



What Is The Difference Between Deforestation And Timber Harvesting?

We know deforestation is sometimes confused with timber harvesting. But actually, they are two very different things. Deforestation is a two step process that involves not just removing trees, but ensuring trees do not grow back once they have been removed. For example, land that has been cleared of trees to make way for human settlement or agricultural use is an illustration of deforestation. Timber harvesting is also a two step process that begins by removing the trees, but differs from deforestation by ensuring that trees do grow back through continued cultivation until the forest is ready for the next harvest. This process ensures that forests and forest products will always be available for future generations.



... improving today's forest management for tomorrow's forests.

If you are interested in additional information concerning our timber harvest activities, please write, call or fax us with your questions or comments at: Koncor Forest Products Company, 3501 Denali, Suite 202, Anchorage, AK 99503, (907) 562-3335 phone, (907) 562-0599 fax.

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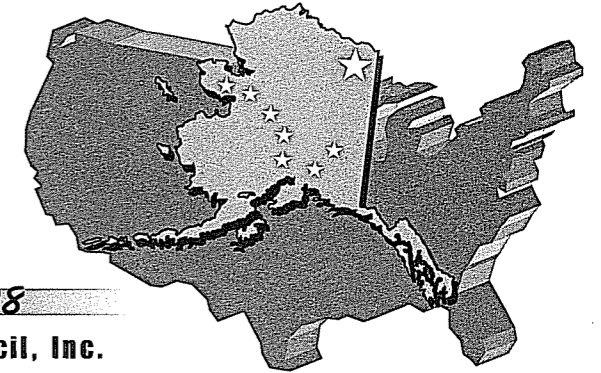
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Completion of EIS and permitting process key to Northstar development

BP pays special attention to local concerns, Northstar to have smallest footprint of any North Slope oil field

BP Exploration (Alaska) Inc., and its Alaska contractors are gearing up for the development of the Northstar oil field approximately six miles offshore Prudhoe Bay.

BP is proposing to produce oil from the Northstar deposit from a self-contained facility located on an artificial gravel exploration island built by Shell in the 1980s. Northstar crude would flow through a pipeline buried in a trench to existing onshore facilities and the Trans-Alaska Pipeline System. The oil field is expected to yield approximately

145 million barrels of high quality crude oil, producing up to 65,000 barrels per day.

The \$450 million project is expected to generate up to 500 construction jobs and more than 100 permanent jobs. BP has committed to employ qualified Alaskans by recruiting staff and contractors locally and encouraging contractors to do the same.

The state will collect about \$575 million in royalty revenues over the 15-year life of the oil field. In addition, the field will contribute more than \$100 million to the Permanent Fund and pay out more than \$60 million to the North Slope Borough in property taxes and \$450 million to the federal government in royalty and tax payments.

More than 85 percent of the project's cost will be spent in Alaska. In-state fabrication of production modules is expected to resume later this year with island construction beginning early next year. Northstar production is targeted for late 2000 or early 2001.

"Northstar is one of the first in a new era of smaller fields close to existing infrastructure that will help bridge the gap between Prudhoe Bay and future

Northstar Benefits to Alaska

- **Construction jobs**
 - 500 construction jobs
 - BP commitment to employ qualified Alaskans
- **Operation jobs**
 - More than 100 permanent jobs
- **Economic impact**
 - Northstar will inject more than \$1 billion into Alaska's economy
 - 85 percent of the project's \$450 million cost will be spent in Alaska
 - \$575 million in royalty revenues to the state
 - More than \$100 million into the Permanent Fund
 - \$60 million to the North Slope Borough in property taxes
 - \$450 million to the federal government in royalty and tax payments
 - In-state fabrication of production modules

opportunities such as gas commercialization and ANWR," said Mike Skitmore, BP's Northstar manager. "Northstar will have the smallest 'footprint' of any North Slope field, occupying a five-acre island, plus a pipeline that adopts proven technology from the Canadian Arctic."

Before construction can begin, however, BP must secure permits which are contingent on the successful completion of the environmental impact statement (EIS) by the U.S. Army Corps of Engineers. A draft EIS has

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"Northstar is one of the first in a new era of smaller fields close to existing infrastructure that will help bridge the gap between Prudhoe Bay and future opportunities such as gas commercialization and ANWR."

- Mike Skitmore
BP's Northstar Manager



Message from the Executive Director by Ken Freeman

RDC hosts FERC

Commissioners see pipeline, Southeast hydroelectric sites

RDC had the unique opportunity recently to host a tour of Alaska for three members of the Federal Energy Regulatory Commission (FERC).

