

OIL AND GAS SEVERANCE TAX STRIPPER WELL EXEMPTION



EVALUATION SUMMARY

JULY 2020
2020-TE22

THIS EVALUATION WILL BE INCLUDED IN COMPILATION REPORT SEPTEMBER 2020

YEAR ENACTED	1977
REPEAL/EXPIRATION DATE	None
REVENUE IMPACT	\$61.2 million (CALENDAR YEAR 2018)
NUMBER OF TAXPAYERS	Unable to determine
AVERAGE TAXPAYER BENEFIT	Unable to determine
IS IT MEETING ITS PURPOSE?	Yes, to some extent

WHAT DOES THIS TAX EXPENDITURE DO?

The Stripper Well Exemption exempts from the oil and gas severance tax gross income from oil produced from wells that produce 15 barrels per day or less and gas produced from wells that produce 90 thousand cubic feet (MCF) or less per day for the average of all producing days during the taxable year.

WHAT IS THE PURPOSE OF THIS TAX EXPENDITURE?

Statute does not explicitly state a purpose for the Stripper Well Exemption. Based on the historical context in which the exemption was created, legislative history of the oil and gas severance tax, testimony for House Bill 77-1076, and case law on federal and other state exemptions, we inferred that the purpose of the Stripper Well Exemption is to provide tax relief to stripper wells, presumably to encourage continued production from these low-producing wells that might otherwise be plugged and abandoned or shut in.

WHAT DID THE EVALUATION FIND?

We found that the exemption may be meeting its purpose, to some extent, because it could help stripper wells remain open when the margin between well costs and oil and gas prices is small. However, when prices are low and stripper wells are operating at a loss, the benefit provided by this exemption is unlikely to be significant enough to keep stripper wells open. Additionally, when the margin between well operating costs and oil and gas prices is larger, it is likely that operators would continue to operate stripper wells regardless of the exemption since the margin would be higher than the severance tax.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

The General Assembly could consider:

- Reviewing whether the Stripper Well Exemption continues to meet its intent due to changes in the energy industry since it was created.
- Restructuring the Stripper Well Exemption so that it is only available when oil or gas prices fall below certain thresholds.

OIL AND GAS SEVERANCE TAX EXEMPTION FOR STRIPPER WELLS

EVALUATION RESULTS

WHAT IS THE TAX EXPENDITURE?

The Oil and Gas Severance Tax Exemption for Stripper Wells [Section 39-29-105(1)(b), C.R.S.] (Stripper Well Exemption) exempts oil and gas from low-producing wells from the State’s severance tax. These wells are referred to as “stripper wells” because they strip the remaining oil or gas out of the ground.

A stripper well is typically an oil or gas well that previously produced larger amounts of oil or gas but over time, as it moved further into its useful life, it naturally became a low-producing well. This cycle occurs for most wells, with the highest production occurring in the early years and tapering off after several years, at which point most wells become stripper wells. Once wells are no longer economically viable, they are typically plugged and permanently abandoned, or temporarily taken out of production (commonly referred to as “shut in”).

To qualify as a stripper well, an oil well must produce 15 barrels of oil per day or less and a gas well must produce 90 thousand cubic feet (MCF) of gas per day or less. For both types of wells, the production level is measured based on the average of all producing days during the taxable year.

Severance tax is imposed at the following rates on the gross income from the sale of oil and gas:

EXHIBIT 1.1. SEVERANCE TAX RATES ON OIL AND GAS	
GROSS INCOME	RATE
\$0-\$24,999.99	2%
\$25,000-\$99,999.99	3%
\$100,000-\$299,999.99	4%
\$300,000 and over	5%
SOURCE: Office of the State Auditor analysis of Section 39-29-105(1)(b), C.R.S.	

The Stripper Well Exemption was created in 1977 with House Bill 77-1076. At that time, the exemption applied only to oil wells that produced 10 barrels per day or less. In 2000, with House Bill 00-1065, the General Assembly amended the exemption to increase the threshold for oil wells to 15 barrels a day of oil and added gas stripper wells to the exemption.

Oil and gas severance tax is imposed on the interest owners of oil or gas that is produced in Colorado. Interest owners are individuals or companies that have a right to receive income from production of oil and gas from wells in which they own an interest. Oil and gas well operators, which are companies that operate the oil and gas wells, must provide each interest owner with an Oil and Gas Withholding Statement (Form DR 0021W), which is the Department of Revenue form operators provide to the interest owners with the amount of their share of the gross income from oil and gas from that operator for the tax year. The operator indicates the interest owner's gross income attributable to stripper well production on Line 7 of the Oil and Gas Withholding Statement. Interest owners use the information on the Oil and Gas Withholding Statement to complete their severance tax returns with the Department of Revenue. Interest owners are required to file an Oil and Gas Severance Tax Return (Form DR 0021) and its accompanying schedule, the Oil and Gas Severance Tax Computation Schedule (Form DR 0021D), to calculate and pay their severance tax. Interest owners claim the Stripper Well Exemption in Column C of the Oil and Gas Severance Tax Computation Schedule. However, interest owners who have gross income only from stripper wells are not required to file a severance tax return— they “claim” the Stripper Well Exemption by not filing a severance tax return.

WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURE?

Statute does not explicitly state the intended beneficiaries of the Stripper Well Exemption. Because interest owners who own stripper wells are eligible to claim the Stripper Well Exemption, we inferred that they are the intended beneficiaries of the exemption.

According to Colorado Oil and Gas Conservation Commission data, in Calendar Year 2018, there were approximately 7,300 oil wells and 22,500 gas wells that qualified as stripper wells in the state. These wells represented about 58 percent of the total oil wells in the state and 4 percent of the state's oil production, and 73 percent of the total gas wells in the state and 15 percent of the state's gas production.

WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

Statute does not explicitly state a purpose for the Stripper Well Exemption. Based on the historical context in which the exemption was created, legislative history of the oil and gas severance tax, testimony for House Bill 77-1076, and case law on federal and other state exemptions, we inferred that the purpose of the Stripper Well Exemption is to provide tax relief to stripper well interest owners, presumably to encourage continued production from these low-producing wells that might otherwise be plugged and abandoned or shut in. In 1977, when the General Assembly created this exemption, some legislators expressed concerns about dependency on foreign-produced oil, so the Stripper Well Exemption may have also been intended to encourage continued production from low-producing wells in the state as a domestic source of oil.

IS THE TAX EXPENDITURE MEETING ITS PURPOSE AND WHAT PERFORMANCE MEASURES WERE USED TO MAKE THIS DETERMINATION?

We found that the Stripper Well Exemption is meeting its purpose, to some extent, because it could potentially help stripper wells remain open when the margin between well costs and oil and gas prices is small. However, when prices are low and stripper wells are operating at a loss, the benefit provided by this exemption is likely not significant enough to keep stripper wells open.

Conversely, when prices are high and the margin between well costs and oil and gas prices is larger, it is likely that operators would continue to operate stripper wells regardless of the exemption since the margin would be higher than the severance tax.

Statute does not provide quantifiable performance measures for this tax expenditure. Therefore, we created and applied the following performance measure to determine the extent to which this tax expenditure is meeting its inferred purpose:

PERFORMANCE MEASURE: *To what extent does the Stripper Well Exemption encourage continued production from low-producing oil and gas wells?*

RESULT: To conduct our analysis, we compared the possible savings that the Stripper Well Exemption provides with 1) the average break-even price (i.e., the point at which total cost and total revenue are the same) for oil and gas stripper wells, and 2) oil and gas prices in recent years. Overall, we found that the Stripper Well Exemption lowers the break-even price for taxpayers since the severance tax on stripper wells would otherwise be an additional cost. However, in most cases, the taxpayer benefit is relatively low compared to their costs and the typical price of oil and gas.

According to stakeholders, although the costs to operate a stripper well can vary by well and taxpayer, the break-even price for an oil stripper well generally ranges from about \$10 per barrel to \$35 per barrel, and the break-even price for a gas stripper well ranges from about \$1.10 to \$1.70 per MCF. We compared these costs to the typical benefit the Stripper Well Exemption provides by volume of oil and gas produced. Because the benefit of the exemption fluctuates based on taxpayers' overall gross income from oil and/or gas and the price of oil and gas, we performed our analysis under a scenario where oil prices were \$58 per barrel and gas prices were \$3 per MCF, which were their average market prices in 2018, and also for a hypothetical low-price scenario where the oil price was \$20 per barrel and gas price was \$1.50 per MCF. For this analysis, we assumed that the taxpayer owned 100 stripper wells, each producing 1,000 barrels of oil per year or 12,700 MCF of gas per year, which according to Colorado Oil and Gas Conservation Commission (COGCC) data were the average production levels for oil and gas stripper wells

in the state in Calendar Year 2018. The results of our analysis are shown in EXHIBIT 1.2.

EXHIBIT 1.2. SEVERANCE TAX LIABILITY ON AN AVERAGE STRIPPER WELL AT DIFFERENT OIL AND GAS PRICES					
Taxpayer Scenario	Number/Type of Stripper Wells	Price Per Barrel/MCF	Gross Income	Severance Tax Liability on All Wells	Severance Tax Liability Per Barrel/MCF
#1	100 Oil Wells	\$58/barrel	\$5,800,000	\$286,000	\$2.86/barrel
#2	100 Oil Wells	\$20/barrel	\$2,000,000	\$96,000	\$0.96/barrel
#3	100 Gas Wells	\$3/MCF	\$3,900,000	\$189,000	\$0.15/MCF
#4	100 Gas Wells	\$1.50/MCF	\$1,900,000	\$91,000	\$0.07/MCF

