

Spring 2019
Revenue Forecast

Spring 2019
Revenue Forecast

Department of Revenue
Bruce Tangeman, Commissioner

Tax Division Contacts

Colleen Glover, Director
(907) 465-8221
Colleen.Glover@alaska.gov

Brandon Spanos, Deputy Director
(907) 269-6736
Brandon.Spanos@alaska.gov

Dan Stickel, Chief Economist
(907) 465-3279
Dan.Stickel@alaska.gov

David Herbert, Revenue Sources Book Co-Editor
Petroleum Economist
(907) 269-1024
David.Herbert@alaska.gov

Ria Hanson, Revenue Sources Book Co-Editor
Economist
(907) 269-1025
Maria.Hanson@alaska.gov

Contacts for Specific Topics

Alaska Permanent Fund:
Valerie Mertz, Chief Financial Officer
Alaska Permanent Fund Corporation
(907) 796-1530
VMertz@apfc.org

Investment Revenue and
Constitutional Budget Reserve Fund:
Ryan S. Williams, Operations Research Analyst
Department of Revenue, Treasury Division
(907) 465-2893
Ryan.Williams@alaska.gov

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Revenue
COMMISSIONER'S OFFICE

State Office Building
333 Willoughby Avenue, 11th Floor
P.O. Box 110400
Juneau, Alaska 99811-0400
Main: 907.465.2300
Toll free tax: 888.224.4538

March 15, 2019

The Honorable Michael J Dunleavy
Governor
State of Alaska
P.O. Box 110001
Juneau, Alaska 99811-0001

Dear Governor Dunleavy,

I am pleased to present to you the Department of Revenue's Spring 2019 revenue forecast. The 2019 spring forecast is based on additional information and data received since publishing last fall's forecast of state revenues. This update is a collaborative effort among the Department of Revenue and several other state agencies.

Unrestricted General Fund (UGF) revenue is now forecast to be $2.7 billion in fiscal year FY 2019 and $2.3 billion in FY 2020. The forecast does not include the transfer from the Permanent Fund Earnings Reserve. The Permanent Fund is expected to transfer $2.7 billion to the general fund in FY 2019 and $2.9 billion in FY 2020. These amounts include funds for both payment of dividends and general government spending.

The forecast represents a decrease in expected UGF revenue of $89 million for FY 2019 and an increase of $39 million for FY 2020, compared to the projection in the fall 2018 forecast. Beyond FY 2020, the unrestricted revenue forecast has been decreased by between $50 million and $100 million per year for FY 2021-2028.

The revenue forecast is based on an annual Alaska North Slope (ANS) oil price of $68.90 per barrel for FY 2019 and $66.00 for FY 2020. Based on a review of oil market fundamentals, the department chose not to revise its view on long term oil price since the fall forecast. Long term, we continue to expect oil prices to stabilize in the low $60's in real terms.

The revenue forecast is also driven by an expectation for North Slope oil production to average 511,500 barrels per day in FY 2019 and increasing to an average of 529,500 barrels per day in FY 2020. The production forecast is prepared in collaboration with the Department of Natural Resources and reflects an updated assessment on future production which slightly adjusted production expectations for the next several years.

I hope you find the information provided in the spring 2019 forecast to be interesting and useful. We look forward to providing you with the next full forecast in the fall of 2019.

Sincerely,

Bruce Tangeman
Commissioner

Contents

Executive Summary 2
Forecast Tables 4
Table 1-1: Current Year Revenue Subject to Appropriation, FY 2018 and FY 2019-2028 Forecast 4
Table 2-1: Total State Revenue, by restriction and type 5
Table 2-2: Unrestricted General Fund Revenue, by type and detail 6
Table 2-3: Restricted Revenue, by type and category 8
Table 2-5: Total Unrestricted General Fund Revenue, FY 2017 and FY 2018-2027 Forecast 10
Table 4-4: ANS Oil & Gas Production Tax Data Summary 11
Table 8-4: Historical Production Tax Credits and Forecast Detail, FY 2009-2028 12
Table A-3: Petroleum Revenue, by restriction and type 14
Table B-2: Price Difference, Fall 2018 forecast and Spring 2019 forecast 16
Table C-1: Production Difference, Fall 2018 forecast and Spring 2019 forecast 17

Executive Summary

General Discussion

The spring forecast is an annual update of the revenue forecast published in the preceding fall, for use by the Governor, the Alaska Legislature, and the Alaska public. This update is a collaborative effort by the Department of Revenue, the Department of Natural Resources (DNR), the Alaska Permanent Fund Corporation, and the Office of Management and Budget.

State revenue comes from four major sources:

1) Petroleum revenue; 2) Non-petroleum revenue from sources such as taxes, charges for services, licenses and permits, fines and forfeitures; 3) Federal revenue; and 4) Investment revenue, primarily from the Alaska Permanent Fund and the Constitutional Budget Reserve Fund (CBRF).

