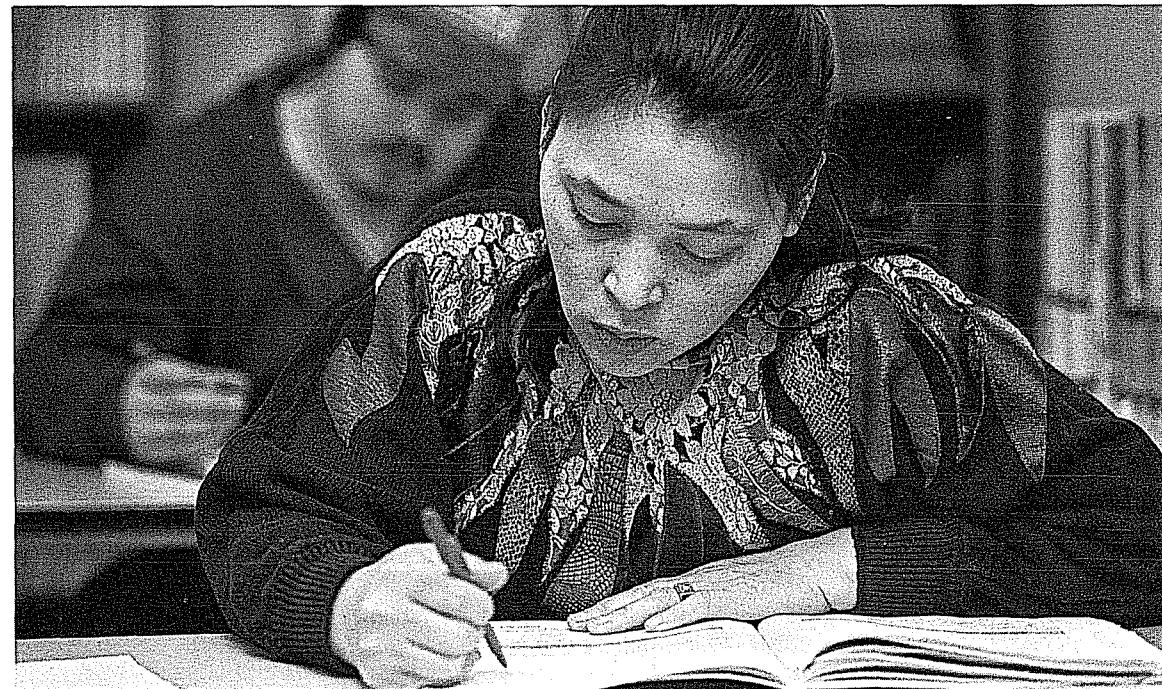


**When ANWR is opened, our people will be ready.**



Bill Hess photo

At the North Slope Borough, we don't get discouraged by the ups and downs of the political process in Washington, D.C. We believe that ultimately all of our national leaders will see the wisdom of safe development in ANWR.

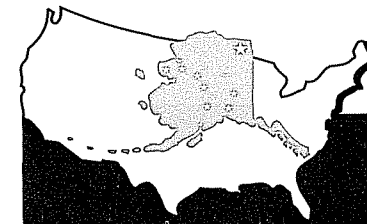
Because we have faith in the outcome, we're making sure our people are prepared for the opportunities. Our School-to-Work program helps prepare high school kids for the jobs of the future. And our Apprenticeship Program is producing journeymen through training on the job and in the classrooms of our local college.

**We're part of the ANWR solution.  
You can count on seeing us there.**

North Slope Borough, P.O. Box 69, Barrow, AK 99723  
George N. Ahmaogak Sr., Mayor

