gas Energy Education Program

Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Oil and gas energy education and public relations program to educate the public on the benefits of a strong oil and gas industry and safety information.

Oklahoma

Tax Affected:
Hydrocarbons: Both Oil and Gas
Full/Incremental: Other
Cost Reduction: Government Support
Groups/Programs

Began:
Incentive Time Period:

Oklahoma Energy Resources Board

Size of Tax Reduction:
Production Status: Other
Target: Other

Qualifying Period: None
Price Trigger: None

Description: Board established for energy education and the remediation of abandoned oilfield sites. The OERB conducts educational programs for children and spends at least half of its funding on oilfield cleanup projects. Also studies remediation technology using U.S. Department of Energy funds.

West Virginia

Tax Affected:
 Hydrocarbons: Natural Gas
 Full/Incremental: Other
 Cost Reduction: Government Support
 Groups/Programs

Natural Gas Vehicle Incentive

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 1996
 Incentive Time Period: Ends after 10 years

Qualifying Period: 4/96-4/06
 Price Trigger: None

Description: Tax credit for vehicles converted to run on natural gas or purchase of a factory-built natural gas vehicle, varying with size of vehicle. Credit will be worth \$3,750 for a light duty vehicle under 10,000 pounds gross vehicle weight, \$9,250 for a medium duty vehicle with 10,000 to 26,000 pounds, and \$50,000 for a heavy duty vehicle over 26,000 pounds.

Wyoming

Tax Affected:
 Hydrocarbons: Oil
 Full/Incremental: Other
 Cost Reduction: Government Support
 Groups/Programs

Wyoming Crude Oil Task Force

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 1998
 Incentive Time Period: No sunset

Qualifying Period: None
 Price Trigger: None

Description: Established to recommend actions the state could take to assist producers during times of low prices. Recommendations include replacing property tax with a general business tax, minerals director in governor's cabinet, state royalty reduction, suspension of plugging requirement in some cases, unified & simple reporting, assist in technology & funding sources.

Part 4-29: Other**Alabama**

Tax Affected:
 Hydrocarbons: Other
 Full/Incremental: Other
 Cost Reduction: Other

Unit Operations

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Began: 2000
 Incentive Time Period:

Qualifying Period: None
 Price Trigger: None

Description: Reduces the percentage from three-fourths to two-thirds for ratification of a unit agreement under the terms of the allocation formula established by the State Oil and Gas Board and for ratification of an addition to the unit area.

Colorado

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Other

Began: 1996
 Incentive Time Period: No sunset

Prohibition Against Additional Taxes

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: Prohibition against municipalities and counties considering oil and gas wells and their related facilities as a business or occupation for purposes of imposing an occupational privilege tax.

Illinois

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Other

Began: 1999
 Incentive Time Period: 5 years

Illinois First

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: 7/1/99 – 6/30/04
 Price Trigger: None

Description: The initiative includes \$10 million over five years to plug abandoned oil and gas wells and clean up abandoned production facilities throughout the state. The program has been successful.

Indiana

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Other

Began: 2002
 Incentive Time Period: No sunset

Taking Over Orphan Wells

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: The goal is to increase production and reduce the number of orphan wells in the state. The pilot project resulted in the reduction of 20 wells from the Orphan Site Program. The average cost of eliminating cost of eliminating an orphan well was one-fifth the cost of the state contracted plugging.

Kansas

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Other

Began: 1998
 Incentive Time Period: No sunset

County Severance Tax Prohibition

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: Prohibition against counties imposing a severance tax and repeal of any current county tax effective July 1, 1998.

Kansas

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Other

Began: 2000
 Incentive Time Period: No sunset

Unitization

Size of Tax Reduction:
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: The Kansas Corporation Commission (KCC) is empowered to unitize a pool upon request of a working interest owner under certain circumstances. First, the primary production is very uneconomic and abandonment of the well is imminent; or the unitized management sought is economically feasible and necessary to prevent waste. Second, the value of the estimated recovery is greater than the costs incident to conducting the recovery. Finally, the operation is fair and equitable. The act establishes the rights of owners of oil and gas rights under unleased land as being a working interest to the extent of 7/8 interest and a royalty owner to be 1/8 interest. The extent of a royalty interest is alterable. Also, the operator of the unit has to file ad valorem taxes.

New Mexico

Tax Affected:
 Hydrocarbons: Both Oil and Gas
 Full/Incremental: Other
 Cost Reduction: Other

Began:
 Incentive Time Period:

Credit for Produced Water

Size of Tax Reduction: \$1000 per acre-foot of cleaned produced water
 Production Status: Other
 Target: Other

Qualifying Period: None
 Price Trigger: None

Description: This new law provides annual tax credit up to an amount of \$400,000 for cleaned produced water pumped into Pecos River. The quality of water must be in compliance with state and federal clean water regulations.

North Dakota

Tax Affected:

Hydrocarbons: Oil

Full/Incremental: Other

Cost Reduction: Other

Statutory Unit Ratification

Size of Tax Reduction:

Production Status: Other

Target: Other

Began: 2001

Incentive Time Period: No sunset

Qualifying Period:

Price Trigger:

Description: Lowers the percentage of working interests and mineral owners approval required to form and dissolve an oil production unit from 70% to 60%.

5. Annualized Benefits of State Tax Incentives

Update of State Efforts

Here are the economic benefits calculated on an annual basis for those incentives with available data. The incentives are grouped as in the preceding chapter, so the first group is those incentives involving tax reductions for investment action. These incentives will have economic benefits from both investment activity and production activity. The methodology used to calculate these benefits is explained in Section 7.

Tax Reduction for Investment Action: New Wells

New Field Discoveries

5.1 Louisiana: Both Oil and Gas

Benefits from Investment Activity

			GAINS		LOSSES
			Economic	Result	Taxes
		Multiplier	Factor		Invested
Number of Projects	30.5	Final Demand	2.2264	\$101,945,791	\$0
Expenditure/Project	\$1,501,296	Earnings	0.3230	\$14,790,016	
Total Investment	\$45,789,522	Jobs	8.2	375.47	
		State Income Tax	1.58%	\$233,682	
		Corp Income Tax	0.15%	\$152,919	
		Sales	2.56%	\$2,609,812	
		Property Tax	0.02%	\$20,389	
			State/Local Total	\$3,016,802	
		Fed Income	16.1%	\$2,381,193	

Notes: Annual average approved applications for 1995-1998.

Annual average expenditures for 1994-1997, adjusted to 1999-2002 dollars.

According to a study by the Louisiana State University, the average annual number of new discovery wells for the period 1994-1997 (incentive effective beginning October 1, 1994) increased to 25.7 compared to 6.7 during the period 1991-1994. That represents an increase of over 375% in new discovery wells drilled each year. Expenditures on those wells jumped from \$8,100,000 on average per year to \$35,600,000. Average production from discovery wells (in Barrel of Oil Equivalents) went from 1,310,000 BOE per year on average to 5,260,000, over 400% higher.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.2264	\$60,166,234	\$3,378,000
Price		Earnings	0.3230	\$8,728,752	
Total Value	\$27,024,000	Jobs	8.2	221.60	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$137,914	
		Corp Income Tax	0.15%	\$90,249	
		Sales	2.56%	\$1,540,256	
		Property Tax	0.02%	\$12,033	
			State/Local Total	\$1,780,452	
		Fed Income	16.1%	\$1,405,329	
<hr/>					
Gas Production	26,233,871	Final Demand	2.2264	\$208,513,312	\$2,439,750
Price	\$3.57	Earnings	0.3230	\$30,250,539	
Total Value	\$93,654,919	Jobs	8.2	767.97	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$477,959	
		Corp Income Tax	0.15%	\$312,770	
		Sales	2.56%	\$5,337,941	
		Property Tax	0.02%	\$41,703	
			State/Local Total	\$6,170,372	
		Fed Income	16.1%	\$4,870,337	

Notes: Based on severance taxes lost for 1999-2002.

Severance tax exemption ends after first of 24 months or payout.

5.2 Mississippi: Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	14.75	Final Demand	1.9877	\$44,015,853	\$0
Expenditure/Project	\$1,501,296	Earnings	0.2888	\$6,395,220	
Total Investment	\$22,144,113	Jobs	9.1	201.51	
		State Income Tax	1.76%	\$112,556	
		Corp Income Tax	0.34%	\$149,654	
		Sales	4.76%	\$2,095,155	
		Property Tax	0.00%	\$0	
			State/Local Total	\$2,357,364	
		Fed Income	16.1%	\$1,029,630	

**Notes: Annual average incentive petitions for 1999-2002.
Expenditures based on Louisiana data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	1.9877	\$87,196,255	\$2,632,075
Price		Earnings	0.2888	\$12,669,054	
Total Value	\$43,867,915	Jobs	9.1	399.20	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.76%	\$222,975	
		Corp Income Tax	0.34%	\$296,467	
		Sales	4.76%	\$4,150,542	
		Property Tax	0.00%	\$0	
			State/Local Total	\$4,669,984	
		Fed Income	16.1%	\$2,039,718	

**Notes: No production data available.
Value of production based on annual average per discovery well for Louisiana and Oklahoma.
Severance tax reduction ends after five years.**

5.3 Oklahoma: Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	17.3	Final Demand	2.2963	\$59,755,376	\$0
Expenditure/Project	\$1,501,296	Earnings	0.3587	\$9,334,257	
Total Investment	\$26,022,460	Jobs	10.1	262.83	
		State Income Tax	2.77%	\$258,559	
		Corp Income Tax	0.21%	\$125,486	
		Sales	2.40%	\$1,434,129	
		Property Tax	0.00%	\$0	
			State/Local Total	\$1,818,174	
		Fed Income	16.1%	\$1,502,815	

**Notes: Average number of claims during fiscal year 2001.
Expenditures based on Louisiana data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	2.2963	\$49,331,107	\$1,288,972
Price		Earnings	0.3587	\$7,705,904	
Total Value	\$21,482,867	Jobs	10.1	216.98	
		Severance Tax	1.00%	\$214,829	
		State Income Tax	2.77%	\$213,454	
		Corp Income Tax	0.21%	\$103,595	
		Sales	2.40%	\$1,183,947	
		Property Tax	0.00%	\$0	
			State/Local Total	\$1,715,824	
		Fed Income	16.1%	\$1,240,651	

**Notes: Based on severance tax rebates for fiscal year 2001.
Severance tax reduction ends after 28 months.**

New Developmental Wells

5.4 Mississippi: Both Oil and Gas

Benefits from Investment Activity

			GAINS		LOSSES
			Economic	Result	Taxes
		Multiplier	Factor		Invested
Number of Projects	42.5	Final Demand	1.9877	\$68,684,735	\$0
Expenditure/Project	\$813,056	Earnings	0.2888	\$9,979,449	
Total Investment	\$34,554,880	Jobs	9.1	314.45	
		State Income Tax	1.76%	\$175,638	
		Corp Income Tax	0.34%	\$233,528	
		Sales	4.76%	\$3,269,393	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$3,678,560</u>	
		Fed Income	16.1%	\$1,606,691	

Notes: Annual average incentive petitions for 1999-2002.

