OIL AND GAS SEVERANCE TAX AD VALOREM CREDIT

EVALUATION SUMMARY

JULY 2020
2020-TE24

THIS EVALUATION WILL BE INCLUDED IN COMPILATION REPORT SEPTEMBER 2020

YEAR ENACTED	1977
REPEAL/EXPIRATION DATE	None
REVENUE IMPACT	$308.7 million (TAX YEAR 2018)
NUMBER OF TAXPAYERS	13,138
AVERAGE TAXPAYER BENEFIT	$23,495
IS IT MEETING ITS PURPOSE?	Yes, in some instances

WHAT DOES THIS TAX EXPENDITURE DO?

The Oil and Gas Severance Tax Ad Valorem Credit allows taxpayers to claim a credit of 87.5 percent of the ad valorem (real property) taxes assessed or paid to a local government on oil and gas produced to offset their severance tax liability.

WHAT IS THE PURPOSE OF THIS TAX EXPENDITURE?

We were not able to definitively identify the original intended purpose of the Ad Valorem Credit. Based on our conversations with stakeholders, for purposes of evaluating the credit, we inferred that the purpose is to equalize the combined severance and real property tax liabilities of oil and gas taxpayers.

WHAT DID THE EVALUATION FIND?

We found that the Ad Valorem Credit is meeting its inferred purpose of equalizing taxpayers' combined severance and real property tax liabilities for oil and gas wells in some areas of the state. Its equalizing effect is diminished for wells in areas of the state with large differences in property tax rates, with oil and gas production at wells in the highest taxed areas being subject to substantially higher combined real property and severance taxes even after the credit is applied.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

The General Assembly could consider reviewing whether the Ad Valorem Credit is meeting its intended purpose because:

- We were not able to definitively identify its original intended purpose.
- It is less effective at equalizing combined real property and severance taxes when properties are located in areas with relatively larger differences in mill levy rates.
- It contributes to state severance tax revenue being less predictable due to its operation.

OIL AND GAS SEVERANCE TAX AD VALOREM CREDIT

EVALUATION RESULTS

WHAT IS THE TAX EXPENDITURE?

In Colorado, owners of producing oil and gas wells are liable for taxes at both the local and state level. Local governments assess an ad valorem tax, also referred to as a property tax, on the oil and gas produced within their boundaries. In addition, the State assesses a severance tax, which is a form of excise tax, on the gross income from oil and gas extracted in the state.

The Oil and Gas Severance Tax Ad Valorem Credit [Section 39-29-105(2)(b), C.R.S.] (Ad Valorem Credit) allows taxpayers to claim a credit of 87.5 percent of the property taxes assessed or paid to a local government on oil and gas produced to offset their state severance tax liability. The Ad Valorem Credit is not refundable, which means that the credit can reduce a taxpayer's severance tax liability to $0 but cannot result in a refund. Additionally, the Ad Valorem Credit cannot be carried forward to future years or back to prior years. Taxpayers cannot claim the Ad Valorem Credit for property taxes assessed or paid on oil or gas from oil wells that produce 15 barrels or less of oil per day and gas wells that produce 90,000 cubic feet or less of gas per day (known as "stripper wells") since they are exempt from the severance tax.

Severance tax is paid to the State and imposed at the following progressive 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	MAXIMUM TAX
$1–$24,999.99	2%	$500
$25,000–$99,999.99	3%	$2,250
$100,000–$299,999.99	4%	$8,000
$300,000 and up	5%	Unlimited

SOURCE: Office of the State Auditor analysis of Section 39-29-105(1)(b), C.R.S.

The severance tax liability on gross income under $300,000 is $10,750 (calculated by adding $500 + $2,250 + $8,000), and any gross income of $300,000 and over is taxed at 5 percent. Therefore, for any gross income $300,000 and over, severance tax can be calculated as:

(GROSS INCOME - $299,999.99) X .05 + $10,750

The Colorado Constitution [Article X, Section 3] and statutes [Sections 39-7-101 and 102, C.R.S.] impose real property taxes on oil and gas produced, which are paid to local governments (e.g., counties, municipalities, districts) at mill levy rates established by each local government. The real property tax is calculated separately for each individual oil and gas well. Statute [Section 39-7-102(1), C.R.S.] provides that the real property tax be assessed on 87.5 percent of the value of oil and/or gas that was produced and transported away from each well head regardless of whether it was actually sold. This value is determined based on either the actual selling price of the oil or gas, or if it is not sold during the preceding calendar year, the selling price of oil and gas drawn from the same underground reservoir or geologically related reservoir. This is considered the "actual property value."

Oil and gas extraction that employs secondary or tertiary recovery methods or that are recycling projects that conserve and avoid waste of oil and gas are assessed on 75 percent instead of 87.5 percent. Secondary and tertiary recovery methods are more complicated than primary recovery methods and are generally more expensive to establish and operate, but allow for extraction of greater volumes of oil and gas.

To calculate the amount of real property taxes on oil and gas produced, the assessed value (i.e., 75 or 87.5 percent of the selling price of oil or gas) is multiplied by the local mill levy. Across Colorado's counties and other taxing jurisdictions (e.g., school districts, municipalities, special districts), there are thousands of mill levy rates, and oil and gas leases can be subject to several different mill levy rates because the wells can be located in or extend into more than one tax district.

A mill is equal to 1/1,000 of a dollar; to calculate the tax rate, the mills are divided by 1,000. This is then expressed as a percentage. For example:

100 MILLS = 100/1,000 = 10 PERCENT

EXHIBIT 1.2 demonstrates how the oil and gas real property taxes and Ad Valorem Credit are calculated.