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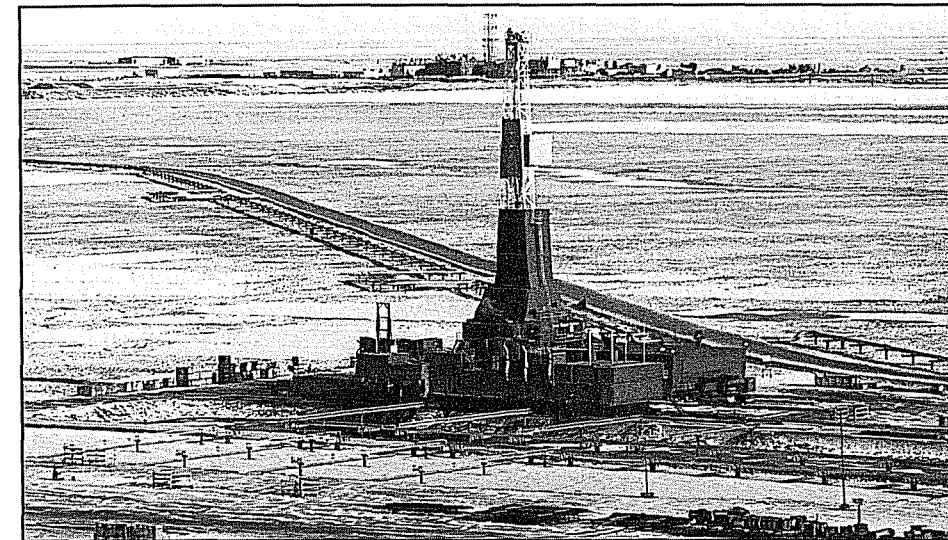
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**North Slope Borough**

# Resource Review

February 1996

A monthly publication of the Resource Development Council, Inc.



Marginal oil fields around existing North Slope infrastructure provide hope for the future.

## Marginal oil fields could help drive future economy

Development of marginal oil fields in Alaska's Arctic can generate high-paying jobs and income for Alaska workers, sales for Alaska businesses and increase the state tax base, according to a study conducted by the Institute of Social and Economic Research (ISER). The increases would be more than sufficient to offset any additional costs to government from resource management and public service requirements the fields might generate.

Additionally, when compared to the

state's natural resource revenues and management expenditures of fishing, wildlife and lands, the marginal oil field is the only case where resource management costs are covered by the revenues generated, with substantial income left over to support public services.

The purpose of the 1995 study is to provide a framework for analysis of the economic effects of new small marginal oil fields, which may be typical of new petroleum industry activity in Alaska. The ISER report was commissioned by

*A growing body of evidence, including the ISER study, supports the idea that developing marginal oil fields in Alaska may be an effective strategy for generating high-paying jobs for Alaskans, slowing the decline of oil production and increasing the state's tax base over the long-term.*

BP Exploration and presented to the Alaska Oil and Gas Policy Council, a task force of industry, state and community representatives appointed by Governor Tony Knowles to outline recommendations that would encourage more industry investment and development in the state.

Alaska depends on the oil industry for more than 80 percent of its annual revenues, but falling production from aging fields has resulted in lower state earnings and a growing budget deficit.

Marginal oil fields are those that would generate little or no profit if developed under adverse market conditions and tax policies. But, a growing body of evidence, including the ISER study, supports the idea that developing marginal fields in Alaska may be an effective strategy for generating high-paying jobs for Alaskans, slowing the decline of oil production and increasing the state's tax base over the long-term.

The conclusions of the ISER study  
*(Continued to page 5)*



## Message from the Executive Director by Becky L. Gay

# Cook Inlet big enough for oil, fish, tourism

As a windsurfer/board sailor who has sailed in Cook Inlet and has been "up close and personal" with the water more than most people, I believe the oil and gas operations pose no threat and actually work as a safety backup for people in jeopardy out there. In fact, the industry is so unobtrusive that many locals do not realize there are oil and gas platforms in Cook Inlet, much less the tourists.

The oil and gas industry in Cook Inlet has been monitored and inspected for about thirty years and repeated studies have shown the operations to be most excellent and without negative environmental side-effects, while pro-

viding enormous benefits to society in the form of fuel, electricity, jobs and other useful products.

Not only has oil and gas operations fueled Alaska's major population center in Southcentral, but the industry has co-existed with a world-class fishery for decades.

