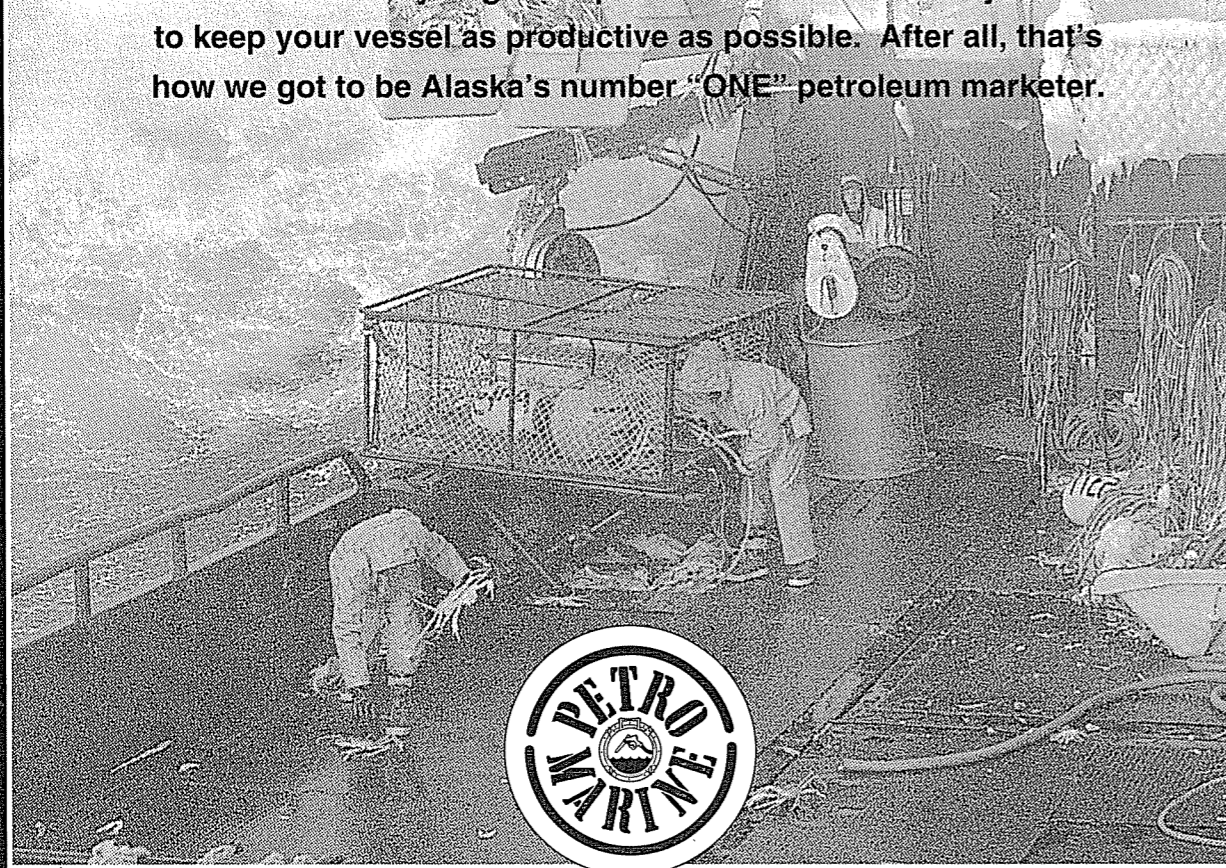


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Resource Review

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Competing for capital: Alaska rates poor

Cominco Limited didn't get to be the world's largest zinc concentrate producer and third largest zinc metals producer without taking risks and exercising a lot of patience. The Canadian company has invested millions of dollars from the top of North America to the far reaches of South America in mineral exploration, mining, smelting and refining ventures.

For Cominco, big, calculated risks translate into big rewards, but in Alaska, the company has yet to reap those rewards from the huge capital risks it has incurred in developing the Red Dog Mine near Kotzebue, the largest and richest zinc ore body in the world.

Despite cost overruns of more than \$34 million and depressed world metal prices, Red Dog will eventually turn the corner and bring Cominco a well-deserved return on its Alaska investment, according to John Key,



John Key

(Continued to page 4)

How Washington may deal with Alaska in '97

For Alaska, the results of the November election will likely mean a continuing stalemate on controversial resource development issues important to the state's economy.