EXHIBIT 1.2. CALCULATION OF OIL AND GAS REAL PROPERTY TAXES AND AD VALOREM CREDIT	
CALCULATION OF LOCAL REAL PROPERTY TAXES ON OIL AND GAS	
Value of Oil and Gas Sold and/or Produced and Transported Away in Preceding Calendar Year (Actual Property Value)	$1,000,000
x Assessment Rate (87.5% or 75%)	x 87.5%
= Assessed Property Value	= $875,000
x Local Mill Levy (Mills/1,000)	x 64 mills/1,000 (equivalent to a 6.4% rate)
= Oil and Gas Real Property Taxes	= $56,000
CALCULATION OF STATE AD VALOREM CREDIT	
Oil and Gas Real Property Taxes	$56,000
x 87.5% (Statutory Rate per Section 39-29-105(2)(b), C.R.S.)	x 87.5%
= Ad Valorem Credit	= $49,000
SOURCE: Office of the State Auditor analysis of Sections 39-7-102 and 39-29-105(2)(b), C.R.S.	

In this example, the taxpayer would have an Ad Valorem Credit of $49,000 to use to offset their severance tax liability.

The Ad Valorem Credit was enacted in 1977 with the same legislation [House Bill 77-1076] that enacted the current severance tax on oil and gas. House Bill 53-458 created the first substantial severance tax on oil and gas extraction in Colorado, and taxpayers were allowed a similar credit against their severance tax liability equal to 100 percent of the ad valorem taxes on oil and gas. Prior to 1953, there was a minimal severance tax on oil and gas that was used to fund conservation activities. In 1977, with House Bill 77-1076, the General Assembly repealed the existing oil and gas severance tax statute and created a new severance tax on oil and gas, which operated similarly to the previous tax. The General Assembly also decided to allow the Ad Valorem Credit for 87.5 percent of the oil and gas ad valorem taxes paid or assessed rather than 100 percent. In 1984, the General Assembly eliminated the Ad Valorem Credit for ad valorem taxes paid or assessed on stripper wells, which are exempt from severance tax. The credit has remained substantially unchanged since then.

Oil and gas interest owners and operators must coordinate to pay both real property and severance taxes 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. Operators are companies that operate the oil and gas wells and are typically interest owners in the wells that they operate. While real property tax is imposed on interest owners, according to staff from the Division of Property Taxation within the Department of Local Affairs, a CPA who works extensively with the oil and gas industry, and oil and gas operators, in practice, operators, rather than the interest owners, generally file the required declaration schedule with the county assessor in which the well is located and often handle the payment of oil and gas real property taxes on behalf of the interest owners.

Oil and gas severance tax is also imposed on the interest owners, who are responsible for claiming the Ad Valorem Credit. To facilitate this, operators must provide each interest owner with an Oil and Gas Withholding Statement (Form DR 0021W), which reports interest owners' share of the gross income and real property taxes eligible for the Ad Valorem Credit for oil and gas produced by that operator for the tax year. Interest owners use this information to complete their Oil and Gas Severance Tax Return (Form DR 0021) and the required accompanying schedule, Oil and Gas Severance Tax Computation Schedule (Form DR 0021D). Interest owners claim the Ad Valorem Credit on line 4 of the Oil and Gas Severance Tax Computation Schedule.

WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURE?

Statute does not explicitly state the intended beneficiaries of the Ad Valorem Credit. Because interest owners are liable for the oil and gas severance tax and eligible to claim the Ad Valorem Credit, we inferred that they are the intended direct beneficiaries of this credit. In addition, because the credit significantly lowers the effective severance tax rate, we inferred that it was also intended to benefit the oil and gas industry generally, including operators and employees of interest owners and operators.

WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

Statute does not explicitly state a purpose for the Ad Valorem Credit, and we were not able to definitively infer its original intended purpose. To assess the purpose, we reviewed the oil and gas severance tax statutes and the enacting legislation [House Bill 77-1076], and we listened to the testimony for House Bill 77-1076, but none of those sources clearly indicated the purpose of the Ad Valorem Credit. However, we also consulted with stakeholders, including staff at the Department of Natural Resources, a CPA that works extensively with the oil and gas industry, and oil and gas operators. These stakeholders generally have the consensus that, because the local property tax rates vary significantly across the state, the purpose of the Ad Valorem Credit is to equalize the combined severance and real property tax liabilities of oil and gas taxpayers for wells located in different parts of the state, which is consistent with its operation. Therefore, we evaluated the credit based on this inferred purpose.

