



# Fall 2013 Revenue Forecast

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January 28, 2014

Department of Revenue

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Commissioner  
Alaska Department of Revenue

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# FALL 2013

# Revenue Forecast



# UNRESTRICTED REVENUE FORECAST 2012-2022

	Actual		Forecast								
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ANS WC Oil Price (\$/bbl)	112.65	107.57	105.68	105.06	107.69	110.38	115.40	121.19	122.43	123.67	133.00
Total ANS Production (State + Federal) (thousand bbls/day)	579.4	531.6	508.2	498.4	487.6	482.7	459.5	429.1	399.6	368.8	340.1
Deductible Lease Expenditures	\$4,405	\$4,924	\$6,600	\$7,294	\$7,147	\$6,439	\$6,060	\$6,247	\$6,018	\$5,766	\$5,604
General Fund Unrestricted Revenues (million)	\$9,485	\$6,929	\$4,930	\$4,532	\$4,610	\$4,981	\$5,105	\$5,135	\$4,810	\$4,503	\$4,654
PTV per Taxable Barrel	\$79.33	\$67.76	\$54.67	\$49.04	\$51.85	\$57.44	\$62.50	\$63.20	\$62.12	\$60.86	\$66.67

Source: Department of Revenue - Revenue Sources Book Fall 2013

## CONTRIBUTORS OF CHANGES IN FY2013 REVENUE - ACTUAL

Component	FY 2012 Actual	FY 2013 Actual	Change
ANS Production (thousand bbl/day)	579.4	531.6	-47.8
ANS Price	\$112.65	\$107.57	-\$5.08
ANS Deductible Lease Expenditures (\$million)	\$4,405	\$4,924	+\$519
Transportation Costs	\$8.81	\$9.76	+\$0.95

- **Average Production Tax Value per barrel fell from about \$79 to about \$68.**
- **General Fund Unrestricted Revenue fell \$2.5 billion**

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# FALL 2013 HIGHLIGHTS

- Oil price and production levels have been reduced relative to the 2013 Spring Forecast.
- Correspondingly, unrestricted revenues have been revised down from the Spring 2013 Forecast.
- Revenue impacts largely due to changes in oil price, production, lease expenditures, and tariffs.
- Substantial (~\$10 billion) increase in spending on the North Slope over the next 10 years.
- Oil companies project increased North Slope production following the increased activity.
  - DOR continues to prudently assess future production and the forecast is not intended as a comprehensive assessment of all the potential activity or projects under evaluation.
- State investment earnings are strong.

# GENERAL FUND UNRESTRICTED OIL REVENUES

(MILLIONS\$)

Revenue Type	Actual		Forecast			
	2013	Percent	2014	Percent	2015	Percent
<b>Petroleum Revenue</b>						
Net Royalty (less PF & SF)	\$1,768	25.5%	\$1,696	34.4%	\$1,663	36.7%
Production Tax	\$4,050	58.5%	\$2,100	42.6%	\$1,711	37.8%
Corporate Income Tax	\$435	6.3%	\$464	9.4%	\$464	10.2%
Property Tax	\$99	1.4%	\$100	2.0%	\$97	2.1%
<b>Total Petroleum Revenue</b>	<b>\$6,352</b>	<b>91.7%</b>	<b>\$4,360</b>	<b>88.4%</b>	<b>\$3,935</b>	<b>86.8%</b>
<b>Non-petroleum Revenue</b>	<b>\$576</b>	<b>8.3%</b>	<b>\$571</b>	<b>11.6%</b>	<b>\$597</b>	<b>13.2%</b>
<b>Total General Fund Unrestricted Revenue</b>	<b>\$6,929</b>	<b>100.0%</b>	<b>\$4,930</b>	<b>100.0%</b>	<b>\$4,532</b>	<b>100.0%</b>

Source: Department of Revenue - Revenue Sources Book Fall 2013 page 7

# GENERAL FUND UNRESTRICTED OTHER REVENUES

(MILLIONS\$)

Revenue Type	Actual		Forecast			
	2013	Percent	2014	Percent	2015	Percent
<b>Taxes</b>						
Non-petroleum Corporate Income	\$113	19.5%	\$88	15.4%	\$127	21.3%
Mining License Tax	\$47	8.1%	\$45	7.9%	\$42	7.0%
Insurance Premium	\$52	9.1%	\$54	9.5%	\$56	9.4%
Tobacco	\$45	7.8%	\$44	7.7%	\$43	7.2%
Motor Fuel	\$42	7.3%	\$41	7.2%	\$41	6.8%
Other Taxes	<u>\$63</u>	10.9%	<u>\$66</u>	11.5%	<u>\$67</u>	11.2%
<b>Subtotal Taxes</b>	<b>\$361</b>	<b>62.7%</b>	<b>\$338</b>	<b>59.3%</b>	<b>\$376</b>	<b>62.9%</b>
<b>Investments</b>	<b>\$28</b>	<b>4.9%</b>	<b>\$86</b>	<b>15.1%</b>	<b>\$85</b>	<b>14.2%</b>
<b>Other</b>	<b><u>\$187</u></b>	<b>32.5%</b>	<b><u>\$146</u></b>	<b>25.6%</b>	<b><u>\$137</u></b>	<b>22.9%</b>
<b>Total Non-Oil</b>	<b>\$577</b>	<b>100.0%</b>	<b>\$571</b>	<b>100.0%</b>	<b>\$597</b>	<b>100.0%</b>

Source: Department of Revenue - Revenue Sources Book Fall 2013 pages 8-9

# TOTAL REVENUE FORECAST – FY13, 14 & 15

(MILLIONS\$)

Revenue Type	Actual	Forecast	
	FY 2013	FY 2014	FY 2015
<b>Unrestricted General Fund</b>			
Oil Revenue	\$ 6,352.0	\$ 4,359.5	\$ 3,935.0
Non-Oil Revenue*	\$ 548.4	\$ 484.1	\$ 512.3
Investment Revenue	\$ 28.1	\$ 86.4	\$ 84.7
<b>Total Unrestricted Revenue</b>	<b>\$ 6,928.5</b>	<b>\$ 4,930.0</b>	<b>\$ 4,532.0</b>
<b>Designated General Fund</b>			
Non-Oil Revenue*	\$ 299.8	\$ 329.0	\$ 327.6
Investment Revenue	\$ 40.5	\$ 40.1	\$ 30.7
<b>Subtotal</b>	<b>\$ 340.3</b>	<b>\$ 369.1</b>	<b>\$ 358.3</b>
<b>Other Restricted Revenue</b>			
Oil Revenue	\$ 1,032.5	\$ 756.5	\$ 738.5
Non-Oil Revenue*	\$ 185.2	\$ 214.0	\$ 215.4
Investment Revenue	\$ 4,937.3	\$ 3,523.5	\$ 3,531.3
<b>Subtotal</b>	<b>\$ 6,155.0</b>	<b>\$ 4,494.0</b>	<b>\$ 4,485.2</b>
<b>Federal Revenue</b>			
Oil Revenue	\$ 3.6	\$ 3.6	\$ 3.6
Federal Receipts	\$ 2,383.2	\$ 2,963.0	\$ 2,963.0
<b>Subtotal</b>	<b>\$ 2,386.8</b>	<b>\$ 2,966.6</b>	<b>\$ 2,966.6</b>
<b>Total State Revenue</b>	<b>\$ 15,810.6</b>	<b>\$ 12,759.7</b>	<b>\$12,342.1</b>