The visit was a first for two of the Commissioners, Curt Hebert and Linda Breathitt, who were accompanied by Chairman James Hoecker. FERC oversees America's natural gas industry,



FERC Commissioners Curt Hebert, Linda Breathitt and Chairman James Hoecker stand at mile zero of the Trans-Alaska Oil Pipeline with Pump Station One in the background. (Photo by Carl Portman)

electric utilities, hydroelectric projects and oil pipelines.

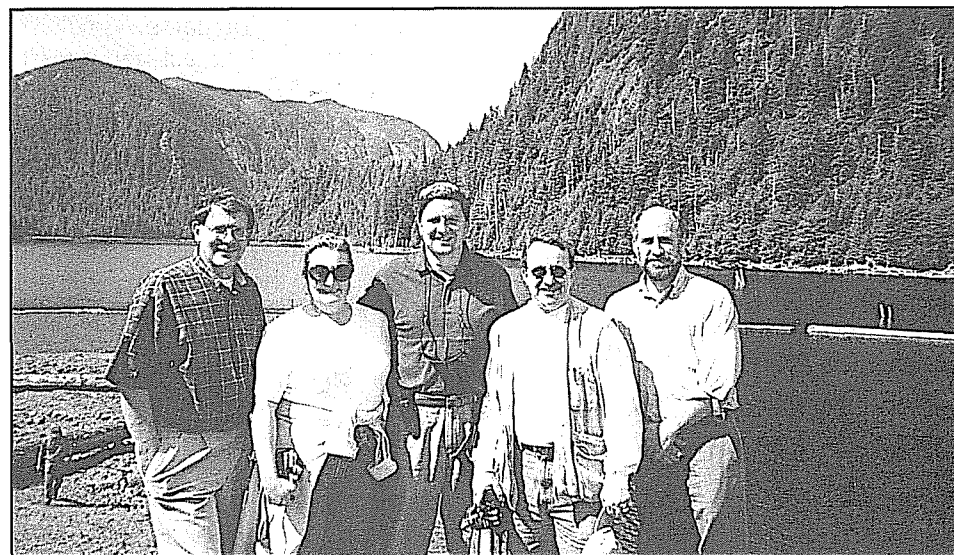
The FERC delegation came to Alaska upon request by Senator Frank Murkowski to see the pipeline and a

number of hydroelectric sites first hand. Murkowski sponsored legislation which recently passed the Senate that would exempt five-megawatt hydroelectric projects from federal licensing requirements, turning regulation of those projects over to state jurisdiction.

The Commissioners toured Prudhoe Bay and Alyeska's Pump Station One, as well as a potential hydroelectric site near Gustavus, a small town outside Juneau. The FERC delegation also inspected other potential and established hydro sites in Southeast.

RDC is always proud to bring delegates and officials from Washington D.C., to visit Alaska to see the beauty of our state, the richness of our resources and the unique circumstances Alaska faces in regard to federal regulatory issues.

Given the number of issues before FERC which directly impact Alaska, RDC appreciated the opportunity to educate the Commissioners at the behest of Senator Murkowski about Alaska and the importance of our state to America's strategic energy needs.



Standing before a hydroelectric site near Ketchikan are John Magyar, General Manager of Ketchikan Public Utilities, FERC Commissioners Linda Breathitt and Curt Hebert, FERC Chairman James Hoecker and Doug Campbell, CEO, Cape Fox Corporation.

(Photo by Ken Freeman)

Resource Review is the official periodic 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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BP to boost production

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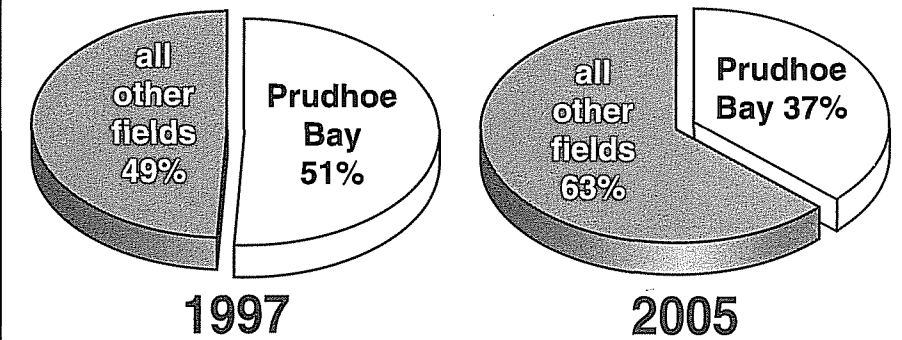
with more than 1 million acres under lease.

