SB 49
Introduction
Proposed Changes to the Oil & Gas Production Tax

Presentation to the Senate Resources Committee
Friday, March 11
Alaska Department of Revenue
Outline for Presentation

• Goals and Rationale for SB 49

• Production Tax Mechanism

• Components of SB 49

3/10/2011
SB 49 Goals

1. Improve investment climate
2. Create jobs for Alaskans
3. Increase production
North Slope Production

Annual North Slope Production and Contribution of Fields

HISTORY

FORECAST

Source: Fall 2010 Revenue Sources Book
Forecasted ANS Production
FY 2010 - 2020

Source: Fall 2010 Revenue Sources Book
North Slope Development Drilling

Source: Alaska Oil and Gas Conservation Commission
North Slope Exploration Drilling

Source: Alaska Oil and Gas Conservation Commission
There’s lots of oil left in Alaska...

- Cumulative production through 2010 has been over 16 billion barrels
- Remaining North Slope reserves exceed 5 billion barrels
- Geology-based estimates of total oil volumes are much higher. For instance, we do not include any of the approximately 20 billion barrels in the giant Ugnu deposit, or offshore volumes from the Chukchi or Beaufort Seas, in our forecast.
Areas of North Slope are Underdeveloped

North Slope Oil and Gas Activity 2010-2011
State of Alaska, Department of Natural Resources, Division of Oil and Gas, January 2011

- North Slope Borough: Planning to drill exploration and development wells in their East Barrow, South Barrow, and Waliak gas fields during 2011-2012.
- Conoco Philips: Focusing 2010-2011 drilling on CD 1 & CD 2 opportunities because of U.S. Corp of Engineers CD-5 permit denial. Corps has remanded some issues for reconsideration.
- Department of Interior: Planned oil spill response plans for the 2010 Gulf of Mexico spill, BOEMRE reviewing Shell's De Beaufort Sea 2011 drilling plan for 1 well.
- ENI: Nikaitchuk Unit first oil from Schrader Bluff OA sands January 2011.
- BP: Methane hydrate demonstration project. Methane hydrate recovery principles.
- Shell: Granted permits to conduct shallow marine hazard and ice-sourcing surveys and biological studies in the Chukchi and Beaufort Seas. Applied for drilling permit for single well at Uyiutq prospect in 2010.

- BLM may designate wild lands within NPR-A as part of its Integrated Activity Plan for the area. Currently the area surrounding Teshepkak Lake is excluded from potential lease sales due to habitat concerns for migratory birds and caribou.
- Great Bear Petroleum, LLC: High bidder on 105 mostly contiguous leases covering 6,181,760 acres south of the Prudhoe Bay and Kuparuk River fields in the State's October 2010 North Slope areawide lease sale, acquiring the maximum allowable onshore state lease position (500,000 non-unitized acres). The company targets oil production from Alaskan onshore source-rock resource plays using advanced horizontal drilling and fracturing technology.
- Anadarko/Suncor/BG: Chandler 1 well suspended for further testing.
- Roads to Resources Program: Dept. of Transportation evaluating routes for a road connecting the Dalton Highway with Utqiaġvik, DNWR to study surface and subsurface geology to identify exploration areas and potential geologic hazards.

NPRA - Alaska
National Petroleum Reserve - Alaska
Continuously year-round development drilling in Prudhoe, Kuparuk, Colville and Milne Point Units
Arctic Frontal Zone

- Brooks Range Petroleum Corp: Testing Kuparuk in Oil River 1A well.
- BP: Raven PA (within PBU) shut-in due to legal dispute with landowner over BP's use of head Point surface lease.
- BP: Restarted Badami facilities November 2010. Transferred 4 Badami leases to Savant Alaska &ACO Exploration.

Map credit: Bob Morris, Alaska Natural Resources Planning Board
How Can We Reverse the Trend?

• Sample Investor Decision Criteria:
  – Prospectivity
  – Geopolitical stability
  – Regulations (access to resources, development permitting, environmental constraints)
  – Operations (existing infrastructure, experienced workforce availability, costs, market proximity)
  – Tax Regime => SB 49 Focus
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Production Tax Overview

- **Production Tax Value (PTV)** is the market price less transportation costs and allowable lease expenditures
  - Allowable lease expenditures include operating and capital expenditures
- **Base tax rate** of 25% on PTV
- **Progressive Surcharge Rate**
  - Triggered when a company’s PTV reaches $30 per barrel
  - $30.00/bbl < PTV < $92.50/bbl = Surcharge adds 0.4% to tax rate for each additional $1 increase in PTV, until combined tax rate reaches 50%
  - $92.50/bbl < PTV < $342.50/bbl = Surcharge adds 0.1% for each additional $1 increase in PTV until combined tax rate reaches the maximum of 75%
Production Tax Overview