\*Except Federal and Investment

Source: Department of Revenue - Revenue Sources Book Fall 2013



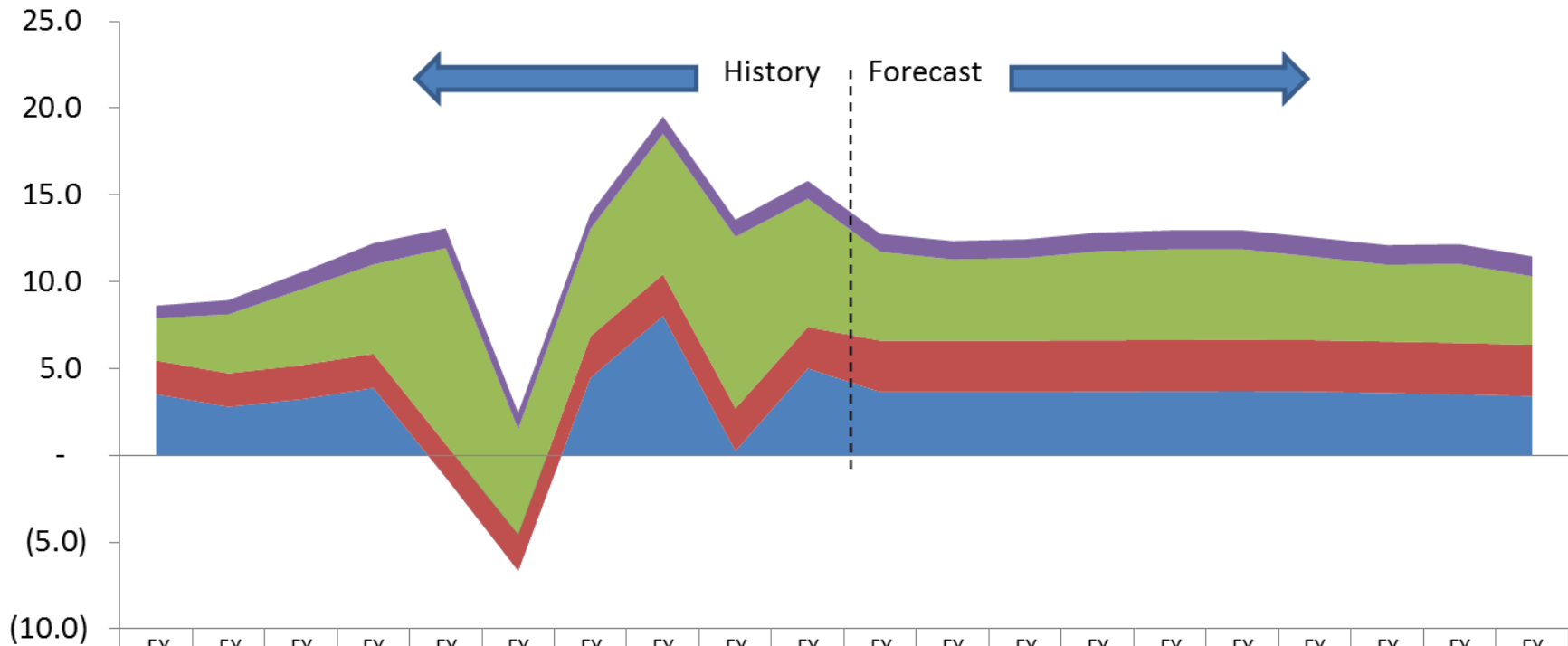
# GENERAL FUND UNRESTRICTED REVENUE

## PRICE SENSITIVITY FY2014-2016

Year	2014	2015	2016
<b>Production</b> (ths bbls/day)	508.2	498.4	487.6
<b>Forecast Price</b>	\$105.68	\$105.06	\$107.69
<b>Revenue (million\$)</b>	\$4,930	\$4,532	\$4,610

ANS (\$/barrel)	GF Unrestricted Revenue (Million \$)		
\$50	\$2,350	\$1,860	\$1,820
\$60	\$2,620	\$2,130	\$2,090
\$70	\$2,880	\$2,410	\$2,350
\$80	\$3,170	\$2,690	\$2,620
\$90	\$3,530	\$3,240	\$3,160
\$100	\$4,370	\$4,150	\$4,040
\$110	\$5,380	\$4,900	\$4,930
\$120	\$6,360	\$5,820	\$5,830
\$130	\$7,470	\$6,730	\$6,720
\$140	\$8,450	\$7,650	\$7,460
\$150	\$9,420	\$8,560	\$8,360

# FALL 2013 TOTAL REVENUE FORECAST



	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Non-Petroleum	0.7	0.8	1.0	1.2	1.1	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
Petroleum	2.4	3.4	4.4	5.1	11.3	6.1	6.2	8.1	9.9	7.4	5.1	4.7	4.8	5.1	5.2	5.2	4.8	4.4	4.5	3.9	
Federal	1.9	1.9	2.0	2.0	1.9	2.1	2.4	2.4	2.5	2.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Investment	3.5	2.8	3.2	3.9	(1.3)	(6.6)	4.5	8.0	0.3	5.0	3.7	3.6	3.7	3.7	3.7	3.7	3.7	3.6	3.5	3.4	
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	
Production	973.8	911.3	839.7	734.2	715.4	692.8	642.6	599.9	579.4	531.6	508.2	498.4	487.6	482.7	459.5	429.1	399.6	368.8	340.1	312.9	
Price	\$ 32.36	\$ 44.85	\$ 62.12	\$ 61.60	\$ 96.51	\$ 68.34	\$ 74.90	\$ 94.49	\$ 112.65	\$ 107.57	\$ 105.68	\$ 105.06	\$ 107.69	\$ 110.38	\$ 115.40	\$ 121.19	\$ 122.43	\$ 123.67	\$ 133.00	\$ 131.85	