Although Republicans maintain a firm grip on both houses of Congress, President Bill Clinton's return to the White House means environmentalists and their allies in Congress will retain the ability to block any attempt to open the Coastal Plain of the Arctic National Wildlife Refuge (ANWR) to oil and gas development. Moreover, federal land man-



Horn addresses 1997 prospects.

agers can be expected to further reduce the land base reserved for logging in the Tongass National Forest.

This prognosis doesn't sit well in a state where the

economy is heavily dependent on resource development and where most residents tend to welcome industry and favor pro-development policies.

More than two-thirds of Alaskans support oil and gas development in ANWR and over half support a reasonable balance between logging and other forest uses. Alaskans have re-elected a pro-development legislature and congressional delegation. And the state's Governor has personally lobbied Clinton to open ANWR.

But with 60 percent of Alaska in federal ownership, (Continued to page 3)

Traditional definition of "infrastructure" challenged

For Alaska's largest private investor, access to cost-competitive infrastructure has meant the difference between development and deferral, production and potential, and investment and inertia, a leading oil industry executive told several hundred people attending RDC's annual conference in November.

John Morgan, President of BP Exploration (Alaska), Inc. discussed the role that infrastructure—or the lack of it—has played in oil development on Alaska's North Slope and how it has influenced his company's multi-billion dollar Alaska investment strategy.

Morgan explained that three decades ago there was no

(Continued to page 2)



John Morgan defines infrastructure

Morgan brings new meaning to infrastructure

(Continued from page 1)

oil field infrastructure on the North Slope, only wildcat wells, wild-eyed dreams and problems posed by remoteness and some of the harshest climatic conditions on earth.

Then came the discovery of Prudhoe Bay, the largest oil field ever discovered in North America. The field was big enough to collateralize billions of dollars in field development costs and billions more in construction costs for the Trans-Alaska Pipeline and a fleet of state-of-the-art oil tankers. Prudhoe's enormous reserves compensated for high labor costs and extraordinary high transportation costs. The giant field was large enough to generate sufficient returns to compete successfully against less technical and commercially risky investment options elsewhere in the world.

Morgan pointed out that without the facilities and other infrastructure made possible by Prudhoe, none of the North

Slope's ten other producing fields would have been commercial or competitive.

"As the network of North Slope oil field infrastructure has grown, each new development has been a building block for the next," Morgan explained. "This has reduced both development costs and time, enhancing the competitiveness of smaller projects like Niakuk that otherwise would not be commercial."

Close proximity to existing infrastructure has fueled BP investments in expanding the Milne Point and Niakuk fields. It's the basis for BP's plans to develop Northstar several miles offshore from Prudhoe and BP's efforts to develop Badami, 40 miles to the east.

Existing infrastructure is also a major factor in BP's current initiatives to commercialize heavy oil in the Schrader Bluff accumulation within Milne and smaller satellite accumulations in and around the Prudhoe and Kuparuk fields, as well as investments in advanced recovery techniques used in all of the North Slope's producing fields.

Morgan, however, challenged the traditional definition of "infrastructure," pointing out that there's much more to it than roads, pipelines, processing facilities, docks and airstrips.

"Roads, pipelines, processing complexes and other facilities spawned by Prudhoe Bay are only one component of the overall infrastructure needed to enable us to continue to pursue these and other opportunities," Morgan said. "Infrastructure is also the financial and competitive health of our current operations on the North Slope. It's simply not enough to have good-quality development opportunities."

Due to declining production and rising unit costs, BP's returns on a per-barrel basis at Prudhoe Bay now rank second from the bottom among more than 40 producing assets worldwide, Morgan revealed.

"Clearly, we need to make some fundamental changes in the way we do business in order to generate competitive returns at lower production levels."

Morgan said he is confident BP's investments in Alaska will increase significantly over the next several years, but only because — and only as long as — the corporation keeps its overall Alaska business operations healthy.

Morgan also noted that he views

"Let's not become complacent because oil prices are higher than expected. Alaska's fiscal future is still the biggest risk to Alaska's major taxpayers."

