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**From:** Boomershine, Laura O (DNR) <laura.boomershine@alaska.gov>  
**Sent:** Tuesday, March 09, 2021 11:49 AM  
**To:** Rep. Daniel Ortiz  
**Cc:** House Finance Legislation  
**Subject:** 2013 DNR Oil Production Projections- DNR Follow-up

Dear Rep. Ortiz,

Thank you for your inquiry regarding past projections of throughput in TAPS and current production levels. We specifically looked back at past initiatives aimed at returning throughput to "1Mn barrels per day." We have also included some additional information related to the past production forecast methodologies and a look back at past forecasts.

During the 28<sup>th</sup> Alaska Legislature, Governor Parnell led the "Secure Alaska's Future Initiative" to improve the investment climate for oil and gas exploration and development in Alaska. One tenet of this initiative was to arrest production decline in NS oilfields and set a goal to return throughput in TAPS to 1Mn barrels/ day within a decade. This may be the reference to 1Mn barrels in TAPS that you recall.

In the 2012/2013 timeframe, under the Parnell Administration, the Division of Oil & Gas was not involved in developing the annual production forecast. That work was done by an outside consultant to the Department of Revenue and utilized a different approach to building the forecast than is currently employed by DOG. DOG began doing the forecast in 2016.

The old method of forecasting relied more heavily upon producer inputs and estimates of start-up and production increases, rather than placing emphasis on current field decline rates and levels of in-field drilling that contribute to production in both the near and longer terms. The consultants' forecasts in the 2011-2013 timeframe did not show production at 1MMBOPD (Table C-1 from RSB Fall 2013, shown below) and you can find the forecast in the Fall of 2013 developed by DOR's consultant [here](#).

- High oil prices generally incentivize more spending/development activities by companies. Companies' plans also do evolve with changes in the commercial climate.
  - Oil prices in the 2011/2013 time frame over ~\$105/bbl may have led to optimistic outlooks. Prices have been generally lower since 2014.
  - DNR's analysis shows a strong positive correlation between prices and exploration drilling.
- ACES tax regime incentivized exploration; SB21 tax regime incentivized bringing the fields into production.
  - Some provisions from SB21 such as GVR and non-GVR credits may have incentivized field expansion and new field projects.

Table of numbers used in Fall 2013 Forecast shown here:

\$ Per Barrel	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
January	55.564	65.477	60.396	69.147	53.904	30.219	48.874	103.819	109.876	111.871	92.557	79.335	39.011	9.7
February	61.882	54.478	65.023	66.202	54.724	31.139	53.845	106.297	112.757	119.647	96.786	76.741	42.776	9.4
March		33.212	67.942	66.603	51.813	38.102	52.279	107.907	108.930	122.678	115.341	79.451	47.747	10.0
April		16.542	72.157	71.033	53.337	41.794	58.486	107.362	104.576	120.945	120.860	82.232	46.558	11.0
May		28.210	70.304	76.121	50.720	46.614	64.373	108.060	104.423	110.546	113.567	74.231	58.234	12.0
June		41.783	64.320	74.746	47.378	47.399	64.401	110.757	104.006	98.063	111.079	75.664	69.797	13.0
July		43.555	65.994	76.193	49.184	44.066	56.197	107.634	111.341	103.748	114.469	76.529	64.530	13.0
August		43.360	61.139	73.818	51.367	44.168	48.257	101.778	110.568	110.792	106.948	75.783	71.523	11.0
September		40.423	63.831	77.634	54.817	44.514	48.830	96.053	110.483	111.937	113.736	75.266	69.200	10.0
October		40.418	62.830	80.028	57.553	49.385	48.200	84.905	104.820	107.297	110.836	82.406	74.275	7.0
November		42.913	64.969	66.844	62.803	45.828	44.238	77.407	101.284	105.235	115.644	83.928	76.524	5.0
December		50.319	66.979	58.861	63.793	53.258	37.146	60.902	108.190	107.305	106.543	89.747	75.117	3.0

