Draft: April 22, 2014, prepared by Western Natural Resources Law Group, LLC

Severance Tax Research Project

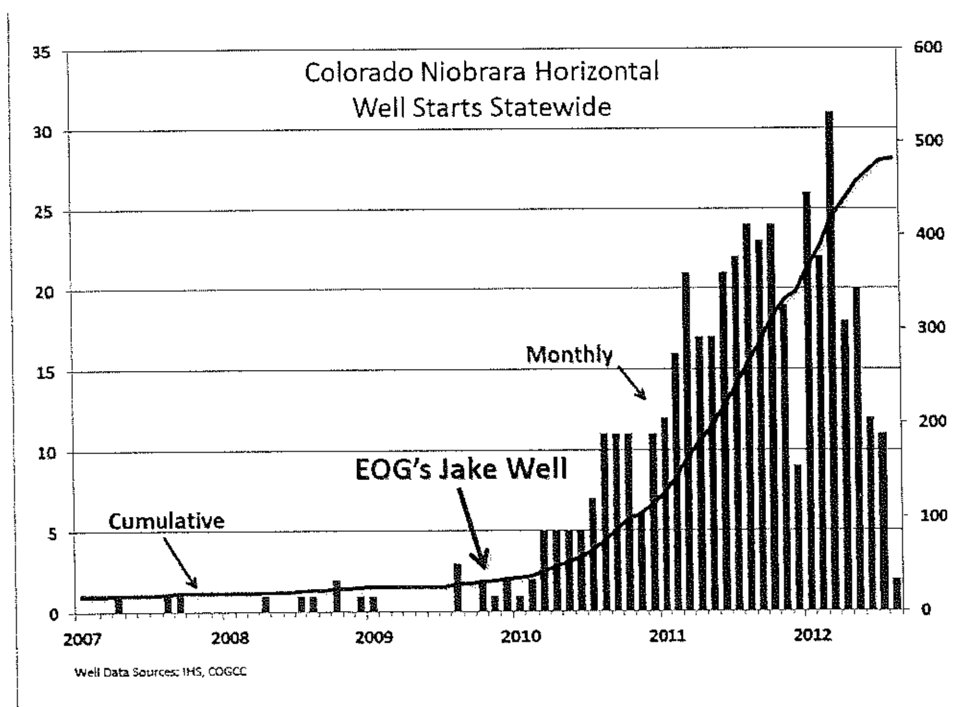
Background

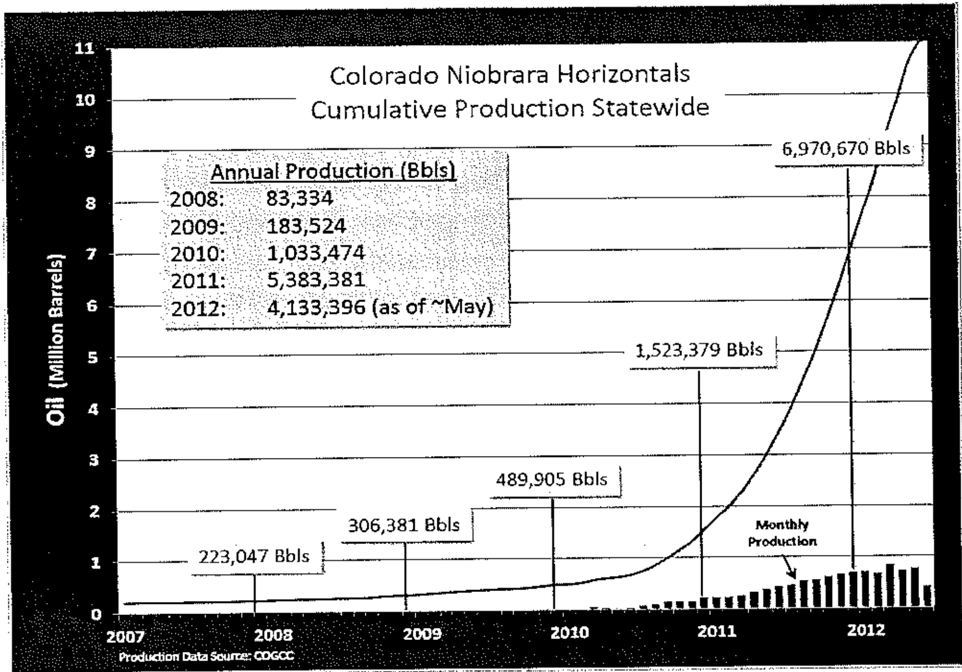
Colorado oil production has reached its highest level since 1961. Production in 2012 was 44% higher than only two years earlier. According to the Colorado Oil and Gas Conservation Commission, much of this increase in production is attributable to the giant Wattenberg Field, an area of the larger Denver Julesburg Basin on Colorado's eastern plains. New drilling technology has brought substantial attention to the Niobrara shale formation in the Denver Julesburg Basin. Since 2009, the Niobrara Play has made Colorado the center of a new oil boom.