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

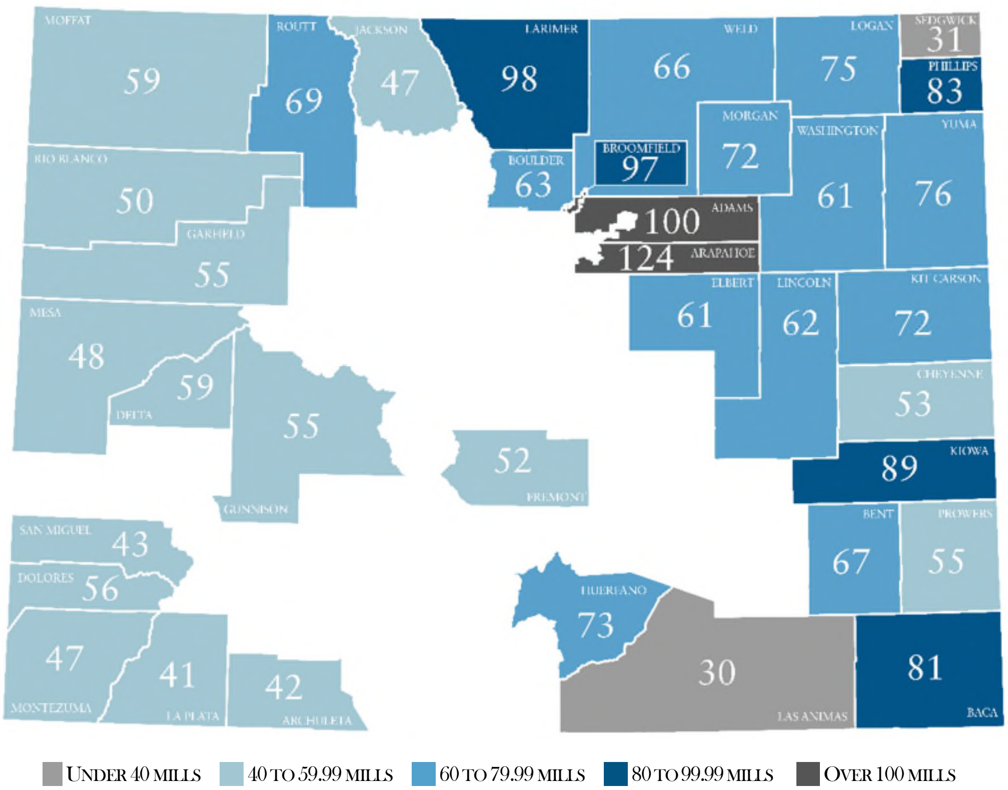
We found that the Ad Valorem Credit is meeting its inferred purpose of equalizing taxpayers' combined severance and real property tax liabilities for oil and gas wells in different areas of the state. However, its equalizing effect is diminished for wells in areas of the state with large differences in property tax rates, with oil and gas production at wells in the highest taxed areas being subject to substantially higher combined real property and severance taxes even after the credit is applied.

Statute does not provide quantifiable performance measures for this tax expenditure. Therefore, we evaluated the Ad Valorem Credit using the following performance measure that we created:

PERFORMANCE MEASURE: *To what extent does the Ad Valorem Credit equalize the combined real property and severance tax liabilities of oil and gas taxpayers across the state?*

RESULT: We found that mill levy rates can vary widely between local taxing jurisdictions, which results in large differences in the real property taxes due on oil and gas property in each county. Using Legislative Council Staff property tax data on every oil and gas property in the state, we calculated the total average local mill levy (weighted by assessed value) for oil and gas properties in each of the counties with oil and/or gas production. EXHIBIT 1.3 shows the total average combined local mill levy in each county, which includes mill levies for counties, municipalities, and special taxing districts, of all oil and gas properties for each county.

EXHIBIT 1.3. TOTAL 2018 AVERAGE LOCAL MILL LEVY FOR OIL AND GAS, WEIGHTED BY ASSESSED VALUE[1], IN EACH COUNTY WITH OIL AND/OR GAS PRODUCTION



SOURCE: Office of the State Auditor analysis of property tax data.
[1]The 2018 total average county mill levies are weighted by 2019 assessed property values because at the time of our analysis, 2019 mill levies had not yet been finalized. The dataset we had did not provide 2018 assessed values.

As shown in EXHIBIT 1.3, the total average local mill levy on oil and gas properties ranges from a low of just under 30 mills (which is a 3 percent tax rate) in Las Animas County to over 124 mills (12.4 percent tax rate) in Arapahoe County. On average, mill levies are lower in counties in the western part of the state than those located along the Front Range and in the northeastern part of the state.

To determine whether the Ad Valorem Credit equalizes taxpayers' combined real property and severance tax liabilities for wells in different areas of the state, we conducted three analyses to compare the combined real property and severance tax liabilities for hypothetical taxpayers. In the first analysis, we compared the tax liabilities of taxpayers in the 10 counties with the highest oil and/or gas production in 2018. In the second analysis, we compared taxpayers in the counties with the highest and lowest total combined average local mill levies: Las Animas County and Arapahoe County. For the third analysis, we compared taxpayers in the areas within Weld County with the highest and lowest total combined mill levy for oil and gas properties. We used Weld County in this third analysis because it is the county with the most oil and gas production in the state, and there are tax areas with significantly different mill levies within the county.

ASSUMPTIONS AND CALCULATIONS FOR ALL ANALYSES

- All taxpayers had $1 million in actual property value for real property tax purposes.
- The oil and gas was produced using primary recovery methods (i.e., the assessment rate is 87.5 percent).
- All taxpayers had $1.5 million in gross income for severance tax purposes, none of which is attributable to production from stripper wells.

Using these assumptions and the first item in EXHIBIT 1.4, Weld County at 66 mills, the calculations are (rounded to nearest thousand):

- **REAL PROPERTY TAX**

  Actual Value: $1,000,000

  Assessment Rate: 87.5%

  Assessed Value: $875,000 (calculated as $1,000,000 x 87.5%)

  Mill Levy: 6.6%

  Real Property Taxes: $58,000 (calculated as $875,000 x 6.6%)

- **SEVERANCE TAXES LIABILITY**

  Gross Income: $1,500,000

  Severance Tax Liability: $71,000 (calculated at ($1,500,000 - $299,999.99) x 5% +$10,750 (see PAGE 3))

- **AD VALOREM CREDIT:** $51,000 (Real Property Tax x 87.5%)

- **NET SEVERANCE TAX LIABILITY WITH CREDIT:** $20,000 (severance tax liability - ad valorem credit)

- **COMBINED REAL PROPERTY TAX AND SEVERANCE TAX LIABILITY WITH THE CREDIT:** $78,000 (Real Property Tax + Net severance tax liability)

- **COMBINED REAL PROPERTY TAX AND SEVERANCE TAX LIABILITY WITHOUT THE CREDIT:** $129,000

ANALYSIS #1: 10 COUNTIES WITH MOST OIL AND/OR GAS PRODUCTION

Overall, we found that the Ad Valorem Credit is generally effective at equalizing taxpayers' average tax liability for wells across the counties with the most oil and gas production. EXHIBIT 1.4 shows the average combined tax liability for hypothetical taxpayers operating in the 10 counties with the most oil and/or gas production in 2018 with and without the Ad Valorem Credit.