John Morgan

President

BP Exploration (Alaska), Inc.

infrastructure as technical expertise, financial resources, a skilled work force and a strong educational and training system. Infrastructure is also a competitive contractor and supplier base, an equitable, flexible and predictable fiscal regime and a cooperative political environment, Morgan added. He noted Alaska and the oil industry have made huge strides forward in building fiscal and political infrastructure.

"We've resolved long-standing tax and royalty issues and disputes," Morgan said. "We've worked together to end the decades-old ban on exporting North Slope oil, and we've forged flexible fiscal terms to facilitate new exploration and development."

Isolated, each of these achievements is an important building block in Alaska's competitive infrastructure," Morgan added. "Combined, they can be the cornerstone of a new competitive fortress constructed on a solid foundation of state-industry cooperation."

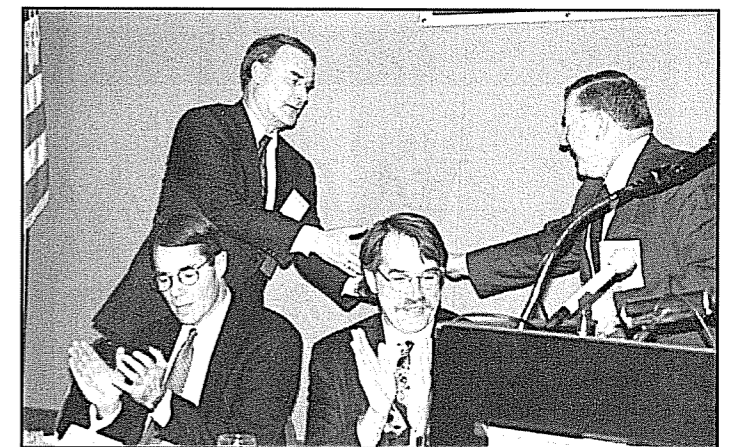
Morgan cautioned that Alaskans still need to reach consensus on a long-term fiscal plan for the state.

He concluded by pointing out that infrastructure is also an informed and knowledgeable populace.

"It's a populace that makes a genuine effort to know and understand the issues affecting them and makes informed decisions about their future. It's a populace that understands the delicate balance between risk and reward, that understands short-term pain is sometimes necessary on the pathway to long-term gain."



Anchorage Mayor Rick Mystrom spoke on the city's role in attracting new capital to Alaska. At right, Governor Knowles and RDC President Scott Thorson applaud as Paul Glavinovich recognizes Cook Inlet Region's Jerry Booth for his efforts in advancing the AMEREF program.



Bankers: Alaska needs to do more to attract capital

Many of the world's largest investors in resource development projects know little about Alaska and view the state as an "undeveloped wasteland" with

a boom-and-bust economy dependent on oil revenues, said Frank Ingrassia, a partner with Goldman Sachs & Company in New York, a firm that handles financing for the Alaska Industrial Development and Export Authority, the Municipality of Anchorage and the Red Dog Mine.



Frank Ingrassia

Speaking at RDC's conference in November, Ingrassia urged the state to do more to dispel that view and build confidence in the state's economy.

"Alaska must convince investors there is life after oil in Alaska," Ingrassia said.

Private business and state agencies should continue with tax-exempt or municipal bonds as a means of funding capital projects, the New York financier recommended.

Ingrassia was critical of

past moves by the Alaska Legislature to extract dividends from AIDEA, warning that such action in the future could lower AIDEA's credit ratings.

"There's almost always a way project infrastructure could be financed with tax-exempt bonds," Ingrassia said. Municipal bonds also are another option for obtaining development funding at low rates, the New Yorker advised.

"Alaska does not have the population or tax base to support large projects," Ingrassia said. "There's a need for public/private partnerships to minimize financing costs for resource development."

More than \$11.7 billion in municipal bonds have been issued in the past 10 years in Alaska. About 75 percent of the total has gone to the Alaska Housing Finance Corporation, the Municipality of Anchorage, the North Slope Borough and the City of Valdez.