Expenditures based on average U.S. drilling costs.

Severance tax exemption ends after three years.

No production data available.

Horizontal Wells

5.5 Louisiana: Both Oil and Gas

Benefits from Investment Activity

			GAINS		LOSSES
			Economic	Result	Taxes
		Multiplier	Factor		Invested
Number of Projects	40.5	Final Demand	2.2264	\$185,678,327	\$0
Expenditure/Project	\$2,059,221	Earnings	0.3230	\$26,937,702	
Total Investment	\$83,398,458	Jobs	8.2	683.87	
		State Income Tax	1.58%	\$425,616	
		Corp Income Tax	0.15%	\$278,517	
		Sales	2.56%	\$4,753,365	
		Property Tax	0.02%	\$37,136	
			State/Local Total	<u>\$5,494,634</u>	
		Fed Income	16.1%	\$4,336,970	

Notes: Annual average approved applications for 1995-1998.

Annual average expenditures for 1994-1997, adjusted to 1999-2002 dollars.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.2264	\$151,221,541	\$8,490,250
Price		Earnings	0.3230	\$21,938,806	
Total Value	\$67,922,000	Jobs	8.2	556.96	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$346,633	
		Corp Income Tax	0.15%	\$226,832	
		Sales	2.56%	\$3,871,271	
		Property Tax	0.02%	\$30,244	
			State/Local Total	\$4,474,981	
		Fed Income	16.1%	\$3,532,148	
Gas Production	10,927,419	Final Demand	2.2264	\$86,853,839	\$1,016,250
Price	\$3.57	Earnings	0.3230	\$12,600,517	
Total Value	\$39,010,887	Jobs	8.2	319.89	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$199,088	
		Corp Income Tax	0.15%	\$130,281	
		Sales	2.56%	\$2,223,458	
		Property Tax	0.02%	\$17,371	
			State/Local Total	\$2,570,198	
		Fed Income	16.1%	\$2,028,683	

Notes: Based on severance taxes lost for 1999-2002.

Severance tax exemption ends after first of 24 months or payout.

According to a study by the Louisiana State University, the average annual number of horizontal wells for the period 1994-1997 (incentive effective beginning August 1, 1994) increased to 29 compared to three during the period 1991-1994. That represents an increase of nearly 10 times the number of horizontal wells drilled each year. Expenditures on those wells jumped from \$5,600,000 on average per year to \$55,100,000. Average production from horizontal wells (in Barrel of Oil Equivalents) went from 180,000 BOE per year on average to 3,930,000, over twenty times higher.

5.6 Oklahoma: Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	16.9	Final Demand	2.2963	\$79,991,974	\$0
Expenditure/Project	\$2,059,221	Earnings	0.3587	\$12,495,371	
Total Investment	\$34,835,158	Jobs	10.1	351.84	
		State Income Tax	2.77%	\$346,122	
		Corp Income Tax	0.21%	\$125,486	
		Sales	2.40%	\$1,434,129	
		Property Tax	0.00%	\$0	
			State/Local Total	\$1,905,737	
		Fed Income	16.1%	\$2,011,755	

**Notes: Average number of claims during fiscal year 2001.
Expenditures based on Louisiana data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	2.2963	\$51,807,437	\$1,353,676
Price		Earnings	0.3587	\$8,092,726	
Total Value	\$22,561,267	Jobs	10.1	227.87	
		Severance Tax	1.00%	\$225,613	
		State Income Tax	2.77%	\$224,169	
		Corp Income Tax	0.21%	\$108,796	
		Sales	2.40%	\$1,243,378	
		Property Tax	0.00%	\$0	
			State/Local Total	\$1,801,955	
		Fed Income	16.1%	\$1,302,929	

**Notes: Based on severance tax rebates for fiscal year 2001.
Severance tax exemption ends after first of 24 months or payout.**

5.7 Wyoming: Both Oil and Gas

Included in New Wells

Deep or High Cost Wells

5.8 Alabama: Both Oil and Gas

Benefits from Investment Activity

			GAINS		LOSSES
			Economic	Result	Taxes
		Multiplier	Factor		Invested
Number of Projects	1.4	Final Demand	1.8395	\$13,808,174	\$0
Expenditure/Project	\$5,361,773	Earnings	0.2323	\$1,743,756	
Total Investment	\$7,506,482	Jobs	6.5	48.79	
			State Income Tax	2.06%	\$35,921
			Corp Income Tax	0.20%	\$27,616
			Sales	2.71%	\$374,202
			Property Tax	0.15%	\$20,712
			State/Local Total		\$458,451
			Fed Income	16.1%	\$280,745

**Notes: Annual average projects over first eleven years of program.
Expenditures based on Louisiana data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	1.8395	\$199,063,746	\$4,328,649
Price		Earnings	0.2323	\$25,138,629	
Total Value	\$108,216,225	Jobs	6.5	703.41	
		Severance Tax	4.00%	\$4,328,649	
		State Income Tax	2.06%	\$517,856	
		Corp Income Tax	0.20%	\$398,127	
		Sales	2.71%	\$5,394,628	
		Property Tax	0.15%	\$298,596	
			State/Local Total	\$10,937,855	
		Fed Income	16.1%	\$4,047,319	

Notes: Based on severance taxes lost for 2000-2002.

5.9 Louisiana: Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	33.3	Final Demand	2.2264	\$397,517,134	\$0
Expenditure/Project	\$5,361,773	Earnings	0.3230	\$57,670,694	
Total Investment	\$178,547,042	Jobs	8.2	1,464.09	
		State Income Tax	1.58%	\$911,197	
		Corp Income Tax	0.15%	\$596,276	
		Sales	2.56%	\$10,176,439	
		Property Tax	0.02%	\$79,503	
			State/Local Total	\$11,763,415	
		Fed Income	16.1%	\$9,284,982	

Notes: Annual average approved applications for 1995-1998.

Annual average expenditures for 1994-1997, adjusted to 1999-2002 dollars.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.2264	\$88,281,213	\$4,956,500
Price		Earnings	0.3230	\$12,807,596	
Total Value	\$39,652,000	Jobs	8.2	325.15	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$202,360	
		Corp Income Tax	0.15%	\$132,422	
		Sales	2.56%	\$2,259,999	
		Property Tax	0.02%	\$17,656	
			State/Local Total	\$2,612,437	
		Fed Income	16.1%	\$2,062,023	
Gas Production	45,067,204	Final Demand	2.2264	\$358,205,316	\$4,191,250
Price	\$3.57	Earnings	0.3230	\$51,967,444	
Total Value	\$160,889,919	Jobs	8.2	1,319.30	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$821,086	
		Corp Income Tax	0.15%	\$537,308	
		Sales	2.56%	\$9,170,056	
		Property Tax	0.02%	\$71,641	
			State/Local Total	\$10,600,091	
		Fed Income	16.1%	\$8,366,758	

Notes: Based on severance taxes lost for 1999-2002.

Severance tax exemption ends after first of 24 months or payout.

According to a study by the Louisiana State University, the average annual number of deep wells for the period 1994-1997 (incentive effective beginning August 1, 1994) increased to 30.3 compared to three during the period 1991-1994. That means that over 10 times more deep wells are being drilled each year. Expenditures on those wells jumped from \$14,200,000 on average per year to \$149,900,000. Average production from deep wells (in Barrel of Oil Equivalents) went from 2,270,000 BOE per year on average to 14,790,000,000, over 650 percent higher.

5.10 Oklahoma: Natural Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	452.2	Final Demand	2.2963	\$5,567,184,246	\$0
Expenditure/Project	\$5,361,773	Earnings	0.3587	\$869,637,673	
Total Investment	\$2,424,415,035	Jobs	10.1	24,486.59	
		State Income Tax	2.77%	\$24,088,964	
		Corp Income Tax	0.21%	\$125,486	
		Sales	2.40%	\$1,434,129	
		Property Tax	0.00%	\$0	
			State/Local Total	\$25,648,579	
		Fed Income	16.1%	\$140,011,665	

**Notes: Average number of claims during fiscal year 2001.
Expenditures based on Louisiana data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Gas Production		Final Demand	2.2963	\$1,282,267,468	\$33,504,354
Price		Earnings	0.3587	\$200,300,196	
Total Value	\$558,405,900	Jobs	10.1	5,639.90	
		Severance Tax	1.00%	\$5,584,059	
		State Income Tax	2.77%	\$5,548,315	
		Corp Income Tax	0.21%	\$2,692,762	
		Sales	2.40%	\$30,774,419	
		Property Tax	0.00%	\$0	
			State/Local Total	\$44,599,555	
		Fed Income	16.1%	\$32,248,332	

**Notes: Based on severance tax rebates for fiscal year 2001.
Severance tax reduction ends after first of 28 months or payout.**

5.11 Texas: Natural Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	1,968.0	Final Demand	2.4174	\$4,155,488,669	\$0
Expenditure/Project	\$873,471	Earnings	0.3963	\$681,236,105	
Total Investment	\$1,718,990,928	Jobs	8.0	13,751.92	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$13,297,564	
		Sales	3.01%	\$125,080,209	
		Property Tax	0.00%	\$0	
			State/Local Total	\$138,377,773	
		Fed Income	16.1%	\$109,679,013	

**Notes: Number of Projects based on average number of leases set up during 1999-2002.
Expenditures based on average median costs per well filed with the Comptroller.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Gas Production		Final Demand	2.4174	\$8,173,970,736	\$225,929,667
Price		Earnings	0.3963	\$1,340,011,832	
Total Value	\$3,381,306,667	Jobs	8.0	27,050.45	
		Severance Tax	Varies	\$23,519,591	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$26,156,706	
		Sales	3.01%	\$246,036,519	
		Property Tax	0.00%	\$0	
			State/Local Total	\$295,712,816	
		Fed Income	16.1%	\$215,741,905	

**Notes: Value of production based on loss of revenue from severance tax reduction during 1999-2002.
Severance tax reduction based on costs per well after 9/1/95.**

New Technology Wells

5.12 Mississippi: Both Oil and Gas

Benefits from Investment Activity

			GAINS		LOSSES
			Economic	Result	Taxes
		Multiplier	Factor		Invested
Number of Projects	4.25	Final Demand	1.9877	\$6,868,473	\$0
Expenditure/Project	\$813,056	Earnings	0.2888	\$997,945	
Total Investment	\$3,455,488	Jobs	9.1	31.44	
		State Income Tax	1.76%	\$17,564	
		Corp Income Tax	0.34%	\$23,353	
		Sales	4.76%	\$326,939	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$367,856</u>	
		Fed Income	16.1%	\$160,669	

Notes: Annual average incentive petitions for 1999-2002.
Expenditures based on average U.S. drilling costs.
Severance tax exemption ends after five years.
No production data available.