Source: Department of Revenue - Revenue Sources Book Fall 2013

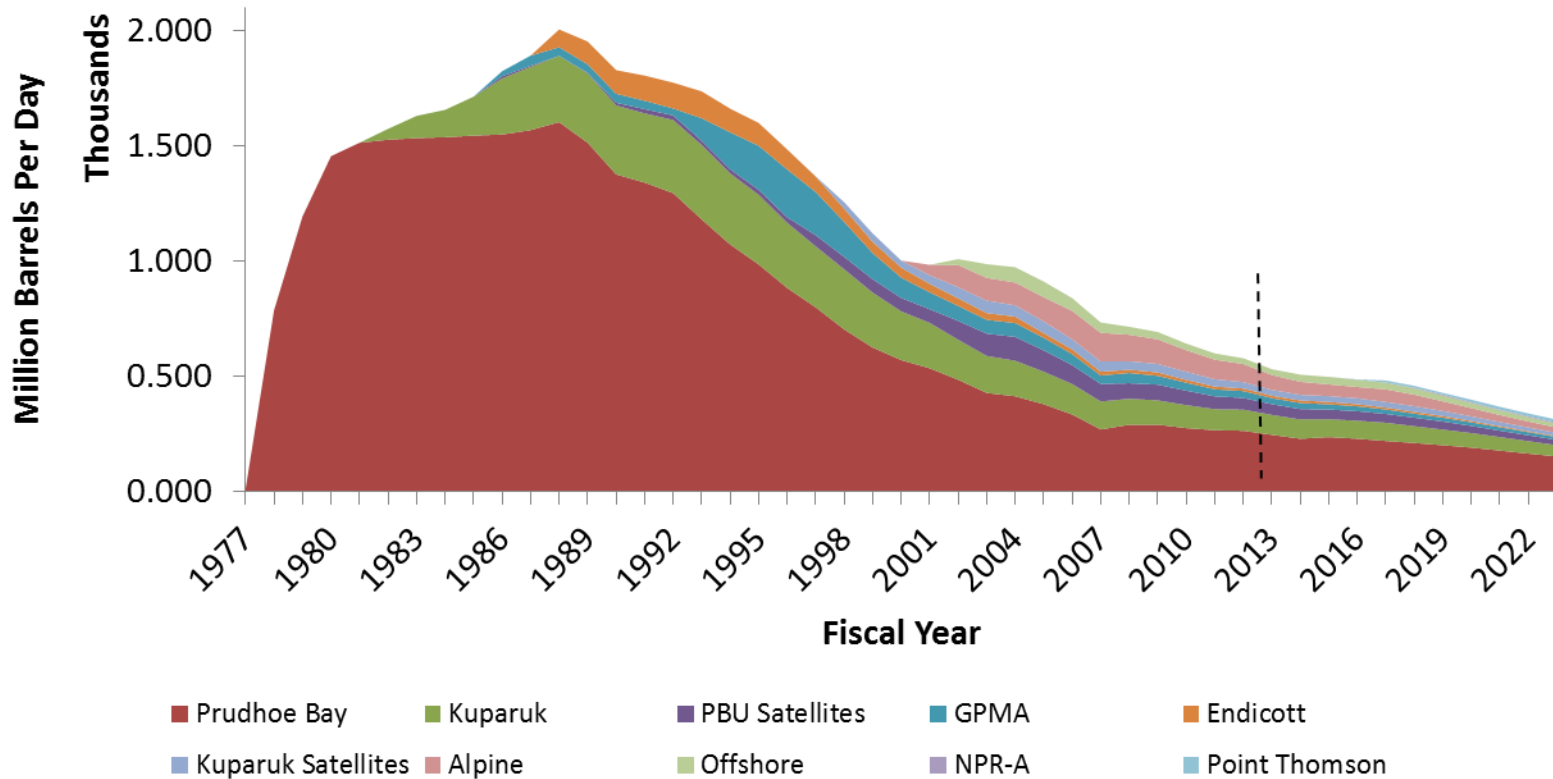
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# FALL 2013

## Production Forecast and Methodology

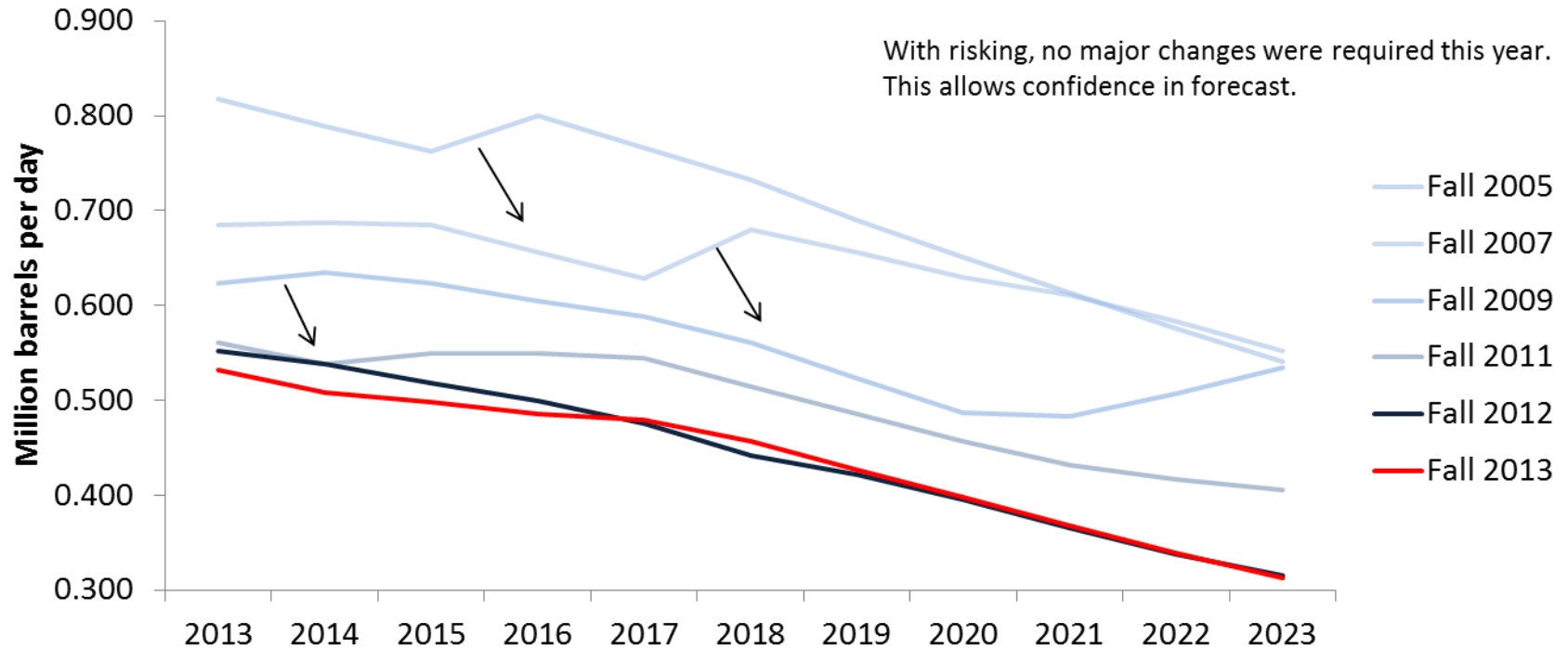


# PRODUCTION HISTORY AND FORECAST



Source: Department of Revenue - Revenue Sources Book Fall 2013 page 43

# ANS OIL PRODUCTION FORECAST



Source: Department of Revenue - Revenue Sources Books Fall 2005-2013

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# ANS OIL PRODUCTION FORECAST