Although Alaska banks historically have not funded significant portions of large resource development projects, they do play an important role in those projects by providing capital to laborers and vendors, accord-



Above, Ukpeagvik Inupiat Corporation spokesperson describes the corporation's services to conference delegate. At left, NBA President Richard Strutz presents data showing steady growth in Alaska's banking industry.



ing to Richard Strutz, President of National Bank of Alaska. Strutz reported that Alaska banks lend about \$1.8 billion each year to Alaska businesses and consumers, with all of that capital coming from within Alaska communities, generated from profits and savings.

"The capital is made available to Alaskans to help maintain a good quality of life and keep a vibrant labor force for Alaska's industries," Strutz said.

"Our banks have grown in size and sophistication, they are now involving themselves in financing some of the more glamorous projects," Strutz noted. "To further improve our in-state lending capacity, banks are increasingly working together and

are capable of handling projects up to \$100 million."

Strutz and Ingrassia emphasized that the attraction of any capital depends on a certain level of confidence and stability in Alaska's economy. They noted this stability is measured through several conditions, including access to natural resources, infrastructure and transportation, quality work force, proximity to markets, regulations and permitting policies of government and taxation policies.

"While Alaskans compete for capital on a global basis, the world is awash with capital looking for good places to park," Strutz said. "Our challenge is to make Alaska a friendly and profitably parking place."

Resource Review is the official monthly publication of the Resource Development Council (RDC), Alaska's largest privately funded nonprofit economic development organization working to develop Alaska's natural resources in an orderly manner and to create a broad-based, diversified economy while protecting and enhancing the environment.

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Critic challenges EPA programs

To argue the Environmental Protection Agency (EPA) would benefit from sound science is to accept that its goals are rooted in reality, but that's the wrong approach, an outspoken critic says.

Rather, according to Michael Gough, Director of Science and Risk Studies at the CATO Institute in Washington, D.C., "What do we expect EPA to do?"

Considering the agency's costs and its arguably negligible accomplishments, Gough told RDC that Congress should ask such questions, even though it may not get an answer for years.

Gough did not say that EPA regulations should be halted, but given that its regulations are expensive and often unnecessary, he warned that risk assessments, by themselves, can lead to unnecessary and expensive actions.

"They instill fear and cost great amounts of money and there are few opportunities to oppose them," he said.

Gough challenged two ideas that determine which environmental risks are addressed: the precautionary principle and statements that chemicals in the environment are big risks to human health.

"The precautionary principle says that you shouldn't do anything unless you can be certain that nothing bad will result," Gough noted. "It is played as an intellectual trump card and used to divide good from evil." Gough said the precautionary principle engenders fear of the future, fear of new things,



Michael Gough challenges EPA.

fear of change.

Cancer has been the "mother of environmental health risks," Gough said. He noted that extremists claim the environment causes 90 percent of all cancers. They reach that percentage by willful and intentional twisting of what scientists were saying about the causes of cancer in the 1950s and 60s, Gough charged. "Scientists did say that environment causes some major proportion of cancer, but they used 'environment' to include everything with which we come into contact — what we smoke, eat, drink, take as medicine, radiation from the sun and x-rays."

Gough said pollution causes no more than about two percent of all cancers and that cancer death rates can be cut significantly by increasing the use of early detection methods, by smoking less, exercising more and improvements to diet.

"Environmental exposures don't figure in the improvement of cancer mortality despite EPA's writing thousands of pages of reg-



Moderator Elizabeth Rensch poses a question to Rick Albright of the EPA. At right, DEC Commissioner Michele Brown addresses RDC.

ulations and requiring the expenditure of billions of dollars in compliance," Gough said.

He noted that EPA regulations cost about \$7.6 million for each hypothetical life-year saved. The Federal Aviation Administration saves a life-year for every \$23,000 it spends, 300 times less than EPA requires. Gough pointed out that the FAA estimates are based on accidents that kill and maim real people while EPA's are based on studies of laboratory rats.

The 104th Congress promised regulatory reform based on sound science, but not much happened, Gough said, because EPA's goals are not rooted in reality. He suggested Congress specify what it expects from the agency.

"I think a strong argument can be made to discontinue EPA's relentless risk assessment and risk management directed at any chemical it can think of."

Rick Albright, the newly appointed Director of the EPA's Alaska office, conceded there is uncertainty in the risk assessment process and the dilemma that creates in risk management.