EXHIBIT 1.4. TEN LARGEST OIL AND/OR GAS PRODUCING COUNTIES WITH AND WITHOUT THE AD VALOREM CREDIT			
COUNTY	AVERAGE LOCAL MILL LEVY IN COUNTY (2018)	COMBINED REAL PROPERTY AND SEVERANCE TAX LIABILITY WITH THE AD VALOREM CREDIT	COMBINED REAL PROPERTY AND SEVERANCE TAX LIABILITY WITHOUT THE AD VALOREM CREDIT
Yuma	76 mills	$79,000	$138,000
Weld	66 mills	$78,000	$129,000
Moffat	59 mills	$77,000	$123,000
Dolores	56 mills	$77,000	$120,000
Garfield	55 mills	$77,000	$119,000
Rio Blanco	50 mills	$76,000	$115,000
Montezuma	47 mills	$76,000	$112,000
Archuleta	42 mills	$76,000	$108,000
La Plata	41 mills	$75,000	$107,000
Las Animas	30 mills	$74,000	$97,000
Difference Between the Highest and Lowest Combined Tax Liabilities[1]		$4,000 (5 percent)	$41,000 (35 percent)

SOURCE: Office of the State Auditor analysis of local mill levies and Ad Valorem Credit for 10 largest oil and gas producing counties.

[1]Percent difference calculated based on average of the highest and lowest combined tax liabilities.

As shown, although there is some variation in taxpayers' average combined real property and severance tax liabilities in these counties, the Ad Valorem Credit narrows what would otherwise be a large difference in tax liability between the counties with the highest and lowest tax, from 35 percent to 5 percent. Among the 10 counties with the most oil and/or gas production, on average, there is a difference of about 46 mills between the county with the highest total average mill levy (Yuma County) and the lowest total average mill levy (Las Animas County) and the credit is more effective when the difference in mill levies is near this range or below.

ANALYSIS #2: HIGHEST AND LOWEST MILL LEVIES

The Ad Valorem Credit is less effective at equalizing the combined real property and severance tax liabilities for taxpayers across counties when there is a large difference in mill levy rates. EXHIBIT 1.5 shows the results of our analysis of hypothetical taxpayers operating in Arapahoe and Las Animas Counties, which were the counties with the highest and lowest total average combined local mill levies in 2018, respectively, with and without the Ad Valorem Credit. On average, there is a difference of about 94 mills between these two counties, including mill levies in all local taxing jurisdictions.

EXHIBIT 1.5. COUNTIES WITH THE HIGHEST TOTAL AVERAGE MILL LEVY AND LOWEST TOTAL AVERAGE MILL LEVY

County	Combined Real Property and Severance Tax Liability With the Ad Valorem Credit	Combined Real Property and Severance Tax Liability Without the Ad Valorem Credit
Arapahoe (124 mills)	$109,000	$180,000
Las Animas (30 mills)	$74,000	$97,000
Difference Between the Combined Tax Liabilities[1]	$35,000 (38 percent)	$83,000 (60 percent)

SOURCE: Office of the State Auditor analysis of local mill levies and Ad Valorem Credit for the counties with the highest and lowest total average mill levy.
[1]Percent difference calculated based on average of the highest and lowest combined tax liabilities.

As shown, there is a substantial difference in the combined tax liability for these counties even when the credit is applied, though the credit reduces this difference substantially, from 60 percent to 38 percent.

Analysis #3: Large Mill Levy Differences Within The Same County

Within counties, there can also be significant variation in the total mill levies that are applicable to different properties. This happens because properties in different locations in a county may be within the jurisdiction of a variety of different local taxing districts (e.g., metropolitan districts, school districts, fire districts, municipal districts), and some properties may be within more local taxing jurisdictions, or higher-taxing local jurisdictions, than another similar property. For example, in Weld County, which is the county with the most oil and gas production in the state, the lowest total mill levy that applied to an oil or gas property in 2018 was about 34 mills (3.4 percent rate) and the highest was nearly 248 mills (24.8 percent rate), which is a difference of 214 mills.

We found that similar to counties with large combined mill levy differences, the Ad Valorem Credit is less effective at equalizing tax liability for taxpayers across taxing jurisdictions within counties. EXHIBIT 1.6 shows the results of our analysis of hypothetical taxpayers operating in the highest and lowest tax areas in Weld County with and without the Ad Valorem Credit.

EXHIBIT 1.6. HIGHEST AND LOWEST TAX AREAS IN WELD COUNTY WITH AND WITHOUT THE AD VALOREM CREDIT

COUNTY	COMBINED REAL PROPERTY AND SEVERANCE TAX LIABILITY WITH THE AD VALOREM CREDIT	COMBINED REAL PROPERTY AND SEVERANCE TAX LIABILITY WITHOUT THE AD VALOREM CREDIT
Weld–248 mills	$217,000	$288,000
Weld–34 mills	$75,000	$101,000
Difference Between Combined Tax Liabilities[1]	$142,000 (97 percent)	$187,000 (96 percent)

SOURCE: Office of the State Auditor analysis of local mill levies and Ad Valorem Credit for the tax areas in Weld County with the highest and lowest total mill levies.
[1]Percent difference calculated based on average of the highest and lowest combined tax liabilities.