All New Wells

5.13 Alabama: Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	181.0	Final Demand	1.8395	\$270,706,589	\$0
Expenditure/Project	\$813,056	Earnings	0.2323	\$34,185,996	
Total Investment	\$147,163,136	Jobs	6.5	956.56	
		State Income Tax	2.06%	\$704,232	
		Corp Income Tax	0.20%	\$541,413	
		Sales	2.71%	\$7,336,149	
		Property Tax	0.15%	\$406,060	
			State/Local Total	<u>\$8,987,853</u>	
		Fed Income	16.1%	\$5,503,945	

**Notes: Annual average projects over first three years of program.
Expenditures based on average U.S. drilling costs.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	1.8395	\$175,412,502	\$2,860,764
Price		Earnings	0.2323	\$22,151,848	
Total Value	\$95,358,794	Jobs	6.5	619.83	
		Severance Tax	3.00%	\$2,860,764	
		State Income Tax	2.06%	\$456,328	
		Corp Income Tax	0.20%	\$350,825	
		Sales	2.71%	\$4,753,679	
		Property Tax	0.15%	\$263,119	
			State/Local Total	<u>\$8,684,714</u>	
		Fed Income	16.1%	\$3,566,448	

**Notes: No production data available.
Value of production based on annual average per well for all non-deep wells in Louisiana, Oklahoma, and Wyoming.
Severance tax exemption ends after five years.**

5.14 Wyoming: Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	680.0	Final Demand	2.0709	\$756,665,610	\$0
Expenditure/Project	\$537,324	Earnings	0.2903	\$106,069,838	
Total Investment	\$365,380,081	Jobs	6.4	2,338.43	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$12,519,539	*
		Property Tax	0.53%	\$4,010,328	
			State/Local Total	\$16,529,867	
		Fed Income	16.1%	\$17,077,244	

Notes: Annual average approved applications for 1997-1999.

*Sales tax figures are an annual average of actual sales tax on new wells.

Expenditures are new well share of annual average expenditures.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.0709	\$99,107,924	\$1,914,297
Price		Earnings	0.2903	\$13,893,008	
Total Value	\$47,857,417	Jobs	6.4	306.29	
		Severance Tax	2.00%	\$957,148	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$2,467,787	
		Property Tax	0.53%	\$525,272	
			State/Local Total	\$3,950,208	
		Fed Income	16.1%	\$2,236,774	

Gas Production		Final Demand	2.0709	\$195,005,643	\$3,766,587
Price		Earnings	0.2903	\$27,336,008	
Total Value	\$94,164,683	Jobs	6.4	602.65	
		Severance Tax	2.00%	\$1,883,294	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$4,855,641	
		Property Tax	0.53%	\$1,033,530	
				State/Local Total	\$7,772,464
		Fed Income	16.1%	\$4,401,097	

**Notes: Based on loss of revenue from severance tax reduction for 1997-1999.
Severance tax exemption ends after 24 months.
Severance tax reduction only on the first 360 BOPD or 360 McfPD.**

Tax Reduction for Investment Action: Existing Wells

EOR Wells

5.15 Alabama: Both Oil and Gas, Both Secondary and Tertiary

Benefits from Investment Activity

			GAINS		LOSSES
			Economic	Result	Taxes
			Factor		Invested
Number of Projects	6.67	Multiplier			
		Final Demand	1.8395	\$76,041,568	\$0
Expenditure/Project	\$6,197,627	Earnings	0.2323	\$9,602,857	
Total Investment	\$41,338,172	Jobs	6.5	268.70	
		State Income Tax	2.06%	\$197,819	
		Corp Income Tax	0.20%	\$152,083	
		Sales	2.71%	\$2,060,726	
		Property Tax	0.15%	\$114,062	
				State/Local Total	\$2,524,691
		Fed Income	16.1%	\$1,546,060	

**Notes: Annual average approved applications for 2000-2002.
Expenditures based on New Mexico's average secondary and tertiary cost data.**

Benefits from Production

			GAINS		LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production	1,920,678	Final Demand	1.8395	\$87,373,246	2% increm.
Price	\$24.73	Earnings	0.2323	\$11,033,871	
Total Value	\$47,498,367	Jobs	6.5	308.74	
		Severance Tax	0.00%	\$0	
		State Income Tax	2.06%	\$227,298	
		Corp Income Tax	0.20%	\$174,746	
		Sales	2.71%	\$2,367,815	
		Property Tax	0.15%	\$131,060	
			State/Local Total	<u>\$2,900,919</u>	
		Fed Income	16.1%	\$1,776,453	
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Gas Production	21,394,848	Final Demand	1.8395	\$147,846,708	4% increm.
Price	\$3.76	Earnings	0.2323	\$18,670,720	
Total Value	\$80,373,312	Jobs	6.5	522.43	
		Severance Tax	0.00%	\$0	
		State Income Tax	2.06%	\$384,617	
		Corp Income Tax	0.20%	\$295,693	
		Sales	2.71%	\$4,006,646	
		Property Tax	0.15%	\$221,770	
			State/Local Total	<u>\$4,908,726</u>	
		Fed Income	16.1%	\$3,005,986	

**Notes: Average production for 2000-2002.
Severance tax reduction only on incremental.**

5.16 Louisiana: Oil, Tertiary

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	3.0	Final Demand	2.2264	\$41,395,190	\$0
Expenditure/Project	\$6,197,627	Earnings	0.3230	\$6,005,501	
Total Investment	\$18,592,881	Jobs	8.2	152.46	
		State Income Tax	1.58%	\$94,887	
		Corp Income Tax	0.15%	\$62,093	
		Sales	2.56%	\$1,059,717	
		Property Tax	0.02%	\$8,279	
			State/Local Total	\$1,224,976	
		Fed Income	16.1%	\$966,886	

Notes: Expenditures based on New Mexico's average secondary and tertiary cost data.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.2264	\$2,043,835	\$114,750
Price		Earnings	0.3230	\$296,514	
Total Value	\$918,000	Jobs	8.2	7.53	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$4,685	
		Corp Income Tax	0.15%	\$3,066	
		Sales	2.56%	\$52,322	
		Property Tax	0.02%	\$409	
			State/Local Total	\$60,482	
		Fed Income	16.1%	\$47,739	

Notes: Based on severance taxes lost for 1999-2002.
Severance tax exemption ends at payout.

5.17 Mississippi: Oil, Both Secondary and Tertiary

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	79.75	Final Demand	1.9877	\$982,442,099	\$0
Expenditure/Project	\$6,197,627	Earnings	0.2888	\$142,742,506	
Total Investment	\$494,260,753	Jobs	9.1	4,497.77	
		State Income Tax	1.76%	\$2,512,268	
		Corp Income Tax	0.34%	\$3,340,303	
		Sales	4.76%	\$46,764,244	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$52,616,815</u>	
		Fed Income	16.1%	\$22,981,543	

Notes: Annual average incentive petitions for 1999-2002.

Expenditures based on New Mexico's average secondary and tertiary cost data.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	1.9877	\$3,694,953,065	\$55,767,265
Price		Earnings	0.2888	\$536,852,868	
Total Value	\$1,858,908,822	Jobs	9.1	16,916.07	
		Severance Tax	3.00%	\$55,767,265	
		State Income Tax	1.76%	\$9,448,610	
		Corp Income Tax	0.34%	\$12,562,840	
		Sales	4.76%	\$175,879,766	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$253,658,481</u>	
		Fed Income	16.1%	\$86,433,312	

Notes: No production data available.

Value of production based on annual average value per EOR project in Alabama, Louisiana, and Wyoming.

5.18 New Mexico: Oil, Both Secondary and Tertiary

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	5.0	Final Demand	2.1904	\$67,876,411	\$0
Expenditure/Project	\$6,197,627	Earnings	0.3292	\$10,201,294	
Total Investment	\$30,988,135	Jobs	9.9	306.78	
		State Income Tax	2.32%	\$236,670	
		Corp Income Tax	0.30%	\$203,629	
		Sales	3.82%	\$2,592,879	
		Property Tax	0.07%	\$47,513	
			State/Local Total	\$3,080,692	
		Fed Income	16.1%	\$1,642,408	

**Notes: Annual average approved applications for 1998.
Expenditures for 1998, adjusted to 1999-2001 dollars.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.1904	\$123,902,000	\$1,060,611
Price		Earnings	0.3292	\$18,621,502	
Total Value	\$56,565,924	Jobs	9.9	560.0	
		Severance Tax	1.875%	\$1,060,611	
		State Income Tax	2.32%	\$432,019	
		Corp Income Tax	0.30%	\$371,706	
		Sales	3.82%	\$4,733,056	
		Property Tax	0.07%	\$86,731	
			State/Local Total	\$6,684,124	
		Fed Income	16.1%	\$2,998,062	

**Notes: No production data available.
Value of production based on annual average value per EOR project in Alabama, Louisiana, and Wyoming.**

5.19 Texas: Oil, Both Secondary and Tertiary

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	39.25	Final Demand	2.4174	\$588,049,133	\$0
Expenditure/Project	\$6,197,627	Earnings	0.3963	\$96,402,694	
Total Investment	\$243,256,860	Jobs	8.0	1,946.05	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$1,881,757	
		Sales	3.01%	\$17,700,279	
		Property Tax	0.00%	\$0	
			State/Local Total	\$19,582,036	
		Fed Income	16.1%	\$15,520,834	

Notes: Number of Projects based on average number of leases set up during 1999-2002. Expenditures based on New Mexico's average secondary and tertiary cost data.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.4174	\$217,093,030	\$2,065,500
Price		Earnings	0.3963	\$35,589,463	
Total Value	\$89,804,348	Jobs	8.0	718.43	
		Severance Tax	2.30%	\$2,065,500	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$694,698	
		Sales	3.01%	\$1,071,243	
		Property Tax	0.00%	\$0	
			State/Local Total	\$3,831,441	
		Fed Income	16.1%	\$5,729,904	

Notes: Value of production based on loss of revenue from severance tax reduction during 1999-2002.