Anadarko Petroleum Corp. recently called the Wattenberg Field the company's "biggest domestic play" and said it planned to invest $2.5 billion in the next two years there. Anadarko and Noble Energy Inc. together have identified nearly 10,000 locations where they would like to drill in the Wattenberg. The two companies estimated that the Niobrara could hold as much as 3.6 billion barrels of oil. According to a recent report from Credit Suisse, the Niobrara is yielding a 49 percent return on investment, ranking it 3rd nationally.

The oil boom is happening now. In 2013, Colorado's oil production of nearly 64.1 million barrels was the highest amount ever produced in Colorado. It also represents a jump of 30% in oil production from 2012, when 48.2 million barrels were produced. The increased production has resulted sky-rocketing oil revenues in Colorado; more than $4.4 billion in 2012. Weld County is the epicenter of this new oil development. In 2013, producers in Weld County extracted 51.9 million barrels of oil Niobrara oil worth roughly $4.5 billion.

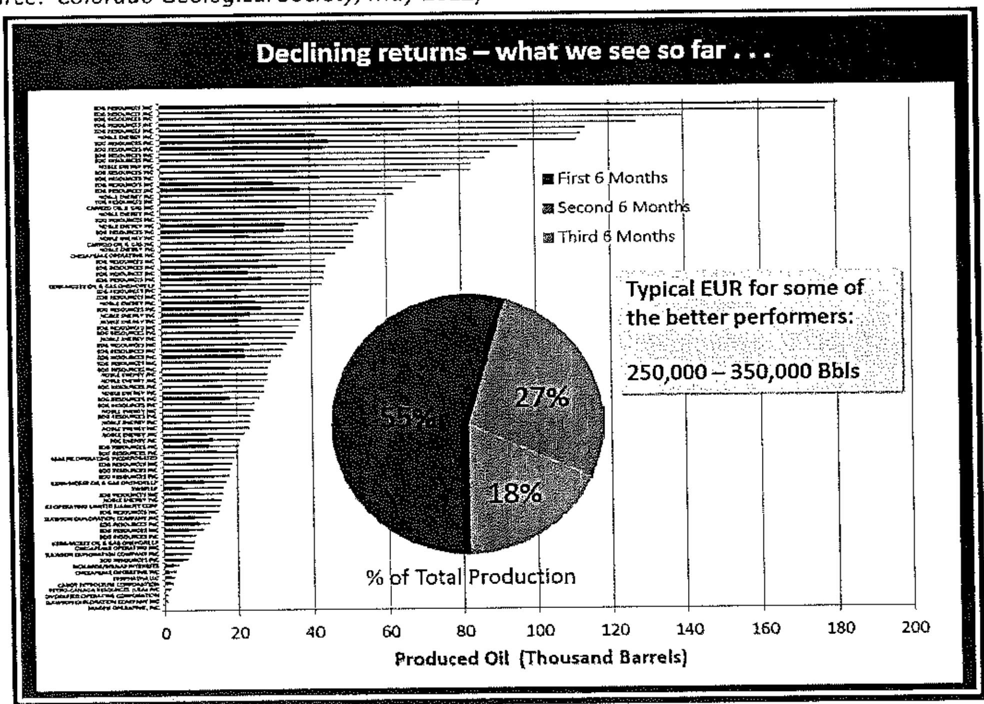
(Source: Colorado Geological Society, May 2012)