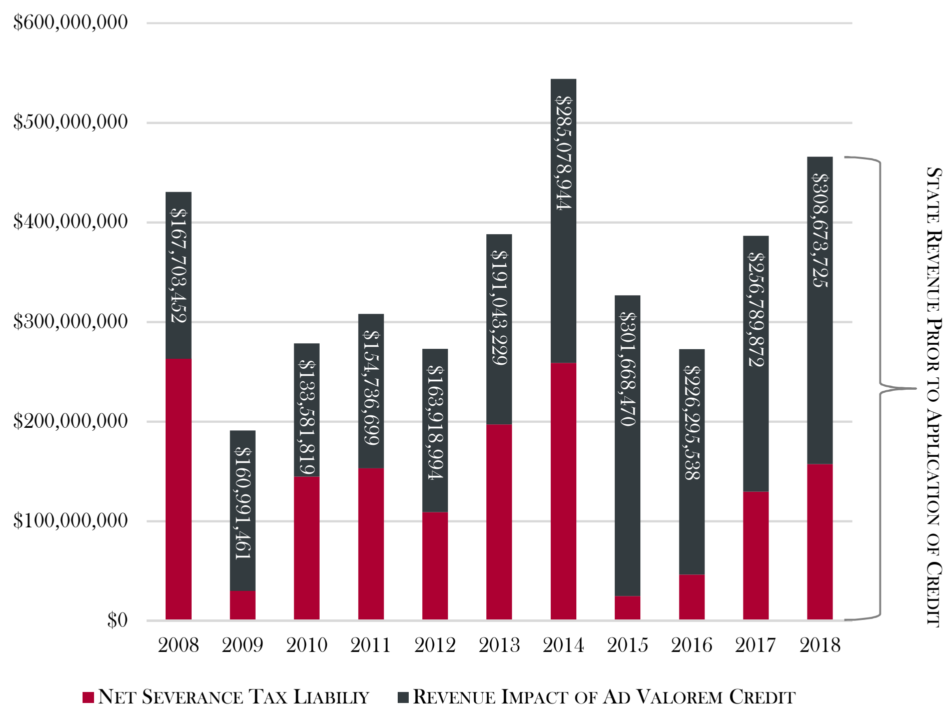
As shown, the Ad Valorem Credit does not effectively equalize the tax liability between taxpayers operating in the areas with the highest and lowest combined mill levy rates, with a 97 percent difference in the combined real property and severance tax liabilities.

As shown in both Analysis 2 and 3, the Ad Valorem Credit is less effective at equalizing taxpayers' combined real property and severance tax liabilities for wells operating in a county or area with a high combined local mill levy compared to a taxpayer operating in an area with a much lower mill levy. This occurs because 87.5 percent of the average real property tax in the highest tax areas substantially exceeds the average severance tax in these areas, meaning that taxpayers in these areas completely offset their severance tax liability without being able to apply the full value of the Ad Valorem Credit. However, the credit still has the effect of lowering the taxpayers' overall tax liability for wells operating in high local tax jurisdictions and thus, reducing the difference between their tax liability and the tax liability of a taxpayer operating in a lower local tax jurisdiction.

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

According to Department of Revenue data, the Ad Valorem Credit resulted in approximately $308.7 million in foregone revenue to the State in Tax Year 2018. The revenue impact of the Ad Valorem Credit and the severance tax liability after the Ad Valorem Credit has been applied to oil and gas taxpayers from 2008 to 2018 are presented in EXHIBIT 1.7.

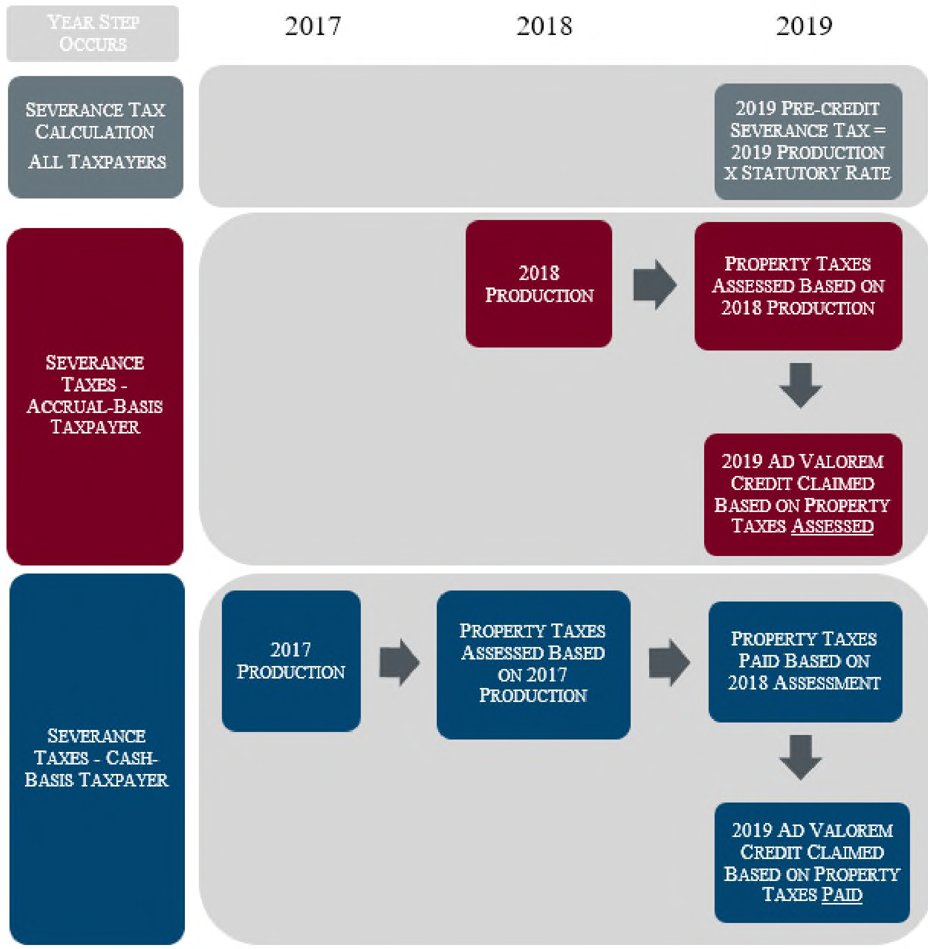
EXHIBIT 1.7. AD VALOREM CREDIT REVENUE IMPACT AND NET OIL AND GAS SEVERANCE TAX LIABILITY 2008 THROUGH 2018