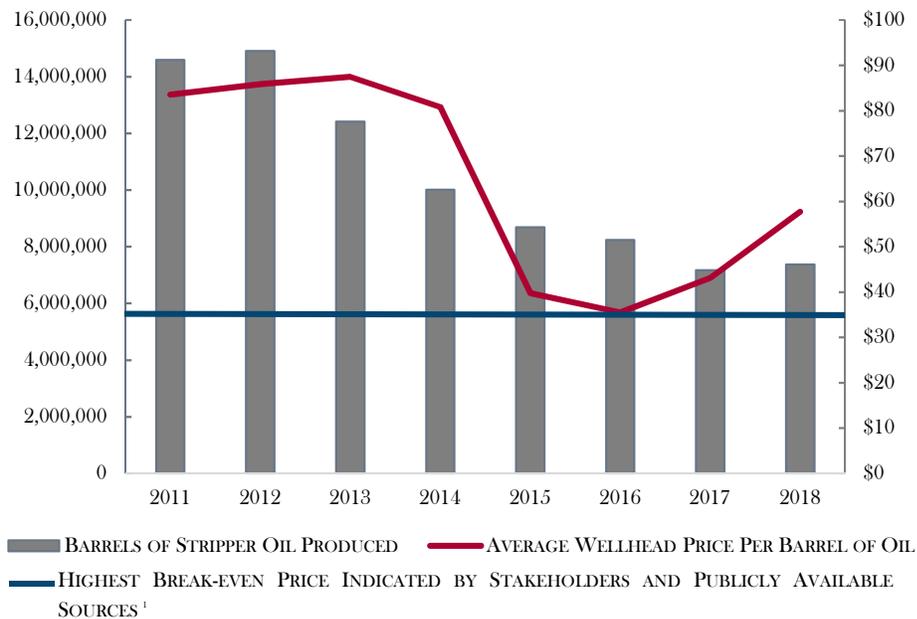
SOURCE: Office of the State Auditor analysis of hypothetical taxpayer severance tax liability/cost savings due to the Stripper Well Exemption.

As shown, the tax cost savings (i.e., the reduced severance tax liability) as a result of the Stripper Well Exemption can vary significantly depending on the prevailing price of oil or gas, with lower prices reducing the benefit provided by the exemption. Furthermore, in each scenario, the benefit provided by the exemption is relatively small in comparison to the typical costs of operating stripper wells and the typical price of oil and gas, which likely limits its effectiveness at encouraging interest owners to keep stripper wells in production. The Stripper Well Exemption likely has the most impact on helping keep stripper wells operational when the prevailing oil or gas market prices are close to the well's or taxpayer's break-even price, since it lowers the break-even price. However, when prices are well below the break-even price, it is likely that operators will shut in or plug those wells, regardless of the Stripper Well Exemption. Conversely, when prices are significantly above the break-even price, operators will likely maintain production from stripper wells regardless of the Stripper Well Exemption because those wells would be profitable even after the severance tax was paid.

We reviewed oil and gas prices and production levels from 2011 through 2018 compared to the highest stripper well costs provided to us by stakeholders (\$35

per barrel for oil and \$1.70 MCF for gas). For oil stripper wells, we found that prices were close to stakeholders' highest estimated break-even point (i.e., costs) for three of those years—2015 to 2017. During those years, the benefit provided by the Stripper Well Exemption was likely a more significant factor in taxpayers' decisions to continue operating oil stripper wells. However, oil stripper well production declined substantially in those years, when prices were lower, indicating that the exemption's impact on encouraging production is likely relatively modest. EXHIBIT 1.3 illustrates oil production from stripper wells in Colorado, the average wellhead price of oil in Colorado from 2011 to 2018, and the highest break-even price indicated by stakeholders.

EXHIBIT 1.3.
ANNUAL PRODUCTION (BARRELS) OF OIL FROM STRIPPER
WELLS AND AVERAGE WELLHEAD PRICES
CALENDAR YEARS 2011 THROUGH 2018



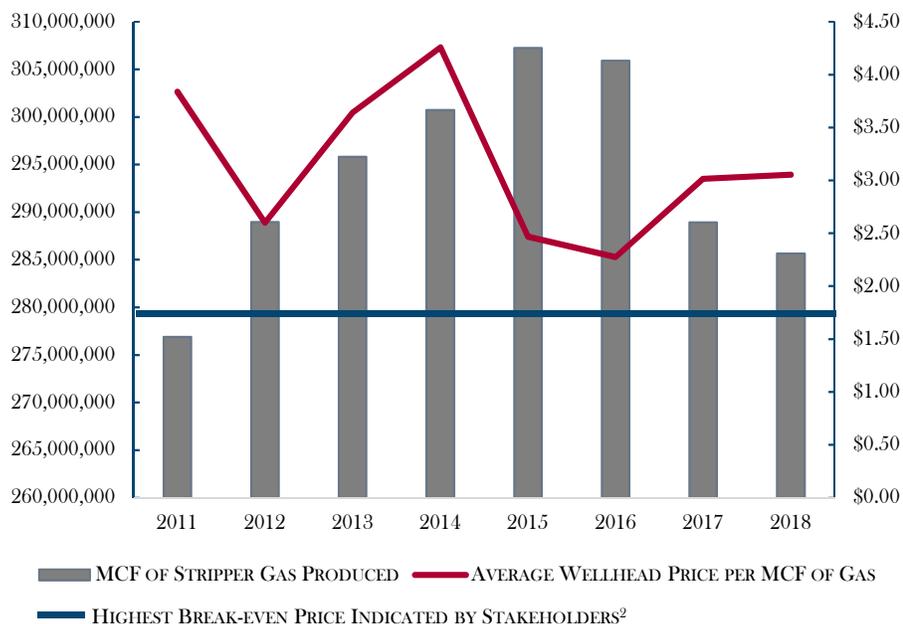
SOURCE: Office of the State Auditor analysis of COGCC oil stripper well production data and Rocky Mountain Oil Journal oil price data.