Continued discharge into the Inlet, which is minuscule compared to the small boat harbors and the wastewater discharges from adjacent communities, is appropriate and necessary for the industry to continue. New restrictions proposed under the EPA's draft NPDES permit add little environmental benefit to the highly-active Cook Inlet environment, yet pose enormous costs to just one industry. Mixing zones should be allowed and continued to be permitted at a reasonable size.

If EPA really wanted to benefit the waters of Alaska, it would work on cleaning up the many individual actions which cumulatively create a greater risk to human health and the Inlet ecosystem. Much of this activity comes from the same people opposing the already highly-scrutinized oil industry.

I sportfish the entire region and fight for elbow-room on the streams which carry some of the best salmon in the world. Thirty years of operations has provided plenty of opportunity and data to examine cumulative effects. Meanwhile, the Inlet still keeps flushing the second highest tides in the world through the area twice a day, keeping our waters and shores clean.

Cook Inlet is plenty big enough for all of us. Whether we work or play in Cook Inlet, we all enjoy its natural beauty.

The permits for the oil and gas industry do not need to be more stringent, especially since there is no corresponding environmental gain.

## Clinton responds to RDC's pitch to open ANWR

*Editor's Note: The following is President Clinton's formal response to RDC's Becky Gay who last month requested the White House put politics aside and open the Coastal Plain of ANWR to oil and gas leasing.*

Thank you for sharing your concerns about the Arctic National Wildlife Refuge in Alaska. I am glad to have your perspective on this important issue.

I am firmly committed to preserving America's precious natural resources. As you may know, I vetoed the Republican majority's Budget Reconciliation bill that would have exposed the Refuge to oil and gas exploration. I have long opposed opening this fragile and unique area to drilling. The Refuge is one of America's great natural areas. It includes the core calving grounds of the Porcupine Caribou Herd, is home to a wide diversity of other wildlife and is critically important to many indigenous peoples of the region.

My Administration supports the development of oil and gas resources in other areas of the Arctic where it can proceed without damage to the environment. Recent assessments by the scientific community confirm that such development is not safe in ANWR.

As we continue working to ensure the integrity of the earth's environment, I appreciate your involvement.

Sincerely, Bill Clinton

The Resource Development Council (RDC) is 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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Writer & Editor  
Carl Portman



two consecutive years on the state's five-year timber sale schedule.

The legislation, drafted by Rep. Jeannette James, has reportedly gained the Knowles administration's approval after key amendments were enacted.

## Other bills of interest to resource producers

Several new bills of interest to Alaska resource producers have been introduced since the Legislature reconvened last month. New bills in the House include: **HB 355, by Rep. Gene Therriault**, limits DEC authority to charge fees only for direct costs of permit preparation and administration. The bill repeals DEC authority to charge solid waste fees. **HB 388, by Reps. Norm Rokeberg and Bettye Davis**, allows DNR to lease state land in larger regional areas on a recurring biennial basis. **HB 389, also by Rokeberg and Davis**, allows the Division of Oil and Gas to revise a Best Interest Finding only if new factual information justifies revision. **HB 394, by Reps. Scott Ogan and Norm Rokeberg**, authorizes natural gas and coal bed methane licensing/leasing with a depth limitation of 3,000 feet and exempts onshore natural gas and coal bed methane wells from spill contingency planning and financial responsibility requirements. **HJR 54, by Rep. Gene Kubina**, encourages ANS gas marketing and pipeline construction.

New Senate bills include **SB 199, by Sens. Loren Leman and Drue Pearce**, which authorizes environmental and health safety self-audits with protection from information being used against a company from a voluntary audit if certain conditions are met. **SB 200, by Sen. Al Adams**, authorizes the state to reduce ANWR royalty from 90 to 50 percent. **SB 230, by Sens. Pearce, Frank, Green and Halford**, prohibits state land and water from being classified so as to preclude or restrict traditional means of access for traditional recreational use.

Measures introduced by **Gov. Knowles** in both houses include **HB 416/SB216** which authorize DGC to charge fees for coastal zone consistency determinations and **Executive Order 92** which consolidates the Div. of Oil and Gas with the Div. of Geological and Geophysical Surveys. **HB 344** authorizes DNR to negotiate timber sale contracts that provide for local manufacture of value-added wood products. The bill provides for contracts allowing harvest of up to five million board feet of timber each year for up to 10 years, but 50% of the timber must be used for local manufacture of value-added wood products.