Many unknowns will affect the value of production from the Niobrara play, and production in Colorado in general. Obviously commodity prices are the single most important variable in assessing value. In addition, although oil production from horizontal wells in the Denver Julesburg basin is at record levels, early indications suggest that the productive life of these wells is relatively short. A 2012 analysis from the Colorado Geological Survey found that 55% of total production from these wells happened in the first six months, with declining amounts in the second and third six-month periods (27% and 18% respectively). These factors underscore the fleeting nature of potential revenues associated with this activity.

(Source: Colorado Geological Society, May 2012)



State Energy Tax Policy

Technically, Colorado's severance tax rate varies from 2%-5% depending on the amount of income earned by the producer/taxpayer. However, because Colorado law allows for a number of unique credits, exemptions, and deductions, **the actual tax rate in the state (often called the "effective rate") has averaged 1.5% over the ten year period from 2001-2010.**

In October 2013, the Colorado Legislative Council Staff calculated the effective severance tax for Colorado and eight neighboring states with significant oil and gas production. Colorado's effective severance tax of 1.5% was the lowest of all the states surveyed.

Effective Severance Tax Rates for Oil and Gas Producers, FY 2010-11

State	Total Oil Production Value (gross)*	Total Gas Production Value (gross)*	Total Oil and Gas Production Value (gross)*	Severance Taxes	Taxes/Production Value (Effective Tax Rate)
Colorado	$2,604.2	$6,250.4	$8,854.5	$131.0	1.5%
Utah	$1,961.2	$1,825.6	$3,786.7	$59.9	1.6%
Kansas	$3,216.4	$1,372.2	$4,588.6	$97.4	2.1%
Texas	$33,885.8	$31,535.0	$65,420.8	$2,582.6	3.9%
Wyoming	$4,223.1	$9,913.8	$14,136.8	$633.7	4.5%
Montana	$2,013.5	$318.3	$2,331.8	$104.5	4.5%
New Mexico	$5,196.0	$6,878.6	$12,074.6	$751.3	6.2%
Oklahoma	$5,476.1	$8,606.9	$14,083.8	$964.9	6.9%
North Dakota	$8,986.3	$320.8	$10,305.9	$9,307.1	10.6%

**Production values for oil and gas are for calendar year 2010, and are based on pricing and production data published by the U.S. Energy Information Administration.*

It should be noted that the total tax liability on oil and gas producers for energy production varies greatly across comparable states and is not simply a factor of the state's severance tax. However, even when accounting for severance, property, income, and sales taxes, Colorado had the lowest tax burden on oil and gas producers. The most recent analysis of the relative total tax liability (state and local) on oil and gas production in Colorado compared to similar states was done in 2011 by the Colorado Legislative Council. In that analysis, Colorado had the <u>lowest cumulative effective tax rate</u> at 4.4% of its neighboring oil and gas producing states in that analysis.