¹ According to stakeholders, the break-even price per barrel of stripper oil generally ranges from \$10 to \$35, although it is possible that some wells or some operators fall outside of this range, since costs can vary by well and operator.

For gas stripper wells, we found that gas prices were well above the highest break-even price provided to us by stakeholders during the entire period we reviewed. This indicates that the Stripper Well Exemption likely had a relatively small influence on taxpayers' decisions regarding whether to keep the

wells in production. Furthermore, gas stripper well production levels did not correlate as closely with changes in price as oil stripper wells did. This may indicate that factors other than price were more significant to gas stripper well production during those years, in which case the exemption would also be less impactful. EXHIBIT 1.4 illustrates gas production from stripper wells in Colorado, the average wellhead price of gas from 2011 to 2018, and the highest break-even price indicated by stakeholders.

EXHIBIT 1.4.
ANNUAL PRODUCTION (MCF) OF GAS FROM STRIPPER
WELLS AND AVERAGE WELLHEAD PRICES
CALENDAR YEARS 2011 THROUGH 2018¹



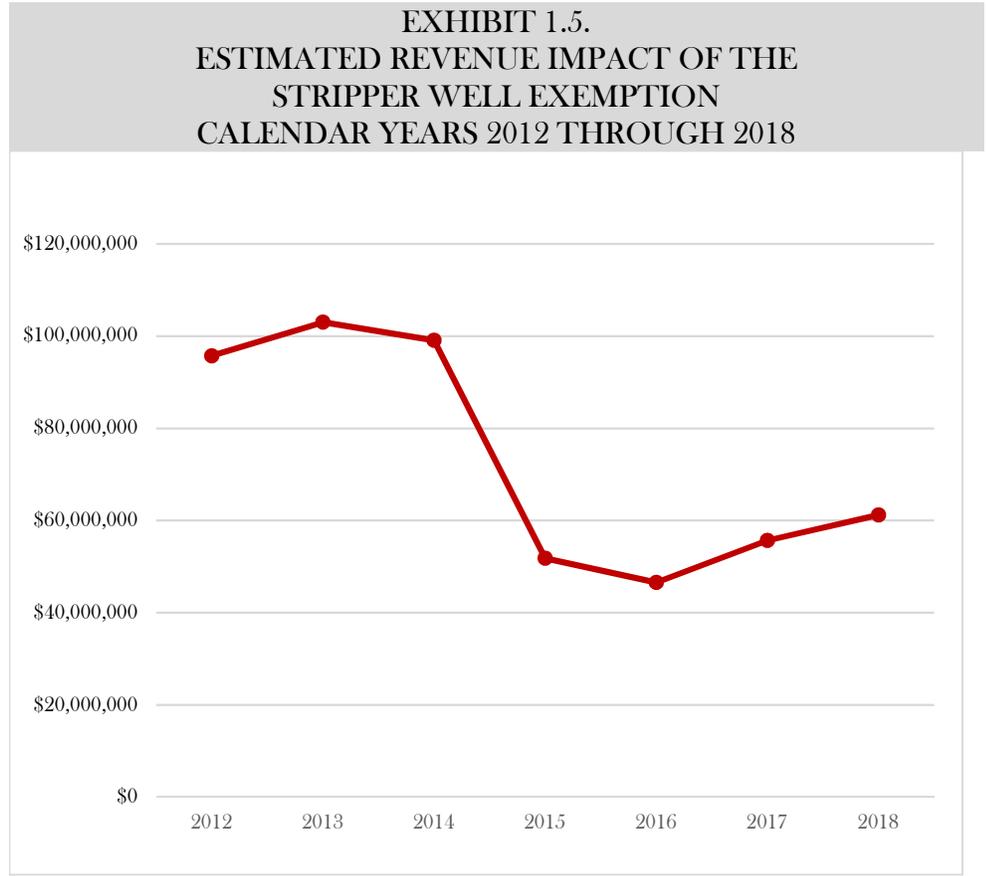
SOURCE: Office of the State Auditor analysis of COGCC gas stripper well production data and Rocky Mountain Oil Journal gas price data.

¹ For 2011 to 2016, we were able to use Colorado-specific average gas prices. Colorado-specific gas prices were not available for 2017 and 2018 so we used average Henry Hub Gas prices for those two years.