Unrestricted general fund (UGF) is estimated to be $2.7 billion for FY 2019 and $2.3 billion for FY 2020. The transfer from the Permanent Fund Earnings Reserve, as authorized by the enactment of SB 26 in 2018, will be $2.7 billion in FY 2019 and $2.9 billion in FY 2020. The amounts transferred in each fiscal year are for both payment of Permanent Fund Dividends and for general government spending.

This spring forecast reflects a change in expected UGF revenue compared to the fall 2018 forecast, with projected UGF revenue reduced by $89 million for FY 2019 and increased by $39 million for FY 2020. Revenue projections for the remainder of the forecast years have been lowered, with reductions ranging between $50 million and $100 million per fiscal year.

The spring revenue forecast is based on an increased average Alaska North Slope (ANS) oil price forecast of $68.90 per barrel for FY 2019, up from the $67.96 per barrel ANS price forecast incorporated into in the fall 2018 forecast. The revised FY 2019 ANS oil price forecast is based on actual ANS oil prices for July through February, and monthly prices averaging $67.00 for March through June, consistent with current futures market prices. Nominal per-barrel ANS prices are now expected to average $66.00 in both FY 2020 and FY 2021, then gradually increase to $77.00 by FY 2028, as a result of inflation.

The spring forecast for ANS crude oil production revises the expected production levels in FY 2019 from 526,800 barrels per day to 511,500 barrels per day, based on lower-than-expected production over the past several months. The revised forecast reflects eight months of actual daily production levels, as well as revised production estimates for the remainder of the fiscal year. ANS production is forecast to average 529,500 barrels per day in FY 2020, decline to 469,100 barrels per day in FY 2024, and then begin increasing again to 500,600 barrels per day by FY 2028. The spring production forecast was compiled by DNR using the same method as was used for the fall 2018 production forecast.

Expenditures for cash repurchase of tax credits, whether through appropriation or bonding, are separately estimated and not included in revenue numbers presented in the forecast. In FY 2018, the state purchased $75 million in tax credits through the Oil and Gas Tax Credit Fund (AS 43.55.028) and purchased an additional $103 million in FY 2019. The statutory appropriation to the Oil and Gas Tax Credit Fund for FY 2020 credit purchases is forecast to be $181 million for FY 2020. Therefore, it is estimated that $181 million in tax credits will be repurchased in FY 2020. For FY 2021, an estimated $611 million in tax credits will be available for state repurchase, with the majority of these being credits earned in prior years.

In FY 2018, total state revenue from all sources amounted to an estimated $12.4 billion. Total state revenue for FY 2019 is expected to decrease to $11.5 billion, due primarily to the performance of the Alaska Permanent Fund and other investments returning closer to historical levels than they did in FY 2018. In FY 2020, total state revenue is forecast to be $11.0 billion.

In addition to unrestricted and restricted revenue, the department also provides information on current-year revenue subject to appropriation, as this provides an accurate depiction of the state's ability to meet its obligations to outside analysts who may not be familiar with Alaska's budget conventions. In addition to unrestricted revenue, "current-year revenue available for appropriation" also includes designated general fund revenue, earnings of the CBRF, various royalty and tax deposits to the Constitutional Budget Reserve, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund. Current-year revenue subject to appropriation is estimated at $6.0 billion for both FY 2019 and FY 2020.

Forecast Method Notes

The FY 2018 historic numbers in this document have been updated from the *Fall 2018 Revenue Sources Book* to reflect the latest available information about actual expenditures and collections.

When comparing forecasts provided by the department, numbers may vary between analyses, even if they came from the same data source. This can happen for many reasons and does not necessarily discount other analyses, nor should it be considered an error.

One example is in petroleum revenue forecasting, where results can differ depending on whether the department uses confidential company-specific data or statewide aggregated summary data. Another instance where differences can occur is in how uncertainty is incorporated. Depending on the analysis, uncertainties can be addressed by applying risk factors to the data, incorporating probability into the analysis and results, or providing narrative disclaimer about the uncertainty.

Therefore, even though all the department's models start with the same set of data, the results can differ depending on the aggregation of data and the handling of uncertainty.