Table C-1: Production Differences from Spring 2013 Forecast

	(mbbls/day)									
FY	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Spring 2013 Forecast</b>										
Alaska North Slope	538.3	526.6	512.8	499.7	476.9	443.3	422.4	399.4	372.3	344.5
Non-North Slope	10.4	9.6	8.9	8.3	7.7	7.2	6.7	6.3	5.9	5.6
<b>Total</b>	<b>548.7</b>	<b>536.2</b>	<b>521.7</b>	<b>508.0</b>	<b>484.6</b>	<b>450.5</b>	<b>429.1</b>	<b>405.7</b>	<b>378.2</b>	<b>350.1</b>
<b>Fall 2013 Forecast</b>										
Alaska North Slope	531.6	508.2	498.4	487.6	482.7	459.5	429.1	399.6	368.8	340.1
Non-North Slope	12.2	13.5	11.6	10.4	9.5	8.8	8.1	7.6	7.1	6.6
<b>Total</b>	<b>543.8</b>	<b>521.7</b>	<b>510.0</b>	<b>498.1</b>	<b>492.2</b>	<b>468.3</b>	<b>437.2</b>	<b>407.2</b>	<b>375.9</b>	<b>346.8</b>
<b>Volume change from prior forecast</b>										
Alaska North Slope	(6.7)	(18.4)	(14.4)	(12.1)	5.8	16.2	6.7	0.2	(3.5)	(4.4)
Non-North Slope	1.8	3.9	2.7	2.1	1.8	1.6	1.4	1.3	1.2	1.0
<b>Total</b>	<b>(4.9)</b>	<b>(14.5)</b>	<b>(11.7)</b>	<b>(9.9)</b>	<b>7.6</b>	<b>17.8</b>	<b>8.1</b>	<b>1.5</b>	<b>(2.3)</b>	<b>(3.3)</b>
<b>Percent change from prior forecast</b>										
Alaska North Slope	-1.2%	-3.5%	-2.8%	-2.4%	1.2%	3.7%	1.6%	0.1%	-0.9%	-1.3%
Non-North Slope	17.3%	40.8%	30.1%	25.7%	23.8%	21.8%	21.3%	20.2%	19.8%	18.1%
<b>Total</b>	<b>-0.9%</b>	<b>-2.7%</b>	<b>-2.2%</b>	<b>-2.0%</b>	<b>1.6%</b>	<b>3.9%</b>	<b>1.9%</b>	<b>0.4%</b>	<b>-0.6%</b>	<b>-1.0%</b>

#### Historical Decline Rates

- Charts shows decline rates across different periods.
- Table 4-5 is from the DOR Fall 2013 Forecast shows decline rates in the 7 to 8% range
- Overall North Slope history shows decline rates improved from 5% to 3% in the recent decade [2011 through 2020].

#### Drilling Projects since 2014

- Pads
  - 1HNEWS – Kuparuk River Unit
  - SharksTooth – Kuparuk River Unit
  - CD5 and 1<sup>st</sup> expansion – Colville River
  - Moose Pad – Milne Point
- New Fields:
  - GMT1
  - PTU



