Sense, Nonsense and the Power of the Big Three

North Slope domination by three major oil companies is one of many real-world issues that Scott Goldsmith's recent report overlooked

A report by Richard A. Fineberg

June 21, 2014
(Originally posted at Alaska Dispatch)

July 3, 2014
(Reposted at www.finebergresearch.com)

Report Outline

Section Subject (page)

Editor's Note (July 3, 2014) –

Lay-out and minor editing changes have been made to this report. For example, observations at the close of various sections are now displayed as "Reader's Guide" comments. However, this posting contains no significant changes to the content of the posting by Alaska Dispatch on June 21, 2014.

Sense, Nonsense and the Power of the Big Three:

North Slope domination by three major oil companies is one of many real-world issues that Scott Goldsmith's recent report overlooked

By Richard A. Fineberg
Alaska Dispatch, June 21, 2014 (Re-posted at FinebergResearch.com, July 3, 2014)

1. Introduction

In a recent report defending the state Legislature's controversial oil tax overhaul, veteran economist Scott Goldsmith made headlines when he attacked unidentified opponents of the new state oil production tax. Senate Bill 21 (SB 21), passed on the last day of the 2013 legislative session, went into effect this year but is currently subject to recall by popular vote in the statewide August primary election. Despite defects and omissions in the Goldsmith report that appear to indicate a pro-industry bias, the University of Alaska's Institute for Social and Economic Research released the Goldsmith study May 1 under the ostensibly neutral title, "Alaska's Oil Production Tax: Comparing the Old and the New." On that day Goldsmith took off his kid gloves at the Resource Development Council in Anchorage, presenting his views with a set of slides titled "SB21 SENSE AND NONSENSE: The More Alaska Production Act (MAPA)." Both versions of Goldsmith's work were funded by the Northrim Bank, an acknowledged supporter of SB 21. The latter slide set also served as the basis for the talk he gave to the Fairbanks Economic Development Council four weeks later. *(1)*

Five days after the report was released, former governor Tony Knowles chimed in to thank Goldsmith for "an objective and knowledgeable third-party analysis" on "real facts" in the ongoing debate of whether Alaskans should support or reject the oil tax reform passed in 2013." He concluded that "[t]he referendum is not about the oil companies – it is about Alaska's economic future; and now that we have the facts, I'm voting no on ballot measure 1." *(2)*

I beg to differ. The former governor confuses facts with Goldsmith's self-acknowledged speculation about an uncertain future. Together, their mistaken arguments typify the current state oil tax controversy, which is mired in jumbled arguments, confusing details and poorly sourced numbers.

Based on experience dealing with North Slope petroleum development issues (serving at various times since the 1970s as a state policy analyst, newspaper reporter, consultant and occasional expert witness), I will demonstrate that the Goldsmith report is uneven in presentation, deficient in detail and lacking in basic understanding of North Slope development issues.
The following premises guide my approach to this critique:

- Aggregated economic data alone, however carefully gathered and assembled, may fail to identify economic drivers that may combine with other factors and circumstances to outweigh the intent of proposed fiscal policies. For example, volatile oil prices may increase, decrease or shift directions suddenly and dramatically, surprising policy makers, proving pundits wrong and nullifying the intended effects of a tax policy.
- Future policy outcomes are necessary speculative and therefore inherently vulnerable to generalizations that may not be grounded in reality. For this reason, supporting data must be carefully assessed to determine whether that body of information is qualified as an appropriate base for policy analysis and decisions. To meet this standard, care must be taken to assure that data are accurate, tested in reality and responsive to relevant circumstances.

Accompanying these basic understandings, the following three insights emerge from Alaska's unusual geographic and socio-economic circumstances:

- Control of more than 90 percent of North Slope production and ownership of the Trans-Alaska Pipeline System (TAPS) is a significant condition that enables the three major North Slope producers – British Petroleum, ConocoPhillips and ExxonMobil – to wield great political power and generate extraordinary profits.
- Shortcomings in implementing state policies, such as the failure to assure the integrity of economic data by conducting and completing audits of annual economic data in a timely and useful manner, increase the difficulty of understanding important factors relevant to the state's petroleum policies.
- Despite the production decline from the North Slope's historical heights that began more than a quarter century ago, significant remaining petroleum reserves may create opportunities for continued economic development.

Each of these premises reflects the importance of the fundamental distinction between theory and practice.

Reader's Guide: The first two premises above inform my analysis of Goldsmith's overview and opening explanatory table, which are covered in the next two sections. Subsequent sections of this analysis will cover the social and economic policy issues that the Goldsmith report failed to address, failed to investigate or glossed over.

2. Goldsmith's Four Summary Points

In the opening summary of his ISER report, Goldsmith offered a cherry-picked example that attacked unidentified individuals who were not quoted directly. He emphasized this point with a pie chart labeled "Disappearing Billions." That chart, the only graphic on his summary page, itemized the differences in the two successive forecasts for state fiscal year 2014. But Goldsmith failed to tell readers about hard evidence that knowledgeable policy makers critical of SB 21 had circulated that summarized comparisons between the ACES and SB 21 tax regimes when applied to identical scenarios for a given year. For example, an analysis provided March 11, 2013 in a letter from Alaska Department of Revenue (ADOR) Commissioner Bryan Butcher to Senator Bert Stedman examined the results of both tax measures using historical data for each of three fiscal years between 2010 and 2012. That comparison found that SB 21 would produce less state revenue than ACES from the two largest fields alone in every year, ranging from annual revenue losses of $0.3 billion for FY 2010 to $1.7 billion for FY 2012. *(3)*

In his second summary point, Goldsmith echoed New York Yankee catcher Yogi Berra's famous advice that "It's tough to make predictions, especially about the future." Goldsmith observed that "[f]uture revenues are very sensitive to oil prices and costs of production and are difficult to forecast." Paradoxically ignoring his own caveat, Goldsmith immediately followed with a series of predictions based on an assortment of problematical assumptions about future economic factors. According to Goldsmith, "if current trends continue – if costs continue to rise faster than oil prices … the new tax could produce more revenue. But if conditions revert to those of past years, when production costs were lower, relative to oil prices, the old tax could produce more revenue." He described the causes of the rising costs of oil development, citing "inflation in the price of inputs, maintenance of aging facilities, and development of marginal facilities." But in the summary analysis he did not quantify these economic inputs. I believe the inherent sensitivity of the ACES regime to costs and oil prices makes a strong argument for maintaining many of those provisions, under which both the state and the North Slope producers fared well.