Table 1-1: Current Year Revenue Subject to Appropriation, FY 2018 and FY 2019-2028 Forecast

($ millions)

	History	Forecast									
Fiscal Year	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Petroleum Revenue											
Unrestricted General Fund	1,940.2	2,135.5	1,754.9	1,699.9	1,658.5	1,653.8	1,632.3	1,620.9	1,738.9	1,833.1	2,005.5
Royalties to Alaska Permanent Fund beyond 25% dedication [1]	0.0	0.0	67.4	62.1	60.1	63.5	67.5	75.3	89.7	105.1	120.7
Tax and Royalty Settlements to CBRF [2]	121.3	125.0	150.0	125.0	100.0	75.0	50.0	50.0	50.0	50.0	50.0
Subtotal Petroleum Revenue	**2,061.5**	**2,260.5**	**1,972.3**	**1,887.0**	**1,818.6**	**1,792.2**	**1,749.9**	**1,746.2**	**1,878.5**	**1,988.2**	**2,176.2**
Non-Petroleum Revenue											
Unrestricted General Fund	457.0	479.5	469.1	462.4	459.1	463.6	471.0	475.9	484.9	489.0	496.3
Designated General Fund	450.2	402.7	390.9	373.7	374.7	376.2	377.2	378.2	379.4	380.6	382.0
Royalties to Alaska Permanent Fund beyond 25% dedication [1]	0.0	0.0	3.9	4.0	4.1	4.2	4.3	4.4	4.4	4.5	4.7
Tax and Royalty Settlements to CBRF [2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Non-Petroleum Revenue	**907.3**	**882.2**	**863.9**	**840.1**	**837.9**	**844.0**	**852.4**	**858.4**	**868.7**	**874.2**	**882.9**
Investment Revenue											
Unrestricted General Fund	16.3	2,791.4	3,012.7	3,169.6	3,170.6	3,332.6	3,440.6	3,511.6	3,583.6	3,655.6	3,727.6
Designated General Fund	40.1	34.7	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9
Constitutional Budget Reserve Fund	47.2	51.2	54.9	60.7	65.9	70.6	74.7	81.4	90.2	98.8	109.4
Subtotal Investment Revenue	**103.6**	**2,877.3**	**3,115.5**	**3,278.2**	**3,284.4**	**3,451.1**	**3,563.2**	**3,640.9**	**3,721.7**	**3,802.3**	**3,884.9**
Total Revenue Subject to Appropriation	**3,072.3**	**6,020.0**	**5,951.7**	**6,005.3**	**5,940.9**	**6,087.3**	**6,165.5**	**6,245.5**	**6,469.0**	**6,664.6**	**6,944.0**

[1] Estimate based on deposit to Permanent Fund minus 25% of total royalties. In FY 2018 and FY 2019, only the constitutionally required 25% of royalties were depostied into the Permanent Fund.

[2] CBRF is an acronym for Constitutional Budget Reserve Fund.

Table 2-1: Total State Revenue, by restriction and type

($ millions)

	History	Forecast	
	FY 2018	**FY 2019**	**FY 2020**
Unrestricted Revenue Sources			
Unrestricted General Fund Revenue			
Petroleum Revenue	1,940.2	2,135.5	1,754.9
Non-Petroleum Revenue	457.0	479.5	469.1
Investment Revenue	16.3	2,791.4	3,012.7
Federal Revenue	0.0	0.0	0.0
Unrestricted General Fund Revenue	**2,413.5**	**5,406.4**	**5,236.7**
Restricted Revenue Sources			
Designated General Fund Revenue			
Non-Petroleum Revenue	460.4	440.4	425.0
Investment Revenue	40.1	34.7	47.9
Subtotal Designated General Fund Revenue	**500.5**	**475.1**	**472.9**
Other Restricted Revenue			
Petroleum Revenue	484.4	495.6	548.3
Non-Petroleum Revenue	237.0	242.3	252.9
Investment Revenue	5,576.3	956.2	1,201.9
Subtotal Other Restricted Revenue	**6,297.7**	**1,694.1**	**2,003.0**
Federal Revenue			
Petroleum Revenue[1]	23.7	7.6	10.8
Federal Receipts	3,124.6	3,882.1	3,247.0
Subtotal Federal Revenue	**3,148.3**	**3,889.7**	**3,257.9**
Total Restricted Revenue	**9,946.4**	**6,058.9**	**5,733.8**
Total State Revenue	**12,359.9**	**11,465.4**	**10,970.6**

[1] Petroleum revenue shown in the Federal category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve - Alaska, as provided by federal law.

Table 2-2: Unrestricted General Fund Revenue, by type and detail

($ millions)