5.20 Texas: Co-Production, Both Oil and Gas

Benefits from Production

		GAINS			LOSSES
		Economic	Result	Taxes	
		Multiplier		Invested	
Oil Production		Final Demand	2.4174	\$716,864,204	\$6,820,500
Price		Earnings	0.3963	\$117,520,180	
Total Value	\$296,543,478	Jobs	8.0	2372.34	
		Severance Tax	0.00%	\$0	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$2,293,965	
		Sales	3.01%	\$21,577,613	
		Property Tax	0.00%	\$0	
		State/Local Total		\$23,871,578	
		Fed Income	16.1%	\$18,920,749	
Gas Production		Final Demand	2.4174	\$80,096,520	\$2,485,000
Price		Earnings	0.3963	\$13,130,740	
Total Value	\$33,133,333	Jobs	8.0	265.07	
		Severance Tax	0.00%	\$0	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$256,309	
		Sales	3.01%	\$2,410,905	
		Property Tax	0.00%	\$0	
		State/Local Total		\$2,667,214	
		Fed Income	16.1%	\$2,114,049	

Notes: Value of production based on loss of revenue from severance tax reduction during 1999-2002 (for Oil) and 1999-2001 (for Gas).

5.21 Wyoming: Oil, Tertiary

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	2.5	Final Demand	2.0709	\$166,398	\$0
Expenditure/Project	\$32,244	Earnings	0.2903	\$23,401	
Total Investment	\$80,611	Jobs	6.4	0.52	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$4,157	
		Property Tax	0.53%	\$885	
			State/Local Total	\$5,042	
		Fed Income	16.1%	\$3,768	

Notes: Annual average approved applications for 1998-2001.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.0709	\$137,261,116	\$1,325,618
Price		Earnings	0.2903	\$19,241,345	
Total Value	\$66,280,900	Jobs	6.4	424.20	
		Severance Tax	2.00%	\$2,651,236	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$3,417,802	
		Property Tax	0.53%	\$727,484	
			State/Local Total	\$6,796,522	
		Fed Income	16.1%	\$3,097,857	

Notes: Based on loss of revenue from severance tax reduction for 1998-2001.
Severance tax exemption ends after five years.

Inactive Fields/Wells

5.22 Louisiana: Two-Year Inactive Wells, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	362.8	Final Demand	2.2264	\$53,847,041	\$0
Expenditure/Project	\$66,664	Earnings	0.3230	\$7,811,981	
Total Investment	\$24,185,699	Jobs	8.2	198.32	
		State Income Tax	1.58%	\$123,429	
		Corp Income Tax	0.15%	\$80,771	
		Sales	2.56%	\$1,378,484	
		Property Tax	0.02%	\$10,769	
			State/Local Total	<u>\$1,593,454</u>	
		Fed Income	16.1%	\$1,257,729	

Notes: Average annual wells for 1994-1998.
Expenditures based on Wyoming data.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.2264	\$198,594,880	\$11,150,000
Price		Earnings	0.3230	\$28,811,600	
Total Value	\$89,200,000	Jobs	8.2	731.44	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$455,223	
		Corp Income Tax	0.15%	\$297,892	
		Sales	2.56%	\$5,084,029	
		Property Tax	0.02%	\$39,719	
			State/Local Total	<u>\$5,876,864</u>	
		Fed Income	16.1%	\$4,638,668	

Gas Production	68,696,237	Final Demand	2.2264	\$546,014,725	\$6,388,750
Price	\$3.57	Earnings	0.3230	\$79,214,317	
Total Value	\$245,245,565	Jobs	8.2	2,011.01	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.58%	\$1,251,586	
		Corp Income Tax	0.15%	\$819,022	
		Sales	2.56%	\$13,977,977	
		Property Tax	0.02%	\$109,203	
			State/Local Total	\$16,157,788	
		Fed Income	16.1%	\$12,753,505	

**Notes: Based on severance taxes lost for 1999-2002.
Severance tax exemption ends after five years.**

5.23 Mississippi: Two-Year Inactive Wells, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	17.75	Final Demand	1.9877	\$2,352,018	\$0
Expenditure/Project	\$66,664	Earnings	0.2888	\$341,733	
Total Investment	\$1,183,286	Jobs	9.1	10.77	
		State Income Tax	1.76%	\$6,015	
		Corp Income Tax	0.34%	\$7,997	
		Sales	4.76%	\$111,956	
		Property Tax	0.00%	\$0	
			State/Local Total	\$125,967	
		Fed Income	16.1%	\$55,019	

**Notes: Annual average incentive petitions for 1999-2002.
Expenditures based on Wyoming data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	1.9877	\$39,168,944	\$1,182,340
Price		Earnings	0.2888	\$5,690,995	
Total Value	\$19,705,662	Jobs	9.1	179.32	
		Severance Tax	0.00%	\$0	
		State Income Tax	1.76%	\$100,162	
		Corp Income Tax	0.34%	\$133,174	
		Sales	4.76%	\$1,864,442	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$2,097,778</u>	
		Fed Income	16.1%	\$916,250	

Notes: No production data available.

Value of production based on annual average value per inactive well in Louisiana, New Mexico, Oklahoma, and Wyoming.

Severance tax exemption ends after three years.

5.24 New Mexico: Two-Year Inactive Wells, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	28.67	Final Demand	2.1904	\$4,185,930	\$0
Expenditure/Project	\$66,664	Earnings	0.3292	\$629,113	
Total Investment	\$1,911,035	Jobs	9.9	18.92	
		State Income Tax	2.32%	\$14,595	
		Corp Income Tax	0.30%	\$12,558	
		Sales	3.82%	\$159,903	
		Property Tax	0.07%	\$2,930	
			State/Local Total	<u>\$189,986</u>	
		Fed Income	16.1%	\$101,287	

Notes: Annual average approved applications for 1999-2001.

Expenditures based on Wyoming data.

Benefits from Production

			GAINS		LOSSES
			Economic	Result	Taxes
		Multiplier	Factor		Invested
Oil Production	366,866	Final Demand	2.1904	\$17,904,812	\$306,533
Price	\$22.28	Earnings	0.3292	\$2,690,953	
Total Value	\$8,174,220	Jobs	9.9	80.92	
		Severance Tax	0.00%	\$0	
		State Income Tax	2.32%	\$62,430	
		Corp Income Tax	0.30%	\$53,714	
		Sales	3.82%	\$683,964	
		Property Tax	0.07%	\$12,533	
		School/Cons Tax	3.34%	273,019	
			State/Local Total	\$1,085,661	
		Fed Income	16.1%	\$433,243	
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Gas Production	5,846,293	Final Demand	2.1904	\$43,027,220	\$736,633
Price	\$3.36	Earnings	0.3292	\$6,466,655	
Total Value	\$19,643,544	Jobs	9.9	194.47	
		Severance Tax	0.00%	\$0	
		State Income Tax	2.32%	\$150,026	
		Corp Income Tax	0.30%	\$129,082	
		Sales	3.82%	\$1,643,640	
		Property Tax	0.07%	\$30,119	
		School/Cons Tax	3.34%	\$656,094	
			State/Local Total	\$2,608,961	
		Fed Income	16.1%	\$1,041,131	

Notes: Annual average production for 1999-2001.

Emergency school and conservation tax collected in full.

5.25 Oklahoma: Two-Year Inactive Wells, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	43.8	Final Demand	2.2963	\$6,710,030	\$0
Expenditure/Project	\$66,664	Earnings	0.3587	\$1,048,159	
Total Investment	\$2,922,105	Jobs	10.1	29.51	
		State Income Tax	2.77%	\$29,034	
		Corp Income Tax	0.21%	\$14,091	
		Sales	2.40%	\$161,041	
		Property Tax	0.00%	\$0	
			State/Local Total	\$204,166	
		Fed Income	16.1%	\$168,754	

**Notes: Average number of claims during fiscal year 2001.
Expenditures based on Wyoming data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	2.2963	\$10,811,341	\$329,571
Price		Earnings	0.3587	\$1,688,816	
Total Value	\$4,708,157	Jobs	10.1	47.55	
		Severance Tax	0.00%	\$0	
		State Income Tax	2.77%	\$46,780	
		Corp Income Tax	0.21%	\$22,704	
		Sales	2.40%	\$259,472	
		Property Tax	0.00%	\$0	
			State/Local Total	\$328,956	
		Fed Income	16.1%	\$271,899	

**Notes: Based on severance tax rebates for fiscal year 2001.
Severance tax reduction ends after 28 months.**

5.26 Texas: Two-Year Inactive Wells, Both Oil and Gas

Benefits from Investment Activity

		GAINS		LOSSES
		Economic	Result	Taxes
		Factor		Invested
Number of Projects	1786.25	Final Demand	2.4174	\$287,860,535
Expenditure/Project	\$66,664	Earnings	0.3963	\$47,190,837
Total Investment	\$119,078,570	Jobs	8.0	952.63
		State Income Tax	0.00%	\$0
		Franchise Tax	0.32%	\$921,154
		Sales	3.01%	\$8,664,602
		Property Tax	0.00%	\$0
		State/Local Total		\$9,585,756
		Fed Income	16.1%	\$7,597,725

Notes: Number of Projects based on average number of leases set up during 1999-2002. Expenditures based on Wyoming data.

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Factor		Invested
Oil Production		Final Demand	2.4174	\$250,253,452
Price		Earnings	0.3963	\$41,025,665
Total Value	\$103,521,739	Jobs	8.0	828.17
		Severance Tax	0.00%	\$0
		State Income Tax	0.00%	\$0
		Franchise Tax	0.32%	\$800,811
		Sales	3.01%	\$7,532,629
		Property Tax	0.00%	\$0
		State/Local Total		\$8,333,440
		Fed Income	16.1%	\$6,605,132

Gas Production		Final Demand	2.4174	\$688,520,498	\$16,205,250
Price		Earnings	0.3963	\$112,873,614	
Total Value	\$216,070,000	Jobs	8.0	2,278.55	
		Severance Tax	0.00%	\$0	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.32%	\$2,203,266	
		Sales	3.01%	\$20,724,467	
		Property Tax	0.00%	\$0	
			State/Local Total	\$22,927,733	
		Fed Income	16.1%	\$18,172,652	

Notes: Value of production based on loss of revenue from severance tax reduction during 1999-2002.

Severance tax exemption ends after ten years.

5.27 Texas: Three-Year Inactive Wells, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	4.67	Final Demand	2.4174	\$752,050	\$0
Expenditure/Project	\$66,664	Earnings	0.3963	\$123,288	
Total Investment	\$311,099	Jobs	8.0	2.48	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$2,407	
		Sales	3.01%	\$22,637	
		Property Tax	0.00%	\$0	
			State/Local Total	\$25,043	
		Fed Income	16.1%	\$19,849	

Notes: Number of Projects based on average number of leases set up during 1999-2002.

