

## **Reflections on Alaska's Experience with Petroleum Development**

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It is an honor and a privilege to be with you today to share some of the lessons of Alaska's experience with petroleum development. While I hope you find this information useful, I will not presume to tell you what you can or should do to realize the promise and avoid the pitfalls of oil wealth. For the people of the Caspian region, petroleum issues are an old story and each of you here today probably knows better than I that, even with super-giant fields discovered, public riches from petroleum are not guaranteed due to the uncertainties of geology and the inherent volatility of oil prices. Moreover, we all recognize that Alaska's experiences unfolded in a political context very different from your own.

At the same time, there are some basic geopolitical parallels between our respective regions. Like the Caspian Basin, Alaska's oil development is anchored by a super-giant field: Prudhoe Bay, on the North Slope of the North American continent. The earth has yielded only 42 fields large enough to be called super-giants, most located within the Persian Gulf.<sup>1</sup> Thus we both belong to a very select club. A second fundamental similarity is that to compete in a global market, our oil must bear the cost of long overland pipelines just to reach its tanker connections. These transportation costs are subtracted from the market price of oil. Thus we are both in a handicap position relative to oil that is closer to tidewater and to market.

With these basic similarities in mind, I want to share some of my experiences watching oil development in Alaska for more than three decades – as a newsman, as a policy advisor to the governor of Alaska, and as an independent consultant. Although my chapter in the new OSI book is on the economics of Alaska North Slope development, much of my work in my home state has been on environmental issues. Today I intend to tie my two areas of interest together with three basic statements:

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<sup>1</sup> The term "super-giant" is usually reserved for oil fields estimated to contain at least 5.0 billion barrels of recoverable oil. In 1993 there were only 42 such fields in the world (L.F. Ivanhoe and G.G. Leckie, "Global Oil, Gas Fields, Sizes, Tallied, Analyzed," *Oil & Gas Journal*, Feb. 15, 1993, pp. 87-91).

→ First, it is of essential to note the inevitable tension between host government and the industry interests around the world. The public share of the net revenue split between host government and industry (sometimes referred to as the “take”) can be significantly reduced or delayed by accounting practices used to determine and report key factors such as the price of the oil, the production costs or the transportation costs charged to each barrel of oil produced and delivered to market. The existence of this inevitable tension is demonstrated by the fact that during its first 25 years of operation, for every dollar that the North Slope producers paid voluntarily, Alaska was forced to litigate to obtain an additional eighteen cents. In other words, the industry underpaid its host government by approximately 18 percent.<sup>2</sup>

→ The second fundamental point is that if a large project is economically viable, it will be capable of providing sufficient funds for high quality environmental protection. This assumption is grounded in an empirical reality. If a project does not appear likely to generate significantly more revenue than its anticipated total costs, investors won't go for it. Ideally, if a project is environmentally risky, decision makers will recognize those risks and will authorize additional funds on mitigation. But there is often a problem convincing project managers that cash outlay for an additional layer of environmental protection against *future* risk is worth real expenditure *now*.<sup>3</sup>

→ My third central premise is closely related to the second. Even on a large project and under the high standards ostensibly required by the legal system in the United States, there is an inevitable discrepancy between promise and delivery because project developers will seek to limit costs in order to maximize return to investors. Alaska's experience clearly demonstrates the gap between promise and practice. In 1989 the infamous *Exxon Valdez* oil spill occurred when that company's tanker veered off course from its wide, deep channel on a calm night and impaled itself on a submerged reef, resulting in a massive oil spill that damaged fisheries and sullied the coast of Prince William Sound, an area of incredible beauty. Despite all the lavish promises, the best of intentions and even better advertising, Exxon had entrusted the pride of its fleet – a behemoth carrying more than a million barrels of oil – to a man who was not allowed to drive a car because he had been convicted of drunk driving in two states.<sup>4</sup>

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<sup>2</sup> See: Richard A. Fineberg, “Securing the Take: Petroleum Litigation in Alaska,” in Caspian Revenue Watch, *Caspian Oil Windfalls: Who Will Benefit?* (Caspian Revenue Watch / Open Society Institute, 2003 [English language edition]), p. 67.

<sup>3</sup> I discuss the economic causes of the discrepancy between promise and practice on the Trans-Alaska Pipeline System (TAPS) in: Richard A. Fineberg, *The Emperor's New Hose: How Big Oil Gets Rich Gambling with Alaska's Environment* (Alaska Forum for Environmental Responsibility, June 2002, pp. 125-128 (on-line at [www.alaskaforum.org](http://www.alaskaforum.org)). For an example of the effects of the discrepancy between promise and practice on Alaska's North Slope, see: Sheila McNulty, “Workers accuse BP of breach of rules,” *Financial Times*, May 23, 2003 (p. 1) and Sheila McNulty, “BP workers allege cover-up by group over well blast,” *Financial Times*, May 23, 2003.