Despite his concerns about forecasting difficulties, Goldsmith based his third conclusion on a set of predictions. He opined – with charts to emphasize his points – that although increased investment encouraged by the SB 21 tax system would cause near-term reductions in state revenue, the tax cuts would lead to increased company investments, causing a sudden and significant increase in production five years later. He asserted that this postulated rise in future production under SB 21 would more than offset the near-term decline in petroleum revenue. Goldsmith reported that this outcome was likely "under a reasonable range of assumptions about oil prices and production costs." This forecast is subject to challenge on the following grounds:

- Past tax cuts applied to major fields (Kuparuk) have not resulted in increased production. *(4)*
- Because demand-driven and inherently volatile oil prices can outweigh the effects of the production tax as an economic driver in the problematical future, it is by no means certain that SB 21 tax cuts would enhance North Slope production life.
- SB 21 tax credits make the state exceptionally vulnerable to revenue loss from tax credit deductions.
- Under SB 21 terms the industry could simply take the cash from reduced production taxes, without reinvesting in the North Slope.

In light of these uncertainties, as well as potential SB 21 implementation problems that the Goldsmith report did not recognize, I believe that the more effective and equitable solution to the current tax controversy and the state's fiscal woes will be reinstallation of the ACES regime with a cap on progressive tax rate increases.

Goldsmith's fourth and final overview conclusion was an assertion that "[i]nvestments that draw new outside money into the oil patch could create long-lasting jobs and increase consumer purchasing power." When he made a similar claim in legislative testimony supporting SB 21 in 2013, under legislative questioning he acknowledged that he was assuming that all of the money saved by North Slope producers in SB 21 tax reductions would be re-invested in North Slope development. In response, Juneau economist Gregg Erickson pointed out that industry reinvestment of Alaska earnings could produce as little as ten cents per dollar. Noting that Goldsmith was "truly distinguished" and a "leading economist," Erickson pointedly observed that economics has been described as "a crooked line between an unproven assumption and a foregone conclusion." *(5)*

Reader's Guide: Goldsmith's leading conclusion can be quickly dismissed as a cherry-picked hatchet attack of questionable relevance to the ACES and SB 21 oil tax systems. Ironically, his second conclusion – a caveat about forecasting – undercut the value of his final two points.

3. A Faulty and Confusing Table

In a report filled with charts that frequently displayed results without providing quantified input data or their source, the introductory chapter, "How the Production Tax Works," provided an opportunity to look at Goldsmith's strangely selective approach to petroleum economics. Like the main body of the report, this chapter was notably lacking in quantified information about producer profits that might have enabled readers to put this important subject in perspective. The significance of this surprising omission will be discussed later. In the meantime, it should be noted that although his introductory table, "FY 2013 Production Tax Estimate" was limited in purpose – it was supposed to show readers how ACES tax rates per barrel could be derived from an appendix page in ADOR's Fall 2013 *Revenue Sources Book* – the table quantified the total annual state production tax revenues but did not quantify producer profits.

Apart from this omission, at first glance Goldsmith's introductory table appeared to be straight-forward, beginning and ending with two numbers each from the ADOR source page and including formulas showing readers how the table entries, once they arrived on the table, were supposed to fit together. But despite the 12-entry table's semblance of congruity and cohesiveness, its utility was compromised by the following defects:

- Without clear explanation, some of the interior eight items in the table – including royalty share per barrel, lease costs and production tax value (PTV) per barrel – differed notably from their counterparts in the ADOR source table.

- Additionally, there was an unexplained inconsistency between Goldsmith's PTV figure at the fifth entry of the explanatory table ($57.22 per barrel) and the ACES tax rate on the following line (40.1%). Using the established formula for determining the ACES tax rate (discussed in the text immediately below the table), the $57.22 PTV (the result of subtracting transportation, royalty and lease costs from the average FT 2013 market price) would generate an ACES tax rate of 35.9% per taxable barrel; the undiscussed 4.2% discrepancy would have changed the $4.0 billion production tax liability by approximately $400 million. While the higher ACES tax rate could be derived from the ADOR source PTV ($67.76 per barrel), Goldsmith did not bother to explain the different PTV figures, or why he did not use his given PTV (at line 5) to compute the ACES tax rate (at line 6).
- The last two lines of Goldsmith's introductory table presented another mystery: an effective production tax rate of $20.73 per barrel was multiplied by the listed total annual production of 194.034 million barrels, resulting in total production tax liability of $4.022 billion for FY 2013. Although this result matched ADOR's total tax liability figure, the use of total barrels instead of tax liability raised this question: When the ADOR source table specifically excluded 30.177 million barrels of oil from its production tax calculations because those barrels were not subject to state production tax liability, why did Goldsmith include those non-taxable barrels to calculate the total tax liability?

Due to these defects, Goldsmith's opening table, whose stated purpose was to describe the mechanics of production tax calculations, raised more questions than it answered, creating confusion rather than accomplishing its stated intent. Asked to explain inconsistencies in his explanatory table, Goldsmith told this writer that he had not received questions about a discrepancy between lines 5 and 6. *(6)*

Reader's Guide: For readers who want to understand the mechanics of the ACES progressive tax, I have provided a quantitative analysis of Goldsmith's introductory table. This accompanying worksheet shows that inconsistent application of key inputs that Goldsmith glossed over can radically alter bottom-line results.

4. Hegemony of the Big Three

Since the early days of the North Slope's production history, three companies have controlled the preponderance of the North Slope and TAPS. In 2000 ConocoPhillips – now the North Slope's largest producer – joining British Petroleum and ExxonMobil, replacing ARCO as the third major North Slope producer. Inside the state's oil patch the power that these three companies derive from control of more than 90% of North Slope production is augmented by ownership of TAPS, the 800-mile pipeline link between the North Slope and Valdez, where oil is loaded on tankers for shipment to the Lower-48. *(7)*

Outside the oil patch, the resulting political influence that accrues to the three dominant transnational companies is intensified by the state's unusual demography – isolation from the Lower-48 and a relatively small population base – and the fact that the North Slope pays for more than two-thirds of the state government's operating revenue. This unusual socio-economic backdrop functions to distract attention from the importance of the complex interplay and sporadic conflict between the state and the industry: These historical revenue collection skirmishes continue today, as indicated by the fact that in the last decade the state Constitutional Budget Reserve Fund (CBRF) has received nearly $2 billion in settlement payments for disputed petroleum tax, royalty and pipeline tariff claims. Since North Slope oil production began in 1977 Alaska has successfully litigated to collect more than $9 billion in petroleum revenue that the industry under-reported and underpaid in royalty, production, property and income taxes and overcharged on pipeline tariff overcharges. *(8)*