## Young to hold Tongass hearings

Congressman Don Young will hold two hearings on the Tongass Transfer and Transition Act and the federal management situation in the Tongass. The hearings will take place Feb. 15 and 16 in Wrangell and Ketchikan.

"The time has come for Alaskans to start thinking through the prospects of controlling their own future in the Tongass," Young said. "This is a bill about control — Alaska control of the forest — and stabilization for the people who depend on forest resources to survive."

Under Young's bill, the Alaska Legislature and Governor can elect to receive the entire Tongass. The bill provides a one-year transition to state control and management under state laws.

"I have taken the suggestion of State ownership of the Tongass seriously and have put together this bill as a starting point," Young said. "It is a proposal to and for Alaskans. It is time to give Alaskans a choice and a more meaningful voice in the management of the Tongass."

## Chugach Forest Plan revision

The Chugach National Forest is beginning revision of its Land Management Plan. The original plan, completed in 1984, will be revised to reflect any changes to the environmental, social or legal conditions that have come about since the plan was approved. Currently the Forest is conducting a "need to change" analysis to determine the scope of the revision.

Formal scoping will commence with publication of a Notice of Intent this spring. A Draft Forest Plan and Draft Environmental Impact Statement will be released in late 1996. The Regional Forester will make a decision on final revisions to the Forest Plan in 1998.

## Paper work buries loggers

Many believe that loggers just go to the wood and do their cutting. Not without doing their paperwork first. Regulations, paperwork and the bureaucracy are enormous and costly to timber companies doing business in Alaska.

For example, loggers need a place to live while cutting trees. Since logging sites

are remote, a camp must be set up, but get ready for the paperwork. Just to set up a camp requires up to 36 permits from seven federal and state agencies. Many more permits are required for logging, transportation and other activities. In all, Ketchikan Pulp Company and other businesses spend millions of dollars each year acquiring and maintaining permits.

## ESA, Wetlands update

As 1996 begins, the window of opportunity for Endangered Species Act and wetlands reform still beckons, but mega-issues such as the budget have captured most of Washington's attention. ESA and wetlands reform may return to the front burner next month, but watered-down reform bills are expected in the Senate.

The House Resources Committee passed HR 2275, the Young/Pombo bill, by a 27-17 margin. Chairman Young introduced amendments to the bill which allowed him to make improvements recommended by the Western Governor's Association. The Committee is now ordered to report to the full House.

Senator Kempthorne (R-ID) introduced three ESA reforms to the Senate Environment and Public Works Committee (EPWC), where Kempthorne chairs a subcommittee. Similar to S 768 introduced by Senators Slade Gordon, S 1364 redefines "take" and provides for some compensation to private landowners. Kempthorne's bill, however, is considered to be a worked-over version of Rep. Billy Tauzin's status quo bill from 1994. S 1364, which apparently has become the bill of choice in the Senate, is better than the current Act, but it does not solve the problems people have in complying with the Act.

There is a good chance that EPWC Chair John Chafee (R-RI) won't want two major environmental re-enactments to get to the floor in 1996, and if that is the case, the Clean Water Act with wetlands reform may end up in the spotlight prior to or even instead of ESA.

## KPC becomes part of worldwide web

Ketchikan Pulp Company has joined the World Wide Web with a home page on the Internet. The KPC home page address is <http://www.ptialaska.net/~jchcom/kpc.htm>. The KPC home page contains information on company history, products produced and information on the Tongass National Forest.



## Brief Review

### Court suspends General Permits for development in wetlands

A recent court order has forced the U.S. Army Corps of Engineers to rescind general permits for the placement of fill in Anchorage wetlands. The permits will be reconsidered only after they are "tightened" and "appropriate modifications" are made.

The U.S. District Court order dates back to a June 20 suit brought by the National Wildlife Federation and other environmental groups against the Corps to block the permits. The groups claimed the permits represent delegation of the Corps' Clean Water Act Section 404 authority to the state and local level and are unfairly biased toward development.