SOURCE: Office of the State Auditor analysis of Department of Revenue data.

As shown in EXHIBIT 1.7, both the revenue impact of the Ad Valorem Credit and severance tax collections are volatile. Real property taxes on oil and gas, which are what the Ad Valorem Credit is based on, and severance taxes are inherently volatile because they are based on production and market prices, which can both fluctuate substantially from year-to-year. Additionally, there is a misalignment between the production year taxpayers must use to calculate the Ad Valorem Credit and the production year they use to determine their severance tax liability, which further contributes to the volatility of severance taxes. This misalignment occurs because local governments assess real property taxes on oil and gas based on the previous year's production value and require payment in the year following the assessment. Depending on taxpayers' accounting procedures this can create a 1- or 2-year misalignment between the production year the credit is based on and the production year the severance tax is based on. There is a 1-year misalignment for accrual-basis taxpayers (who for accounting purposes recognize income/expenses in the year earned/incurred, not necessarily paid) because they must claim the Ad Valorem Credit based on the real property taxes *assessed* (not yet paid) during the taxable year, and local governments base the assessment on the previous year's production. That is, for accrual-basis taxpayers, the assessment year for real property taxes must be the same as the taxable year for severance taxes. For cash-basis taxpayers (who recognize income/expenses in the year received/paid), there is a 2-year misalignment because these taxpayers must claim the credit based on real property taxes *paid* during the taxable year, which does not occur until the year after the assessment. Therefore, for cash-basis taxpayers, the payment year for real property taxes must be the same as the taxable year for severance taxes. This misalignment in the property tax production year used to calculate the Ad Valorem Credit and severance tax production/taxable year is illustrated in EXHIBIT 1.8.

EXHIBIT 1.8. 1- AND 2-YEAR MISALIGNMENTS BETWEEN THE PRODUCTION YEARS USED TO CALCULATE THE AD VALOREM CREDIT AND SEVERANCE TAXES



SOURCE: Office of the State Auditor analysis of property tax and severance tax statutes.

EXHIBIT 1.9 provides three example scenarios to illustrate the potential impact of the misalignment between the production years used to determine the value of the Ad Valorem Credit and taxpayers' severance tax liability. The examples assume a cash basis taxpayer with $1 million of actual oil and gas property value in 2017 in a local tax jurisdiction with a property tax rate of 65 mills and show how the severance tax is calculated under a scenario in which actual property tax value and gross income increases from 2017 to 2019, another for which it stays the same, and one for which it decreases. These calculations do not account for every factor that is considered in the real property tax calculation, but are meant to provide a general picture of how the process used to calculate the Ad Valorem Credit contributes to differing severance tax liabilities in future years.

EXHIBIT 1.9. AD VALOREM CREDIT SCENARIOS FOR A CASH-BASIS TAXPAYER			
	SCENARIO 1: INCREASING PRODUCTION VALUE	SCENARIO 2: STEADY PRODUCTION VALUE	SCENARIO 3: DECREASING PRODUCTION VALUE
2018 Actual Property Value (Based on 2017 production value)[1]	$1,000,000	$1,000,000	$1,000,000
2018 Estimated Property Tax	$56,875	$56,875	$56,875
2019 Severance Tax Gross Income	$3,000,000	$1,000,000	$500,000
2019 Severance Tax on Income	$145,750	$45,750	$20,750
Ad Valorem Credit Available	$49,766	$49,766	$49,766
Ad Valorem Credit Applied	$49,766	$45,750[2]	$20,750[2]
2019 Severance Tax Liability	$95,984	$0	$0

SOURCE: Office of the State Auditor analysis of application of the Ad Valorem Credit.

[1] 2018 actual property value is based on 2017 production value because, per statute [Section 39-7-102, C.R.S.], oil and gas value for property tax purposes is based on production from the preceding calendar year.

[2] The Ad Valorem Credit is not refundable, which means that the credit can reduce the taxpayer's severance tax liability to $0 but does not generate a refund. In Scenarios 2 and 3, the taxpayer would only be able to apply the Ad Valorem Credit to the extent of their 2019 severance tax on income ($45,750 and $20,750, respectively) There is also no carryforward or carryback on the Ad Valorem Credit so the amount in excess of the severance tax cannot be applied to previous or future years' severance tax liabilities.

As shown, when the production value of oil and/or gas fluctuates between production years, which can occur due to changes in market price or the amount produced, used to calculate real property and severance taxes, the Ad Valorem Credit can have a significant impact on severance tax liabilities and thus, revenue for the State.