The economic benefits that the major North Slope producers derive from their dual role on TAPS as shipper-owners demonstrate two ways in which the major producers can make use of vertical integration – ownership of subsidiary facilities that usually operate independently – to increase their profits:

- TAPS overcharges can reduce tax and royalty payments to the state which are calculated after transportation costs are subtracted from the tax base, as discussed above.
- Through TAPS overcharges the shipper-owners also handicap competition from independent producers, who pay pipeline tariffs out-of-pocket while the shipper-owners merely transfer the excess tariff charges from their producing unit to their pipeline subsidiary. *(9)*

TAPS tariff history demonstrates the efforts the TAPS producers have devoted to augmenting their production profits through tariffs that have consistently been found to be excessive in court and regulatory proceedings. In 1978, shortly after North Slope production and TAPS began pumping, the U.S. Supreme Court rejected the TAPS owners' objections to regulation of TAPS tariffs in a unanimous decision. The nation's high court noted that the state was one of four original protesters against allegedly excessive filed TAPS tariffs because the state, due to its royalty and tax interests in the value of North Slope oil, stood to lose $0.23 for every dollar in TAPS overcharges. Seven years later, however, with oil at peak production, allegedly excessive TAPS tariffs were still in litigation and the state was lobbying Congress to enact legislation adopting a standard ratemaking methodology to bring TAPS tariffs down. *(10)*

But by that time, in 1984 the state was changing course and supporting a compromise settlement negotiated with the industry on a hybrid rate-making methodology – a departure from standard rate-making principles. In an explanatory brief, the Department of Law still proclaimed that "Alaska stands in the shoes of both past and future shippers …. Alaska's interests are coextensive with shippers." One week before the final settlement was presented to the Federal Energy Regulatory Commission (FERC) in 1985, the U.S. House of Representatives Subcommittee on General Oversight and the Economy of the Committee on Small Business held a hearing to find out, among other things, why the state and the U.S. Justice Department were suddenly changing course and were now supporting a negotiated settlement. During that hearing, Rep. Norman Sisisky (D-Va.) asked an attorney from the Department of Law this question:

> "To Alaska now. Isn't the real problem that they stonewalled you? They stonewalled you and you gave in? They used the power of the corporate treasury, of the courts, to absolute stonewall anything that happened. Isn't that really what happened?" *(11)*

The Department of Law attorney chose not to answer this question. About a week after this unusual policy shift, with state support the FERC approved that hybrid TAPS Settlement Methodology (TSM).

The importance of this unusual policy was underscored by a finding in the 2002 decision on the 1985 TAPS tariff settlement agreement by the Regulatory Commission of Alaska (RCA). According to this seldom noticed finding, the 1985 TSM agreement enabled the pipeline owners to overcharge pipeline shippers by nearly $10 billion between 1977 and 1996. In this 2002 finding, RCA estimated in 2002 that these overcharges were worth $13.5 billion in real 1997 dollars. Since TAPS was vertically integrated, much of this sum was transferred from the owner company's production arm to its pipeline subsidiary, without leaving the company. Nevertheless, these pipeline overcharges – from one corporate pocket to the other in terms of cash flow – reduced the producers' state tax payments by an estimated total of approximately $3.375 billion, saving the producers nearly half a million dollars per day over this 20-year period, at state expense. *(12)*

This finding was ancillary to the RCA's 2002 decision on tariffs for in-state shipments for the years 1997-2000, which were being challenged by independent shippers. Although the RCA decision for 1997-2000 brought tariffs for in-state shipments during current years down from approximately $6.00 per barrel to $2.00 per barrel (at least in theory) the findings of overcharges for the years 1977 through 1996 were not subject to retroactive ratemaking because those tariff overcharges had been allowed under the 1985 TAPS settlement agreement. The RCA was investigating the historical tariffs for the limited purpose of establishing that past tariffs had been fully collected by the TAPS owners and therefore did not need to be included in the post-1996 rate base for setting future TAPS tariff rates or calculating tariff refunds. But if RCA's authority in the 2002 decision had extended to requiring correction of the 1977-1996 tariff overcharges, repayment of $3.375 billion by TAPS owners to the state and independent shippers would have increased the $9 billion collected to date in repayment for under-reported and underpaid in royalty, production, property and income taxes and pipeline tariff overcharges to more than $12 billion. The TAPS owner companies took the RCA's 2002 tariff decision to court and lost in the state Superior Court, then appealed that decision to the state Supreme Court and lost again. *(13)*

In 2014 the TAPS owners continued to file high tariffs that are usually challenged by independent producers and shippers – not by the state. Despite adverse court and regulatory decisions the major North Slope companies continue to pursue their economic interests through pipeline ownership, as indicated by three recent court and regulator decisions against TAPS owners. In February of this year, a FERC administrative law judge rejected the TAPS owner tariff charges for cost over-runs on the pipeline makeover known as Strategic Reconfiguration (SR). After an extensive review of the record, she concluded the tariff charges were imprudently incurred. Also in February, in a separate, ongoing argument between the state and the TAPS owners over the low valuation of TAPS filed annually by the pipeline owners the state Supreme Court upheld a 2011 Superior Court decision against the TAPS owners on their chronically low filing for tax year 2006. Three months later, in the latest round of the TAPS valuation saga, the State Assessment Review Board (SARB) set the value of TAPS at $10.2 billion for property tax purposes – nearly five times higher than the owners' most recent estimate of $2.7 billion. *(14)* In sum, review of the TAPS tariff proceedings and the annual property tax court fight demonstrates the steadfast efforts of the TAPS owners, despite repeated regulatory and court failures, to overcharge for TAPS shipments while underestimating TAPS valuation to minimize property tax payments.

Percentage-wise, in the modern era of high oil prices pipeline revenues represent a relatively small component of North Slope profits. However, oil patch veterans recognize that profitability has many components, each of which can contribute to project advantage. On the North Slope TAPS therefore continues to play a significant role. Meanwhile, as pipeline events unfold the major producers have been active on two fronts in the Alaska political sphere that also demonstrate major producer hegemony. For example:

- The industry is encouraging the state to make the arrangements necessary to join them in the private sector by contributing financially and sharing the risks of the perennially delayed North Slope natural gas project that would produce and deliver that commodity from their North Slope lease holdings in the form liquefied natural gas (LNG) for export to Asia, trucking LNG to Alaska communities, or both. *(15)*
- Meanwhile, the North Slope producers spend lavishly to fund an advertising campaign to oppose repeal of SB 21; a "no" vote on the August primary referendum would preserve the petroleum tax cut enacted in 2013. SB 21 advocates claim the Goldsmith report demonstrates that it is necessary to spend more money to increase production and the tax cut is therefore vital to Alaska's economic future because reduced taxes will enable the industry to spend that money. *(16)*

In these various oil and gas-related issues the power and influence of the major North Slope producers is readily apparent; however, their interests do not necessarily coincide with those of the state, or with independent producers.