The court's December 20th ruling suspends the GPs until February 18, allowing the public to submit comments and for environmentalists to provide input to the court on how the GPs should be used.

Corps officials say they are proceeding with a review and will work to address concerns of the environmental groups, especially in the areas of environmental assessments, cumulative impact issues and definitions that tighten requirements for development.

### ANWR prospects dim

Without a comprehensive agreement on a broad federal budget package, the chances of opening ANWR to oil and gas exploration and development are next to nil, according to RDC sources in the nation's capital. The state's congressional delegation will meet with President Clinton in March to plead Alaska's case, but it now appears that complex issues like ANWR will be deferred until after the election in November.

1995 marked the first year Congress formally approved legislation calling for oil and gas leasing on the refuge's Coastal Plain. The legislation was included as a provision in the broad GOP budget package intended to erase the federal deficit in seven years. The budget measure was vetoed by Clinton, who objected to cuts in the growth of Medicaid, Medicare and other programs.

Because the federal budget package is

the vehicle for the ANWR proposal, any hope to open the Coastal Plain depends on quick resolution of budget issues. But Republican leaders are holding out little hope that a deal can be reached because of wide philosophical differences with the President.

It now appears that stopgap spending bills will allow the government to stagger along and avoid shutdowns, and the November elections will be a referendum on the size and role of government programs.

### Alaskans support a fiscal plan

A majority of Alaskans believe their state faces a growing budget crisis and that a fiscal plan which cuts spending is needed, according to a statewide survey released last month by the Alaska Oil and Gas Association.

The Dittman Research Corp. survey showed that by a 3-1 margin Alaskans believe the state is facing a serious budget crisis. More than half of the respondents believe the crisis is serious. Most surveyed also think the effects from the budget crisis will be felt within five years. In fact, four out of five said they feel the state's budget deficit will personally affect them.

Over half of the respondents said the state should reduce spending rather than raise taxes to balance the budget. Reductions in the number of state employees, wages and benefits and reducing entitlement programs lead the list of recommended spending cuts. Implementing a sales or a personal income tax were preferred choices if tax increases become necessary.

The Dittman survey found oil and gas development enjoyed an 88 percent approval rating as being good for Alaska.

### Heavy oil bill passes first House committee

A bill providing incentives to produce "heavy oil" deposits was sent to the House Resources Committee recently after passing the House Oil and Gas Committee.

Heavy oil is thicker than typical North Slope crude with a high viscosity and it can be almost tar-like. The purpose of the bill is to maximize the return of more than 26 billion barrels of "heavy oil" in accumulations on the North Slope.

HB 325 would provide an exemption from royalties for the first 500 barrels produced daily from a well. The bill calls for the suspension of the royalty exemption if the price of oil reaches \$15 a barrel at the well head, less costs.

"The bill calls for a five-year royalty exemption and is intended to stimulate investment on the part of the petroleum industry and create a test-bed for new technology that can be transferred from Shrader Bluff to the West Sak field so we can help develop this huge and enormous supply of oil that is very difficult to produce," said Rep. Norm Rokeberg, Chairman of the Oil and Gas Committee. Rokeberg noted the bill would create jobs, spur investment and increase state revenues.

Rep. Joe Green, the original sponsor of the bill, said the royalty exemption would entice industry to develop technology to go after the hard-to-reach oil. Without such an incentive, Green said the industry might be forced to leave the heavy oil untouched.

### Streamlined oil leasing bill introduced by Knowles

Legislation to streamline the process for oil and gas leasing on the North Slope was introduced last month by Governor Knowles. The Governor's proposal for areawide leasing will streamline the leasing process on the North Slope while still protecting the environment, Knowles said. It provides industry the certainty of annual lease sales and regulatory efficiency and provides the state with new jobs and enhanced development opportunities.

Current law permits areawide oil and gas lease sales but requires DNR to determine that each individual sale is in the state's best interest. A best interest finding weighs competing interests including economic benefits and possible environmental risk.

Under Knowles' proposal, a single best interest finding would be issued for all North Slope tracts offered in the state's five-year oil and gas leasing program.