<sup>4</sup> See: Alaska Oil Spill Commission, *Spill: The Wreck of the Exxon Valdez – Implications for Safe Transportation of Oil* (Final Report), State of Alaska, February 1990.

Twelve years later, the gap between promise and practice in Alaska was demonstrated again when a local fellow with a high-powered hunting rifle shot a hole in the Trans-Alaska oil pipeline (TAPS). Although the State of Alaska boasts that its regulatory standards ensure that the industry lives up to the highest environmental standards, this bullet also shot holes in the pipeline's oil spill contingency plan. Under state law, pipeline operators must update this document periodically and must be able to implement its provisions. In this document, the pipeline operators promised that they maintained a variety of clamps "strategically positioned for immediate deployment." These included a device called a bullet-hole clamp. But when the pipeline was shot, it turned out that the bullet-hole clamp could not be applied under pressure. A larger clamp was brought in, but the response workers were not trained to use it under pressure, either. As a result, a thick stream of black crude oil arced into the nearby forest for 36 hours, blackening and destroying approximately two acres of trees. This was only the most glaring of the many defects in the oil spill contingency plan revealed by this incident. The pipeline owners and the Governor of Alaska celebrated this miserable response under what they termed extenuating circumstances created by the pressure in the pipeline. Of course oil pumped through a pipeline is under pressure; moreover, there was nothing unique about the location or the circumstances unique. Was the event unexpected? Hardly. Back in 1977, ten days before the pipeline entered operation, I wrote a news story reporting that the pipeline had already been shot at more than 50 times.<sup>5</sup>

Taken together, my three basic points and these examples tell you why some of us from Alaska firmly believe in the need for citizen oversight councils to monitor petroleum development. My colleague Professor Rick Steiner ably articulates this concept in the fourth chapter of the book we are discussing today.<sup>6</sup> It should be noted that the regional citizens' advisory council for Prince William Sound was established after the *Exxon Valdez* spill, while the industry continues to resist the establishment of a council for the TAPS pipeline corridor.

Although it has not been used this way in Alaska, the advisory council concept can readily be adapted to increase public awareness of issues relating to petroleum revenue receipt and management. In the chapter I prepared for the book being released today, I suggest that the "Publish What You Pay" concept should be expanded to enable an informed citizenry to evaluate petroleum potential and receipts. In this regard, the development of simplified, comprehensive and transparent models that simulate the economic performance of major petroleum reservoirs based on publicly available data can help citizens of host countries understand and control their own destinies.

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<sup>5</sup> For a summary of this event, see: Richard A. Fineberg, *The Emperor's New Hose: How Big Oil Gets Rich Gambling with Alaska's Environment* (Alaska Forum for Environmental Responsibility, June 2002, pp. 75-80 (on-line at [www.alaskaforum.org](http://www.alaskaforum.org)).

<sup>6</sup> Richard G. Steiner, "Models of Public Oversight of Government and Industry," in *Caspian Oil Windfalls: Who Will Benefit?*, pp.71-88.

In the absence of transparent development models, whether a project should go forward and, if it does, the actual results for the producers and their host governments remain matters of mystery and conjecture to the public. On the other hand, information gained from a simplified simulation of the physical and economic performance of large Caspian Basin petroleum reservoirs and the associated infrastructure can help the public and policymakers to get a realistic fix on the promises and the pitfalls of proposed development projects. As those projects unfold, comprehensive public models can assist in determining whether actual payments, as reported in government documents and “publish what you pay” reports, constitute fair and appropriate compensation to the host government for the right to extract public resources.

Using the formulas established by the governing PSA, costs would be subtracted from the gross production revenues to determine net revenue available for the split between the host and the producer. The model should distinguish up-front government payments, such as royalties and bonuses, from net revenue payments. To avoid issues of confidentiality, the model for a specific development should use publicly available estimates of (a) production, (b) price, (c) operating and capital costs and (d) transportation costs.

Transportation charges take on particular relevance because these costs must be reckoned before a producing oil reservoir earns net revenue that will be divided between producer and host. When a producing company also operates a pipeline that carries its own oil, transportation expenditures may remain with that company while simultaneously decreasing net production revenue available for sharing and stifling competition. From this theoretical perspective, the Caspian Basin host nations should look closely at pipeline financial arrangements to ensure that excessive costs and shipping requirements do not reduce payments to producer host governments. In Alaska, even though a 1985 settlement reduced per-barrel pipeline tariffs on TAPS, a recent regulatory decision found that those tariffs are still far too high when compared to tariffs calculated using standard economic formulae. The data in that decision indicate that excessive TAPS tariffs reduced state production revenues by approximately \$2.0 billion between 1977 and 1996 and were 57 percent too high in recent years, thus reducing state revenue and inhibiting development by non-pipeline owners.<sup>7</sup>