² According to stakeholders, the break-even price per MCF of stripper gas generally ranges from \$1.10 to \$1.70, though it is possible that some wells or some operators fall outside of this range, since costs can vary by well and operator.

WHAT ARE THE ECONOMIC COSTS AND BENEFITS OF THE TAX EXPENDITURE?

The Department of Revenue was not able to provide us with data on the Stripper Well Exemption. Therefore, we estimated the revenue impact using Colorado Oil and Gas Conservation Commission (COGCC) production data and Rocky Mountain Oil Journal oil and gas wellhead prices in Colorado. We estimate that the Stripper Well Exemption resulted in about \$61.2 million in foregone revenue to the State in Calendar Year 2018. This estimate does not account for the Ad Valorem Credit, which taxpayers may have been able to claim if the exemption was not available. The revenue impact of the Stripper Well Exemption from Calendar Years 2012 to 2018 is presented in EXHIBIT 1.5.



SOURCE: Office of the State Auditor analysis of Colorado Oil and Gas Conservation Commission data and Rocky Mountain Oil Journal data.

The significant decrease in the revenue impact of the Stripper Well Exemption since Calendar 2012 appears to be due to (1) a significant drop in oil prices and (2) a steady decline in the amount of oil produced from stripper wells.

To estimate the amount of gross income from oil stripper wells in 2018, we multiplied the number of barrels of stripper well oil sold in 2018 (7.3 million barrels) by the average wellhead price of \$58 per barrel of oil in Colorado in 2018, which resulted in \$423.9 million in estimated gross income. Similarly, to estimate the amount of gross income from gas stripper wells in Colorado in 2018, we multiplied the MCF of stripper well gas sold in 2018 (217 billion cubic feet) by the average wellhead price of about \$3 per MCF of gas, which resulted in \$827.9 million in gross income. We then combined the estimated oil and gas stripper well gross income to arrive at a total of \$1.3 billion in stripper well gross income for 2018. Since Colorado's oil and gas severance tax is levied at progressive rates ranging from 2 to 5 percent, depending on the amount of gross income, we estimated an average effective severance tax rate of 4.89 percent by dividing the tax liability of all severance taxpayers in 2018 by their gross income. We were not able to calculate an effective tax rate specifically for stripper well owners due to a lack of data. We then multiplied the total estimated gross income from oil and gas stripper wells by 4.89 percent to estimate the revenue impact. The 4.89 percent was calculated after income from stripper wells had been deducted for all severance taxpayers in 2018.

Although the estimates above show the direct revenue impact of the exemption, the actual foregone revenue is likely significantly less than reported above because we did not include the impact of the Ad Valorem Credit, a separate tax expenditure available to oil and gas interest owners, in these estimates. If gross income from stripper wells was not exempt from severance tax, taxpayers would presumably be allowed to claim the Ad Valorem Credit for 87.5 percent of the real property taxes assessed or paid on the oil and gas from stripper wells against their severance tax liability. When factoring in the Ad Valorem Credit, we estimated that the Stripper Well Exemption resulted in only about \$9.4 million in foregone revenue to the State in Calendar Year 2018.

Due to data reliability issues, it is possible that our estimates of both the direct revenue impact of the exemptions and their revenue impact factoring in the

Ad Valorem credit understate the full revenue impact. These estimates are based on COGCC stripper well production and sales data, which come from operators who are required to report to COGCC, that are likely incomplete. Specifically, in January 2020, the Office of the State Auditor released a performance audit, *Severance Taxes, Department of Natural Resources, Department of Revenue*, which found that up to 276 of the 420 operators (66 percent) actively producing oil and/or gas in Colorado failed to submit as many as 50,000 required monthly well reports during Calendar Years 2016 through 2018. An additional 40 of the 420 operators (10 percent) submitted about 1,200 monthly reports during this same time period with incomplete oil and gas production and sales data. Because of the large amount of missing and incomplete reports, it is likely that some of those missing reports are for stripper wells. Therefore, to the extent some of the missing or incomplete well reports are missing production and sales data for stripper wells, our estimates would underestimate the revenue impact of the Stripper Well Exemption.

WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURE HAVE ON BENEFICIARIES?

If the Stripper Well Exemption was eliminated, oil and gas severance taxpayers would be subject to severance tax on oil and gas produced from stripper wells. Eliminating the credit would likely have increased severance tax liabilities in Calendar Year 2018 by approximately \$9.4 million, which would be an increase of 6 percent based on the \$157.3 million in total oil and gas net severance tax liability reported by the Department for Tax Year 2018. This is because, as discussed, a significant amount of the severance tax liability would likely be offset by stripper well interest owners' ability to claim the Ad Valorem Credit for real property taxes assessed or paid on oil and gas from stripper wells. Without accounting for the Ad Valorem Credit, eliminating the Stripper Well Exemption could have increased severance tax liabilities in Calendar Year 2018 by approximately \$61.2 million, which would be an increase of 39 percent based on the \$157.3 million in total oil and gas net severance tax liability reported by the Department of Revenue for Tax Year 2018.