	History	Forecast	
	FY 2018	**FY 2019**	**FY 2020**
Unrestricted Petroleum Revenue			
Petroleum Taxes			
Petroleum Property Tax	121.6	122.6	121.0
Petroleum Corporate Income Tax	66.4	195.0	210.0
Oil & Gas Production Tax	749.9	735.0	524.7
Subtotal Petroleum Taxes	**937.8**	**1,052.6**	**855.7**
Royalties (including Bonuses, Rents, & Interest)			
Mineral Bonuses & Rents	23.6	38.2	20.6
Oil & Gas Royalties	977.8	1,039.2	876.5
Interest	0.9	5.4	2.1
Subtotal Royalties	**1,002.3**	**1,082.8**	**899.3**
Unrestricted Petroleum Revenue	**1,940.2**	**2,135.5**	**1,754.9**
Unrestricted Non-Petroleum Revenue			
Non-Petroleum Taxes			
Excise Tax			
Alcoholic Beverage	19.6	20.4	20.7
Tobacco Product – Cigarette	24.4	25.1	24.3
Tobacco Product – Other	13.0	14.9	15.8
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium Tax [1]	0.0	74.0	58.2
Marijuana	5.4	6.2	5.3
Motor Fuel Tax [2]	0	0	0
Motor Fuel Tax (conservation surcharge)	6.3	6.1	6.0
Tire Fee	1.4	1.4	1.4
Subtotal Excise Tax	**70.4**	**148.3**	**131.9**
Corporate Income Tax	**119.6**	**120.0**	**135.0**
Fisheries Tax			
Fisheries Business	21.2	16.6	17.0
Fishery Resource Landing	3.5	4.9	5.2
Subtotal Fisheries Tax	**24.7**	**21.5**	**22.3**
Other Tax			
Charitable Gaming	2.4	2.4	2.4
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	8.6	9.2	10.7
Mining	46.9	53.6	42.3
Subtotal Other Tax	**57.9**	**65.2**	**55.4**
Subtotal Non-Petroleum Taxes	**272.6**	**355.0**	**344.6**

Table 2-2: Unrestricted General Fund Revenue, by type and detail (continued from previous page)

($ millions)

	History	Forecast	
	FY 2018	**FY 2019**	**FY 2020**
Charges for Services	**6.8**	**6.8**	**6.8**
Fines & Forfeitures	**8.7**	**11.2**	**11.2**
Licenses & Permits			
Motor Vehicle	36.3	35.0	33.0
Other	0.8	2.8	2.8
Subtotal Licenses & Permits	**37.1**	**37.8**	**35.8**
Rents & Royalties			
Mining Rents & Royalties	1.9	2.0	1.3
Other Non-Petroleum Rents & Royalties	3.8	3.8	3.8
Subtotal Rents & Royalties	**5.8**	**5.8**	**5.1**
Miscellaneous Revenues and Transfers			
Miscellaneous	31.4	23.0	23.0
Alaska Capital Income Fund [3]	43.4	0.0	0.0
Alaska Housing Finance Corporation	18.4	17.4	13.4
Alaska Industrial Development & Export Authority	12.9	4.8	10.3
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	0.0	0.0	0.0
Alaska Energy Authority	0.0	0.0	0.0
Alaska Natural Gas Development Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.0	0.0
Unclaimed Property	20.0	16.8	18.0
Subtotal Miscellaneous Revenues and Transfers	**126.1**	**62.9**	**65.6**
Unrestricted Non-Petroleum Revenue, except Federal and Investment	**457.0**	**479.5**	**469.1**
Investment Revenue			
Alaska Permanent Fund	0	2,723.0	2,933.1
Investments	16.3	68.4	79.6
Interest Paid by Others	0	0	0
Unrestricted Investment Revenue	**16.3**	**2,791.4**	**3,012.7**
Total Unrestricted Revenue	**2,413.5**	**5,406.4**	**5,236.7**

[1] Under current law, insurance premium tax is considered designated restricted revenue and will revert to unrestricted revenue beginning in FY 2019.
[2] Starting with FY 2018, the non-aviation portion of the motor fuel tax is considered designated restricted revenue.
[3] Starting with FY 2019, transfer revenue from the Alaska Capital Income Fund is considered designated restricted revenue.

Table 2-3: Restricted Revenue, by type and category

($ millions)

	History	Forecast	
	FY 2018	**FY 2019**	**FY 2020**
Designated General Fund Revenue			
Non-Petroleum Revenue			
Taxes	152.3	108.0	110.3
Charges for Services	257.8	261.1	246.6
Fines and Forfeitures	11.0	4.5	5.0
Licenses and Permits	1.1	1.1	1.1
Rents and Royalties	21.3	21.6	18.0
Other	16.9	44.1	44.1
Subtotal	**460.4**	**440.4**	**425.0**
Investment Revenue			
Investments - Designated GF	1.8	6.8	7.1
Other Treasury Managed Funds	38.3	27.9	40.8
Subtotal	**40.1**	**34.7**	**47.9**
Restricted Designated General Fund Revenue	**500.5**	**475.1**	**472.9**
Other Restricted Revenue			
Petroleum Revenue			
Royalties to Alaska Permanent Fund & School Fund (includes Bonuses & Rents)	363.1	370.6	398.3
Tax and Royalty Settlements to CBRF	121.3	125.0	150.0
Subtotal	**484.4**	**495.6**	**548.3**
Non-Petroleum Revenue			
Taxes	83.6	79.9	84.3
Charges for Services	45.0	79.2	78.7
Fines and Forfeitures	40.6	14.8	16.6
Licenses and Permits	40.1	40.4	40.6
Rents and Royalties	6.5	6.8	11.5
Other	21.1	21.1	21.1
Subtotal	**237.0**	**242.3**	**252.9**
Investment Revenue			
Investments - Other Restricted	3.6	13.8	14.5
Constitutional Budget Reserve Fund	47.2	51.2	54.9
Alaska Permanent Fund Restricted Earnings, net of General Fund Draw[1]	5,525.5	891.2	1,132.5
Subtotal	**5,576.3**	**956.2**	**1,201.9**
Other Restricted Revenue	**6,297.7**	**1,694.1**	**2,003.0**