"We have the land, and all the signs are we have the barrels," Campbell said.

Alaska should play a prominent role in achieving BP's target of producing 25% more oil in the next five years than it has in the past five.

Prudhoe Bay already has produced more than its original estimated recoverable reserves of 9.6 billion barrels, and at least another 3.5 billion barrels are expected to be produced. BP, ARCO and their partners are working to halve the field's 12% annual rate of decline over the next few years and

Prudhoe share of North Slope production



ultimately recover 70% of the oil in place. Prudhoe Bay operating costs have been reduced by 50% since 1991.

Coiled tubing drilling technology has reduced the cost of drilling a well on the North Slope by two-thirds, from \$3 million to \$1 million. The industry is using

"designer" wells on the North Slope that access multiple oil accumulations at different depths and multilateral wells that drain more than one area of oil-bearing reservoir rock from a single surface penetration. These technologies have significantly reduced the surface impacts of drilling.

BP notes that the cost of finding new oil on the North Slope has been consistently less than its target of \$1 per barrel. North Slope exploration wells have recorded a 1-in-2 success rate over the past five years, accessing average reserves of 24 million barrels.

ARCO's Thompson outlines impacts of Asian crisis on oil

(Continued from page 6)

financial markets are now adjusting to slow or no growth in Asia.

While Asian currency devaluations have driven down the cost of Asian imports, U.S. exports are being squeezed out of Asian markets because they are not affordable. The U.S. trade deficit is now at a ten-year high. Thompson said the drop in exports could cost a million American jobs next year.

Even though most of the oil Alaska produces is sent to domestic markets, the Asian flu has impacted the state's oil industry in a big way. Thompson explained the Asian recession has had a significant impact on oil prices because Asian demand, driven by steady growth throughout the region, represented such a large share of expected incremental oil demand over the next several years. Asian LNG prices have also fallen as many contracts are pegged to oil prices.

"Demand for oil and gas in Asia isn't growing at the pace we expected and in many parts demand is declining," Thompson noted. "The result is a world oil market that is over-supplied. This is a key factor contributing to lower oil prices worldwide and to lower West

Coast oil prices."

Thompson had hoped prices would begin to improve during the second half of 1998, but the ARCO senior executive warned it is becoming increasingly clear prices are likely to remain low through the rest of the year.

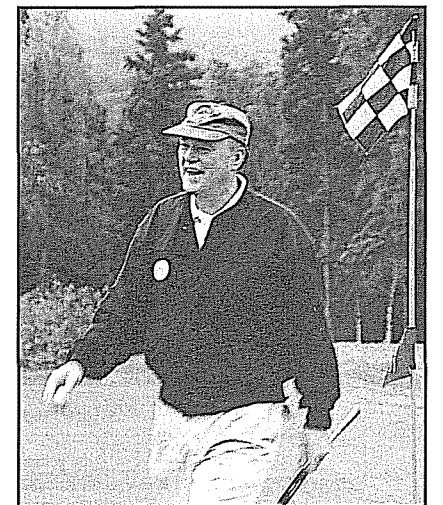
"There is not much we can do about it as prices are beyond our control," Thompson said. "We can, however, control our production volumes, our expense costs and our capital spending. Right now, we're doing all we can to maintain production rates and keep costs down. In our industry, the key to toughing out times like these is to be a low-cost producer.

"We've got staying power because of the big reductions made in North Slope operating, maintenance and development costs since 1994, thanks to the innovative ideas of our employees, partners, contractors and suppliers."

With low oil prices having a big impact on the revenue side of the state budget, Thompson said Alaskans are fortunate state leaders have made significant reductions in state spending in recent years while setting aside a rainy day account for use in times like these.

A "Coal" Classic

Golfing for resource education



Senator Robin Taylor joined 144 golfers for the 6th Annual "Coal Classic" Golf Tournament sponsored by the Alaska Coal Association. Proceeds benefitted AMEREF, the Alaska Mineral and Energy Resource Education Fund.

Asian flu hits Alaska's basic industries

(Continued from page 3)

is likely to affect Alaska and its key industries. A common point made by each speaker is the need for Alaska industries to diversify their markets, lower production costs and operate more efficiently.