<u>Reader's Guide:</u> The Goldsmith report did not mention the economic benefits that the three major North Slope producers derive from their ownership of TAPS or their efforts to minimize taxes on that pipeline. The uninvestigated social and economic consequences of major producer hegemony are also notable omissions from the Goldsmith report.

5. State Audit Problems

Because most of the important audit battles are shielded from the public spotlight by confidentiality provisions, it is difficult to assess the degree to which these problems might delay or otherwise adversely affect both revenue collection and the gathering of data for policy purposes. Based on monitoring of information presented to the Legislature, it appears that state officials may blur the important distinction between (1) desktop audits that merely check to make sure numbers add up and (2) field audit that verify inputs – expenditures, receipts, production figures and data classification. Lack of the latter can lead to the well-known "GIGO" effect: garbage in, garbage out. *(17)*

By way of background, in the spring of 2013 the Legislature heard from ADOR officials that audits were running five years late as the tax collectors struggled to get out from under an inefficient manual reporting system. The department is still in the process of replacing its antiquated manual tax reporting system with a computerized tax system that, on completion, will enable more efficient compiling and field checking of reported industry receipts, field expenditures and payments to the state. Although SB 21 was supposed to replace ACES with a simpler tax system to encourage development and facilitate implementation, the SB 21 credit provisions are far from simple and there are indications that SB 21 may still be facing administrative difficulties. For example:

- British Petroleum Senior Tax Counsel Tom Williams, testifying on behalf of AOGA at an ADOR hearing on the new regulations on August 13, 2013, warned that the 20% gross value tax reduction (GVR) provisions of SB 21 were threatened by state accounting delays that would nullify the intended tax break incentives.
- At the same hearing ConocoPhillips tax attorney Marie Evans said she could not understand many of the new regulations and had to tell colleagues, "I don't know what that means." She added, "It's not going to meet the goals of SB 21 if I'm answering 'I don't know.'"
- Two weeks later, AOGA addressed comments on the proposed regulations, noting that "complex standards and methodologies for identifying the acreage and metering the volume of new production that would receive the "gross value reduction" (GVR) and $5/barrel tax credit incentives were "difficult to understand and apply," and in some cases "not feasible or possible to comply with." *(18)*

In addition to these problems, the state's chronic administrative and audit difficulties raise the following questions about the hopes for SB 21:

- Are state agency personnel on the North Slope properly trained and equipped to assure that the producers are correctly determining whether oil being produced at North Slope fields would qualify for deductions for oil produced from a new production unit, a new participating area in an existing unit, or an extension of existing accumulations and reported correctly to qualify for the GVR and other credits allowed under the new bill?
- When simplicity is a stated goal of replacing the monthly calculations required by the ACES progressivity tax code, have the technical difficulties involved in determining in the field which revenue exclusions apply to oil under SB 21 made the new legislation as complicated to administer as the ACES tax regime that SB 21 has replaced?

- In presenting his opening table Goldsmith identified the ADOR Fall 2013 *Revenue Sources Book* as the source for the state fiscal year 2013 numbers from which his table estimates were derived. But he did not mention that the report's source data were issued with this caveat: "This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication." Elsewhere in the ADOR publication many of the same numbers appear with this footnote: "Lease expenditures and credits against tax liability for FY 2013 were prepared using unaudited company-reported estimates." *(19)*

<u>Reader's Guide:</u> The Goldsmith report did not discuss how the state was addressing the ongoing problems tallying and collecting petroleum payments, revenue and cost receipts. The term "audit" did not appear in his report. The concluding sections of this analysis will focus on the relationship between profitability and state tax policy.

6. North Slope Profitability, Reserves and Production Decline

Countering North Slope declining production and rising costs, since 1998 (a decade into this decline) oil prices have skyrocketed, adding to field cost increases while creating even greater potential for profits. Although industry supporters claim that Alaska production is too heavily taxed under the cost-based and progressive state petroleum tax system, implemented in 2006 and modified as ACES in 2007, data that ConocoPhillips files annually with the federal Securities and Exchange Commission (SEC) indicates that under the ACES regime the company's North Slope operations have consistently brought in a tidy yearly profits, ranging from \$1.5 billion to \$2.3 billion annually. *(20)* As shown in the accompanying chart, these <u>ConocoPhillips Alaska profits</u> soared over the company's erratic global earnings, which plummeted to a staggering rest-of-world net loss of more than \$16 billion in 2008. For three lean years during the first decade of this century Alaska North Slope profits played a major role in keeping ConocoPhillips financially afloat.

While SEC data offer clear insight into current North Slope profits, tax cut proponents have not identified the point at which factors that have contributed to the North Slope's remarkable profitability, despite declining production, might suddenly stop working. Moreover, lack of readily available audited data opens the door to confusion regarding basic economic and geologic factors crucial to the future of the North Slope's unusual history.

Knowledgeable petroleum engineers currently estimate that the North Slope holds 5.9 billion barrels of proven oil reserves. In the State Assessment Review Board (SARB) hearing on TAPS valuation, these experts estimate that even without additional discoveries these reserves, which they have conservatively estimated, are sufficient to sustain continued North Slope production for the next 37 years. *(21)*

In assessing future prospects, the North Slope field decline rate is an important economic factor that warrants careful analysis. The Prudhoe Bay reservoir – at its peak the nation's largest – has been in decline since 1988, but knowledgeable petroleum engineers believe that the super-giant field decline will level off, enabling production from Prudhoe Bay and satellite fields to continue for many years to come. *(22)* Nevertheless, economic and geologic uncertainties create fears of an early North Slope shutdown that hang heavily over the current Alaska political scene. As reservoirs age, more gas and water will be produced with each barrel of oil. To hold production constant under these circumstances requires more total lifting, and then more processing to prepare the oil for shipping and refining. Consequently, field costs per barrel of oil have been rising and may continue to increase. Adding another note of complexity to the understanding of future developments, forecast decline rates may vary, depending on field size and geologic characteristics, as well as past and projected investments.