Table 2-3: Restricted Revenue, by type and category (continued from previous page)

($ millions)

	History	Forecast	
	FY 2018	**FY 2019**	**FY 2020**
Federal Revenue			
Federal Receipts	3,124.6	3,882.1	3,247.0
Petroleum Revenue			
NPR-A Royalties, Rents and Bonuses	23.7	7.6	10.8
Restricted Federal Revenue	**3,148.3**	**3,889.7**	**3,257.9**
Total Restricted Revenue	**9,946.4**	**6,058.9**	**5,733.8**

[1] While payouts are limited to realized revenues, both unrealized and realized are shown per Generally Accepted Accounting Principles (GAAP). Restricted earnings starting in FY 2019 consist of unrealized gains, realized gains, less the transfer to the General Fund.

[2] Oil revenue shown in the Federal category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve - Alaska.

Table 2-5: Total Unrestricted General Fund Revenue, FY 2017 and FY 2018-2027 Forecast

($ millions)

	History	Forecast									
Fiscal Year	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Unrestricted Petroleum Revenue	1,940.2	2,135.5	1,754.9	1,699.9	1,658.5	1,653.8	1,632.3	1,620.9	1,738.9	1,833.1	2,005.5
Unrestricted Other Revenue (except Federal & Investment)	457.0	479.5	469.1	462.4	459.1	463.6	471.0	475.9	484.9	489.0	496.3
Unrestricted Investment Revenue	16.3	2,791.4	3,012.7	3,169.6	3,170.6	3,332.6	3,440.6	3,511.6	3,583.6	3,655.6	3,727.6
Total Unrestricted General Fund Revenue	**2,413.5**	**5,406.4**	**5,236.7**	**5,332.0**	**5,288.2**	**5,450.0**	**5,543.9**	**5,608.5**	**5,807.4**	**5,977.7**	**6,229.4**
Percent from Petroleum	80%	39%	34%	32%	31%	30%	29%	29%	30%	31%	32%
Total Unrestricted Revenue (not including Permanent Fund transfer)	**2,413.5**	**2,683.4**	**2,303.6**	**2,242.0**	**2,197.2**	**2,197.0**	**2,182.9**	**2,176.5**	**2,303.4**	**2,401.7**	**2,581.4**
Percent from Petroleum	80%	80%	76%	76%	75%	75%	75%	74%	75%	76%	78%

Table 4-4: ANS Oil & Gas Production Tax Data Summary

	History	Forecast	
	FY 2018	**FY 2019**	**FY 2020**
North Slope Price (dollars per barrel)			
ANS West Coast	63.61	68.90	66.00
Transit Costs & Other	9.52	8.41	8.81
ANS Wellhead	54.09	60.49	57.19
North Slope Production (thousand barrels per day)			
Total ANS Production	518.4	511.5	529.5
Royalty and Federal [1]	62.2	61.2	59.0
Taxable Barrels	456.2	450.3	470.5
North Slope Lease Expenditures[2, 3] (millions of dollars)			
Total North Slope Lease Expenditures			
Operating Expenditures [OPEX]	2,649.2	2,714.0	2,801.9
Capital Expenditures [CAPEX]	1,729.4	1,907.5	2,716.0
Total North Slope Expenditures	4,378.6	4,621.5	5,517.9
Deductible North Slope Lease Expenditures			
Operating Expenditures [OPEX]	2,581.0	2,631.1	2,677.7
Capital Expenditures [CAPEX]	1,485.1	1,631.3	2,016.5
Deductible North Slope Expenditures	4,066.1	4,262.3	4,694.2
State Production Tax Revenue			
Tax Revenue (millions of dollars)	749.9	735.0	524.7
Production Tax Collected per Taxable Barrel (dollars per barrel)	4.5	4.5	3.0
Statewide Production Tax Credits[2, 4] (millions of dollars)			
Credits Used against Tax Liability	1,092.6	1,460.0	1,292.0
Credits for Potential Purchase	75.4	102.8	181.0

[1] Royalty and Federal barrels represent the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, and barrels produced from federal offshore property.

[2] Lease expenditures and credits used against tax liability for FY 2018 were prepared using unaudited company-reported estimates.

[3] Expenditure data for FY 2019 and FY 2020 are compiled from company-submitted expenditure forecast estimates and other documentation as provided to the department. Expenditures are shown here in two ways: (1) total estimated expenditures including for those companies with no tax liability; and (2) estimated deductible expenditures for only those companies with a tax liability.