Ted Yates, Director of Market Research for Cominco Ltd., reported the Asian crisis has had a strong negative impact on base and precious metal prices. Yates said the basement has not yet been reached in the price slide, but expect a recovery in two years.

In fishing, ground fish stocks in the Bering Sea and the North Pacific are healthy, but the downturn in Asian markets has resulted in lower demand and depressed prices, according to Alec Brindle, President of Alyeska Seafoods and Ward Cove Packing Company.

"Not much can be done in the near term except for tightening our belts," said Brindle. "In the long term, we need to expand access to new markets and develop new product forms."

In 1997, Alaska ranked in the top ten globally in seafood exports, Brindle noted.

In the timber industry, production costs are difficult to cut because of the isolated location of the resource, but the state does have an advantage in shipping costs, explained Jim Thiemens, Vice President of Operations for Koncor Forest Products.

While demand for Alaska timber has fallen, inventory of wood products in the lumber yards of large Asian customers is also down, Thiemens said.



Jim Thiemens of Koncor Forest Products outlined impacts of the Asian crisis on Alaska's forest products industry.



The economic downturn in Asia has underscored the need for Alaska's fishing industry to expand access to new markets, says Alec Brindle.

His company has cut production by 67 percent this year in response to the economic climate in Asia. Thiemens explained that 95 percent of Alaska's timber is sent abroad with Japan accounting for 65 to 75 percent of foreign demand.

Japan is now in the midst of a full-blown recession. The economy there has stagnated and contracted. China and Taiwan have been holding their own, but Thailand, Korea and Indonesia have sustained hard hits.

The economic crisis was sudden and unexpected.

"When the Japanese economy slowed in 1997, so did the economies of neighboring countries, which depend on Japan as a key market for their exported goods," explained ARCO's Thompson. "Suddenly, factories across Asia were building cars and televisions for consumers who were no longer interested."

At strong companies, profits fell and loans went unpaid at highly-leveraged firms. Currency was devalued across Asia and stock prices plummeted — down nearly 90 percent in Indonesia and 70 percent in Korea.

The Japanese Yen is down 15 percent. The Indonesian Rupiah is down 85 percent and the Korean Won and Thai Baht are down about 40 percent.

In the near term, currency devaluations of this magnitude are making it much more expensive for Asian consumers to purchase anything that must be paid for in dollars. This will reduce

imports by these nations and hurt export industries in Alaska.

At the same time, these currency devaluations will make Asian exports and Asian companies a lot more competitive in the global economy.

"Asian financial markets may stabilize soon," Thompson said. "That is the good news, but the fallout will continue for years — that is the bad news."

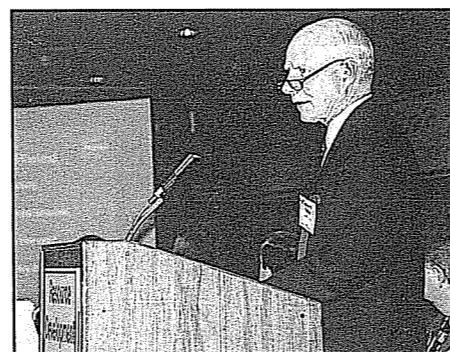
Thompson noted the situation in Asia today is much like it was in Alaska in 1986 when a super-heated, oil-fueled economy sustained a \$20 per barrel price crash.

"State and local governments took immediate action, as well as the oil industry," Thompson pointed out. "But it took two or three years for the effects of the price crash to ripple through the rest of the economy; for real estate prices to hit rock bottom, for businesses to fail, for banks to fold, and for the rest of us to adjust to a new, low oil price world."

In Asia, this painful process is just beginning, Thompson said. He assured the RDC audience that economic recovery will come to Asia, but it won't be easy as capital is in short supply. With the exception of Japan, interest rates are high — almost 70 percent in Russia and 30 percent in South Korea.

So far the impacts in the U.S. have been better than originally anticipated. Billions of dollars that bled out of struggling Asian economies were reinvested in America, driving up the value of some domestic equities. However, recent declines in the Dow Jones indicate U.S.

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Ted Yates of Cominco Ltd., told RDC to expect a recovery in base and precious metals prices in two years.