It is possible that some taxpayers would owe no severance tax on the gross income from stripper wells after the Ad Valorem Credit was applied, even if the Stripper Well Exemption did not exist. However, the taxpayers would still

have to submit a severance tax return to claim the Ad Valorem Credit. Therefore, eliminating the exemption could create additional administrative burdens for some stripper well interest owners and operators without an increase in state severance tax revenue. The Department of Revenue would also be required to process more returns.

We consulted with larger oil and gas well operators for which stripper wells are a small part of their business, and smaller operators, for which stripper wells are a significant part of or entirely their business. The large operators reported that without this exemption, they would likely plug their stripper wells sooner than they would with the exemption in place. We received differing responses from small operators, with one reporting that the added tax would not be enough to impact their business significantly and others stating that the added tax would likely cause them to shut in or plug and abandon a significant amount of their wells. Stakeholders also reported that it is common for large operators to sell their stripper wells to smaller operators, and that is how many small operators acquired their stripper wells. One stakeholder also mentioned that the Stripper Well Exemption has played a role in their decision to purchase stripper wells from distressed operators, which otherwise may have been abandoned and may have required state resources to cleanup and plug.

If operators plugged their stripper wells, it would also result in decreased property tax revenue for local taxing jurisdictions (e.g., counties, municipalities, special districts), including both real property taxes on the oil and gas produced from stripper wells and personal property taxes on stripper well equipment (e.g., the physical wells). If operators shut in wells temporarily, it would result in a temporary loss of property tax revenue, since real property taxes on oil and gas are based on production. According to COGCC data, in 2018, 74 percent of the stripper oil wells and 72 percent of oil production from stripper wells were in Weld County. In addition, 87 percent of the gas stripper wells were located in five counties (Garfield, Las Animas, Rio Blanco, Weld, and Yuma), with those five counties producing 87 percent of the gas from stripper wells. Therefore, if the Stripper Well Exemption was repealed and operators plugged or shut in their wells, these counties could potentially be the most impacted in terms of decreases in local property tax revenue. Additionally, if

stripper wells were shut in or plugged, this would reduce payments to royalty interest owners, many of whom are landowners in rural areas of the state.

ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES?

We examined the state tax laws of the 32 other states (excluding Colorado) with a severance tax on oil and gas and found that about half of them offer a severance tax expenditure for stripper wells. However, there is significant variation in the type of incentives offered and the maximum daily production a well may yield in order to be considered a stripper well, ranging from 0.5 barrels of oil and 5 MCF of gas in West Virginia up to 100 barrels of oil in Florida and 250 MCF of gas in Louisiana. EXHIBIT 1.6 summarizes the types of incentives offered in other states.

**EXHIBIT 1.6.
OTHER STATES WITH SEVERANCE TAX INCENTIVES FOR STRIPPER WELLS**

Severance Tax Exemption for Stripper Wells	IL ¹ , KS, LA ¹ , ND, UT, WV, WY
Reduced Severance Tax Rate for Stripper Wells	AL, AR, FL, IL ¹ , LA ¹ , MI, MT, NE, NC, NM, OK
Severance Tax Credit for Stripper Wells	TX

SOURCE: Office of the State Auditor analysis of other states’ statutes, regulations, and taxpayer guidance.

¹ Illinois and Louisiana offer both an exemption and reduced rates for stripper wells depending on production levels and/or the prevailing price of oil or gas.

In six states (Kansas, Louisiana, Montana, New Mexico, Texas, and Wyoming), the incentive for stripper wells is dependent on the price of oil or gas. For example, in New Mexico, the reduced rate for stripper wells takes effect when oil and gas prices are at or below \$18 per barrel and \$1.35 per MCF, respectively, and in Louisiana, the exemption for oil stripper wells is only available if the value of oil is less than \$20 a barrel. In Texas, the amount of the credit for oil or gas stripper wells varies based on oil and gas prices, with larger credits being available when oil or gas prices are lower, and the credit not being available when oil and gas prices are over \$30 per barrel and \$3.50 per MCF, respectively.

ARE THERE OTHER TAX EXPENDITURES OR PROGRAMS WITH A SIMILAR PURPOSE AVAILABLE IN THE STATE?

We identified two similar tax expenditures that serve a similar purpose:

LOCAL PERSONAL PROPERTY TAX VALUATION OF STRIPPER WELL PROPERTY: For local property tax purposes, statute [Section 39-7-103, C.R.S.] provides that all surface oil and gas well equipment and submersible pumps and sucker rods are valued as personal property. To value equipment, the equipment can be classified as being in very good, average, or minimum condition. Equipment that is classified as being in minimum condition effectively gets taxed at a lower rate than equipment that is in very good or average condition. The Division of Property Taxation Assessor's Reference Library Personal Property Manual provides that equipment associated with stripper wells automatically be valued as being in minimum condition, thereby taxing it at a lower rate. To be classified as a stripper well for property tax purposes, a well must produce 10 barrels of oil or less per day or 60 MCF of gas or less per day.