### Bill to provide small timber sales moves forward

Legislation to streamline the process for making small timber sales available to the public has been sent to the House floor after passing both the House Resources and Finance Committees.

HB 212 makes adjustments to the State's timber sale program to allow the Commissioner of DNR to respond to short-term timber supply needs of small operators. It also makes some minor changes to the Forest Practices Act with the concurrence of the State Board of Forestry.

The bill releases small timber sales of 160 acres or less from having to be listed for



## Thoughts from the President by Elizabeth Rensch

### Tax them, then pay us

#### Eco-groups pull in millions in lucrative government grants

We all realize that without federal and local taxes, funds would not be available to support our educational, medical, transportation, public safety, community development and welfare needs.

But did you ever stop to think that your hard earned dollars are perhaps being funneled into the coffers of eco-groups that spend every waking moment fighting the development of resources that feed our economy? Well, start thinking.

An organization known as the Center for the Defense of Free Enterprise (CDFE) has uncovered some startling facts that outline our government's disposition of huge tax subsidies to eco-groups throughout the nation. The CDFE is investigating the top 100 environmental groups in order to estimate how much total taxpayer cash is vanishing into private environmental groups. The IRS estimates that there are approximately 12,000 such groups in America.

The money comes in the form of government cash grants paid straight from the U.S. Treasury into the bank accounts of these groups. The Nature Conservancy received 20.4 million in 1993 and the World Wildlife Fund got \$7.2 million in 1992. The Defenders of Wildlife received \$602,527 and the

Center for Marine Conservation took in \$680,289 in government dollars in 1992. The total is yet to be known, but let's just say it's somewhere in the area of several hundred million dollars!

Non-profit, tax-exempt organizations such as churches, civic groups, hospitals and other worthy charities are one thing, but to give away hard earned tax dollars from taxpayers, many of whom object to the objectives of these eco-groups, is intolerable. People have a right to know which federal agencies are giving these grants to green groups and should demand that it be stopped immediately. Ron Arnold, President of the CDFE, has requested Congress hold hearings on these financial abuses. In his words, "The hypocrisy of these eco-groups is shameless. They complain that resource producers aren't paying high enough fees for using federal lands while they are on the 'take' from the government themselves. It's almost like they are saying 'tax them more so you can pay us more.'"

In turn, a coalition of environmental and green taxpayer groups has mounted a campaign called the "Green Scissors" to eliminate alleged "subsidies" received by loggers, miners, ranchers and others who harvest natural resources on public lands. Each of these "subsidies" is merely a fee wise users must pay for the right to produce natural resources from public land. Green groups claim the fee is too low, but never mind the fact that

the products we all use each day in modern society comes from natural resources produced by loggers, miners and others. The eco-campaign calls for vastly increased fees that will push resource producers off federal lands and force them to invest overseas.

The CDFE is actively helping to organize a "Zero the Green Giveaway Campaign." The campaign calls for an end to federal subsidies to environmental groups.

In the *Alaska Miner*, a recent article reports that these same eco-groups are using subversive tactics in the school system to spread their message. A group called "Student Environmental Action Coalition" uses school newspapers to organize students into environmental action committees. Another group, "The Center for Environmental Education," provides an environmental education clearing house to scrutinize education programs sponsored by corporations. This group helps teachers spot learning programs like AMEREF, which they perceive to be nothing more than outposts for industry. It is possible AMEREF could come under such scrutiny, even though it's a well balanced program.

The Center for the Defense of Free Enterprise is busy working on this issue and has pledged to continue its campaign until subsidies to eco-groups stop. Need I say it? Write your U.S. congressman and senator.

### RDC hires Craig Lyon as Special Assistant

Craig Lyon has joined RDC as Special Assistant. His new duties will include legislative issues, grant writing, as well as many administrative functions. Lyon will also be responsible for administrative functions pertaining to the AMEREF resource education program that RDC oversees.

Lyon has worked for the Alaska Legislature as an aide for seven legislative sessions. He holds a Bachelors Degree in Government from Norwich University in Vermont, and a Bachelors Degree in Education from the University of Alaska Anchorage. He is a lifelong Alaskan and has one son, Travis, age four.