[4] Production tax credits shown include all production tax credits and all areas of the state. Assumptions for the $12 million credits for small Alaska producers are included in the table. Per-Taxable-Barrel credits for oil not eligible for the gross value reduction may not reduce a producer's liability below the minimum tax; that limitation is reflected in these estimates.

Table 8-4: Historical Production Tax Credits and Forecast Detail, FY 2009-2028

Millions of Dollars

	Historical									
Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018[1]
Credits Purchased by the State of Alaska										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	173	223	399	267	*	*	203	*	*	*
Credits under AS 43.55.025[2]	14	23	12	53	*	*	21	*	*	*
Total North Slope	**187**	**246**	**411**	**320**	**261**	**281**	**224**	**212**	**< 1**	**51**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	*	*	*	29	*	*	384	*	30	23
Credits under AS 43.55.025[2]	*	*	*	4	*	*	21	*	0	*
Credits under AS 43.20[3]	*	*	*	0	*	15	0	*	0	*
Total Non-North Slope	**7**	**4**	**39**	**33**	**108**	**312**	**404**	**287**	**30**	**24**
Total Credits Purchased by the State	**193**	**250**	**450**	**353**	**369**	**592**	**628**	**498**	**30**	**75**
Credits Used Against Tax Liability[4, 5]										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	279	339	313	306	486	332	0	*	*	*
Transitional Investment Credit: AS 43.55.023(i)	0	0	0	*	*					
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j)[6]						516	524	86	536	1,027
Small-Producer Credit, AS 43.55.024(a) and (c)	*	*	*	*	*	*	*	*	*	*
Credits under AS 43.55.025[2]	*	*	*	*	*	*	*	*	*	*
Total North Slope	**328**	**402**	**345**	**347**	**536**	**907**	**575**	**120**	**570**	**1,087**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	0	*	11	*	*	*	*	*	*	*
Small-Producer Credit, AS 43.55.024(a) and (c)	6	*	6	*	*	*	*	*	*	*
Total Non-North Slope	**6**	**10**	**17**	**16**	**14**	**12**	**10**	**5**	**1**	**1**
Total Credits Used Against Tax Liability	**334**	**412**	**361**	**363**	**550**	**919**	**585**	**125**	**571**	**494**
Total Credits North Slope	*	647	756	667	797	1,188	799	332	570	493
Total Credits Non-North Slope	*	14	56	49	122	323	414	292	33	31
Total Statewide Production Tax Credits	**527**	**662**	**811**	**716**	**919**	**1,511**	**1,213**	**623**	**602**	**1,168**
Carried-Forward Credits Balance for Companies Not Eligible for State Purchase[7]	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**62**
Tax Value of Carried-Forward Annual Losses[8]										

* Data cannot be reported due to confidentiality constraints.

[1] These numbers are preliminary pending annual returns.
[2] Credits under AS 43.55.025 include the Alternative Credit for Exploration, Frontier Basin Credit, and Cook Inlet Jack-up Rig Credit.
[3] Credits under AS 43.20 include the Gas Exploration and Development Credit, Gas Storage Facility Credit, In-State Gas Refinery Credit, and the LNG Storage Facility Credit.
[4] The Education Credit, AS 43.55.019, though not reported in its own credit category in the summary, was less than $1 million in each year reported and is calculated in the total.

Table 8-4: Historical Production Tax Credits and Forecast Detail, FY 2009-2028 (continued)

	Millions of Dollars									
	Forecast									
	2019	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Credits Purchased by the State										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	65	118	196	0	0	0	0	0	0	0
Credits under AS 43.55.025[2]	3	5	129	0	0	0	0	0	0	0
Total North Slope	**68**	**123**	**325**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	33	54	168	0	0	0	0	0	0	0
Credits under AS 43.55.025[2]	1	1	35	0	0	0	0	0	0	0
Credits under AS 43.20[3]	1	2	83	0	0	0	0	0	0	0
Total Non-North Slope	**35**	**58**	**287**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Credits Purchased by the State	**103**	**181**	**611**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Credits Used Against Tax Liability[4, 5]										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	154	0	0	0	0	0	0	0	0	0
Transitional Investment Credit: AS 43.55.023(i)										
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j)[6]	1,241	1,256	1,122	1,085	1,065	1,026	1,073	1,091	1,180	1,206
Small-Producer Credit, AS 43.55.024(a)(c)	14	14	14	8	2	2	3	0	0	0
Credits under AS 43.55.025[2]	35	8	0	0	0	0	0	0	0	0
Total North Slope	**1,445**	**1,278**	**1,136**	**1,093**	**1,067**	**1,028**	**1,075**	**1,091**	**1,180**	**1,206**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	13	10	10	8	3	0	0	0	0	0
Small-Producer Credit, AS 43.55.024(a)(c)	3	4	3	2	2	2	2	0	0	0
Total Non-North Slope	**16**	**14**	**13**	**11**	**5**	**2**	**2**	**0**	**0**	**0**
Total Credits Used Against Tax Liability	**1,460**	**1,292**	**1,149**	**1,103**	**1,072**	**1,030**	**1,078**	**1,091**	**1,180**	**1,206**
Total Credits North Slope	1,512	1,401	1,460	1,093	1,067	1,028	1,075	1,091	1,180	1,206
Total Credits Non-North Slope	51	72	300	11	5	2	2	0	0	0
Total Statewide Production Tax Credits	**1,563**	**1,473**	**1,760**	**1,103**	**1,072**	**1,030**	**1,078**	**1,091**	**1,180**	**1,206**
Carried-Forward Credits Balance for Companies Not Eligible for State Purchase[7]	**43**	**33**	**23**	**14**	**12**	**12**	**12**	**12**	**12**	**12**
Tax Value of Carried-Forward Annual Losses[8]	**182**	**453**	**935**	**1,441**	**1,845**	**2,171**	**2,300**	**2,335**	**2,352**	**2,323**