Additionally, mill levies are set by local governments. Therefore, when local governments raise or lower their mill levies, a decision the State has no control over, the revenue impact of the Ad Valorem Credit will also increase or decrease. Based on Legislative Council property tax data, it is likely that most of the revenue impact of the Ad Valorem Credit is attributable to oil and gas production in Weld County, so mill levy changes in this county would currently have the greatest impact on state severance tax revenue.

WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURE HAVE ON BENEFICIARIES?

If the Ad Valorem Credit were eliminated, it would result in taxpayers being unable to claim a credit against their severance taxes to offset local oil and gas property taxes and thus, having a significantly higher severance tax liability. Eliminating the credit would have increased severance tax liabilities in Tax Year 2018 by approximately $308.7 million, which would be an increase of 196 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.

Additionally, it could put interest owners with oil and gas wells in areas with high local property taxes at a competitive disadvantage because they would have a higher combined real property and severance tax liability than oil and gas interest owners with wells in areas with lower local property taxes. Oil and gas producers in the United States are generally price-takers, which means that they have little to no influence over the price at which they can sell their product because the price is set by the global market. Therefore, operators in Colorado likely could not increase the selling price of their oil or gas to cover the increased tax liability if the Ad Valorem Credit were eliminated. This could make the operation of some wells no longer cost effective, depending on the production costs of the wells, and decrease oil and gas production in the state, which would reduce both severance and property tax revenue.

Stakeholders, specifically oil and gas operators as well as a CPA that works with oil and gas operators and interest owners, reported that the Ad Valorem Credit is very important to the oil and gas industry in Colorado. Several stakeholders reported that if the credit were eliminated, it would result in some oil and gas operators ceasing production in the state, particularly those operating in the Denver-Julesburg Basin, which covers most counties in the northeastern corner of the state, where real property taxes are higher than in other areas of the state. Stakeholders reported that eliminating the Ad Valorem Credit would result in their overall tax burden being too high to absorb.

If some operators stopped producing oil and gas in the state, it could result in reductions in property tax revenue to local governments. For example, in 2018, according to the Division of Property Taxation's Annual Report, oil and gas property made up 58 percent of total taxable property value in Weld County, 55 percent in Garfield County, and 55 percent in Montezuma County, which were the three counties with the most oil and/or gas production in 2018. However, since local governments set local mill levies, they would have the option of lowering their mill levies in an attempt to retain the oil and gas industry in their area.

Because eliminating the Ad Valorem Credit would increase taxes on oil and gas production, it could also make Colorado relatively less attractive than other states for oil and gas production. A report published in 2018 by RegionTrack, an Oklahoma-based economic research firm that specializes in regional economic forecasting and analysis, provides an analysis of the effective tax burden of the oil and gas industry in major energy-producing states, including Colorado and its eight peer states (Kansas, Montana, New Mexico, North Dakota, Oklahoma, Texas, Utah, and Wyoming), which we defined as those that (1) produce the same types of mineral resources as Colorado and (2) are located in the western part of the United States. Their analysis found that in Fiscal Year 2016, Colorado had the highest effective oil and gas property tax rate (5.4 percent) of all of the eight peer states included in the analysis and the lowest effective severance tax rate (1 percent) on oil and gas. The report attributed Colorado's low effective severance tax rate to the Ad Valorem Credit. In terms of combined effective property and severance tax rates, Colorado had a lower combined effective property and severance tax rate than five of its eight peer states, which had combined effective tax rates ranging from 10.6 percent in New Mexico to 3.5 percent in Utah. EXHIBIT 1.10 summarizes the effective severance, property, and combined property and severance tax rates reported in RegionTrack's analysis for Colorado and its eight peer states.

EXHIBIT 1.10. EFFECTIVE SEVERANCE, PROPERTY, AND COMBINED SEVERANCE AND PROPERTY TAX RATES FOR COLORADO AND ITS EIGHT PEER STATES AS CALCULATED BY REGIONTRACK FISCAL YEAR 2016

State	Effective Severance Tax Rate[1]	Effective Property Tax Rate	Effective Combined Severance and Property Tax Rate
Colorado	1.0%	5.4%	6.4%
Kansas	2.1%	3.3%	5.4%
Montana	9.6%	0.4%	10.0%
New Mexico	8.6%	2.0%	10.6%
North Dakota	9.5%	0%	9.5%
Oklahoma	2.9%	1.4%	4.2%
Texas	3.6%	3.5%	7.1%
Utah	1.2%	2.3%	3.5%
Wyoming	5.5%	4.6%	10.1%

Source: Office of the State Auditor analysis of RegionTrack's 2018 report titled *Oklahoma Oil and Gas Industry Taxation: Comparative Effective Tax Rates in the Major Energy Producing States.*

[1] The effective severance tax rate on oil and gas in Colorado can vary from year-to-year due to the volatility in severance taxes and timing of the Ad Valorem Credit.

As shown, although Colorado had the highest effective property tax rate among its peer states, many of its peer states had a higher combined effective property and severance tax rate. Additionally, RegionTrack's report points out that the oil and gas industry also pays other state and local taxes such as sales and income taxes, which increase its overall tax burden, but are not included in the effective tax rates included in EXHIBIT 1.10. A 2014 analysis by the Colorado Legislative Council found that among its eight peer states, in Fiscal Year 2011, Colorado had the second lowest effective tax rate when considering severance/mineral production, property, sales, and corporate income taxes.

ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES?