How the Tax is Calculated

Production Tax Value (PTV) X Base Tax Rate = Base Tax

PTV X Progressive Surcharge Rate = Progressive Surcharge

Pre-Credit Tax Bill - Credits = Credits Applied Against Taxes

Total Taxes Before Credits - Credits = Final Tax Bill

Total Production Taxes Owed
## FY 12 Production Tax Projected

<table>
<thead>
<tr>
<th>Description</th>
<th>Per Barrel</th>
<th>Barrels</th>
<th>Value ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg ANS Oil Price ($/bbl) &amp; Daily Production (bbls)</td>
<td>$82.67</td>
<td>622,182</td>
<td>$51.4 / day</td>
</tr>
<tr>
<td>Annual Production (bbl)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Annual Production/Value</td>
<td></td>
<td>227,096,430</td>
<td>$18,774.1</td>
</tr>
<tr>
<td>Royalty and Federal barrels</td>
<td></td>
<td>(34,669,890)</td>
<td>($2,866.2)</td>
</tr>
<tr>
<td>Taxable barrels</td>
<td></td>
<td>192,426,540</td>
<td>$15,907.9</td>
</tr>
<tr>
<td>Downstream (Transportation) Costs ($/bbl)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANS Marine Transportation</td>
<td></td>
<td></td>
<td>($2.05)</td>
</tr>
<tr>
<td>TAPS Tariff</td>
<td></td>
<td></td>
<td>($4.67)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td>$0.33</td>
</tr>
<tr>
<td>Total Transportation Costs</td>
<td>($6.39)</td>
<td>192,426,540</td>
<td>($1,229.6)</td>
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<tr>
<td>Lease Expenditures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deductible Operating Expenditures</td>
<td>($12.86)</td>
<td></td>
<td>($2,474.1)</td>
</tr>
<tr>
<td>Deductible Capital Expenditures</td>
<td>($13.14)</td>
<td></td>
<td>($2,528.3)</td>
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<tr>
<td>Total Lease Expenditures</td>
<td>($26.00)</td>
<td>192,426,540</td>
<td>($5,002.4)</td>
</tr>
<tr>
<td>Production Tax Value (PTV)</td>
<td>$50.28</td>
<td>192,426,540</td>
<td>$9,675.9</td>
</tr>
<tr>
<td>Production Tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Tax (25%*PTV)</td>
<td></td>
<td></td>
<td>$2,419.0</td>
</tr>
<tr>
<td>Progressive Tax Rate = ($50.28-$30) * 0.4% = 8.1%</td>
<td></td>
<td></td>
<td>$785.0</td>
</tr>
<tr>
<td>Progressive Tax = (8.1% * PTV)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Tax Due before credits</td>
<td></td>
<td></td>
<td>$3,204.0</td>
</tr>
<tr>
<td>Credits Applied Against Taxes</td>
<td></td>
<td></td>
<td>($450.0)</td>
</tr>
<tr>
<td>Total Tax after credits</td>
<td></td>
<td></td>
<td>$2,754.0</td>
</tr>
</tbody>
</table>

Source: Department of Revenue Fall 2010 Revenue Sources Book, Appendix D

This simple model assumes constant production, price, and expenditures for the entire year; results will differ from our larger model and forecast. The per-barrel expenditures shown are per taxable barrel and do not reflect expenditures per all barrels produced.
Production Tax Credits Overview

• **Qualified Capital Expenditure Credit** – 20% credit for qualified capital expenditures (40% for well lease expenditures outside North Slope).

• **Carried-Forward Annual Loss Credit** – 25% credit for carried-forward annual loss.

• **Small Producer / New Area Development Credit** – Up to $12 million / year for small producers and up to $6 million / year for production outside North Slope and Cook Inlet.

• **Alternative Credit for Exploration** – 30% or 40% of eligible exploration expenditures if certain criteria are met.

• **Cook Inlet Jack-Up Rig Credit** – 80% to 100% credit for first three exploration wells drilled using jack-up rig in Cook Inlet.

Source: Alaska Department of Revenue. Chapter 3 of the Fall 2010 Revenue Sources Book provides detailed information on credits.
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# Main proposed changes

<table>
<thead>
<tr>
<th>Progressivity Rates &amp; Cap</th>
<th>Progressivity defined as <strong>discrete brackets</strong>, rather than as a continuous function, and applied only to incremental revenue. Maximum progressivity of 25%.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Tax Rate</td>
<td>Base tax rate reduction from <strong>25% to 15%</strong> for leases or properties properties neither unitized nor producing on or before 12/31/2010.</td>
</tr>
<tr>
<td>Tax Credits</td>
<td>Extension of <strong>40% well lease expenditure tax credits</strong> to North Slope. Tax credits can be claimed in a <strong>single year instead of two years</strong>.</td>
</tr>
<tr>
<td>Tax Calculation</td>
<td><strong>Yearly tax calculation</strong> based on average prices and costs, instead of monthly tax calculation impacted by short term price and cost peaks.</td>
</tr>
</tbody>
</table>

**2012** Effective 1/1/2012 for expenditures made before 12/31/2011.

**2013** Effective 1/1/2013, applies to production after 12/31/2012.
Nominal Production Tax Rates

PTV ($/boe)

ACES Nominal Rates
SB49 Unitized Fields Nominal Rates
SB49 Non-Unitized Fields Nominal Rates
Marginal Government Take

*(Incremental Government Take generated by a US$ 1/boe increase in Production Tax Value, with all other conditions remaining unchanged)*

3/10/2011
Share of Profit under ACES

Production=600kbpd, Transport Costs=$6/bbl, Upstream Costs=$20/bbl

3/10/2011
Share of total profit
SB49: Unitized Fields

Share of Profit under SB49 Unitized Fields

Production=600kbpd, Transport Costs=$6/bbl, Upstream Costs=$20/bbl
Share of total profit
SB49: Non-Unitized Fields

Share of Profit under SB49 Non-Unitized Fields

Production=600kbd, Transport Costs=$6/bbl, Upstream Costs=$20/bbl

3/10/2011
SB49 Goals

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