[5] For historical credits against tax liability, geographic location was determined by attributing all .023(l) credits to Non-North Slope, all .025 Credits to North Slope, and the other credits were placed according to where the company primarily operated. Since multiple companies had operations in multiple areas, these numbers should be treated as rough estimates.

[6] For FY 2014, the Per-Taxable-Barrel Credit was in effect for only the last six months of the fiscal year. Credits applied against liability in the forecast are limited by a company's tax liability including the minimum tax.

[7] This row includes estimates of carried-forward credits for previous calendar years for companies with over 50,000 BOE of production. Carried-forward credits are primarily for net operating losses under AS 43.55.023(b).

[8] Tax value is calculated by multiplying the amount of carried forward annual loss by the statutory 35% tax rate.

Table A-3: Petroleum Revenue, by restriction and type

($ millions)

History [1]

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Unrestricted Petroleum Revenue										
Petroleum Property Tax	111.2	118.8	110.6	111.2	99.3	128.1	125.2	111.7	120.4	121.6
Petroleum Corporate Income Tax	492.2	446.1	542.1	568.8	434.6	307.6	94.8	-58.8	-59.4	66.4
Production Tax	3,100.9	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6	176.8	125.9	741.2
Oil and Gas Hazardous Release	11.1	10.3	9.7	9.4	7.8	8.8	8.1	9.2	8.6	8.7
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties-Net[2]	1,451.2	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1	840.3	676.2	977.8
Bonuses, Rents & Interest-Net[2, 3]	14.4	8.0	22.0	8.9	19.4	27.4	26.1	30.3	5.3	24.5
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unrestricted Petroleum Revenue	**5,181.0**	**4,912.9**	**7,048.9**	**8,857.8**	**6,352.0**	**4,762.8**	**1,687.9**	**1,109.5**	**876.9**	**1,940.2**
Cumulative Unrestricted Petroleum Revenue[4]	81,428	86,340	93,389	102,247	108,599	113,362	115,050	116,159	117,036	118,976
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	14.8	21.3	3.0	4.8	3.6	6.8	3.2	1.8	1.4	23.7
Royalties to AK Permanent Fund	659.8	696.1	857.3	904.9	842.1	773.7	510.4	390.5	334.5	356.1
Royalties to Public School Fund	11.0	11.1	13.6	14.7	13.8	12.5	7.9	6.4	5.5	7.0
CBRF Deposits	202.6	552.7	167.3	102.1	357.4	177.4	149.9	119.1	481.9	121.3
Total Restricted Petroleum Revenue	**888.2**	**1,281.2**	**1,041.2**	**1,026.5**	**1,216.9**	**970.4**	**671.4**	**517.8**	**823.2**	**508.0**

[1] Historical petroleum revenue can be found on the Tax Division's website at: http://www.tax.alaska.gov/sourcesbook/qr.aspx-?Chapter=16&FY=2017.

[2] Net of Permanent Fund, Public School Trust Fund, and CBRF deposits.

[3] This category is primarily petroleum revenue.

[4] Based on revenue beginning in FY 1959.