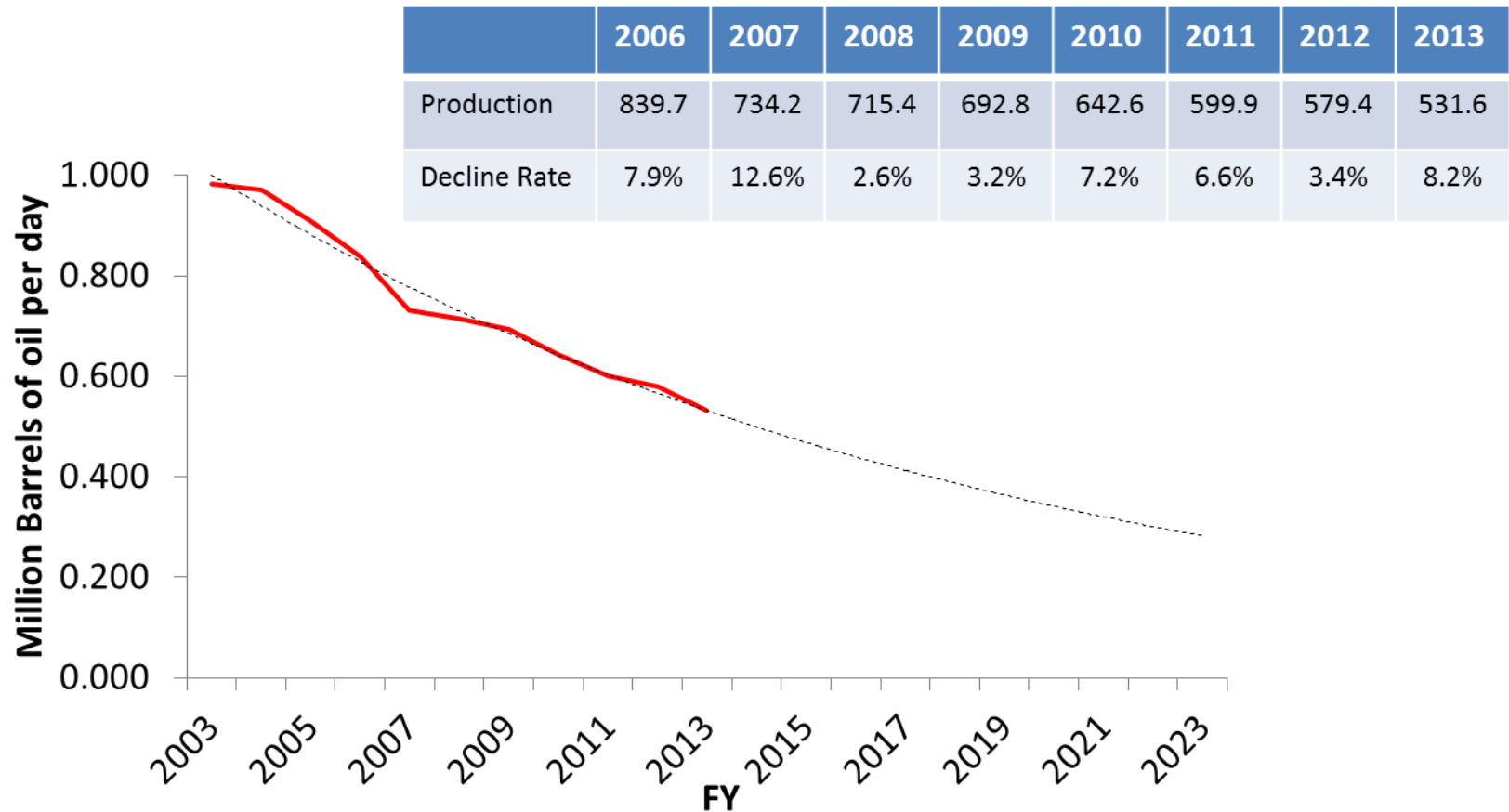
- **Currently Producing:**
  - Oil from wells that are in production and following typical reservoir engineering optimization without major investment.
- **Under Development (UD):**
  - Oil from projects that will add incremental oil to existing fields or will bring new fields into production.
  - Project must have senior management approval and be allocated funds in the company's budget.
- **Under Evaluation (UE):**
  - Oil from projects that are likely to occur in the future, but have not met the requirements of the previous category.
  - Requires that oil reserves are known and recovery is technically possible with current technology.
- *Under Development + Under Evaluation = "New Oil"*

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# ANS OIL PRODUCTION FORECAST

- “Currently Producing” oil **was not** risked
  - Engineering assessment based on actual production data
- The “New Oil” portion of the Forecast was adjusted for risks
  - Accounts for uncertainty in subsurface conditions and risk of delay
- The “Under Evaluation” portion of the Forecast was risked at a greater rate than “Under Development”
  - Accounts for greater uncertainty in subsurface conditions and higher risk of delay