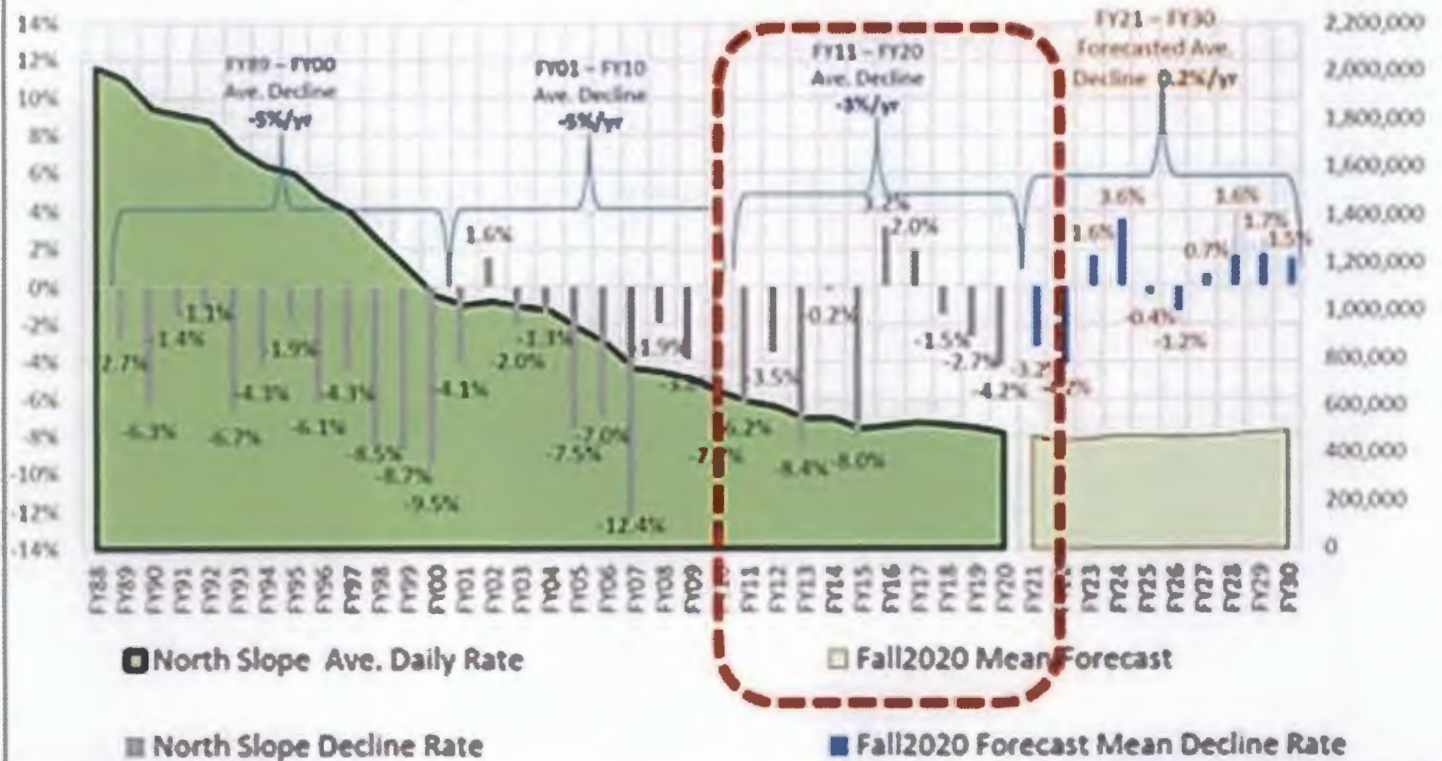
- Several other non-drilling production enhancement activities have occurred over this period: significant wellwork, rig workover and facility expansion campaigns.

Table 4-5: ANS Oil Production Forecast From DOR's Fall 2013 Revenue Sources Book										
	(mbbls/day)									
Fiscal Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Currently Producing	488,436	437,683	396,605	359,016	328,567	301,593	278,379	257,622	238,924	222,454
Decline Rate of Currently Producing	-8%	-10%	-9%	-10%	-9%	-8%	-8%	-8%	-7%	-7%
Risk Adjusted New Oil	19,770	60,705	91,039	123,703	130,920	127,498	121,231	111,200	101,215	90,446
Risk Adjusted Total Forecast	508,207	498,388	487,644	482,719	459,487	429,091	399,610	368,822	340,138	312,900
Anticipated Net Rate of Decline	-4%	-2%	-3%	-1%	-5%	-7%	-7%	-8%	-8%	-8%
New Oil Share of Total Production	4%	12%	18%	25%	28%	29%	30%	30%	30%	29%
GVR Eligible	36,428	37,649	37,858	47,550	45,907	41,723	39,944	37,627	36,026	34,896
% GVR Eligible	7%	8%	8%	10%	10%	10%	10%	10%	11%	11%

Here is an image from that submission (page 3 and Page 4 include charts that show historical production).

# OVERALL PERSPECTIVE: NORTH SLOPE

North Slope Average Oil+NGL Rate & Year/Year Decline



Regards,

**Laura O. Boomershine**

Legislative Liaison | Special Projects

Office of the Commissioner | Alaska Department of Natural Resources

ANC 269-8434 | JNU 465-4730 | Cell 317-5183