"When dealing with the results of risk assessments, it's very easy as a risk manager to get caught up in the numbers, but we need to be careful, because those



numbers are based on huge amounts of uncertainty," Albright said. "Small differences in numbers can create substantial consequences, but in the realm of looking at those numbers, with uncertainty of the process in mind, those differences in risk numbers can be scientifically meaningless."

Albright noted "there is convincing evidence that some substances can be harmful, but for a great majority of substances we do not have good information about whether or not there really is a risk."

Albright said the EPA is attempting to make risk assessment and management less dubious, it also is taking a closer look at the economics of risk processes. He said the agency is pursuing technical and feasibility waivers that, in the long run, could save taxpayers \$15 million.

Alaska Department of Environmental Conservation Commissioner Michele Brown noted that lower environmental risk does not have to mean higher costs. She said DEC wants to help industry move in that direction, and to become more effective, efficient and equitable when it comes to regulations, requirements and enforcement. Brown said market-based incentives may be helpful.



Paul Glavinovich, President of AMEREF, the Alaska Mineral and Energy Resource Education Fund, presents Governor Knowles with a certificate recognizing his support for the Alaska Minerals and Energy Program, a partnership between the private and public sector in Alaska to educate students on the role natural resources play in society. At right, Glavinovich recognizes House Speaker Gail Phillips for her long-standing support of the program. Senate President Drue Pearce was also recognized for her support, as well as Rep. Richard Foster.



Knowles announces trade incentives

In his first major policy pronouncement on international trade, Governor Tony Knowles recently announced three initiatives designed to create more Alaskan jobs and attract international investment to the state.

The governor proposed a "Pioneer Business Incentive" partnership to provide

state incentives to international companies that begin operations in Alaska and said he would seek to drop a state jet fuel tax to encourage expansion of in-state oil refineries. Knowles also unveiled a state initiative to provide financing for potential Alaskan exporters through the Alaska Industrial Develop-

ment and Export Authority.

In a keynote address before RDC's 17th Annual Conference November 21, Knowles said Alaska needs to hone its marketing skills in the competitive global market.

Knowles' new Pioneer Business Incentive partnership would provide up to \$1 million in incentives to

attract international companies to Alaska, such as the first air carrier willing to provide direct passenger service between Alaska and Japan. Incentives could include promotional assistance for tourists, credits for landing fees or even financing on the cargo side in exchange for passenger service.

Hong Kong banker urges Alaskans to think small

When it comes to competing for capital, Alaska doesn't have a prayer against China, unless it thinks small in its attempts to attract capital to the state.

Speaking at RDC's annual conference on the realities of today's investment climate, Hong Kong investment banker James Bass said mainland China is the hot spot in acquiring and executing lucrative deals. China drew 40 percent of all

the developing capital in the world in 1995.

China is characterized by a developing economy with potentially large demand, cheap labor, pockets of educated workers and handsome tax advantages, although some incentives are being phased out.

"Alaska can't compete with Asia because it doesn't have the population," Bass said.

However, the Asian mar-

ket is also characterized by great up-front costs and very high risks, with China



Jim Bass

known as a difficult place to do business, Bass said. Bass noted that in China it's a real challenge to get important information on such business essentials as financial performance, market share, ownership claims and consumer relationships. Moreover, the Chinese market can be greatly influenced by policy shifts and unique features that make performance predictions risky.

"Most of the companies

in China need \$5 million to \$20 million to expand to maximum capacity, but they don't have fundamental business information about their operations," Bass said. "So people have to bridge the gap. There are significant risks associated with this and it's very costly to clarify risks."

Bass explained that language and culture barriers, combined with other challenges, create a situation where investors must spend several times what they would in New York to generate one-fourth the revenues they can in other markets.

But investors interested in small deals in China won't find them, presenting Alaska with opportunity to attract that capital.

Cominco gives Alaska mixed reviews in risk-reward profile comparisons



RDC President Scott Thorson and AMEREF President Paul Glavinovich discuss conference proceedings while Cook Inlet Region's Tom Crafford looks on.

(Continued from page 1)

the new General Manager of Red Dog. Cominco is in Red Dog for the long run, Key noted, because the huge size and high grade of the deposit, advancing technology and a recovery in base metal prices will all work in the company's favor.