Against this complicated backdrop, tax cut advocates do not appear to attach significant weight to the possibility that proven oil reserves – quantities of oil that are technically, economically and legally available for production – can create economies of scale that would reduce the effects of rising field costs per barrel.

<u>Reader's Guide:</u> Failure to mention the extraordinary profitability record of the North Slope's largest producer is a clear example of the Goldsmith report's peculiar selectivity in its handling of important economic factors. That report's treatment of important geologic factors suffered from similar mishandling.

7. Pure Profit Unmeasured

Although Goldsmith says he wanted to help Alaskans understand the controversy between two production tax systems at issue in the coming August primary, readers were frequently left in the dark when important subjects were omitted, not quantified or poorly defined. For example, after a brief appearance in the opening chapter, where Goldsmith attempted to explain how production profits were divided up between state and industry, the term "profits" virtually vanished from the report. Although the report presented dozens of charts and tables showing field cost data, prices and sometimes even production volumes, the subject of profits did not appear again until the final pages of the report, when Goldsmith asked and addressed this question: Why would producers prefer SB 21 to ACES? *(23)*

After raising this question, Goldsmith approached it rather circuitously. He presented two speculative answers about differences between industry and public assessments of tax effects, quickly dismissed both theories and went on to name and discuss four other reasons producers favored SB 21 that he thought were probably more important than the theories he had brought up. His four reasons appeared under the following headings:

- (1) Elimination of Progressivity.
- (2) Rationalization of the Estimation of Tax Liability.
- (3) Value of credits.
- (4) Special Treatment of New Oil. *(24)*

In several principal respects Goldsmith's summary was less than clear: Omitted background information about the North Slope oil patch (discussed in the preceding sections); failure to assess who benefits from the SB 21 changes (the Big Three); and failure to explain how he calculated the numbers he charted (many of which were assumptions). To provide better perspective on the current tax controversy, the following four bullets present this writer's recasting and analysis of the four reasons Goldsmith offered to explain why producers favor SB 21 over ACES:

- (1) Even though progressivity enables the state to share high oil price revenues, reducing the government share when prices drop or the gap between costs and prices shrinks, producers want to get rid of ACES in order to maximize profitability.
- (2) In my estimation, the complexity of the SB 21 credit provisions and treatment of new oil make the new statute as difficult to administer as ACES.
- (3) Where ACES capital credits favored all prospective developers, SB 21 ties capital credits to production of new oil. The changes in capital credit provisions therefore favor the three major producers, who control 90% of North Slope production.
- (4) The major North Slope producers are best situated to benefit from the SB 21 tax credits and other breaks for new oil, which appear to be rather difficult to administer.

When facts about profitability and the hegemony of the Big Three over North Slope reserves are considered with each of the four reasons by which Goldsmith explained producer support of SB 21, it becomes clear that this tax revision constitutes a policy change that would increase the profits and the hegemony of the Big Three, to the detriment of independent developers.

In explaining the fourth argument above (that special treatment of new oil was necessary for marginal fields), Goldsmith noted that "[p]roduction tax value includes both the normal return on investment (necessary for the investment to be profitable) and pure profit (the return over and above the amount necessary to make the investment profitable)." This rather academic distinction, which appeared on the second to last page of Goldsmith's closing chapter, marked the report's first reference to profits since the report's opening chapter. This discussion was accompanied by a chart on the closing chapter's final page that presented costs and profits for two hypothetical barrels of oil, one from a "legacy" or major field and the other from a marginal development. *(25)*

The two hypothetical barrels in this chart show costs and the remaining production tax value (PTV) against a market price of $100 per barrel. The costs were presented as an estimated $40 per barrel for the legacy fields, in contrast to $65 per barrel for marginal fields. These assumptions left a production tax value (PTV) of $60 per barrel in the legacy fields controlled by the major producers, compared to $35 per barrel in the marginal fields. The PTV in each bar was divided into two profit subcomponents:

- required investment return (roughly 30 percent of each cost – approximately $12 per barrel in the legacy barrel, compared to $20 in the marginal); and
- pure profit (remaining balances of approximately $48 per barrel in the legacy fields, compared to one-third of that amount in the marginal fields).

Like many other charts in the Goldsmith report, this graphic did not provide source information or details for the data presented, leaving relevant questions unanswered as to how Goldsmith determined and was trending current cost increases. For example: What explained the recent radical increases in reported capital costs? On what basis was the 30% required investment return deemed necessary?

In the over-simplified profits chart, the component labeled "pure profit" was also in need of clarification. That component was apparently dependent on volatile oil prices and may have included payments associated with litigation over tariffs, transfer pricing and other issues relating to the unusual economic structure of the North Slope, raising (without answering) these questions: Did the reported costs on the legacy and marginal barrels chart include tariff costs paid to the Big Three, or were tariff profits included in the profit estimate? Did the pure profit category include windfall profits from oil price spikes and additional profits from producer-owned pipelines?

Without asking or answering any of the questions raised by the late introduction of the hypothetical profits chart, Goldsmith concluded the main body of the report with the following three-sentence closing statement, which raised additional questions:

> The higher production value means the producers have higher profits, and some of those additional profits can be shared with the government through higher taxes. This would be a win-win situation even if the producers are paying more in taxes. The primary objective of the producers is profit maximization rather than tax minimization. *(26)*

Each of these three sentences brought up questions that undercut or invalidated his conclusions:

- The first sentence was rather surprising on two counts: (1) Recalling that the reason producers favor SB 21 over ACES is because they want a larger share of the profits at high prices, the notion that "additional profits can be shared with the government through higher taxes" seemed naïve. (2) The unproven assumption that profits in an uncertain future will increase were undercut by factors that may significantly reduce the demand for oil. These potential threats to oil profits included: (a) global recession; (b) political decisions elsewhere that a carbon tax is necessary as a matter of policy, arbitrarily raising the price of oil to reduce demand; (c) discovery of major oil finds closer to markets.
- The second sentence, which assumed "a win-win situation even if the producers are paying more in taxes," depended on increasing production – a development that was assumed rather than guaranteed, vulnerable to global price swings and by no means certain. Under these circumstances it should be recalled that (a) SB 21 did not require the Big Three to reinvest their tax savings in Alaska; moreover, (b) even if producers were inclined to reinvest, the prospect of a global price decline could stifle that impulse.
- The report's final statement – "The primary objective of producers is profit maximization rather than tax minimization" – was a poorly phrased false dichotomy that was subject to challenge on several counts: Tax minimization is one of many methods of maximizing profits and therefore may be part of a producer's primary objective. Nevertheless, on the day that his

report was released Goldsmith told the Anchorage Resource Development Council that "Profit Maximization" and "Tax Minimization" were opposing propositions. His categorical statement – "Producers are not in business to minimize taxes; they are in business to maximize profits" – elevated the concluding statement to the body of his ISER report to false dichotomy. *(27)* That statement to the Resource Development Council was accompanied by a slide that read, "Tax Minimization Vs. Profit Maximization." Also shown in Fairbanks four weeks later, this slide erroneously placed tax minimization in direct opposition to profit maximization, rather than in support of that goal. The perennial efforts by the major producers to reduce TAPS property taxes (discussed in section 4, above) demonstrate that tax minimization is an important industry goal, apparently motivated by profit maximization.