FEDERAL INCOME TAX CREDIT FOR MARGINAL WELLS: Federal law [26 USC 45I] provides a federal income tax credit for wells that produce 15 barrels or less per day of oil or 90 MCF or less per day of gas when oil or gas prices reach certain low thresholds. The credit allowed is \$3 per barrel of oil or \$0.50 for each MCF of gas, but these amounts are subject to statutory reductions and adjustments for inflation that often reduce the benefit substantially. For example, the credit was available for gas wells in 2016, and the credit amount was \$0.14 per MCF after inflation and statutory reductions. The credit cannot be claimed for more than 1,095 barrels of oil or 6.57 million cubic feet of gas per well, though there is no limit on the number of wells for which the taxpayer may claim the credit. Additionally, the credit is not available until oil or gas prices decrease below \$18 per barrel and \$2 per MCF, adjusted for inflation, for oil and gas, respectively. The credit is not refundable, but may be carried back for 5 years and forward for 20 years. Because oil and gas prices must decrease below certain thresholds in order for the credit to be available, the credit is not available in most years.

WHAT DATA CONSTRAINTS IMPACTED OUR ABILITY TO EVALUATE THE TAX EXPENDITURE?

The Department was not able to provide us with data on the number of taxpayers that claimed the Stripper Well Exemption or the amount claimed. Therefore, we had to estimate the revenue impact of the exemption using Colorado Oil and Gas Conservation Commission (COGCC) data. As a result, our estimate may vary from the actual revenue impact of the exemption, and we could not determine how many taxpayers claimed it.

Oil and gas well operators must provide each interest owner with an Oil and Gas Withholding Statement (Form DR 0021W), which is the Department of Revenue form operators provide to the interest owners with the amount of their share of the gross income from oil and gas from that operator for the tax year. The operator indicates the interest owner's gross income attributable to stripper well production on Line 7 of the Oil and Gas Withholding Statement. Interest owners use the information on the Oil and Gas Withholding Statement to complete the Oil and Gas Severance Tax Return (Form DR 0021) and the accompanying Oil and Gas Severance Tax Computation Schedule (Form DR 0021D). Interest owners report gross income attributable to stripper well production in Column C of the Oil and Gas Severance Tax Computation Schedule. However, the Department does not capture data on the stripper well exemption from the Oil and Gas Severance Tax Computation Schedule in GenTax, its tax processing and information system. Additionally, only taxpayers that have gross income attributable to both stripper wells and non-stripper wells are required to file an Oil and Gas Severance Tax Return and the Oil and Gas Severance Tax Computation Schedule. Similarly, operators who only have production from stripper wells may not provide interest owners with the Oil and Gas Withholding Statement since they are not required to withhold taxes from stripper well gross income.

To address these limitations, the Department would need to capture and house data reported on the Oil and Gas Severance Tax Computation Schedule. Additionally, to collect complete data on the revenue impact and number of claimants of the Stripper Well Exemption, the Department would need to require interest owners with gross income only from stripper wells to file the Oil and Gas Severance Tax Return and the Oil and Gas Severance Tax

Computation Schedule. The Department would also need to require operators to provide interest owners with an Oil and Gas Withholding Statement even when no taxes are withheld because the operator only has stripper wells. These changes would create additional reporting requirements for interest owners and operators and could increase their administrative burden and compliance costs. Additionally, the Department would need to capture and house the data collected in GenTax, which would also require additional resources (see the Tax Expenditures Overview Section of the Office of the State Auditor's *Tax Expenditures Compilation Report* for additional details on the limitations of Department of Revenue data and the potential costs of addressing the limitations).

Furthermore, our revenue impact estimates are based on COGCC stripper well production and sales data. In January 2020, the Office of the State Auditor released an audit that found that many operators had either failed to submit monthly production reports or filed incomplete reports (see discussion at the end of the *What are the Economic Costs and Benefits of the Tax Expenditure?* section above). To the extent that some of the missing or incomplete well reports are missing production and sales data for stripper wells, our estimates would underestimate the revenue impact of the Stripper Well Exemption.

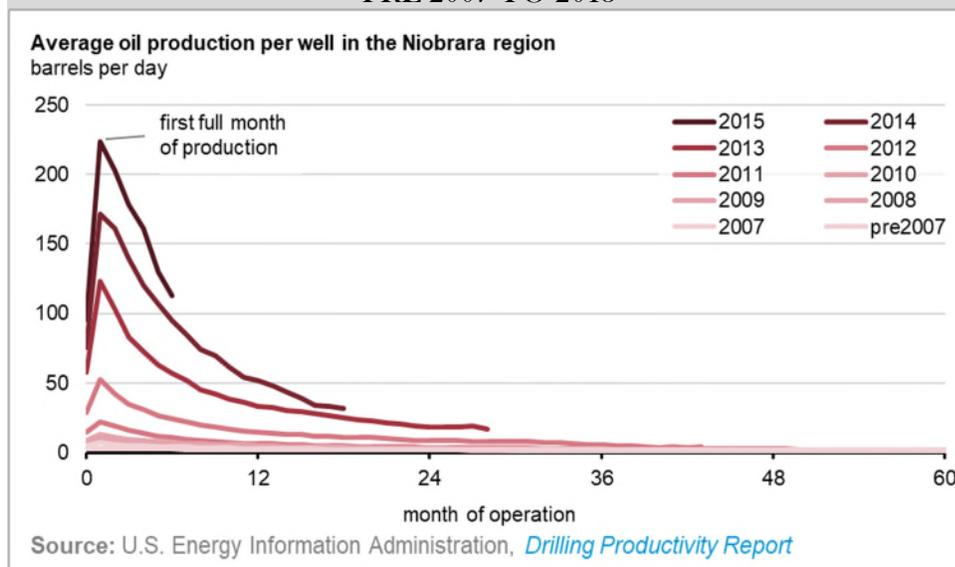
WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