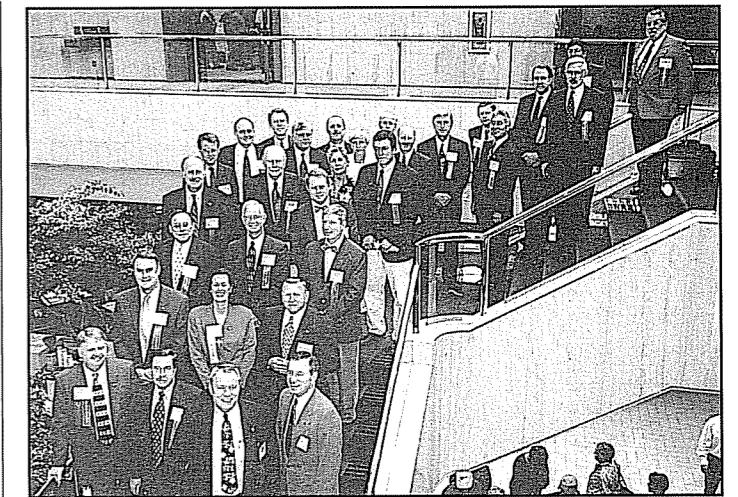
RDC elects new officers, board

Allen Bingham, a tax partner at the accounting firm of Deloitte and Touche, has been reelected to a second term as President of the Resource Development Council. Election of the new 1998-99 Board of Directors and officers took place at RDC's 24th Annual Meeting last month in Anchorage.

Jim Branch, Alaska Production Manager for Exxon, was elected Senior Vice President while Robert B. Stiles, President of DRven Corporation, was elected Vice President. Reelected to the post of Secretary was Uwe Gross, Chief Executive Officer of Koniag, Inc. John Sturgeon, President of Koncor Forest Products, was elected Treasurer.

New RDC board members include Richard Barrett, First National Bank of Anchorage, Anchorage; Charles Brower, Arctic Slope Regional Corporation, Barrow; Bruce Bustamante, Alaska Airlines, Anchorage; Mark Hanley, Anadarko Petroleum Company, Anchorage; Stephanie Madsen, Aleutian Seafood Processing Association, Unalaska; David Matthews, H.C. Price Company, Anchorage; David McCambridge, KPMG Peat Marwick, Anchorage; Berne Miller, Southeast Conference, Juneau; Debbie Reinwand, Bradley-Reid Communications, Anchorage and Rupert Tart, Golder Associates, Anchorage.

Two new members to the Executive Committee were welcomed — Charles Brower and Chuck Johnson, Presi-



New members of RDC's 1998-99 Board of Directors attending the Annual Meeting gather on the staircase at the Anchorage Sheraton Hotel. President Allen Bingham and Vice Presidents Jim Branch and Robert Stiles are pictured in front row.

dent, Era Aviation.

A public luncheon featuring ARCO Chairman Ken Thompson and a panel of Alaska industry leaders followed the business meeting. More than 300 people attended the lunch which focused on the implications of the Asian financial crisis on Alaska's basic industries (see related story).

Asian crisis strikes Alaska industries

Rebound expected in two years

The price of Alaska North Slope crude is down nearly 50 percent from last year, the forest products industry has sharply curtailed production and the seafood sector is in a tailspin.

These are not good times for Alaska resource industries and the downturn has only just begun for Alaska's export-driven economy.

The Asian economic crisis has hit Alaska's basic industries in a big way and the fallout will continue for several years, but Alaskans can weather the Asian flu by becoming low-cost producers, according to Ken Thompson, Chairman of ARCO Alaska and Executive Vice President of ARCO.



ARCO Alaska Chairman Ken Thompson is presented a special legislative citation by Senator Loren Leman for his contribution to Alaska.

"To survive these tough times and thrive when times are better, we must be low-cost producers and we must deliver the quality products our customers expect," Thompson told a crowd of 300 at the Resource Development

Council's Annual Meeting luncheon in Anchorage last month.

With the fundamentals that powered three decades of rapid economic growth in Asia still present, the Pacific Rim will emerge from its current recession as a tougher competitor and better trading partner, Thompson said. This bodes well for Alaska because Asian countries must continue to import the energy and natural resources required to fuel and sustain their economies. But for the time being, factories across Asia are sharply curtailing production as consumer demand plummets. That's bad news, at least in the short term for Alaska.

Thompson, who is now overseeing ARCO's Asian operations, joined three panelists representing mining, timber and fishing to focus on how the economic shakeout now occurring in Asia

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BP includes local suggestions into Northstar's design

(Continued from page 1)

been released by the federal agency and public comments are being accepted through July 30. A final EIS is expected near the end of the year.