Expenditures based on Wyoming data.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.4174	\$172,896,652	\$3,290,000
Price		Earnings	0.3963	\$28,344,065	
Total Value	\$71,521,739	Jobs	8.0	572.17	
		Severance Tax	0.00%	\$0	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$553,269	
		Sales	3.01%	\$5,204,189	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$5,757,459</u>	
		Fed Income	16.1%	\$4,563,395	
<hr/>					
Gas Production		Final Demand	2.4174	\$264,552,198	\$8,207,750
Price		Earnings	0.3963	\$43,369,751	
Total Value	\$109,436,667	Jobs	8.0	875.5	
		Severance Tax	0.00%	\$0	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$846,567	
		Sales	3.01%	\$7,963,021	
		Property Tax	0.00%	\$0	
			State/Local Total	<u>\$8,809,588</u>	
		Fed Income	16.1%	\$6,982,530	

Notes: Value of production based on loss of revenue from severance tax reduction during 1999-2002.

Severance tax exemption ends after ten years.

5.28 Wyoming: Two-Year Inactive Wells, Oil

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	7.25	Final Demand	2.0709	\$1,000,899	\$0
Expenditure/Project	\$66,664	Earnings	0.2903	\$140,307	
Total Investment	\$483,316	Jobs	6.4	3.09	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$24,922	
		Property Tax	0.53%	\$5,305	
			State/Local Total	\$30,227	
		Fed Income	16.1%	\$22,589	

Notes: Annual average approved applications for 1999-2002.

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.0709	\$6,536,623	\$142,039
Price		Earnings	0.2903	\$916,308	
Total Value	\$3,156,417	Jobs	6.4	20.20	
		Severance Tax	1.50%	\$47,346	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$162,762	
		Property Tax	0.53%	\$34,644	
			State/Local Total	\$244,752	
		Fed Income	16.1%	\$147,526	

Notes: Based on loss of revenue from severance tax reduction for 1999-2002.
Severance tax exemption ends after five years.

Existing Wells-All

5.29 New Mexico: Well Workovers, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	289.67	Final Demand	2.1904	\$79,301,851	\$0
Expenditure/Project	\$124,986	Earnings	0.3292	\$11,918,448	
Total Investment	\$36,204,278	Jobs	9.9	358.42	
		State Income Tax	2.32%	\$276,508	
		Corp Income Tax	0.30%	\$237,906	
		Sales	3.82%	\$3,029,331	
		Property Tax	0.07%	\$55,511	
			State/Local Total	<u>\$3,599,256</u>	
		Fed Income	16.1%	\$1,918,870	

**Notes: Annual average incentive petitions from 1999-2001.
Expenditures based on Wyoming data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production	4,015,721	Final Demand	2.1904	\$195,975,666	\$1,163,113
Price	\$22.28	Earnings	0.3292	\$29,453,611	
Total Value	\$89,470,264	Jobs	9.9	885.76	
		Severance Tax	2.45%	\$2,192,021	
		State Income Tax	2.32%	\$683,324	
		Corp Income Tax	0.30%	\$587,927	
		Sales	3.82%	\$7,486,270	
		Property Tax	0.07%	\$137,183	
		School/Cons Tax	3.34%	\$2,988,307	
			State/Local Total	<u>\$14,075,032</u>	
		Fed Income	16.1%	\$4,742,031	

Gas Production	313,457,716	Final Demand	2.1904	\$2,306,968,545	\$13,691,833
Price	\$3.36	Earnings	0.3292	\$346,719,341	
Total Value	\$1,053,217,926	Jobs	9.9	10,426.86	
		Severance Tax	2.45%	\$25,803,839	
		State Income Tax	2.32%	\$8,043,889	
		Corp Income Tax	0.30%	\$6,920,906	
		Sales	3.82%	\$88,126,198	
		Property Tax	0.07%	\$1,614,878	
		School/Cons Tax	3.34%	\$35,177,479	
			State/Local Total	\$165,687,189	
		Fed Income	16.1%	\$55,821,814	

**Notes: Annual average production from 1999-2001.
Emergency school and conservation tax collected in full.
Severance tax reduction only on incremental.**

5.30 Oklahoma: Well Workovers, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	433.2	Final Demand	2.2963	\$124,321,152	\$0
Expenditure/Project	\$124,986	Earnings	0.3587	\$19,419,935	
Total Investment	\$54,139,769	Jobs	10.1	546.81	
		State Income Tax	2.77%	\$537,932	
		Corp Income Tax	0.21%	\$261,074	
		Sales	2.40%	\$2,983,708	
		Property Tax	0.00%	\$0	
			State/Local Total	\$3,782,714	
		Fed Income	16.1%	\$3,126,610	

**Notes: Average number of claims during fiscal year 2001.
Expenditures based on Wyoming data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Total Production		Final Demand	2.2963	\$172,225,026	\$4,500,066
Price		Earnings	0.3587	\$26,902,895	
Total Value	\$75,001,100	Jobs	10.1	757.51	
		Severance Tax	1.00%	\$750,011	
		State Income Tax	2.77%	\$745,210	
		Corp Income Tax	0.21%	\$361,673	
		Sales	2.40%	\$4,133,401	
		Property Tax	0.00%	\$0	
			State/Local Total	\$5,990,294	
		Fed Income	16.1%	\$4,331,366	

**Notes: Based on severance tax rebates for fiscal year 2001.
Severance tax reduction ends after 28 months.
Severance tax reduction only on incremental.**

5.31 Wyoming: Workovers/Recompletions/Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	241.7	Final Demand	2.0709	\$62,560,059	\$0
Expenditure/Project	\$124,986	Earnings	0.2903	\$8,769,706	
Total Investment	\$30,209,116	Jobs	6.4	193.34	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$1,028,953	*
		Property Tax	0.53%	\$331,568	
			State/Local Total	\$1,360,521	
		Fed Income	16.1%	\$1,411,923	

**Notes: Annual average approved applications for 1997-1999.
*Sales tax figures are an annual average of actual sales tax on new wells.
Expenditures are workover share of annual average expenditures.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Oil Production		Final Demand	2.0709	\$43,208,345	\$834,851
Price		Earnings	0.2903	\$6,056,972	
Total Value	\$20,864,525	Jobs	6.4	133.53	
		Severance Tax	2.00%	\$417,291	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$1,075,888	
		Property Tax	0.53%	\$229,004	
			State/Local Total	\$1,722,183	
		Fed Income	16.1%	\$975,172	
Gas Production		Final Demand	2.0709	\$49,114,931	\$948,668
Price		Earnings	0.2903	\$6,884,960	
Total Value	\$23,716,708	Jobs	6.4	151.79	
		Severance Tax	2.00%	\$474,334	
		State Income Tax	0.00%	\$0	
		Corp Income Tax	0.00%	\$0	
		Sales	2.49%	\$1,222,962	
		Property Tax	0.53%	\$260,309	
			State/Local Total	\$1,957,605	
		Fed Income	16.1%	\$1,108,479	

**Notes: Based on loss of revenue from severance tax reduction for 1997-1999.
 Severance tax exemption ends after 24 months.
 Severance tax reduction only on incremental.**

5.32 Texas: Incremental Production, Both Oil and Gas

Benefits from Investment Activity

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
Number of Projects	25	Final Demand	2.4174	\$7,553,529	\$0
Expenditure/Project	\$124,986	Earnings	0.3963	\$1,238,299	
Total Investment	\$3,124,650	Jobs	8.0	25	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$24,171	
		Sales	3.01%	\$227,361	
		Property Tax	0.00%	\$0	
			State/Local Total	\$251,533	
		Fed Income	16.1%	\$199,366	

**Notes: Number of Projects based on number of leases set up during 1999.
Expenditures based on Wyoming data.**

Benefits from Production

		GAINS			LOSSES
		Multiplier	Economic Factor	Result	Taxes Invested
BOE Production		Final Demand	2.4174	\$34,211,465	\$325,500
Price		Earnings	0.3963	\$5,608,507	
Total Value	\$14,152,174	Jobs	8.0	113.22	
		Severance Tax	0.00%	\$0	
		State Income Tax	0.00%	\$0	
		Franchise Tax	0.32%	\$109,477	
		Sales	3.01%	\$1,029,765	
		Property Tax	0.00%	\$0	
			State/Local Total	\$1,139,242	
		Fed Income	16.1%	\$902,970	

**Notes: Severance tax reduction only on incremental.
Value of production based on loss of revenue from severance tax reduction during 1999-2002.**

Other

5.33 Texas: Flared Casinghead Gas, Both Oil and Gas

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Multiplier		Invested
Gas Production		Final Demand	2.4174	\$338,436
Price		Earnings	0.3963	\$55,482
Total Value	\$140,000	Jobs	8.0	1.12
		Severance Tax	0.00%	\$0
		State Income Tax	0.00%	\$0
		Franchise Tax	0.32%	\$1,083
		Sales	3.01%	\$10,187
		Property Tax	0.00%	\$0
			State/Local Total	\$11,270
		Fed Income	16.1%	\$8,933

Notes: Value of production based on loss of revenue from severance tax reduction during 1999-2002.

Tax Reduction No Investment Action: Existing Wells

Existing Wells-Marginal

5.34 Louisiana: Incapable Oil with Saltwater, Oil

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Multiplier	Factor	Invested
Oil Production		Final Demand	2.2264	\$106,092,413
Price		Earnings	0.3230	\$15,391,596
Total Value	\$47,652,000	Jobs	8.2	390.75
		Severance Tax	6.25%	\$2,978,250
		State Income Tax	1.58%	\$243,187
		Corp Income Tax	0.15%	\$159,139
		Sales	2.56%	\$2,715,966
		Property Tax	0.02%	\$21,218
		State/Local Total		\$6,117,760
		Fed Income	16.1%	\$2,478,047

Notes: Based on severance taxes lost for 1999-2002.

5.35 Louisiana: Marginal/Stripper Wells, Oil

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Multiplier	Factor	Invested
Oil Production		Final Demand	2.2264	\$209,261,655
Price		Earnings	0.3230	\$30,359,106
Total Value	\$93,991,042	Jobs	8.2	770.73
		Severance Tax	3.125%	\$2,937,220
		State Income Tax	1.58%	\$479,674
		Corp Income Tax	0.15%	\$313,892
		Sales	2.56%	\$5,357,098
		Property Tax	0.02%	\$41,852
		State/Local Total		\$9,129,737
		Fed Income	16.1%	\$4,887,816

Notes: Based on severance taxes lost for 1999-2002.