# ANS OIL PRODUCTION – ACTUALS & FORECAST

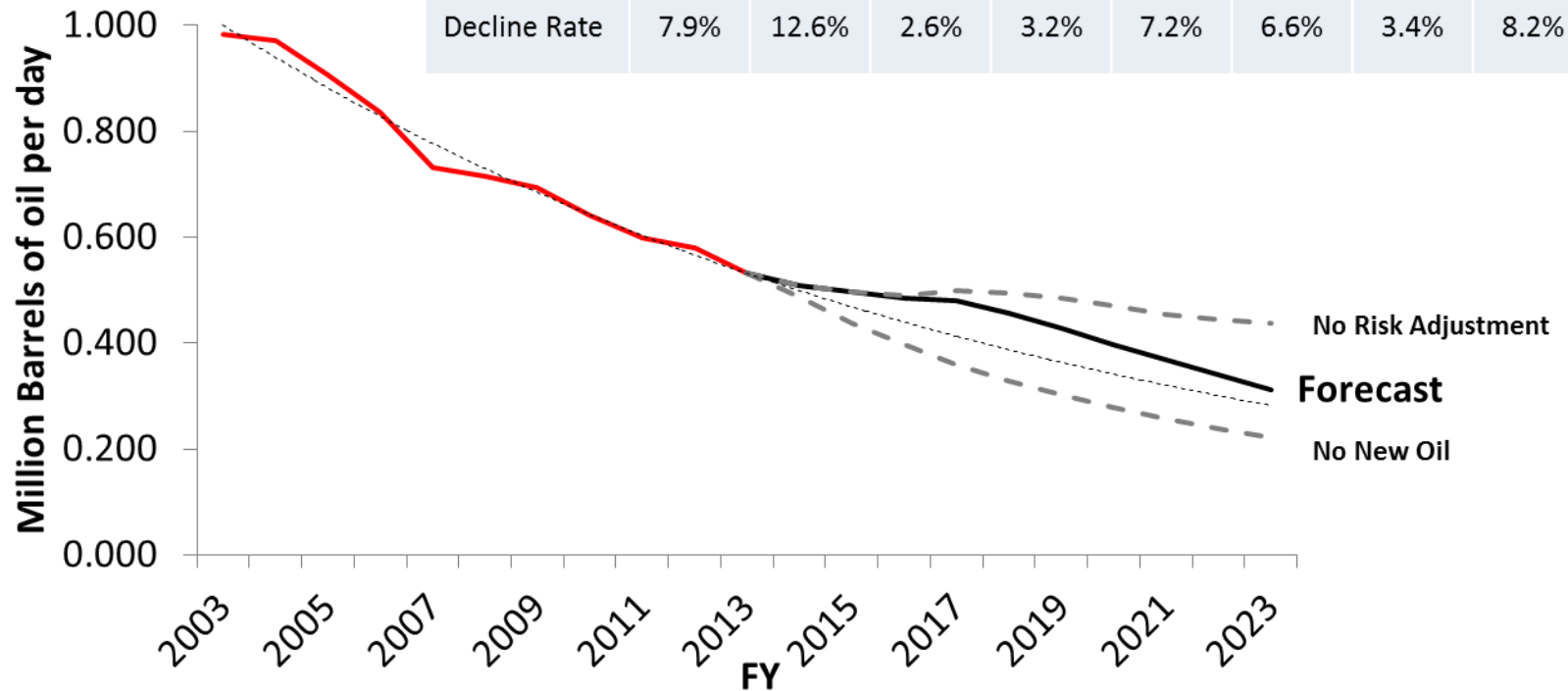


Source: Department of Revenue - Revenue Sources Book Fall 2013 page 45

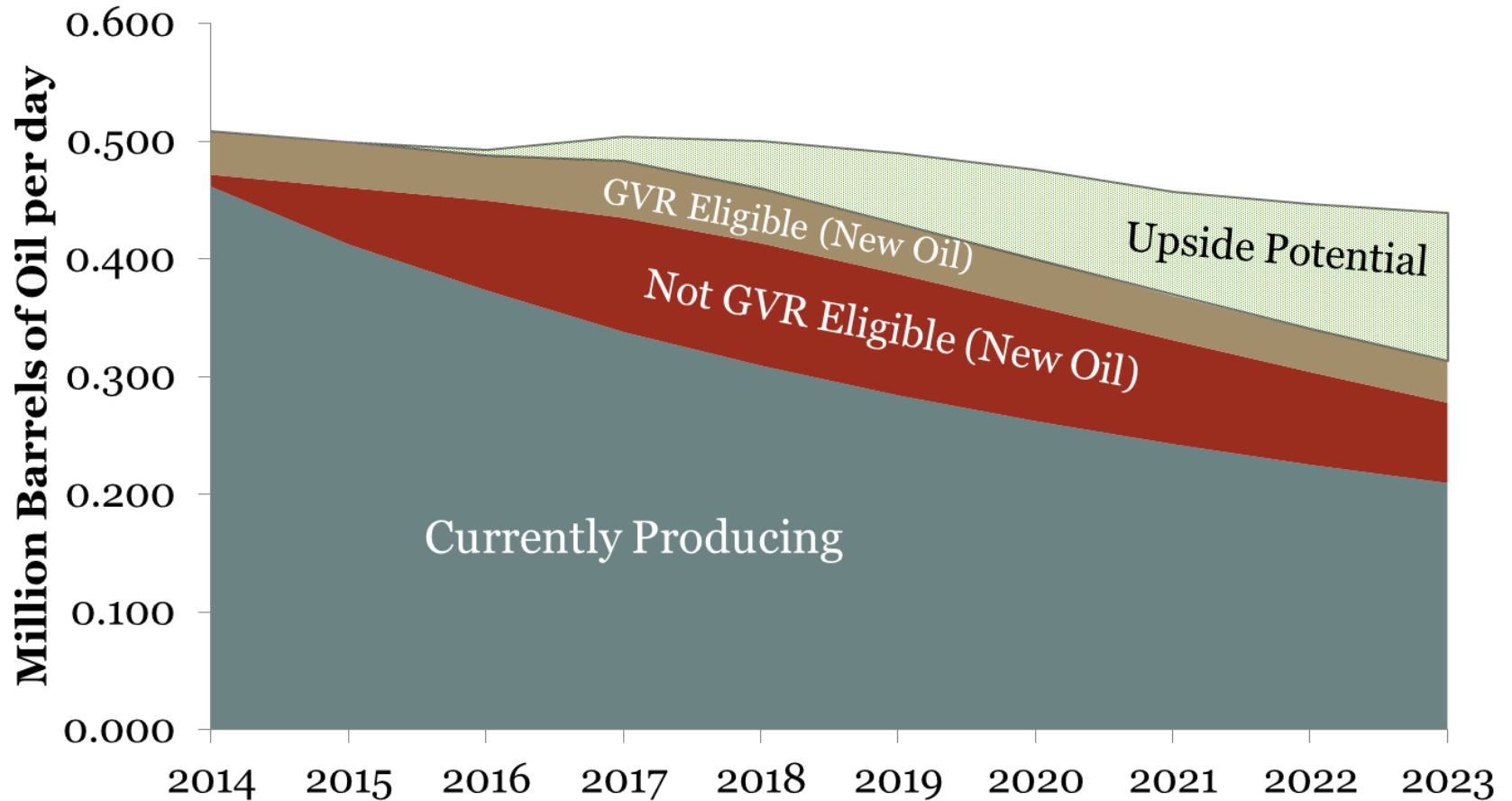


# ANS OIL PRODUCTION – ACTUALS & FORECAST

	2006	2007	2008	2009	2010	2011	2012	2013
Production	839.7	734.2	715.4	692.8	642.6	599.9	579.4	531.6
Decline Rate	7.9%	12.6%	2.6%	3.2%	7.2%	6.6%	3.4%	8.2%