Key compared Alaska's risk-reward profile with Cominco's operations in Peru, Chile, Mexico, Panama, Canada and Oregon before several hundred people attending RDC's annual conference.

Key noted that while the risk for mining in general is very high, particularly in base metals, Alaska mines add a new dimension to the risk analysis with their remote locations, hostile weather conditions and lack of infrastructure. All of these factors add to the uncertainty of a reliable operation.

In deciding where to invest its limited exploration, development and production dollars, Key said Cominco looks at an area's geological

opportunities, the size and grade of the prospect, regulatory and taxation regimes, costs of development and operation, political security and climate, and public opinion.

While Alaska has favorable geology and high mineral potential for large ore bodies, Key warned that its regulatory regime is among the most complex when compared to permitting requirements in South America, Mexico and Canada.

Key noted that it took his company only 18 months to complete a recent permitting process for a new open pit mine in the Yukon. "For production to begin, a total of one permit was required," Key said. "In the Yukon, all of the permitting concerns are brought together into one group."

In comparison, construction of the access road to the Red Dog mine required 33 permits from seven agencies, port facilities required 20 permits from nine agencies and 28

permits from 10 agencies were needed for the mine. Operation of Red Dog requires 10 ongoing permits.

While Alaska compared poorly in the regulatory arena, it fared well in respect to favorable taxation policies on mining. The 49th state ranked dead last in development and operating costs and sat near the bottom in a category comparing transportation, utilities and communications infrastructure. Alaska ranked better than average in land access, but tied for last in public attitude toward mining.

So how is Alaska going to attract mining companies into an area which ranks, by Cominco's analysis, as less attractive than other exploration areas?

As a start, Alaska legislators must commit to provide the resources required to get Alaska out from under the national toxic rule, Key advised. "The perception that legislators are doing us a favor by cutting funding, has to be dispelled," Key said.

Key also recommended Alaska make an effort to minimize the number of permitting agencies, preferably down to one. He

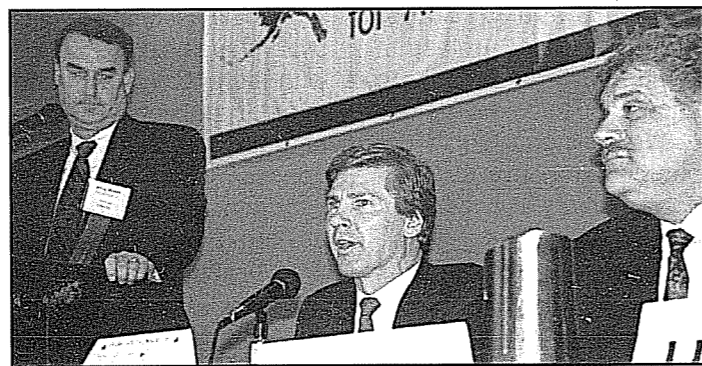
also suggested Alaska establish a reclassification system which recognizes the natural state of its streams.

"If Red Dog Creek cannot be reclassified, there is little hope for any stream (reclassification) or for the current regulations."

For Alaska to compete for capital, the state must commit to a portion of the risk by providing infrastructure, preferably in the form of transportation systems and power, Key added.

Public education is also vitally important, Key stressed, to demonstrate how resource development occurs with good environmental practices.

"What I do creates wealth for all Alaska," Key said. "I know we are doing a great job of protecting the environment. Even though environmental groups will show pictures of the messes left by mining 100 years ago, I know those miners and other resource producers created the wealth that made this country what it is today. Cominco is here for the long run and will continue to do things right. We will continue to create the wealth our adversaries so dearly enjoy."



GCI's Ron Duncan and AT&T Alascom's Jerry DeFrancisco address risks and rewards for Alaska in telecommunications.

New challenges and opportunities ahead for Alaska in Washington, D.C.

New year to bring opportunity for progress

(Continued from page 1)

the ultimate decisions on key resource development issues like ANWR and Tongass are made by Congress, where many members look north for convenient hot-button issues to impress constituents and shore up their record on the environment — without hurting their own state economies.

One problem is that the jobs issue doesn't play well back East or in America's heartland, according to Bill Horn, a keynote speaker at RDC's annual conference on Alaska's resources, held last month in Anchorage.