5.36 Louisiana: Incapable Wells Gas Rates, Natural Gas

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Multiplier	Factor	Invested
Gas Production	87,434,375	Final Demand	2.2264	\$694,950,096
Price	\$3.57	Earnings	0.3230	\$100,821,452
Total Value	\$312,140,719	Jobs	8.2	8.20
		Severance Tax	\$.013, \$.03	\$1,360,985
		State Income Tax	1.58%	\$1,592,979
		Corp Income Tax	0.15%	\$1,042,425
		Sales	2.56%	\$17,790,722
		Property Tax	0.02%	\$138,990
		State/Local Total		\$21,926,102
		Fed Income	16.1%	\$16,232,254

Notes: Based on severance taxes lost for 1999-2002.

Different reduced rates for casinghead gas and gas well gas.

5.37 Wyoming: Marginal/Stripper Wells, Both Oil and Gas

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Multiplier		Invested
Oil Production		Final Demand	2.0709	\$368,785,328
Price		Earnings	0.2903	\$51,696,548
Total Value	\$178,079,738	Jobs	6.4	1,139.71
		Severance Tax	2.00%	\$3,561,595
		State Income Tax	0.00%	\$0
		Corp Income Tax	0.00%	\$0
		Sales	2.49%	\$9,182,755
		Property Tax	0.53%	\$1,954,562
			State/Local Total	\$14,698,912
		Fed Income	16.1%	\$8,323,144

Notes: Based on loss of revenue from severance tax reduction for 1999-2002.

6. Cumulative Benefits of State Tax Incentives

This section estimates the cumulative economic benefits per state for those incentives whose annualized benefits were presented in Section 5. The cumulative benefits were based on the total number of years for which each incentive has been in place. There are a few incentives in the group for tax benefits no investment action that were calculated for a five-year period. Prices were adjusted to allow for the ups and downs that have occurred for oil and gas over the last years.

These tables are presented in the same format as the detailed incentives in the prior section. First will be the incentives that require an industry investment to qualify for the tax reduction. This will be composed of two tables, the first showing the economic effects of the industry investment, while the second shows the results from the hydrocarbon production associated with the incentive projects approved. Note that "jobs" refers to the number of direct jobs (oil and gas) and indirect (within other economic sectors) created that would last one year. Perhaps a clearer term would be employment years, but many people have difficulty with this wording. Also, the state and local taxes listed for the states will change depending on the applicable tax mix within the state. For a complete explanation of the calculation methodology, see Section 7.

Following the table on the incentives that require industry investment is a table that shows the economic effects of incentives that do not require any investment by industry. This table may not be present for all states, depending on whether or not this type of incentive has been adopted and data is available for analysis. Since no investment is required, the table represents the oil and gas production from qualifying projects, and the investment table is not shown.

Alabama

Tax Incentives for Investment Action			
Total Cumulative Investment	\$1,690,818,488		
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	1.8395	\$3,110,260,609	\$0
Earnings	0.2323	\$392,777,135	
Jobs	6.5	10,990	
State Income Tax	2.06%	\$8,091,209	
Corp Income Tax	0.20%	\$6,220,521	
Sales	2.71%	\$84,288,062	
Property Tax	0.15%	\$4,665,391	
	State/Local Total	<u>\$103,265,184</u>	
Fed Income	16.1%	\$63,237,119	
Total Cumulative Production Values			
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	1.8395	\$7,838,106,662	\$166,113,881
Earnings	0.2323	\$989,829,942	
Jobs	6.5	27,697	
Severance Tax		\$166,113,881	
State Income Tax	2.06%	\$20,390,497	
Corp Income Tax	0.20%	\$15,676,213	
Sales	2.71%	\$212,412,691	
Property Tax	0.15%	\$11,757,160	
	State/Local Total	<u>\$426,350,442</u>	
Fed Income	16.1%	\$159,362,621	

Louisiana

Tax Incentives for Investment Action			
Total Cumulative Investment	\$3,008,630,507		
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	2.2264	\$6,698,414,961	\$0
Earnings	0.3230	\$971,787,654	
Jobs	8.2	24,671	
State Income Tax	1.58%	\$15,354,245	
Corp Income Tax	0.15%	\$10,047,622	
Sales	2.56%	\$171,479,423	
Property Tax	0.02%	\$1,339,683	
	State/Local Total	<u>\$198,220,973</u>	
Fed Income	16.1%	\$156,457,812	
Total Cumulative Production Values	\$6,118,236,320		
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	2.2264	\$13,621,641,343	\$487,131,296
Earnings	0.3230	\$1,976,190,331	
Jobs	8.2	50,170	
Severance Tax	0.00%	\$0	
State Income Tax	1.58%	\$31,223,807	
Corp Income Tax	0.15%	\$20,432,462	
Sales	2.56%	\$348,714,018	
Property Tax	0.02%	\$2,724,328	
	State/Local Total	<u>\$403,094,616</u>	
Fed Income	16.1%	\$318,166,643	
Tax Incentives for No Investment Action			
Total Cumulative Production Values	\$2,268,918,805		
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	2.2264	\$5,051,520,827	\$219,496,452
Earnings	0.3230	\$732,860,774	
Jobs	8.2	18,605	
Severance Tax		\$30,880,510	
State Income Tax	1.58%	\$11,579,200	
Corp Income Tax	0.15%	\$7,577,281	
Sales	2.56%	\$129,318,933	
Property Tax	0.02%	\$1,010,304	
	State/Local Total	<u>\$180,366,228</u>	
Fed Income	16.1%	\$117,990,585	

Mississippi

Tax Incentives for Investment Action			
Total Cumulative Investment		\$4,444,788,160	
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	1.9877	\$8,834,905,426	\$0
Earnings	0.2888	\$1,283,654,821	
Jobs	9.1	40,448	
State Income Tax	1.76%	\$22,592,325	
Corp Income Tax	0.34%	\$30,038,678	
Sales	4.76%	\$420,541,498	
Property Tax	0.00%	\$0	
	State/Local Total	<u>\$473,172,502</u>	
Fed Income	16.1%	\$206,668,426	
Total Cumulative Production Values		\$15,379,859,192	
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	1.9877	\$30,570,546,116	\$518,028,689
Earnings	0.2888	\$4,441,703,335	
Jobs	9.1	139,957	
Severance Tax		\$404,762,855	
State Income Tax	1.76%	\$78,173,979	
Corp Income Tax	0.34%	\$15,101,791	
Sales	4.76%	\$211,425,079	
Property Tax	0.00%	\$0	
	State/Local Total	<u>\$709,463,704</u>	
Fed Income	16.1%	\$715,114,237	

New Mexico

Tax Incentives for Investment Action			
Total Cumulative Investment	\$571,648,541		
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	2.1904	\$1,252,138,964	\$0
Earnings	0.3292	\$188,186,700	
Jobs	9.9	5,659	
State Income Tax	2.32%	\$4,365,931	
Corp Income Tax	0.30%	\$3,756,417	
Sales	3.82%	\$47,831,708	
Property Tax	0.07%	\$876,497	
	State/Local Total	\$56,830,554	
Fed Income	16.1%	\$30,298,059	
Total Cumulative Production Values			
	\$8,759,200,918		
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	2.1904	\$19,186,153,691	\$195,728,808
Earnings	0.3292	\$2,883,528,942	
Jobs	9.9	86,716	
Severance Tax		\$195,227,780	
State Income Tax	2.32%	\$66,897,871	
Corp Income Tax	0.30%	\$57,558,461	
Sales	3.82%	\$732,911,071	
Property Tax	0.07%	13,430,308	
	State/Local Total	\$1,066,025,491	
Fed Income	16.1%	\$464,248,160	

Oklahoma

Tax Incentives for Investment Action			
Total Cumulative Investment	\$20,277,818,598		
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	2.2963	\$46,563,954,847	\$0
Earnings	0.3587	\$7,273,653,531	
Jobs	10.1	204,806	
State Income Tax	2.77%	\$201,480,203	
Corp Income Tax	0.21%	\$97,784,305	
Sales	2.40%	\$1,117,534,916	
Property Tax	0.00%	\$0	
	State/Local Total	<u>\$1,416,799,424</u>	
Fed Income	16.1%	\$1,171,058,029	
Total Cumulative Production Values			
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	2.2963	\$12,430,398,657	\$324,793,764
Earnings	0.3587	\$1,941,725,384	
Jobs	10.1	54,674	
Severance Tax	1.00%	\$19,417,254	
State Income Tax	2.77%	\$53,785,793	
Corp Income Tax	0.21%	\$26,103,837	
Sales	2.40%	\$298,329,568	
Property Tax	0.00%	\$0	
	State/Local Total	<u>\$397,636,452</u>	
Fed Income	16.1%	\$312,617,787	

Texas

Tax Incentives for Investment Action			
Total Cumulative Investment	\$25,817,966,105		
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	2.4174	\$62,412,351,262	\$0
Earnings	0.3963	\$10,231,659,967	
Jobs	8.0	206,544	
State Income Tax	0.00%	\$0	
Corp Income Tax	0.32%	\$199,719,524	
Sales	3.01%	\$1,878,611,773	
Property Tax	0.00%	\$0	
	State/Local Total	<u>\$2,078,331,297</u>	
Fed Income	16.1%	\$1,647,297,255	
Total Cumulative Production Values			
	\$51,389,579,713		
	Economic		
Multiplier	Factor	Result	Taxes Invested
Final Demand	2.4174	\$124,229,169,998	\$3,545,023,846
Earnings	0.3963	\$20,365,690,440	
Jobs	8.0	411,117	
Severance Tax		\$485,638,206	
State Income Tax	0.00%	\$0	
Corp Income Tax	0.32%	\$397,533,344	
Sales	3.01%	\$3,739,298,017	
Property Tax	0.00%	\$0	
	State/Local Total	<u>\$4,136,831,361</u>	
Fed Income	16.1%	\$3,278,876,161	

Wyoming

Tax Incentives for Investment Action			
Total Cumulative Investment	\$3,565,056,372		
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	2.0709	\$7,382,875,241	\$0
Earnings	0.2903	\$1,034,935,865	
Jobs	6.4	22,816	
State Income Tax	0.00%	\$0	
Corp Income Tax	0.00%	\$0	
Sales	2.49%	\$183,833,593	
Property Tax	0.53%	\$39,129,239	
	State/Local Total	<u>\$222,962,832</u>	
Fed Income	16.1%	\$166,624,674	
Total Cumulative Production Values			
\$2,828,300,216			
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	2.0709	\$5,857,126,917	\$79,315,844
Earnings	0.2903	\$821,055,553	
Jobs	6.4	18,101	
Severance Tax		\$87,067,084	
State Income Tax	0.00%	\$0	
Corp Income Tax	0.00%	\$0	
Sales	2.49%	\$145,842,460	
Property Tax	0.53%	\$31,042,773	
	State/Local Total	<u>\$263,952,317</u>	
Fed Income	16.1%	\$132,189,944	
Tax Incentives for No Investment Action			
Total Cumulative Production Values	\$1,246,558,166		
Multiplier	Economic Factor	Result	Taxes Invested
Final Demand	2.0709	\$2,581,497,306	\$3,561,595
Earnings	0.2903	\$361,875,836	
Jobs	6.4	7,978	
Severance Tax	0.00%	\$0	
State Income Tax	0.00%	\$0	
Corp Income Tax	0.00%	\$0	
Sales	2.49%	\$64,279,283	
Property Tax	0.53%	\$13,681,636	
	State/Local Total	<u>\$77,961,219</u>	
Fed Income	11%	\$58,262,010	