The importance of pipelines to development in both Alaska and the Caspian was evident in the experience of Conoco after that company left Alaska's North Slope in

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<sup>7</sup> Regulatory Commission of Alaska, *Order Rejecting 1997, 1998, 1999 and 2000 Filed TAPS Rates; Setting Just and Reasonable Rates; Requiring Refunds and Filings; and Outlining Phase II Issues*, Docket P-97-4, Order #151 Nov. 27, 2002 (on-line at [www.state.ak.us/rca](http://www.state.ak.us/rca)). The RCA has jurisdiction over the shipping charges for approximately eight percent of the oil shipped through TAPS – the portion destined for in-state refineries. But the state commission's 165-page decision calls into question the shipping rates for the remaining 92 percent of TAPS oil shipped under a similar formula arrangement approved by the Federal Energy Regulatory Commission (FERC).

1993.<sup>8</sup> At that time, Conoco was the operator of the Milne Point field near Prudhoe Bay and the only company operating a field on the North Slope that did not own a share of the super-giant Prudhoe Bay or TAPS. During a period of relatively low oil prices, Conoco sold its North Slope interests to BP in 1993. Analysis later showed that the guaranteed profits from pipeline ownership might have kept the company afloat until oil prices rose again.<sup>9</sup> Later, reflecting on his company's departure from Alaska, Conoco Chairman and CEO Archie Dunham said, "It broke my heart to trade Milne Point, but we had to do it. All the value of that property was taken away from us in the pipeline tariffs. It was a valuable strategic lesson – just look at why the producers in the Caspian Sea are so worried."<sup>10</sup>

The recent regulatory decision on TAPS is vigorously opposed by the TAPS owners.<sup>11</sup> And until the regulatory commission decision in November 2002, Conoco's experience and the concerns of critics of the TAPS tariff were virtually ignored by Alaska policy makers. Recently, however, manifestations of that decision have begun to ripple through public policy circles. For example, the Division of Oil & Gas in the Alaska Department of Natural Resources (the state of Alaska's land manager) has estimated that appropriate tariffs on TAPS, if applied line-wide, would increase state revenues by \$110 million per year. At present, the TAPS Owners are pocketing that excessive revenue. According to the director of the Division of Oil and Gas, "[e]xcessive tariffs create barrier to entry for all oil and gas companies not owning an interest in TAPS."<sup>12</sup> In January 2003, a trade journal survey of 17 key industry participants and observers found that lower TAPS tariffs tied for first place as the top priority for 2003 (with streamlined permitting) and "one of the most important incentives the state could offer" to assure development.<sup>13</sup> The following month, the Alaska Permanent Fund Board of Trustees decision to investigate "all maintenance and operational practices, including tariff and facility pricing," that could limit development of state oil leases.<sup>14</sup>

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<sup>8</sup> Conoco was acquired by Phillips Petroleum in 2000 and subsequently returned to Alaska as part of ConocoPhillips.

<sup>9</sup> For a simplified analysis of effect of pipeline costs on Conoco's profitability during its final year of operation in Alaska, based on public data, see Richard A. Fineberg, *How Much Is Enough? Estimated Industry Profits from Alaska North Slope Production and Associated Pipeline Operations, 1993 – 1998*, Oilwatch Alaska, 1998 (<http://www.alaskaforum.org>), pp. 27-35.

<sup>10</sup> Dunham's statements was made in a 1996 interview, "Getting to the Future First," *Hart's Oil and Gas Investor*, August 1996, p. 41.

<sup>11</sup> See: Amerada Hess Pipeline Corporation, et al., "Indicated TAPS Carriers' Statement of Points on Appeal," *Amerada Hess, et al. v. RCA* (Case No. 3AN-02-13511Civil), Superior Court of Alaska, 3<sup>rd</sup> Judicial District, Dec. 6, 2002.

<sup>12</sup> Allen Baker, "State weighs pipeline fees -- \$110 Million: If rates are cut, Alaskans, small producers benefit," *Anchorage Daily News*, Dec. 31, 2002, p. A-1.

<sup>13</sup> "Good news' wanted in 2003," *Petroleum News Alaska*, Jan. 19, 2003, p. 1.

<sup>14</sup> Sean Cockerham, "Oil lease probe sought – Permanent Fund: Corporation worries smaller companies are shut out, state is being shortchanged," *Anchorage Daily News*, Feb. 20, 2003 (on-line).