# NORTH SLOPE PRODUCTION FORECAST

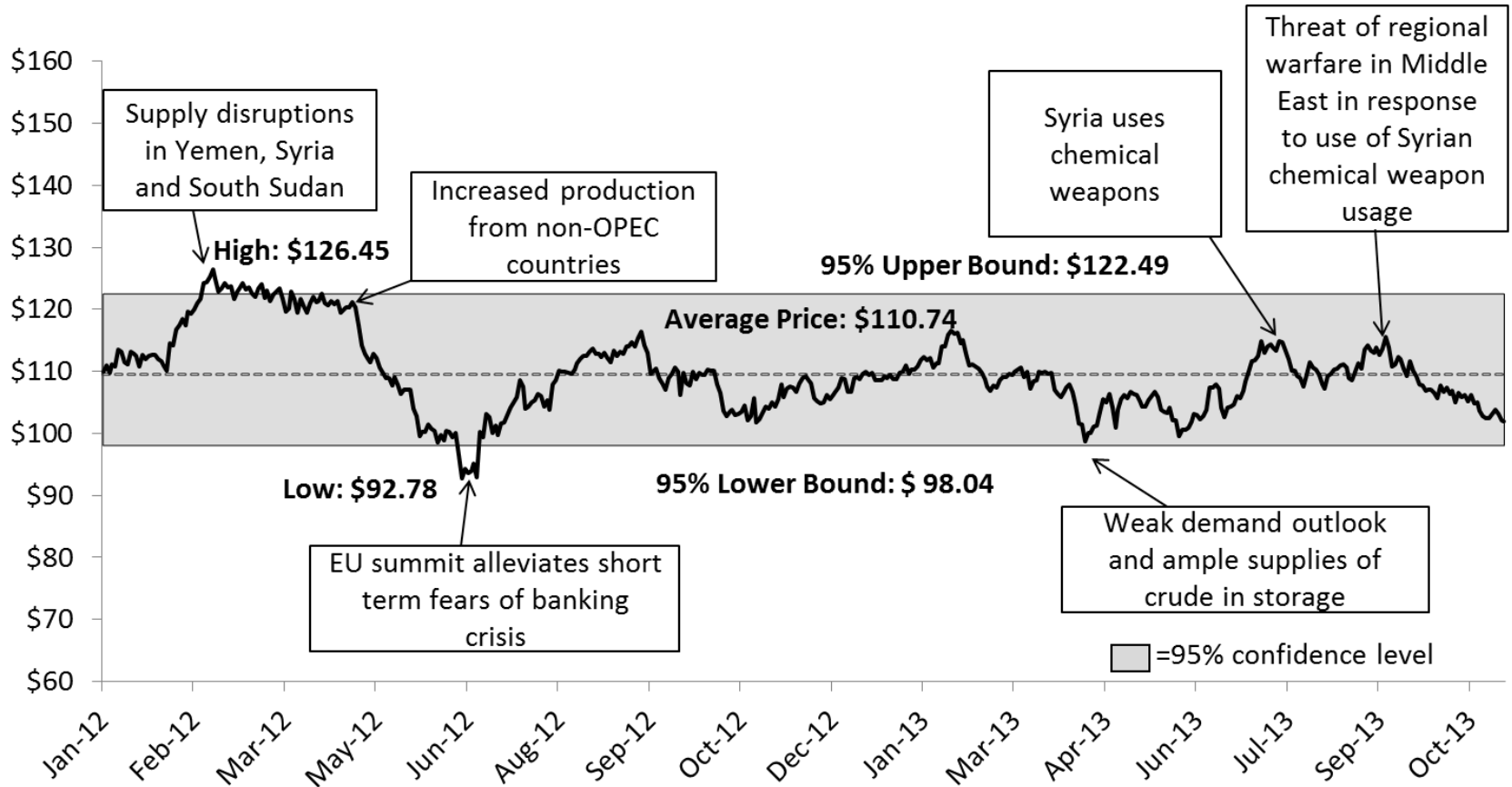


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# FALL 2013 Price Forecast



# ALASKA NORTH SLOPE CRUDE WEST COAST PRICE



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# KEY OIL PRICE DRIVERS

- Supply & Demand
  - There are two main factors to monitor.
    - Global spare capacity, since it is both a reflection of supply and demand. In other words, the Organization of Petroleum Exporting Countries (OPEC) spare capacity (flipping a switch) is key.
    - Cost of developing new oil supply.
  - Department is developing a probability and statistical model incorporating spare capacity and cost of developing new supply to help forecast ANS prices in the future.

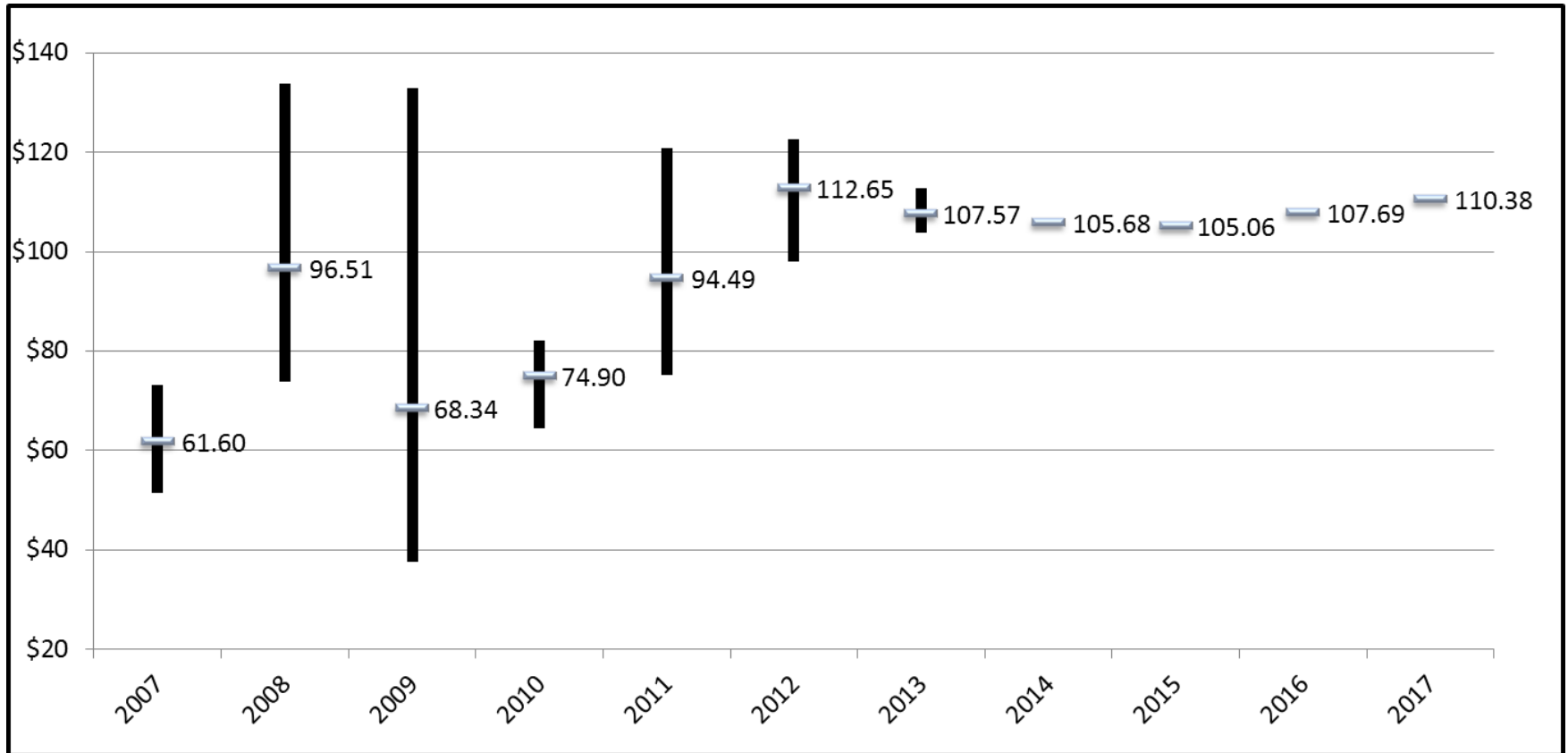
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# PRICE FORECAST METHODOLOGY

- Price Forecasting Session
  - Held a day long oil price forecasting session on October 1, 2013.
  - Speakers provided insight into oil markets, probability and analysis, modeling, and financial aspects of commodity markets.
  - 39 participants from state government, academia and the private sector.
    - DOR, DNR, DOL, OMB, University, Legislative Finance and outside participants.
  - Participants were asked to forecast real ANS prices for the West Coast.
    - Real prices were converted to nominal using a 2.5% inflation assumption.
  - Median price path was chosen for each time period.