THE GENERAL ASSEMBLY MAY WANT TO REVIEW WHETHER THE STRIPPER WELL EXEMPTION IS MEETING ITS INTENT DUE TO CHANGES IN THE ENERGY INDUSTRY SINCE IT WAS CREATED. Based on the historical context in which the exemption was created and legislative testimony, we inferred that its purpose was likely to provide tax relief to stripper wells, presumably to encourage continued production from these low-producing wells that might otherwise be plugged and abandoned. Additionally, in the 1970s there was an energy crisis, and at the time the bill was passed, legislators expressed concerns about dependency on foreign-produced oil and may have seen the exemption as a way of encouraging domestic production.

However, over at least the last 20 years, stripper wells have become a less significant source of oil production in the state and overall domestic energy

production has increased significantly. For example, according to Colorado Oil and Gas Conservation Commission data, oil production from stripper wells in Colorado, as a percentage of total production, decreased from about 28 percent in 1999 to 4 percent in 2018. According to information from the U.S. Energy Information Administration, this may be in part due to more cost-effective drilling technology deployed in a few states, including Colorado. As shown in EXHIBIT 1.7, the average new oil well in the Niobrara region, which is a group of oil fields mostly in northern Colorado and Wyoming, produces much more oil than previous wells drilled in the same area. This is mostly due to more productive technology, specifically hydraulic fracking and horizontal drilling, which increases well production.

EXHIBIT 1.7. AVERAGE DAILY PRODUCTION PER WELL IN THE NIOBRARA REGION PRE-2007 TO 2015¹



SOURCE: U.S. Energy Information Administration chart and data on average oil production per well.
¹ This chart is from 2016, so data beyond 2016 is not included in this chart. It should not be construed to show that production from each of the periods suddenly stopped.

Additionally, since 1977, the U.S. has significantly expanded the proportion of energy it produces domestically compared to the amount it consumes. Specifically, from 1977 to 2019, U.S. petroleum production, as a percentage of U.S. consumption, increased from 56 percent to 94 percent.

THE GENERAL ASSEMBLY COULD CONSIDER RESTRUCTURING THE STRIPPER WELL EXEMPTION SO THAT IT IS ONLY AVAILABLE WHEN OIL AND GAS PRICES ARE BELOW A CERTAIN THRESHOLD. As discussed, we found that the exemption is likely to be most effective when oil and gas prices are close to the costs of operating a stripper well. However, between 2011 and 2018, we found that this was the case for oil stripper wells for only 3 years, 2015 through 2017, and that gas prices remained well above the cost of operating a gas stripper well for the entire period. When prices, and therefore profit margins, are higher, it is more likely that operators will maintain production from stripper wells regardless of the tax benefit provided by the exemption, making the exemption less cost-effective in its purpose of encouraging continued production. To address this issue, the General Assembly could consider amending statute to limit the exemption to periods when the price of oil and gas falls below a certain threshold. Limiting a stripper well severance tax incentive is common in the states that offer a similar tax expenditure. We identified 17 other states with a severance tax expenditure for stripper wells, and in six (35 percent) of those states, the tax expenditure is only available if oil and/or gas prices are below certain prices. For example, in New Mexico, there is a reduced severance tax rate for stripper wells that takes effect when oil and gas prices are at or below \$18 per barrel and \$1.35 per MCF, respectively. In Louisiana, the exemption for oil stripper wells is only available if the value of oil is less than \$20 a barrel. Texas provides a severance tax credit for stripper wells, and the amount of the credit varies based on oil and gas prices, with larger credits being available when oil or gas prices are lower, and the credit not being available when oil and gas prices are over \$30 per barrel and \$3.50 per MCF, respectively.

Although this change could potentially increase revenue to the State, Colorado's severance tax Ad Valorem Credit, which allows taxpayers to claim a credit for 87.5 percent of the real property taxes assessed or paid on oil and gas to local governments, would likely offset a significant amount of this increase. As discussed above, we estimated that factoring in the impact from the Ad Valorem Credit, taxpayers could have owed about \$9.4 million in severance taxes in 2018 if the exemption was not available.