After presenting this false dichotomy in his concluding statement, Goldsmith left the confusing picture of corporate behavior he had created to present a peculiar sensitivity analysis that noted potential losses to the state due to the ACES tax credits. Noting that under the progressive ACES tax rate if prices collapsed the state would still have to pay the tax credits, in the sensitivity analysis Goldsmith warned that "the net present value of the revenue stream from the investment could fall below zero under ACES," while SB 21 would still generate positive state revenue. *(28)* Although this sensitivity analysis presumed to examine the effects of profits and costs on new investments, it focused only prices and costs, without reference to important variables that help shape company development decisions, such as production volumes and profits. The sensitivity analysis concluded with the following statement, which revealed, under the heading "Sensitivity of Results to Producer Characteristics," the narrow focus of Goldsmith's approach:

> Presumably producers with different characteristics would have somewhat different tax liabilities for the same production level or the same hypothetical project. This analysis assumes large producers with significant costs and production. Since these producers generate most of the revenue and jobs, the analysis is representative of the industry as a whole, but not necessarily of any particular producer. *(29)*

Here is my understanding of what the concluding sensitivity analysis message told readers:

> Presumably producers in the hypothetical examples would have different characteristics and different tax liabilities. Since large producers with significant costs and production generate most of the revenue and jobs, this analysis ignores the challenges faced by smaller producers.

Goldsmith's narrow focus on major producers and lack of attention to producer profits ignored these important facts about real-world petroleum economics:

- (1) In the global oil patch it is not unusual for large producers to abandon declining fields to search for new, giant fields, known in the trade as "elephants." When this happens, relatively smaller companies with lower expectations (and, therefore, lower hurdle rates of return) may come in and continue to operate profitably. This important aspect of oil industry development, which is common knowledge in the oil patch, is evident in recent headlines about the search for elephants in Morocco's off-shore prospects. *(30)*
- (2) Despite the hopes of state policy makers, volatile global oil prices or new supplies closer to market – could upset the Alaska's economic apple cart. Because each producing company is responsible for maximizing profit on behalf of its shareholders, global economic factors might outweigh the unrealistic hopes on which the passage of SB 21 was based and could force these companies to cease investing in the North Slope.

In sum, the appendix sensitivity analysis focused primarily on the state revenue stream but once again ignored producer profitability. Because it did not identify or address important, real-world issues, the policy he advocated did not insulate or protect Alaska from the inherent risks of gambling on the decisions of a few companies, whose profitability depends on the unpredictable interaction between geology and volatile oil prices in an inherently uncertain oil future. In light of real-world factors discussed in this analysis, I believe that general credits for production, in combination with a progressive, cost-based tax regime, would be a better public policy option than the recently adopted panic-induced tax system that largely abandons progressivity and installs a credit system that depends on three large producers.

Reader's Guide: The concluding section will summarize the findings and empirical evidence presented in this report.

8. Reflections on a Strange Advertising Campaign, A Superficial Economic Report and the Upcoming Referendum on SB 21

With a statewide referendum on the Alaska oil tax cut controversy scheduled for the August primary election, the state's major oil producers and their supporters are dominating the airwaves with costly but sometimes misleading advertising, urging a "no" vote in opposition to the repeal of SB 21. Although the major producers are demonstrably skilled at creating messages to support their economic interest in reducing taxes, at least some of their advertisements are strangely lacking in factual accuracy.

For example, since the start of the year major North Slope producer British Petroleum has been running a television advertisement that opens with a picture of TAPS as the speaker, a company employee, said: "Twenty years ago two million barrels flowed down this pipeline; now it's about 500,000." In carefully scripted remarks, the speaker went on to tout the putative benefits of "what a positive economic climate can do." *(31)* While there is no doubt that North Slope production has been declining for many years, the advertisement's opening statement was off by 20 percent and six years, clouding what should have been a clear picture of the basic facts about North Slope production decline. Twenty years ago – in 1994 – the North Slope had already been declining for six years; moreover, at that time North Slope production was already down to slightly less than 1.6 million barrels per day. *(32)* Although that advertisement has appeared frequently on various Alaska television channels for over five months since early January, as of this writing its erroneous facts have not been corrected.

This kind of misinformation about basic facts gives rise to skepticism regarding the expensive stream of subsequent advertisements sponsored by the Big Three North Slope producers, who claim that the new SB 21 tax regime is responsible for various North Slope investment projects. Several of the advertised projects were already in planning stages prior to the enactment of SB 21. For this reason, some reviewers may disregard pro-industry advertisements as examples of the well-known *post-hoc propter-hoc* fallacy ("after this, because of this"). Nevertheless, the claim that "a positive investment climate" is responsible for recent North Slope investments is not easily proven or disproven. Moreover, focus on the industry's advertising campaign distracts from consideration of the facts and relevant issues, presented in the preceding sections of this analysis, that provide insight into North Slope petroleum development issues.

Whether by accident or by design, confusion over the most basic facts that outline the history of North Slope development makes it difficult for members of the general public to identify and then assess the significance of factors that affect North Slope development. As discussed in previous sections of this analysis, key North Slope development factors – largely overlooked in the Goldsmith report – include:

- The hegemony of the three major North Slope producers, exercised through ownership of the Trans-Alaska Pipeline and control of more than 90 percent of North Slope oil production (discussed in section 4).

- The state's auditing problems, which make it difficult to for policy makers and members of the public to apprehend the North Slope economic picture, which has changed dramatically as oil prices bounced off lows near $10 per barrel in 1998 to ascend to the current decade's $100 per barrel range (section 5).
- Key aspects of the picture of North Slope development include (a) North Slope's extraordinary profitability under the ACES regime, as demonstrated by ConocoPhillips annual reports to the Securities and Exchange Commission; (b) long-standing production decline; and (c) the importance of remaining North Slope reserves – an estimated 5.9 billion barrels of discovered oil – a significant quantity that materially enhances future production prospects (section 6).
- When large fields decline, major producers often abandon that operation, moving elsewhere to search for new, large prospects; at that point smaller producers will come in to produce remaining reserves (section 7). Under these circumstances, courting the North Slope's three majors at the expense of independent producers (and the state treasury) may be a recipe for disaster.