Grand Total

Total Cumulative Investment		\$59,681,797,901	
Multiplier	Result	Taxes Invested	
Final Demand	\$136,992,380,260	\$0	
Earnings	\$21,497,555,362		
Jobs	518,374		
State Income Tax	\$251,883,913		
Corp Income Tax	\$349,927,000		
Sales	\$3,926,319,089		
Property Tax	<u>\$46,010,810</u>		
State/Local Total	\$4,574,140,815		
Fed Income	\$3,461,106,224		
Total Cumulative Production Values		\$94,149,404,210	
Multiplier	Result	Taxes Invested	
Final Demand	\$213,733,143,384	\$5,316,136,128	
Earnings	\$33,419,723,927		
Jobs	788,432		
Severance Tax	\$1,358,227,060		
State Income Tax	\$250,471,947		
Corp Income Tax	\$532,406,108		
Sales	\$5,688,932,904		
Property Tax	<u>\$58,954,569</u>		
State/Local Total	\$7,635,811,624		
Fed Income	\$5,380,575,553		
Total Cumulative Production Values (for No Investment)		\$3,515,476,971	
Multiplier	Result	Taxes Invested	
Final Demand	\$7,633,018,133	\$223,058,047	
Earnings	\$1,094,736,610		
Jobs	26,583		
Severance Tax	\$30,880,510		
State Income Tax	\$11,579,200		
Corp Income Tax	\$7,577,281		
Sales	\$193,598,216		
Property Tax	<u>\$14,691,940</u>		
State/Local Total	\$258,327,147		
Fed Income	\$176,252,595		

Grand Total		
Total Value	\$157,346,679,082	
Multiplier	Result	Taxes Invested
Final Demand	\$358,358,541,777	\$5,539,194,175
Earnings	\$56,012,015,899	
Jobs	1,333,389	
Severance Tax	\$1,389,107,570	
State Income Tax	\$513,935,060	
Corp Income Tax	\$889,910,389	
Sales	\$9,808,850,209	
Property Tax	\$119,657,319	
State/Local Total	\$12,468,279,886	
Fed Income	\$9,017,934,372	

7. General Methodology Used in Estimating Benefits

The sizable investments from oil and gas drilling and exploration will “ripple” through a state economy, creating jobs, buying homes and so on. If the project is successful and more hydrocarbon production results, additional economic benefits also will flow, along with the oil and gas.

Significant benefits will occur from oil and natural gas development production. Investors will not make sizable investments in oil and gas unless they can expect to generate enough revenues to recoup their cost plus enough profit to compensate them for the risk. The revenue stream may be very large at the start of production, decline rapidly for the first year or so, and then decline more slowly for many years. There are still a few producing wells that were drilled in the 19th century. Many wells will make a beneficial economic contribution for generations, while others might be plugged after only a year.

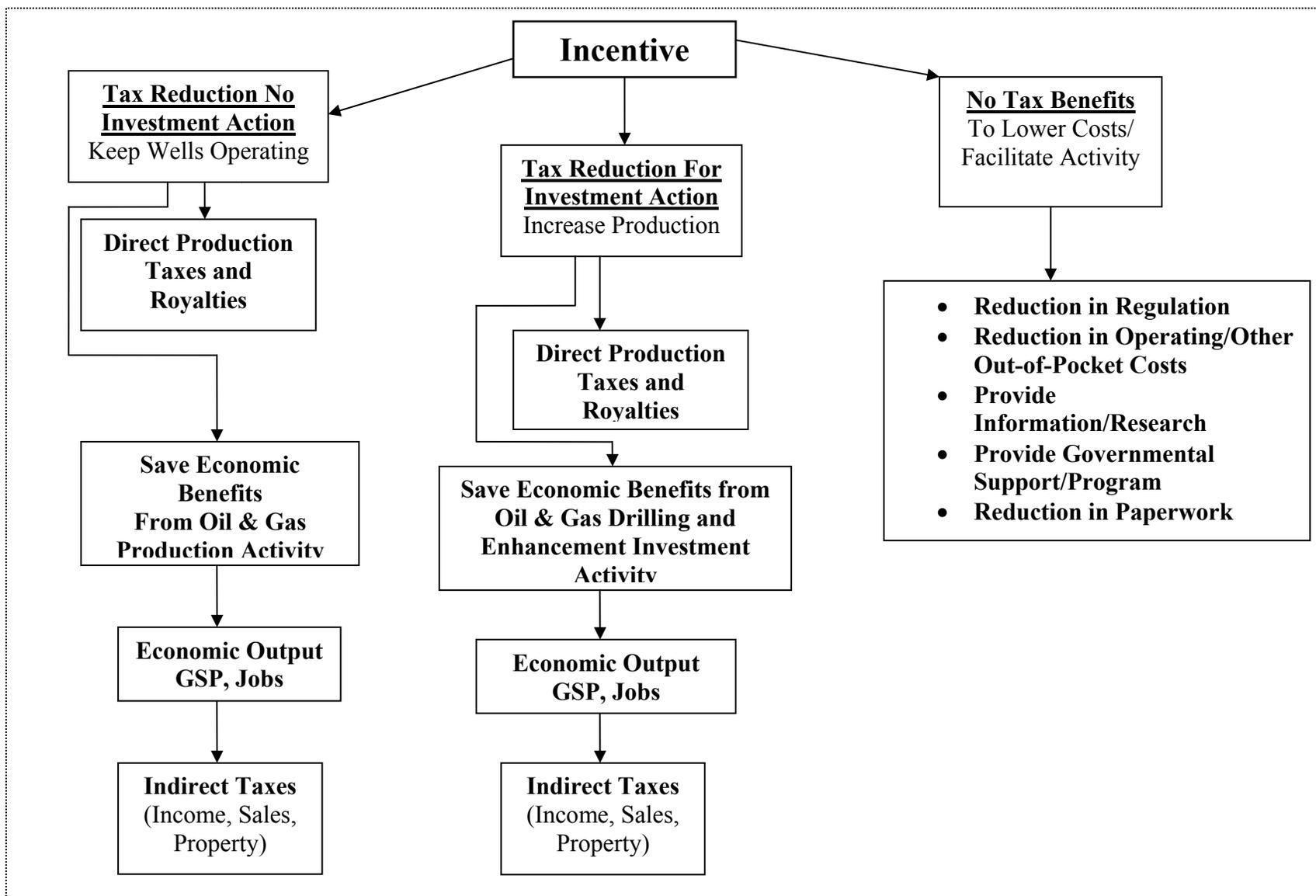
When weighing the costs and benefits to government of adopting tax incentives, most decision makers are presented with visible costs to be compared to less easily identifiable benefits. While wells continue to produce, economic benefits accrue, not only to the owners of the well, but also to the local, state and federal tax revenue streams. For example, large diesel engines are used to drill wells. The fuel they consume has paid state and federal motor fuel taxes. This might seem insignificant. In general, legislative decision makers have overlooked these tax contributions. As a result, incentive benefits are underestimated.

Other situations that either increase the benefits or reduce the costs to government are overlooked in any fiscal analysis. A well might be temporarily exempt from severance tax payments as part of an incentive package, but produce for a substantially longer period than the exemption, so that the production tax loss actually turns into a gain that is postponed until the future. Wells producing under a severance tax exemption might still be paying state or local property tax. Figure 7.1 on the next page shows the flow of benefits from the three major categories of incentives: tax reduction for investment, tax reduction for no investment action, and no tax benefits.

Foregone oil and gas revenue arising from exempting oil and gas activity such as production assessments are identified as losses in any analysis. But, in addition to any indirect economic benefits that accrue from these activities, there are also many other direct oil and gas state tax benefits that continue while the incentive is operating. These continuing revenues usually are left out of a cost-benefit analysis.

To assemble all these direct revenue contributions for the survey states is beyond the scope of this study. Nevertheless, these benefits exist and should not be forgotten. The major direct benefits in common can be estimated using the plan of this study. The net result of the exclusion of many additional state factors is that the benefits quoted in the study will be consistently lower than what is probably occurring.

Figure 7.1



It must not be overlooked that the wealth created by additional drilling and production pays

Figure 7.2			
RIMS Multipliers			
Final Demand Multipliers			
State	Output	Earnings	Employment
California	1.9380	.3002	5.8
Colorado	2.2610	.3584	8.1
Kansas	2.2460	.3292	13.4
Louisiana	2.2264	.3230	8.2
Mississippi	1.9877	.2888	9.1
New Mexico	2.1904	.3292	9.9
North Dakota	2.1092	.2924	9.4
Oklahoma	2.2963	.3587	10.1
Texas	2.4174	.3963	8.0
Utah	1.9974	.3161	9.7
Wyoming	2.0709	.2903	6.4

salaries and benefits and provides a technically well-trained workforce. As this money purchases goods and services, other jobs are created. These jobs and the additional goods and services purchased from earnings produce the indirect benefits to the overall economy. The salaries and jobs create tax payments in the forms of federal and state income taxes, as well as sales and other taxes.

To estimate the indirect benefits, the Regional Input-Output Modeling System (RIMS II) economic multipliers developed

by the Bureau of Economic Analysis within the Department of Commerce are utilized. The multipliers for industry number 8.0000, crude petroleum and natural gas have been used. The final demand multipliers are shown in Figure 7.2.

An example might be the best way to represent the uses to which these multipliers can be applied in economic calculations. Oklahoma passes an incentive to encourage inactive wells to return to production, and as a result, an operator spends \$77,000 reworking one well. The "final demand multipliers" allow us to take output from an economic sector (oil and gas drilling and production is one sector, pipeline transportation is another) and determine the effects of one sector on all others. This is the so-called "ripple effect."

In our example, the \$77,000 Oklahoma investment will add \$176,815 to the economy (GSP) of Oklahoma. This is the result of multiplying the results of the sector output times 2.2963, the output multiplier. Similarly, we also can determine that this \$77,000 investment will create \$27,620 in earnings, or wages, in Oklahoma, by using the state earnings multiplier of 0.3587.