# Incentives on table to spur oil development

Alaska Oil and Gas Policy Council,  
BP, ARCO executives look to the future

The Alaska Oil and Gas Policy Council plans to submit a final report to Governor Tony Knowles this month outlining recommendations to make Alaska a more competitive place to explore and produce oil and gas.

The Council believes that by offering creative incentives, the State can maintain industry's interest in Alaska and attract additional investments. The State depends on the oil industry for more than 80 percent of its revenues, but North Slope oil production is steadily declining, which means less income for the State. Meanwhile, the oil industry is investing more abroad on projects with an attractive rate of return.

The 14-member task force of industry, community and State leaders has reportedly reached consensus on many issues, recognizing that the State and industry depend on each other and should work as partners to secure future opportunities.

While the Council has been reviewing draft recommendations to help sustain the industry's interest in Alaska, it has warned that the State must come to grips with its budget gap, or else industry may shy away from Alaska, fearing the state will tax it harder to eliminate the shortfall between revenue and spending.

Draft recommendations of the task force include: temporary royalty and tax relief for marginal and slow producing wells, a tax write off for a portion of a company's exploration costs at some new oil prospects, streamlining of the permitting process to speed up oil field development and changes in oil lease requirements to get inactive leases back on the market quicker.

Meanwhile, at the Alliance annual conference in Anchorage last month, Richard Oliver, Deputy Chief Executive

Officer of BP Exploration, emphasized that teamwork is the key to Alaska's future prosperity. Oliver pointed out that Alaskans and the oil industry must build a bridge to span the gap between Prudhoe Bay and future opportunities. He said that bridge can generate revenues that will help the State close the gap between income and spending. It can provide jobs for Alaskans and business for Alaska companies, he said, adding that "it must enable producers like BP to maximize near-term production and maintain competitive margins and profitability in order to stimulate new investments."

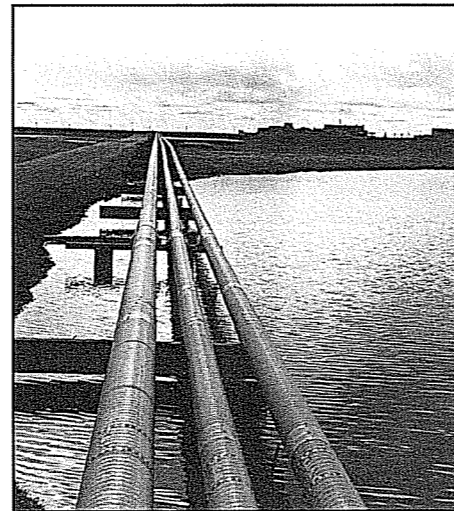
*"As far as the overall business atmosphere in Alaska goes, it's a 180 degree change from the past. The political leadership in this state is really doing some very good things."*

Mike R. Bowlin  
Chairman, ARCO

Oliver explained that the girders to the bridge will be production from existing fields, as well as new marginal fields around existing infrastructure.

"There will be projects like heavy oil development at Shrader Bluff and West Sak, new fields at Northstar and Badami, field extensions at Niakuk and Milne Point, and satellites and enhanced oil recovery at Prudhoe Bay, Endicott and Kuparuk."

Oliver emphasized that the only



*Teamwork between the State and the oil industry is the key to extending production from existing North Slope fields and stimulating investments in new frontier areas.*

bridge to these and other long-term opportunities, including ANWR, a gas pipeline and new frontier development, is the ability to compete successfully for investments that increase near and medium-term production on the North Slope.

"Our ability to work together to overcome challenges facing us will have far-reaching effects on our ability as a company and on Alaska's ability as a state to thrive in a global marketplace," Oliver said.

The BP executive noted that the potential for adding new oil reserves on the North Slope over the next decade amounts to 5 billion barrels, not counting ANWR. Nearly all of those reserves will come from known resources in or adjacent to existing fields.

"As far as the overall business atmosphere in Alaska goes, it's a 180 degree change from the past," noted ARCO Chairman Mike R. Bowlin. "The political leadership in this state is really doing some very good things."