Putting the state's economic, social and geologic characteristics in global perspective, this report notes that volatile price swings contribute to the inherent uncertainty of future state economics. While another long-term increase in long-term oil prices is possible, a price collapse cannot be ruled out. This analysis of the preceding points leads to support of a "yes" vote on the August primary referendum to repeal SB 21 for the following reasons: Because drastic global changes could radically alter Alaska's petroleum future and geology (not ACES) has caused our production decline for the last 25 years, one must question the wisdom of the SB 21 policies. With sizeable North Slope reserves, the general ACES approach – a cost based and progressive tax that has enabled both the industry and the state to profit handsomely – appears to be the better tool for a healthy economic future. When global developments beyond Alaska's control could drastically curtail future production, it simply does not make sense for the state to defer potential gains by abandoning the progressive tax base, under which both the state and major producers have benefited. To ensure appropriate state-industry sharing in the event of future oil price spikes, after careful consideration of costs and prices a cap on progressive returns at high prices should be installed.

<u>A Concluding Question:</u> When even the most basic facts are omitted or disfigured and misinformation infects the policy debate by increasing the difficulty of arriving at common ground and well-informed decisions, Alaska's controversy gives rise to this troubling question: In this era of information overload, do facts no longer matter?

Endnotes

(1) Scott Goldsmith, "Alaska's Oil Production Tax: Comparing the Old and the New," Institute for Social and Economic Research (University of Alaska Anchorage), May 2014 (Web Note No. 17); Scott Goldsmith, "SB21 SENSE AND NONSENSE – The More Alaska Production Act (MAPA)," presented to the Resource Development Council, Anchorage, Alaska, May 1, 2014 and Fairbanks Economic Development Council, Fairbanks, Alaska, May 27, 2014. (For a typical news review of the Goldsmith presentations, see Lisa Demer, "Economist says new tax structure isn't the main reason for drop in oil revenue," *Anchorage Daily News*, May 1, 2014.)

(2) Tony Knowles, "The economic case for keeping Alaska's oil tax reforms," *Alaska Dispatch*, May 5, 2014 and *Anchorage Daily News*, May 6, 2014, p. B6.

(3) Alaska Department of Revenue (ADOR), "FY 2012 Production Tax Rounded Estimates for Prudhoe Bay and Kuparuk River Units Under ACES," letter from ADOR Commissioner Bryan Butcher to Senator Bert Stedman, March 11, 2013, p. 7 (estimate based on average daily production and average annual price; accompanied by similar attached estimates for FY 2010 and 2011). This letter is one of many documents that Goldsmith chose to ignore that show estimated revenue losses under SB 21 based on historical or other specific data sources cited by legislators in comparing state revenue effects of SB 21 and the regime it would replace.

(4) Senators Hollis French and Bill Wielechowski have both cited information from ADOR noting that production at Kuparuk, then the nation's second largest oil field, declined steadily between 1996 and 2006 despite steady and steep reductions in the previous ELF production tax. (See for example, Senator Hollis French, "Special Report on Ballot Measure 1" [undated report provided by Senator French, June 1, 2014, p. 2].)

(5) Gregg Erickson's comments on Scott Goldsmith's assumptions were made on "Alaska Edition," Alaska Public Media, March 1, 2013 (weekly television news broadcast).

(6) This writer asked Goldsmith if he had explained the discrepancies in his report's opening chart discussion following his presentation in Fairbanks May 27, 2014. During these comments he also noted that he had not spent a great deal of time looking at FY 2013 data.

(7) Based on Alaska Department of Natural Resources royalty data reports.

(8) For a short history of Alaska revenue disputes, see the author's "Securing the Take: Petroleum Litigation in Alaska" (in Svetlana Tsalik (ed.), *Caspian Windfalls: Who Will Benefit?* [New York: Open Society Institute, 2003], pp. 53-69 [ch. 3]). For listing of annual litigation settlement deposits to the Alaska Constitutional Budget Reserve Fund (CBRF) since 2003, see Aaska Department of Revenue, *Fall 2013 Revenue Sources Book*, p. 92.

(9) For historical background on pipeline rate regulation and the problem of regulating vertically integrated (shipper-owner) pipelines shortly after TAPS entered operations, see Edward J. Mitchell, *Oil Pipelines and Public Policy: Analysis of Proposals for Industry Reform and Reorganization*, American Enterprise Institute, 1979, at pp. 6, 7 and 11.

(10) For a history of the TAPS 1985 settlement compiled by this writer, see "The 1985 TAPS Settlement: A Case Study in the Effects of Confidentiality on Information Available to Decision Makers in Oil and Gas Revenue Disputes," prepared for the Alaska State Legislature, February 5, 1990 (supplemental report).

(11) U.S. House of Representatives Committee on Small Business, "H.R. 245 and Trans-Alaska Pipeline System Tariffs" (Washington, DC: Government Printing Office, 1985), pp. 157-158.

(12) Regulatory Commission of Alaska (RCA), Order No. 151 (Docket P-97-4), Nov. 27, 2002, p. 131. For quantification of these estimates, see "Exhibit 2 Data Sheet," in "SB 21 and Petroleum Revenue Policy: Six Subjects Requiring Further Consideration (A Report on Pending Legislation)," April 4, 2013, Exhibit 2 (independent report submitted to Alaska legislators).

(13) For background on these decisions, see Richard A. Fineberg, "Federal Energy Regulatory Commission (FERC) and State Supreme Court Confirm TAPS Overcharges, Hand Pipeline Owners Their Sixth Successive Defeat Since 2002: After 30 Years, FERC Rules Owners' Attempts To Justify High TAPS Tariffs Lacking in Merit; State Supreme Court Finds Nothing In Owners' Appeal Worthy of Discussion," July 1, 2008.