Table A-3: Petroleum Revenue, by restriction and type (continued)

($ millions)

					Forecast					
Fiscal Year	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Unrestricted Petroleum Revenue										
Petroleum Property Tax	122.6	121.0	116.3	114.7	113.5	112.1	110.5	108.8	107.0	105.1
Petroleum Corporate Income Tax	195.0	210.0	210.0	215.0	220.0	220.0	230.0	240.0	240.0	240.0
Oil and Gas Production Tax	726.5	515.9	502.1	474.7	474.1	463.8	428.7	503.9	575.5	714.6
Oil and Gas Hazardous Release	8.5	8.8	8.5	8.1	7.8	7.7	7.7	7.9	8.0	8.1
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties-Net[2]	1,039.2	876.5	840.3	823.1	815.6	806.0	821.3	855.5	879.9	915.0
Bonuses, Rents & Interest-Net[2, 3]	43.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unrestricted Petroleum Revenue	**2,135.5**	**1,754.9**	**1,699.9**	**1,658.5**	**1,653.8**	**1,632.3**	**1,620.9**	**1,738.9**	**1,833.1**	**2,005.5**
Cumulative Unrestricted Petroleum Revenue[4]	121,112	122,867	124,567	126,225	127,879	129,511	131,132	132,871	134,704	136,710
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	7.6	10.8	10.4	10.9	15.6	33.1	53.7	75.7	92.2	109.2
Royalties to AK Permanent Fund	363.4	391.8	372.5	364.2	366.1	368.3	383.7	414.5	443.2	475.9
Royalties to Public School Fund	7.3	6.5	6.2	6.1	6.1	6.0	6.2	6.5	6.8	7.1
CBRF Deposits	125.0	150.0	125.0	100.0	75.0	50.0	50.0	50.0	50.0	50.0
Total Restricted Petroleum Revenue	**503.3**	**559.1**	**514.1**	**481.1**	**462.8**	**457.4**	**493.6**	**546.7**	**592.2**	**642.2**

[1] Historical petroleum revenue can be found on the Tax Division's website at: http://www.tax.alaska.gov/sourcesbook/qr.aspx-?Chapter=16&FY=2018.

[2] Net of Permanent Fund, Public School Trust Fund, and CBRF deposits.

[3] This category is primarily petroleum revenue.

[4] Based on revenue beginning in FY 1959.

Table B-2: Price Difference, Fall 2018 forecast and Spring 2019 forecast

($ per barrel of oil)

Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Fall 2018 Forecast										
ANS West Coast	67.96	64.00	66.00	67.00	69.00	70.00	72.00	74.00	75.00	77.00
ANS Wellhead Weighted Average All Destinations	59.43	55.36	57.12	57.58	59.09	59.90	61.82	63.77	64.65	66.36
Spring 2019 Forecast										
ANS West Coast	68.90	66.00	66.00	67.00	69.00	70.00	72.00	74.00	75.00	77.00
ANS Wellhead Weighted Average All Destinations	60.49	57.19	57.09	57.60	59.07	59.90	61.84	63.80	64.70	66.43
Dollar Amount Change from Prior Forecast										
ANS West Coast	0.94	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANS Wellhead Weighted Average All Destinations	1.06	1.83	-0.03	0.02	-0.01	0.00	0.02	0.04	0.05	0.06
Percent Change from Prior Forecast										
ANS West Coast	1.4%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ANS Wellhead Weighted Average All Destinations	1.8%	3.3%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%

Table C-1: Production Difference, Fall 2018 forecast and Spring 2019 forecast

(thousands of barrels per day)

Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Fall 2018 Forecast										
Alaska North Slope	526.8	533.2	514.2	493.2	476.7	470.0	472.7	484.1	493.4	498.8
Non-North Slope	13.8	11.6	10.2	9.3	8.5	7.7	7.0	6.4	5.8	5.2
Total	**540.6**	**544.8**	**524.4**	**502.5**	**485.2**	**477.8**	**479.7**	**490.5**	**499.2**	**504.0**
Spring 2019 Forecast										
Alaska North Slope	511.5	529.5	511.7	491.4	475.4	469.1	472.4	484.8	494.5	500.6
Non-North Slope	14.4	11.6	10.0	9.0	8.2	7.5	6.8	6.2	5.6	5.1
Total	**525.8**	**541.1**	**521.7**	**500.4**	**483.5**	**476.6**	**479.2**	**491.0**	**500.1**	**505.7**
Volume Change From Prior Forecast										
Alaska North Slope	-15.3	-3.7	-2.5	-1.8	-1.3	-0.9	-0.3	0.7	1.1	1.8
Non-North Slope	0.5	0.0	-0.1	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.1
Total	**-14.8**	**-3.7**	**-2.7**	**-2.1**	**-1.6**	**-1.2**	**-0.5**	**0.5**	**0.9**	**1.7**
Percent Change From Prior Forecast										
Alaska North Slope	-2.9%	-0.7%	-0.5%	-0.4%	-0.3%	-0.2%	-0.1%	0.1%	0.2%	0.4%
Non-North Slope	3.8%	0.3%	-1.4%	-3.3%	-3.6%	-3.1%	-3.0%	-2.7%	-2.7%	-2.6%
Total	**-2.7%**	**-0.7%**	**-0.5%**	**-0.4%**	**-0.3%**	**-0.2%**	**-0.1%**	**0.1%**	**0.2%**	**0.3%**