# HISTORICAL ANS WEST COAST FY OIL PRICE BANDS

## ANNUAL AVERAGE AND OFFICIAL FY2013 FORECAST



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# Changes from Spring 2013 Forecast





## COMPARISON – FALL VS. SPRING 2013 FORECASTS

<b>FY 2014</b>	<b>Spring 2013</b>	<b>Fall 2013</b>	<b>Difference</b>	<b>Change</b>
Oil Price (ANS West Coast per barrel)	\$109.61	\$105.68	(\$3.93)	-3.6%
Avg ANS oil Production (ths barrels/day)	526.6	508.2	(18.60)	-3.5%
Unrestricted GF Revenue (million)	\$6,712.7	\$4,930.0	(\$1,782.7)	-26.6%
<b>FY 2015</b>				
Oil Price (ANS West Coast per barrel)	\$111.67	\$105.06	(\$6.61)	-5.92%
Avg ANS oil Production (ths barrels/day)	512.8	498.4	(14.40)	-2.8%
Unrestricted GF Revenue (million)	\$6,521.0	\$4,532.0	(\$1,989.0)	-30.5%

## CONTRIBUTORS OF CHANGES IN FY2014 REVENUE FORECAST

Component	Fall 2013 Forecast	Spring 2013 Forecast	Change
ANS Production (thousand bbl/day)	508.2	526.6	-18.4
ANS Price	\$105.68	\$109.61	-\$3.93
ANS Deductible Lease Expenditures (\$million)	\$6,600	\$6,146	+\$454
Transportation Costs	\$10.11	\$8.87	+\$1.24

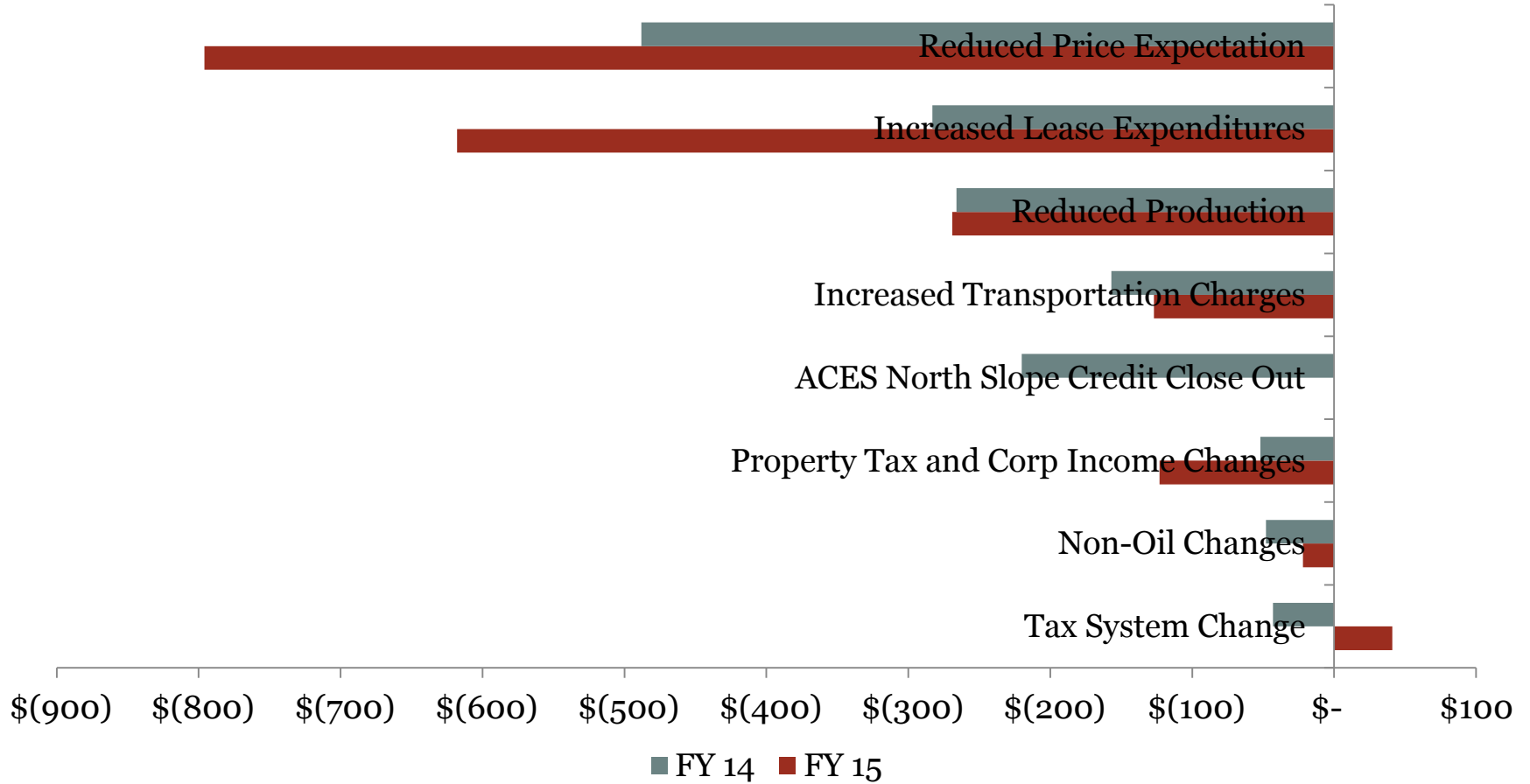
- **Average Production Tax Value per barrel is reduced by \$9.23. Simplified calculation, does not represent any actual company value. Assumes 12.5% royalty.**

## CONTRIBUTORS OF CHANGES IN FY2015 REVENUE FORECAST

Component	Fall 2013 Forecast	Spring 2013 Forecast	Change
ANS Production (thousand bbl/day)	498.4	512.8	-14.4
ANS Price	\$105.06	\$111.67	-\$6.61
ANS Deductible Lease Expenditures (\$million)	\$7,294	\$6,294	+\$1,000
Transportation Costs	\$10.03	\$9.03	+\$1.00

- **Average Production Tax Value per barrel is reduced by \$14.90. Simplified calculation, does not represent any actual company value. Assumes 12.5% royalty.**