The third column represents the number of jobs created per million dollars of sector output. In this case, the single well responding to the Oklahoma survey creates .78 jobs (man years) across all sectors ((Production/\$1,000,000)*Employment Multiplier).

These multipliers and this methodology are used throughout this report to develop the indirect estimates of the effects of various state incentive programs. For the states lacking multipliers, the average of the appropriate column is used as an approximation where necessary.

RIMS II is a sophisticated computer model developed at great expense by the federal government. It is still a model, however. The multipliers are most accurate when the total demand changes are small compared to the economy of the region. The model does not handle

very large effects as well as small effects. A state like Alaska, with oil and gas production representing 18 percent of the gross state product (GSP) would typify an example where the model would not yield the most precise results.

The multipliers used here are aggregations of regional data to the state level. If the economic activity associated with an oil and gas incentive is evenly distributed throughout a state, the multiplier will be more accurate. Despite such limitations, the RIMS II model, as a generally applicable instrument, compares favorably to independent, expensive, time consuming models developed for a single project. The bottom line is that the RIMS II model is the best generally applicable tool for the purpose of providing approximations of economic impacts available for this study.

The Format of the General Model

Where there is sufficient data for analysis, the individual incentives will be examined using the following outline model.

Investment Activity

Benefits from Investment Activity

		GAINS		LOSSES
		Economic	Result	Taxes
		Factor		Invested
Number of Projects	Multiplier			
Exp per Project	Final Demand			
Total Investment	Earnings			
	Jobs			
	State Income Tax			
	Corp Income Tax			
	Sales			
	Property Tax			
		State/Local Total	=====	
	Fed Income			

Production Activity

Benefits from Production

		GAINS		LOSSES
		Economic	Result	Taxes
		Factor		Invested
Oil Production	Multiplier			
Price	Final Demand			
Total Value	Earnings			
	Jobs			
	Severance Tax			
	State Income Tax			
	Corp Income Tax			
	Sales			
	Property Tax			
		State/Local Total	_____	
	Fed Income			
Gas Production	Final Demand			
Price	Earnings			
Total Value	Jobs			
	Severance Tax			
	State Income Tax			
	Corp Income Tax			
	Sales			
	Property Tax			
		State/Local Total	_____	
	Fed Income			

This model has two parts that are utilized where data are available for individual incentives. The first part quantifies the economic benefits that accrue from the individual project development activity, while the second part attempts to quantify the economic benefits from the resulting hydrocarbon production. The latter includes oil production and gas production as separate calculations wherever data are available. Note that condensate production is not included, slightly underestimating the benefits. Condensate is the liquid production that is produced from gas wells. Casing head gas, or associated gas, is the natural gas that is produced from oil wells.

Individual multipliers for the state are plugged into the model for each incentive to calculate the economic impact. For example, if the value of oil and gas production from an incentive can be determined, the final demand multiplier is used to determine the total economic effect. Similarly, the earnings multiplier gives insight into the money brought home by employees, and

the employment multiplier determines the number of jobs created. Severance tax is treated only as a gain if the incentive had a partial rather than full reduction in taxes.

Once the effect on gross state product and earnings is derived from the RIMS multipliers, proxy factors have been developed to estimate the various tax revenues generated by the economic activity. If a producing state has an individual income tax, the increase in tax revenue resulting from the oil and gas activity is estimated as follows: total individual income taxes collected divided by the total personal income for that state (*Increase in Tax Revenue = Sum of Individual Income Taxes/Sum of Personal Incomes for the State*). This factor is then applied to the calculated oil and gas earnings effect. Similarly, the sales tax factor and the property tax factor are derived by taking the total local and state sales tax revenue or property tax revenue and dividing by the gross product for the state (GSP), and applying this factor to the calculated value from the incentive program. The most recent tax collection data available from the Department of Commerce were used to develop the proxies.

The federal income tax resulting from the oil and gas activity is approximated, using 16.1 percent of the earnings created by the incentive. The 16.1 percent factor is the most current calculation of the weighted average federal tax rate. The calculations for individual incentives can be found in Section 5, entitled "Annualized Analysis of State Tax Incentives."

In many cases, the calculations of individual incentives are based on partial data. An example would be where oil production numbers might be available from those participating in the incentive, while the associated gas production is not. Where only partial data are used to estimate the incentive results, an underestimation of the actual economic effects could be created. In other cases, only the severance tax loss was available for the incentive. Using the exempt or reduced tax rate, the production value on which the tax loss was based was derived for the economic calculations. In these cases, no actual production numbers were used.

For some states, the number of projects or wells for each incentive was available, but no production data were provided. In these cases, average production value per project or well for those type wells was calculated based on the production value data from all other states with the same type wells.

Expenditure data were not available from all the states. In the cases where latest costs were not available, the average expenditure per project or well was derived from data in other states. Sometimes, expenditure data for certain types of wells was unavailable for all states. When this occurred, data from the previous report was used, and then adjusted to current figures using the CPI index.

Hydrocarbon prices used are from the EIA; either published average annual prices or first purchase prices for the appropriate state. In situations where an incentive is working for multiple years, the average of the prices during the interval is used for the entire period.

As stressed in the previous report, it is not possible to isolate the incremental effects of the incentives. The volume of projects before and after the incentive are compared cannot be necessarily attributed totally to an incentive, although in some scenarios, the increment could be

considered the "incentive effect." One reason this is not necessarily precise are other factors such as commodity prices also influence decisions. This study shows the tremendous amount of benefits that the oil and gas sector contributes to the oil and gas producing states and the Federal government. The magnitude of the benefits far outweighs the cost of incentives. With all benefits that have been presented in this updated study, it appears to this author that incentives are accomplishing what they are meant to accomplish, plus more. On the one hand, without incentives, marginal wells will shut in before their time, new investments will be delayed at best or cancelled at worst, and the industry will move to other parts of the world. On the other hand, with incentives, enhanced domestic oil and gas production will help retard the growth of dependency on foreign sources, jobs will be maintained or created and the United States as a whole benefits in the form of economic benefits and increased national security.

8. Acknowledgments

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9. Biographical Sketches

Mark A. Baxter

Mark Baxter, joined Cox School's Maguire Energy Institute as Director in May-2001 and brings with him more than 25 years of experience in the energy industry, including engineering and management experience in project management and business development both domestically and overseas.

Previous to joining Cox, Mr. Baxter was with Marathon Oil Company for 26 years, gaining extensive global experience in the energy industry. He was instrumental in negotiations and business development with several domestic and international projects, but most notably dedicated to efforts in Russian territories. He managed negotiations of a joint venture between Marathon Oil and a major oil company in Russia while also spearheading the technical and commercial due diligence on one of Siberia's major oil fields. In the early 1990s, Mr. Baxter worked on both the SAGE project in the North Sea sector of the United Kingdom. Also starting in the early 1990s, he worked on the Sakhalin Project in Far East Russia, evaluating economic development and working closely with Russian officials. Mr. Baxter has either worked in or conducted studies for projects in Ireland, Japan, South Korea, Kazakhstan, and China. In 1999, he co-chaired a half-day session at the Offshore Technology Conference (OTC). Mr. Baxter has given presentations covering the Sakhalin II Project in 1995 at a forum in Vienna, Austria; in 1999 to energy experts and Japan's Diet representatives in Sapporo, Japan; and in 1998 to State Representatives of the Energy Council.

Mr. Baxter received a Bachelor of Science in civil engineering from the University of Illinois in 1974. He has served as an expert witness in cases for offshore pipeline in Federal Court and onshore pipeline in Magistrate Court. He is a registered professional engineer in Illinois, Indiana, Kentucky, Louisiana, Michigan, Ohio, and Texas.

Keith T. Thomas

Keith Thomas joined the IOGCC in 1999 and currently holds the position of Federal Projects Manager. Keith works on promotion of oil and gas education issues, writes oil and gas studies, writes oil and gas advocacy publications, writes legal memorandum, works on grants and grant writing, and works with state oil and gas attorneys. Since joining the IOGCC, Keith has authored numerous publications including: *Collected Studies: Coal Seam Natural Gas, Also Known as "Coalbed Methane"*, Winter, 2002-2003, a comprehensive bibliography containing information on 1542 coalbed methane studies; *Investments in Energy Security*, 2003, 2002, 2001, 2000, an annually updated study of tax and legislative incentives offered to the oil and natural gas industry in the U.S. and Canada; and *Produce or Plug*, June, 2000, a study that explored the status of idle wells in 32 U.S. states, on lands controlled by the U.S. Bureau of Land Management, and one Canadian province.

Previous to joining the IOGCC, Keith worked for more than 20 years in the domestic and international oilfield. He directed the business operations of a drilling mud company operating in 6 states and one foreign country. Keith oversaw the development of a drilling company and worked for 2 years on exploration projects in Turkey.

Keith obtained a double major BA from Oklahoma State University. He also completed study in Drilling Fluids Technology at the Eisenman Chemical Company School of Drilling Fluids Technology in Greeley, Colorado. Keith possesses a Juris Doctorate from the University of Oklahoma College of Law, with an emphasis of study in International Law, Oil & Gas Law, and Federal Indian Law. He is an attorney licensed to practice in the state of Oklahoma.

James T. Bies, Jr.

James Bies is currently a JD/MBA candidate at Southern Methodist University in the Dedman School of Law and the Cox School of Business. It is anticipated that he will graduate with both degrees in 2005.

Before attending Southern Methodist University, James worked for Arthur Andersen as an associate in the Private Client Services Group in San Francisco, CA.

James received a Bachelor of Science in Business Administration and Economics from Trinity University in 1999. He also received a Masters of Science in Accounting from Trinity University in 2000. It is anticipated that James will become a Certified Public Accountant by the end of 2003.

Vinod K. Yadav

Vinod Yadav is an MBA Candidate at Cox School of Business of Southern Methodist University at Dallas. It is anticipated that he will graduate by May-2004.

After completing his Bachelor's degree in Electrical Engineering from India in 1995, Vinod started his professional career as Project Engineer with the Anglo-French company Alstom Ltd. At Alstom, he worked on power projects from the blueprint stage through commissioning.

In 1997, he joined Indian Oil Corporation Ltd, a \$25 billion conglomerate in downstream hydrocarbon operations. At Indian Oil, Vinod as Sr. Engineer commissioned a power plant and utility plants for a modern grass roots oil refinery. He managed operations, maintenance and testing at the refinery and also coordinated with the marketing and pipelines divisions for continuously improving supply chain operations. He was also elected Secretary of the Officers' Association of Indian Oil. In this capacity he extensively interacted with the upper management of the corporation and the oil ministry on various organizational issues.

Vinod has been actively associated with the Maguire Energy Institute and intends to make a career in the energy sector.