Bowlin said the royalty adjustment bill passed by the Legislature last year and signed by the Governor offers the kind of incentives the industry needs. He said the Legislature this session is moving in the right direction with heavy oil tax incentives to speed development of West Sak and Shrader Bluff. And the Legislature and governor have another good idea in areawide leasing of the North Slope, Bowlin said.

# New AMEREF energy education module released to schools

*Learners will receive balanced and objective information on Alaska's energy resources*

Many people are concerned about the "apocalyptic" approach to environmental education. AMEREF's statewide minerals and energy education program is correcting such miseducation through new balanced information now being distributed to Alaska school teachers.

In January, AMEREF began distributing its latest module, Energy and the Environment. The module is the fifth in a series of teacher manuals contained in the Alaska Resources Kit: Minerals and Energy. The kit, a supplemental interdisciplinary materials package, was developed by AMEREF to provide students with the knowledge, skills and attitudes necessary to make informed decisions regarding the mineral and energy resources of Alaska.

"Helping students comprehend the complex concepts of energy and associated environmental considerations is an ambitious, but important task to prepare our future leaders for the 21st Century," noted Terri Campbell, Minerals and Energy Program Coordinator at the Alaska Department of Education in Juneau. "The challenge is to not only design learning materials which will inspire young minds and promote attitude development, but also to motivate teachers to address the importance of energy resources by using these and other materials."

The lesson plans and activities contained in the new

Energy and Environment Module were developed over several years to help teachers address Alaska energy issues.

"Our ultimate hope is that the learners will receive balanced and objective information and wish to seek further knowledge as they embark on a future sure to contain not only challenging energy questions, but also astonishing opportunities," said AMEREF President Paul Glavinovich.

The new module contains basic, Alaska-specific information about energy, energy sources, energy uses and energy futures. The module has been designed to complement the other modules in the AMEREF kit. Lessons contained in the new module are designed for use at various grade levels with appropriate adaptations. Balanced information about resource development and environmental considerations has been provided in this Alaska-specific module from wide ranging sources across Alaska.

The activities are designed to be hands-on/minds-on, Glavinovich explained. "We believe students will learn most from this approach," said Glavinovich.

Other recent highlights of AMEREF include new teacher training programs, adaptation of kit modules for convenient use in grades K-3, and revision of the Alaska Economy/Ecology Module to more clearly reflect how the utilization of resources is tied to economics.

## ISER study supports development of marginal fields in the Arctic

*(Continued from page 1)*

is based on an analysis using existing information about the economy and public sector combined with a description of a hypothetical marginal oil field, according to Scott Goldsmith, an economist with ISER. In reality, Goldsmith said each marginal field would have different characteristics, and the actual economic and public sector effects would differ from the model in the study. However, given the economics of field development, he said the study demonstrates that the general conclusions are consistent with a broad range of assumptions about both field characteristics and the economy.

Goldsmith estimated that a hypothetical marginal oil field on the North Slope with projected reserves of 100 million barrels of oil would require \$320 million to develop, of which \$159 million would be spent in state. Production costs over 20 years were estimated at an additional \$320 million, of which \$290 million would be spent within Alaska.

Field development would be spread over several years with the annual average of jobs generated peaking at about 500. The average job would pay about \$50,000 for a total

annual payroll of \$25 million. During field production, the average annual number of jobs would decline to 250.

State revenues — primarily royalties, property taxes and corporate income taxes — generated from production of the marginal field would vary according to fluctuations in price, royalty and tax rates. Estimated revenues from production would range from \$29 million to \$328 million.

Additional revenues would be realized from the "full pipeline effect" and a potential state payroll tax. The full pipeline effect of adding production from a marginal field to the existing throughput of the trans-Alaska Pipeline would reduce the tariff on the existing flow of crude and increase its wellhead value, resulting in higher royalty revenues from all North Slope production.

Costs of monitoring and regulating the additional oil development and the added expenses of providing public services for new workers would total \$51 million in the ISER model. The dividend to the State after the \$51 million in costs are subtracted from the field's added revenues range from \$1 million to \$300 million.