Listeners might be wondering, “what purpose would such a model accomplish, and don’t we already have that information?” Let me take the second question first. The data on Azerbaijan in Chapter 5 of the book we are discussing today represents an excellent first step toward establishing the kind of clear, simplified models that can be of great use in the public policy dialogue. As one can see from inspection of Table 6 of that chapter, a large percentage of Azerbaijan’s petroleum revenue will come from its share of profit oil from the ACG production sharing agreement (PSA). Note that even in the high-price scenario, the public will not see half of the profit oil revenue until the year 2010, “due to the expected completion of cost recovery and the subsequent receipt of that share of profits by the government.”<sup>15</sup> Closer inspection of the profit oil model in Table A-2 of Appendix indicates another reason that the public share of ACG profit oil is anticipated to increase in 2010: the increased in the project rate of return that year.<sup>16</sup> In Table 6 of Chapter 5, the striking difference between public revenues from profit oil at \$18.00 and 25.00 per barrel in 2009 and 2010 demonstrates the great sensitivity of public revenues to price, as well as to unstated cost and rate of return factors. As a consumer of petroleum data, I want to compliment the authors for the important and enlightening data they have labored to gather and present in Chapter 5. At the same time, the difficulty one encounters identifying key figures, understanding their bases and putting these data in their appropriate, comprehensive context suggests the need for further efforts in this important area.

As government share of net revenue increases, the contractor share declines. Therefore, to fulfill their obligation to their shareholders, it is reasonable to expect that contractors will interpret their delivery terms to report prices as low as possible under law in order to delay completion of cost recovery; they also owe it to their shareholders to take other legal measures that will delay the increase in public revenue at contractor expense. Under these circumstances, Alaska’s experience indicates that careful auditing of expenses and contract implementation is necessary to assure that the public receives its share of revenue.

Although the complicated economics of petroleum finances are not readily amenable to public analysis, informed public opinion can help create a political climate in which the necessary auditing can be accomplished in a timely manner. In the case of Alaska pipeline tariffs, public pressure for better scrutiny of pipeline tariffs has developed only after the fact – some might say 20 years too late. Much of Alaska’s past

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<sup>15</sup> Sabit Bagirov, Ingilab Akhmedov, Svetlana Tsalik, “Forecasted Flows [in \$ millions] to SOFAZ from Development of ACG, 2003-2010,” Table 6 (“State Oil Fund of the Azerbaijan Republic”) in *Caspian Oil Windfalls: Who Will Benefit*, p. 111.

<sup>16</sup> See *Caspian Oil Windfall: Who Will Benefit?*, at: “ACG Early Oil Sharing Agreement” (Table 3), pp. 103-104 and “Azerbaijan’s Expected Revenues from the Sale of Profit Oil Under the PSA for Development of the Offshore Block, Azeri-Chirag-Gunashli” (Appendix 4, Table A-2, lines R and S), pp. 180-181. (For theoretical discussion of the effects of the stair-step increase in project rate of return, see also endnote 10 to Ch. 3, p. 197.)

revenue lost due to excessive pipeline tariffs probably cannot be recovered. This sad experience suggests that clear, comprehensive reports that delineate how major petroleum development projects are translated into private and public wealth can help the people of the Caspian Basin avoid one of the pitfalls that Alaska fell into.

In sum, creation of comprehensive, transparent, simplified petroleum revenue models to supplement the information produced under the “publish what you pay” doctrine will increase public understanding of the risks and rewards of petroleum development in the Caspian Basin. The assumption that petroleum revenues paid voluntarily represent the total amount due ignores Alaska’s experience and flies in the face of common sense. As an abstract proposition, the public policy choice is simple: Citizens of the Caspian Basin can assume that whatever revenue they receive from petroleum development is the correct amount, or they can explore the best ways to evaluate in a timely manner the complicated cost, accounting, and pricing mechanisms that may be used by industry to enhance its returns at public expense.

Reality, of course, is never abstract. I therefore leave it to you to determine the significance of these experiences and their applicability to your situation in the Caspian Basin. I am grateful to be here and look forward to further discussion.

Thank you.

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***Richard A. Fineberg** brings experience from academia, newspaper reporting and government service to his independent analysis of economic and environmental issues related to Alaska and global petroleum development. His research reports on Alaska cover topics such as: the profitability and long-term production prospects of Alaska’s North Slope oil complex; state and federal petroleum receipts; operational and safety issues on the Trans-Alaska Pipeline System (TAPS); the economics of that system; and the causes and effects of the 1989 Exxon Valdez oil spill. His newspaper coverage of the construction of TAPS and a proposed natural gas line earned both state and national awards. Between 1986 and 1989, Fineberg served as a senior advisor to the Governor of Alaska on oil and gas policy issues. Since that time he has consulted and prepared reports for non-profit organizations, government agencies, independent developers and private investors. Fineberg testified in the TAPS rate case discussed in this paper as the Staff Expert Witness for the Public Advocacy Section of the Regulatory Commission of Alaska.*