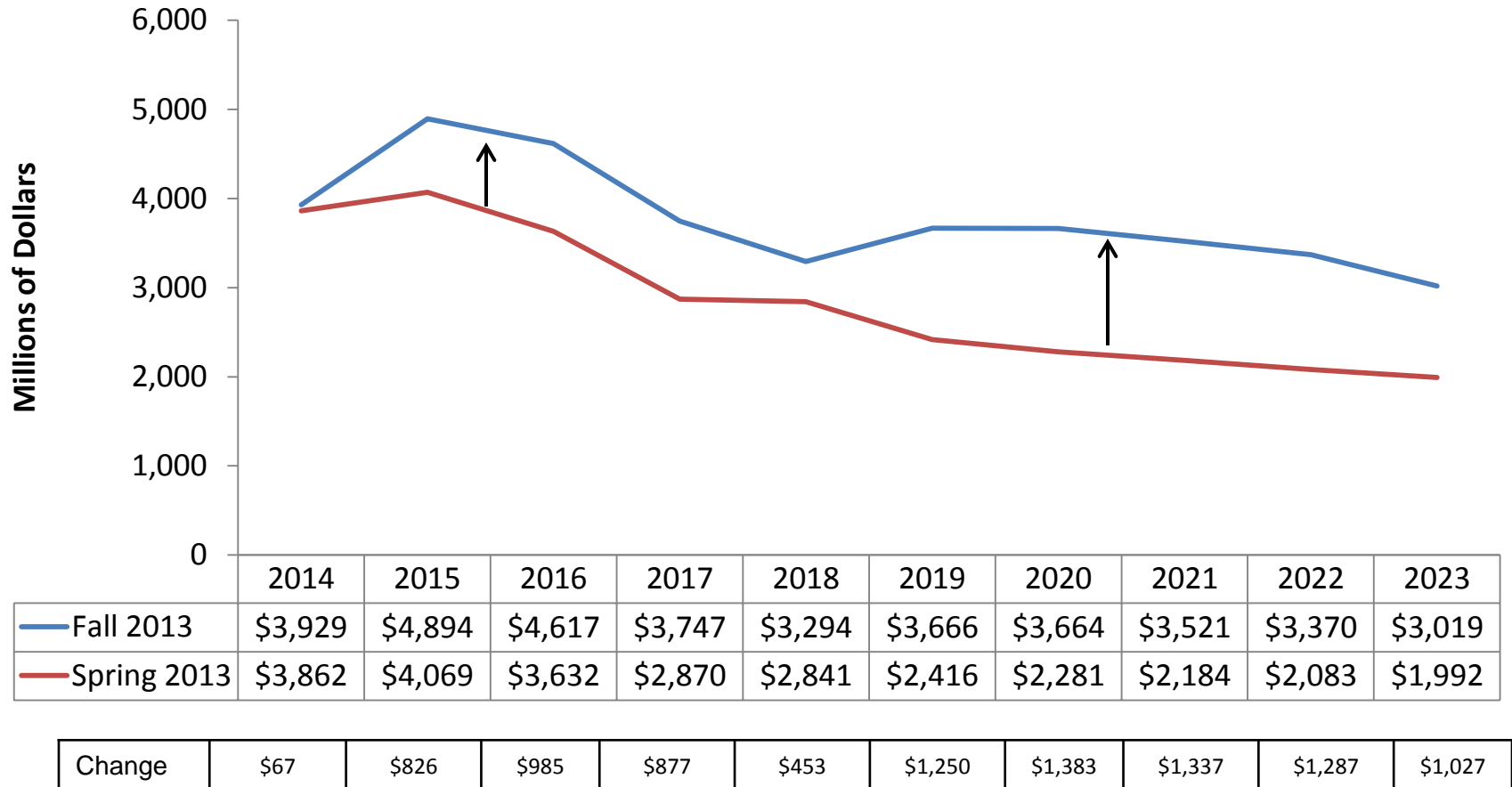
# MAJOR CONTRIBUTORS OF CHANGES IN REVENUE FORECAST (FY14-15)



Source: DOR December 2013 estimates

# NORTH SLOPE LEASE EXPENDITURE FORECAST CHANGE

## Total North Slope CAPEX



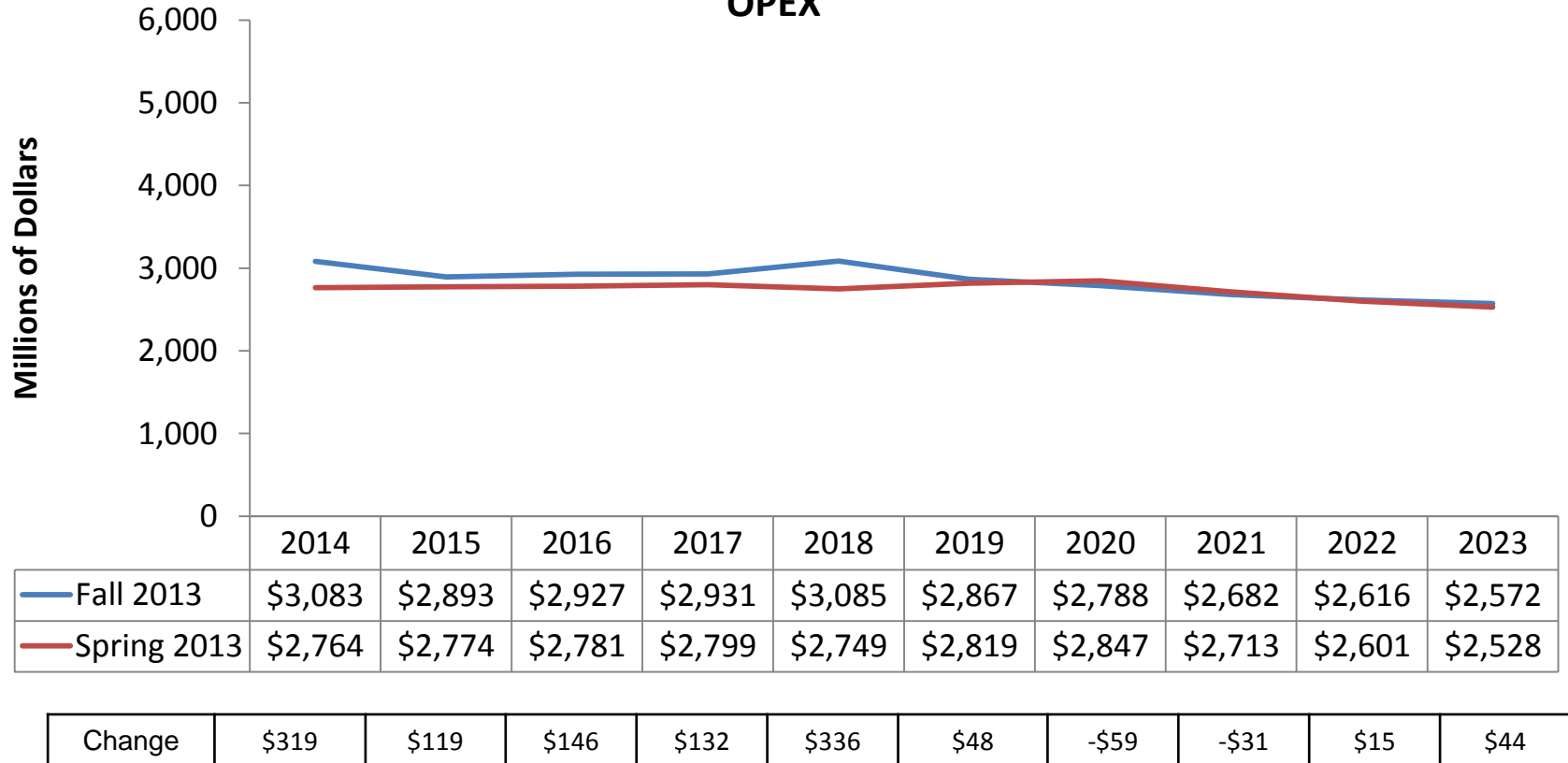
Note: These estimates include lease expenditures by companies that are not expected to have a tax liability.

**Total Increase: \$9,492**

Source: Department of Revenue - Revenue Sources Book Fall 2013 / 2012

# NORTH SLOPE LEASE EXPENDITURE FORECAST CHANGE

## Total North Slope OPEX



**Total Increase: \$1,069**

Note: These estimates include lease expenditures by companies that are not expected to have a tax liability.

Source: Department of Revenue - Revenue Sources Book Fall 2013 and Spring 2013 forecast

# THANK YOU

Please find our contact information below:

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