We found that the Ad Valorem Credit is an uncommon provision among states with an oil and gas severance tax. Specifically, we searched the statutes of the 32 other states (excluding Colorado) with a severance tax on oil and gas and identified only two other states with a similar severance tax credit for property taxes—Kansas and Oregon. In Kansas, if a taxpayer who owes severance taxes on oil or gas is also liable for oil or gas property taxes, the taxpayer may claim a severance tax credit equivalent to 3.67 percent of the gross value of the oil or gas severed and taxable. In Oregon, a taxpayer may claim a severance tax credit for 100 percent of the property taxes imposed on oil and gas, including on some oil and gas equipment. However, both Kansas and Oregon have significantly less oil and gas production than Colorado, and therefore the impacts of their credits are likely less significant to overall state revenue. In 2017, Kansas produced about 27 percent of the oil and 13 percent of the natural gas that Colorado did. Oregon does not have oil production, and in 2017, its gas production was less than 1 percent of Colorado's gas production.

Additionally, we identified at least six states (Alabama, Michigan, Mississippi, North Dakota, Oklahoma, and Tennessee) that impose severance tax in lieu of property tax on oil and gas. Specifically, these states' statutes either exempt oil and gas from property tax when a severance tax is imposed or state that the severance tax is imposed in lieu of all other taxes on oil and gas.

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

By Department of Revenue rule [1 CCR 201-10, Rule 39-29-102(3)(a)], personal property taxes on equipment, machinery, and real property improvements used in manufacturing, processing, or transportation of oil and gas are deductible when determining oil and gas severance tax gross income under the Oil and Gas Severance Tax Deduction for Transportation Costs and the Oil and Gas Severance Tax Deduction for Manufacturing and Processing Costs [Section 39-29-102(3)(a), C.R.S.]. Taxpayers are not allowed to claim the Ad Valorem Credit for these personal property taxes.

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

We did not identify any data constraints during our evaluation of the Ad Valorem Credit.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

THE GENERAL ASSEMBLY MAY WANT TO REVIEW WHETHER THE AD VALOREM CREDIT IS MEETING ITS INTENDED PURPOSE. We found that the credit is generally effective at equalizing taxpayers' average combined property and severance taxes for oil and gas wells across the counties with the highest oil and gas production in the state. The credit also substantially reduces oil and gas interest owners' overall tax liability, and according to stakeholders, is an important support for the industry. However, the combined local real property taxes (including counties, municipalities, and districts) can vary widely and the credit is less effective at equalizing the combined tax when there is a large difference in local property tax rates, particularly in areas with the highest rates.

We also found that the Ad Valorem Credit contributes to the State's severance tax revenue being less predictable. As discussed, the Ad Valorem Credit available to taxpayers and their severance tax liability in a given year are not based on the same production year, with the credit amount being misaligned with the severance tax liability by 1 or 2 years depending on taxpayers' accounting procedures. This can cause wide variations in the value of the credit relative to the amount of severance taxes owed by taxpayers from year-to-year, since oil and gas production and prices are often not stable over time. In addition, because the credit effectively reimburses taxpayers for local real property taxes by reducing their state severance tax liability, the State has less control over and ability to predict its severance tax revenue, with revenue decreasing if local taxing jurisdictions choose to increase their property tax rates.

The Department of Revenue also reported that the application of the Ad Valorem Credit is the most problematic aspect of severance tax returns and frequently contributes to taxpayer noncompliance. The Department of Revenue found that taxpayers misapplied the credit in 11 of the 13 oil and gas severance tax audits that it completed during Calendar Years 2016 through 2018 where the taxpayers had claimed the credit. For example, taxpayers miscalculated the value of the credit available by either (1) using the wrong production year, which as noted above, is not the same as the severance tax production year and can vary based on taxpayers' accounting procedures, or

(2) including real property taxes paid on stripper wells in their credit, which are not allowed to be included since stripper wells are exempt from severance tax.

As discussed, although we inferred, based on information we received from stakeholders, that the credit is intended to equalize taxpayers' combined real property and severance tax burden for wells in different areas of the state, there is no clear purpose stated in statute or indicated in the available legislative history of the credit. Given this uncertainty and the credit's significant impacts, the General Assembly may want to assess whether the credit is meeting its intent and amend statute to clarify its intended purpose, including performance measures and goals, to facilitate future evaluations.

If the General Assembly determines that the credit is not meeting its intent, it may want to consider severance tax provisions in other states. Based on our review of the 32 other states that assess a severance tax on oil and gas production, only two offer a credit based on property taxes. In Kansas, which offers a credit similar to the Ad Valorem Credit, the credit's impact on State revenue may be more predictable because taxpayers' calculate the credit value as a flat 3.67 percent of the gross value of oil and gas severed and taxable, which is Kansas' severance tax base, each year (if they operate in an area of the state with a property tax). In comparison, the value of Colorado's Ad Valorem Credit averaged 3.1 percent of net gross oil and gas severance income from Tax Year 2008 through 2018, but ranged widely, from 1.9 percent in 2008 to 4.5 percent in 2015.

In the other 30 states that impose an oil and gas severance tax, we did not identify other provisions in place that attempt to equalize combined property and severance tax rates across different areas of the state, so Colorado would be more consistent with other states regarding severance taxes if it eliminated the credit. However, of the states that do not offer a credit, we identified at least six that impose severance tax in lieu of property tax on oil and gas. Specifically, these states' statutes either exempt oil and gas from property tax when a severance tax is imposed or state that the severance tax is imposed in lieu of all other taxes on oil and gas. However, only two of these states (Oklahoma and North Dakota) are large oil and gas producing states.

Because Colorado has higher than average property tax rates on oil and gas than most states, eliminating the credit would result in a significant increase in severance tax liability for oil and gas interest owners ($308.7 million in Tax Year 2018). Therefore, if the General Assembly eliminated the credit, it may also want to consider other changes, such as adjustments to the severance tax rate to account for differences between Colorado and other states to ensure that the State's effective severance tax rate aligns with its intent.