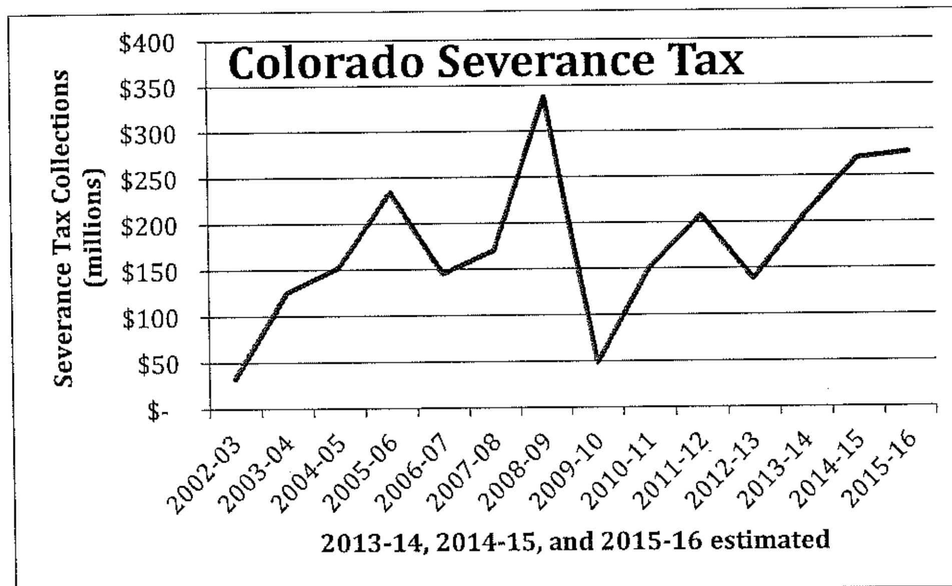
State and Local Tax Liability for Oil and Natural Gas Producers, FY2009-10

(Dollars in millions)

State	Total Oil and Gas Production Value (gross)*	Severance Taxes	Property Taxes*	Income Taxes	Sales Taxes	Total State and Local Taxes	Effective Tax Rate
Colorado	6,077.2	28.4	212.1	12.3	13.9	266.7	4.4%
Utah	2,624.0	56.2	44.0	13.3	34.6	148.0	5.6%
Oklahoma	9,950.0	743.6	*** N/A	24.3	13.9	781.8	7.9%
New Mexico	8,861.9	719.7	111.9	21.0	78.8	931.4	10.5%
Wyoming	10,305.9	645.5	542.5	** N/A	53.4	1,241.4	12.0%

** Production values for oil and gas are for calendar year 2009, and are based on pricing and production data published by the U.S. Energy Information Administration. Property taxes are based upon 2010 assessed value and county-specific mill levies for production in 2009.*
*** Wyoming does not levy a state income tax*
**** Oklahoma's severance tax is levied in lieu of local property taxes and most state/local taxes. In addition, an excise tax is added to the severance tax amount which is also levied on oil and gas producers.*

Against the backdrop of record production, Colorado's severance tax revenues are currently experiencing large declines. According to the most recent Economic Forecast produced by Legislative Council Staff (March 2014), preliminary estimates of state severance tax collections are projected to decrease 33.3% in fiscal year 2012-13. Even with the estimated increases in severance tax collections in the next two fiscal years, severance tax collections through the forecast period are not expected to approach the collections in 2008-09, before Niobrara production began.



Many factors contribute to the mismatch between energy production in Colorado and state severance tax collections. To begin with, producers in Colorado, as every other comparable state, contribute several different public revenues in addition to severance tax. The most significant public tax contribution from oil and gas production value is in the form of local property taxes (sometimes referred to as ad valorem taxes). Most other comparable states also levy local property taxes on production. In Colorado, these local tax revenues in areas of significant production (e.g. Weld County) have seen sharp increases in close correlation with production in those areas.

However, at the state level, several credits, exemptions and deductions have the effect of dramatically lowering the value of state severance tax revenues. The largest offset to state severance tax dollars is the ad valorem credit. According to this unique credit, state severance tax liability in Colorado is reduced by the amount of local property taxes paid on oil and gas production. This can result in a net severance tax liability of $0.

The way the ad valorem tax credit works for state severance tax liability means that if local property tax mills are greater than 58, there is no resulting state severance tax. Average property tax rates in the eastern plains counties seeing the greatest production increases associated with the Niobrara play are all over 58, meaning this giant production is virtually untaxed at the state level:

- The average mill levy in Weld County is 71
- The average mill levy in Yuma County is 69
- The average mill levy in Morgan County is 80
- The average mill levy in Adams County is 106
- The average mill levy in Arapahoe County is 100
- The average mill levy in Washington County 65

(Colorado Department of Local Affairs, Division of Property Taxation)

In addition to the ad valorem credit, Colorado statute provides for an exemption from taxation for small production wells (a.k.a. stripper wells). According to a recent Colorado Department of Natural Resources data, in 2012, 63% of oil wells in the state were considered stripper wells, accounting for 45% of oil production. That production is not taxed by the state, and the production numbers are significant.