(14) Federal Energy Regulatory Commission (FERC) Administrative Law Judge Carmen A. Cintron, *BP Pipelines (Alaska), Inc., et al.,* 146 FERC ¶63,019 (Docket Nos. IS09-348-004, *et al.* and IS09-348-006, *et al.*), Initial Decision, Feb. 27, 2014; Alaska Supreme Court, *BP Pipelines (Alaska) Inc., et al. v. State of Alaska, et al.,* No. 6867 – February 19, 2014 (Nos. S-14095/14116/14125), Opinion (Appeal from the Superior Court of the State of Alaska, Third Judicial District, Anchorage, Sharon Gleason, Judge), Feb. 19, 2014; Dermot Cole, "Board rejects Parnell effort to slash pipeline's tax value by billions," Alaska Dispatch, May 23, 2014.

(15) The Legislature passed SB 138, an act dealing with gas pipeline issues, the Alaska Gas Development Corporation and and the oil and gas production tax, on May 8, 2014. (The record of legislative action is available online.)

(16) The author reviewed two television advertisements sponsored by the major producers in January 2014, The Alaska Oil Tax Cut Controversy: A Case Study (In This Era of Information Overload, Does Our Political System Enable Tall Tales to Triumph?), text accompanied by slides presented at panel session, "Where Sustainability Meets Policy" (Society for Applied Anthropology [Albuquerque, New Mexico], March 20, 2014), pp. 12-14.

(17) The distinction between desktop and field audits is based on the author's experience working with the state government as a policy analyst during the 1980s, and in preparation for testimony in 2001 on behalf of the public advocacy section of the Regulatory Commission of Alaska in the TAPS tariff case (decision issued Nov. 27, 2002),

(18) Regulatory Commission of Alaska, "Public Hearing: Proposed Changes in the Regulations of the Department of Revenue," August 13, 2013, pp. 11, 14-15; Kara Moriarty (Executive Director, Alaska Oil and Gas Association), "Re: AOGA Comments on Proposed Regulations for Chapter 10, SLA 2013 ['SB 21'] Amending the Oil and Gas Production Tax, AS 43.55" (letter to Angela Rodell [Acting Commissioner, ADOR], *et al.*), Aug. 26, 2013.

(19) Alaska Department of Revenue, *Fall 2013 Revenue Sources Book*, pp. 39, 104.

(20) For ConocoPhillips Alaska and rest-of-world earnings since 2007, see: ConocoPhillips, 10-K Annual Reports filed with the U.S. Securities and Exchange Commission for 2008 (p. 41), 2010 (pp. 31, 40), 2011 (pp. 44, 47), and 2012 (p. 38).

(21) See, for example, William Van Dyke, P.E., "Report on the Estimated Life of the Alaska North Slope Proven Oil Reserves," May 2014, pp. 24-25 (before the State Assessment Review Board, OAH No. 14-0555-Tax (based on input of Dudley Platt, P.E.).

(22) This view is held by Dudley Platt, whose testimony on North Slope production prospects has been found "persuasive" and more credible than the testimony of industry representatives by Alaska Superior Court Judge Sharon L. Gleason in her 2011 decision on TAPS property tax valuation.(See: *BP Pipelines [Alaska], Inc., et al. v. State, et al.,* 3AN-06-08446 CI [Decision Following Trial de Novo: 2007, 2008, and 2009 Assessed Valuations; Alaska Superior Court, December 30, 2011], ¶ 1, 4, 461, 476, 480, 505, 506, 599).

(23) After mentioning the term "profits" on the second page of the report under the heading, "How the Production Tax Works," the term "profit" did not appear again until page 36, the second to last page of the main body of the report, "Alaska's Oil Production Tax: Comparing the Old and the New."

(24) "Alaska's Oil Production Tax: Comparing the Old and the New," pp. 33-36.

(25) "Alaska's Oil Production Tax: Comparing the Old and the New," p. 37.

(26) *Ibid.*

(27) "SB21 SENSE AND NONSENSE – The More Alaska Production Act (MAPA)," Slide 27.

(28) "Alaska's Oil Production Tax: Comparing the Old and the New," p. 40 (Appendix).

(29) "Alaska's Oil Production Tax: Comparing the Old and the New," p. 41 (Appendix).

(30) See, for example, these press references to an oil industry elephant hunt: Investors Chronicle, "Hunting for elephants offshore Morocco," April 2, 2014. "Oil companies plan to drill as many as 10 exploration wells in Moroccan waters this year as the race to discover the next big oil field off the coast of Africa hots up." (*http://www.investorschronicle.co.uk/2014/04/02/shares/sectors/hunting-for-elephants-offshore-morocco-IiTCWdyMWUv4bATrDg6XuN/article.html*); and Brian Swint, "Chevron Hunting Moroccan Elephants Marks First Oil Boom: Energy ," Feb. 28, 2013 (Bloomberg News). "Chevron Corp. (CVX) and Genel Energy Plc (GENL) are hunting for elephants in Morocco. Not the animal, rather the giant oil fields that send explorers' market values soaring when they're discovered in the frontier" (*http://www.bloomberg.com/news/2013-02-28/hunt-for-african-oil-elephants-leads-chevron-to-morocco-energy.html*).

(31) The entire text of BP's untitled advertisement read: "Twenty years ago two million barrels a day flowed down the pipeline. Today it's about five hundred thousand. Our plan, pure and simple, is to get more oil in the line. That's why we're spending one billion dollars for two new oil rigs and drilling about 200 more wells. A lot of projects that were on the backburner are now moving ahead, which means more production and more jobs for future generations of Alaskans. It just shows what a positive economic climate can do." (This advertisement aired at least 10 times between January 12 and March 4, 2014; the ad was most recently heard June 16, 2014.)

(32) According to ADOR, North Slope production peaked in FY 1988 at 2.006 million bpd (Prudhoe Bay 1.605 million bpd and Kuparuk 0.287 million bpd) and had declined to 1.593 million bpd in FY 1994 (Prudhoe Bay 1.002 million bpd and Kuparuk still at peak performance, 0.308 million bpd). "Historical and Projected ANS Production" (FY 1978 – 2010), *Fall 2001 Revenue Sources Book*, p. 130. (In FY 2013 Prudhoe and Kuparuk, with satellites, were at 0.294 million bpd and 0.112 million bpd, respectively. *Fall 2013 Revenue Sources Book*, p. 100.])

Richard A. Fineberg of Ester, Alaska is an independent analyst who served as a senior advisor to the governor on oil and gas policy (1987-89) and testified as an expert witness in the Regulatory Commission of Alaska TAPS tariff case (2001). He was appointed to the U.S. Extractive Industries Transparency Initiative (EITI) Multi-Stakeholder Group as a civil sector alternate (non-voting) member in 2012 and published an article on that experience in the Oxford University Press Journal of World Energy Law & Business ("The United States joins EITI: a case study in theory and practice," January 2014).