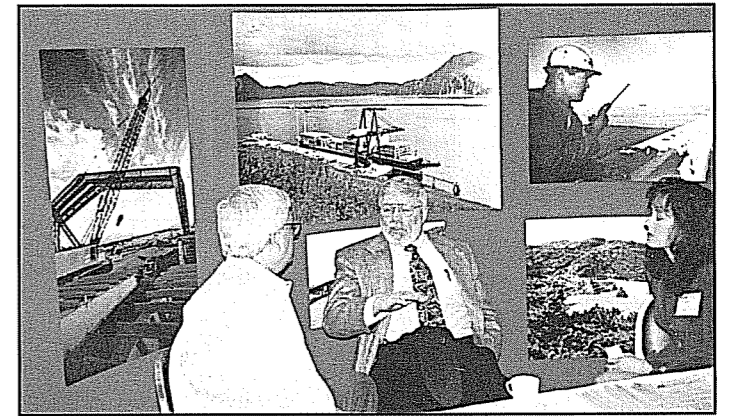
"No one in urban America sees jobs being threatened by environmental laws and new restrictions," Horn told 300 Alaskans attending the conference. "With ANWR, we tried the

jobs, energy security and balance of trade arguments, but none of these approaches worked," Horn explained. "We need to steal a page from Bill Clinton's campaign and find out what works with the public." Horn, an attorney with the Washington, D.C. law firm of Birch, Horton, Bittner and Cherot, spent 16 years in government service in the legislative and executive branches, most recently as Assistant Secretary of the Interior for Fish, Wildlife and Parks.

While his outlook for ANWR looks bleak, Horn believes Alaska has an opportunity to pursue incremental reform of major environmental statutes that directly or indirectly affect resource development, including the Endangered Species Act, the 1872 Mining Law, and federal wetlands regulation.

"We can't reform it all in one sweep," Horn noted. "We now have to do these things on an incremental basis. We have to build a case why the current regulatory regime doesn't make sense."

Horn urged Alaskans to work toward incremental strategies to gain concessions from Congress and the administration. He encouraged development forces to



Senator John Torgerson visits with conference delegates at the Alaska Industrial Development and Export Authority exhibit.

do their homework, learning which magic words, phrases and concepts resonate with the American public, just like Clinton did when he built his campaign around state-of-the-art polling to learn what would work.



Roger Herrera

While Horn is convinced it will take a Republican president to open ANWR, Roger Herrera, an oil industry consultant and lobbyist for Arctic Power, believes if Alaska is waiting for all the stars to line up just right, including 60 votes in the Senate and a Republican president, it may never open ANWR.

"We're not going to win this issue in the minds of the public, but the 535 minds of Congress," Herrera said. "ANWR is not a public issue, it's a congressional one which we got through Congress last year despite public opposition."

Herrera suggested Alaska must keep up its ANWR offensive in Congress, insisting pro-drilling forces have four years of positive opportunity before them. He is optimistic that Congress will again pass legislation opening the Coastal Plain of ANWR to produce a potential mammoth domestic oil supply," Herrera said.

Herrera stressed that

pro-development forces have not lost any ground, explaining that the chances for development will improve in the long run as energy prices increase and domestic oil supplies decline.

"It doesn't make any sense for us not to be on the offensive," he said. "If we're not in our opposition's face, we're letting them off the hook. We need to be prepared for a political opportune moment, either precipitated by international events or rising energy prices."

Herrera believes Clinton, faced with the worst trade deficit in years, can be persuaded to rethink his opposition to ANWR. With America now importing more than half its petroleum needs, the long-time Alaskan believes increasing instability in the Middle East will force the President to increase domestic production, the best option for reducing the trade deficit.

"Alaska's assignment is to convince the President to change his position in respect to ANWR, allowing a small footprint of development on the Coastal Plain of ANWR to produce a potential mammoth domestic oil supply," Herrera said. "We can succeed if Alaskans work harder and continue to support the effort."

Alaska Power Systems' bright star



Scott Thompson, founder of Alaska Power Systems, discussed new technology his company is pioneering. APS is poised to skyrocket in sales once the technology wins acceptance in the global marketplace.