According to data from the COGCC, 55% of all the oil produced in the Colorado came from stripper wells. Using the COGCC figures for the average price of oil in 2011 multiplied by the 21,734,526 barrels oil produced from Colorado stripper wells equaled $1.91 Billion. In 2012, the average of all Colorado oil produced from stripper wells dipped to 45%, but production from stripper wells increased to 21,744,191 barrels. The price of oil also increased in 2012, so the value of Colorado oil produced from stripper wells increased to $1.97 Billion. In two years alone, $3.88 billion worth of Colorado oil was untaxed by the state because of the stripper well exemption.

In October 2013 the Legislative Council Staff created a severance tax model estimating the value of the stripper well tax exemption for oil and gas operators using production data from the COGCC. "Over the last 10 years, the estimated value of the stripper well tax exemption for oil and gas operators has averaged $89 million annually, ranging as high as $135 million in FY 2012-13 and as low as $63 million in FY 2003-08."

Table 5
Share of Wells and Production from Striper Wells
Oil and Natural Gas, 2002-2006

	2002	2003	2004	2005	2006
Oil					
Wells	94.4%	93.4%	93.9%	94.5%	95.2%
Production	53.4%	54.1%	56.9%	57.2%	59.7%
Natural Gas					
Wells	73.2%	72.4%	71.6%	75.2%	73.2%
Production	18.0%	18.2%	19.4%	19.7%	20.4%

Source: Legislative Council Staff estimates based on Colorado Oil and Gas Conservation Commission data.

Transparency—An Essential Policy Tool

The last interim committee on mineral revenues in Colorado was 2007, and that was only on distribution, not rates, credits, exemptions or revenues.

There have been no publicly released reports on oil and gas public revenue collections relative to production from the state since 2010. In particular, DOLA used to release an annual report, "Mineral Revenues to the Public Sector in Colorado," which has not been released since 2010 (2009 revenues). There have been no reports on severance tax revenues specifically since 2007.

In 2007 there was an extensive Legislative Council Staff analysis of state severance tax rates and revenues. In 2006 there was a very detailed State Auditor report on severance tax. Those were the last in-depth looks at this issue—now six or seven years old and before the current boom in oil production in non-severance tax paying counties.

The time is ripe to address oil and natural gas severance tax credits and exemptions. The current oil boom is projected to continue. According the Denver Business Journal, Noble Energy has identified 9500 location it wants to drill in the Niobrara with the aim of drilling 500 wells a year by 2016. Anadarko Petroleum has also identified 4000 wells in the same area.

How Can Tax Policy Be Changed?

Colorado voters were last asked to weigh-in on oil and gas tax policy in 2008. At that time voters overwhelmingly said no (58%/42%) to a proposal to entirely eliminate the ad valorem credit. However, much has changed since that time. To begin with, in November 2008 when that question appeared on the ballot, Colorado and the nation had just entered the most severe phase of the Great Recession and voters resoundingly rejected tax measures on all state and most local ballots. In addition, the oil production associated with the Niobrara play on the state's eastern plains, which as discussed above yields almost no severance tax, had not yet begun.

Finally, a 2009 State Supreme Court decision in the *Mesa County Bd. of County Comm'rs v. State of Colorado*, 203 P.3d 519 (Colo. 2009) case provided new definition around State constitutional language with respect to the legislature's authority to enact revenue increasing measures without a vote of the electorate. According to that decision, the General Assembly has the authority to change or eliminate statutory credits and exemptions against state taxes. In the 2009 legislative session the General Assembly moved to eliminate several of those credits and exemptions to help balance the state's budget.