The draft EIS evaluates four alternatives. Except for the No Action option, the alternatives reflect variations on the pipeline landfall and onshore/offshore pipeline routes.

Completion of the EIS and permitting process by early 1999 is critical to the timely start-up of the field.

A major priority for BP's Northstar team is to maintain the schedule for building the gravel island in early 1999. "To do that, we need the EIS process to have been completed, a favorable Record of Decision from the Corps of Engineers, and approval of the appropriate permits to perform that work," Skitmore said. "A timely permit decision from the Corps and other federal and state agencies is important to allow construction to commence in the winter of 1998."

Delay of the decision would force the project to be performed on a single season construction basis which is risky due to weather downtime. Production revenues to the state, federal government and BP would be deferred until

"It helps us to understand the level of expertise that local people have regarding Arctic conditions and how they can help BP make Northstar operations safer."

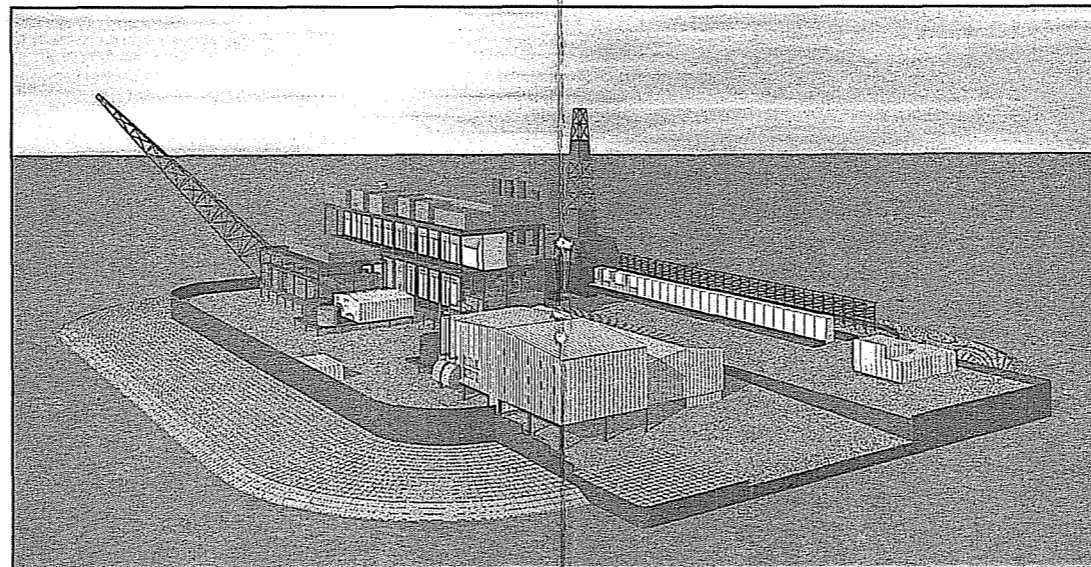
- Cindy Bailey

Local Government
Assistant Director, BP

2001.

The delays caused by the lawsuit challenging the state's amendments to the Northstar lease terms have already cost the state \$20 million in 1999 tax and royalty revenues and \$50 million in 2000, due to deferred production. In addition to deferred state revenues, the lawsuit has resulted in a \$45 million increase in the project's cost due to equipment cancellation, additional storage and leasing, additional transportation and logistics and inflation.

BP engineers have been paying special attention to concerns expressed in North Slope communities about Arctic conditions. The company has worked closely with the North Slope Borough,



Seal Island will be transformed into the Northstar oil field that will look like this artist drawing. The facilities and drilling equipment incorporate the latest safety and spill prevention devices and procedures that have allowed BP to have an outstanding track record in the Arctic. The island will contain a sheet pile wall which will prevent any spillage from reaching the ocean.

the Alaska Eskimo Whaling Commission and other North Slope groups in designing the offshore field.

"Our engineers are incorporating local knowledge on ice conditions, subsistence hunting and fishing and cultural sites into Northstar's design," said Cindy Bailey, Local Government Assistant Director for BP. Bailey and other BP officials have been meeting with residents, communities and organizations for more than a year to learn more about local concerns.

"It helps us to understand the level of expertise that local people have regarding Arctic conditions and how they can help BP make Northstar operations safer," Bailey said.

Island design has been based on many years of building Arctic gravel

islands and incorporates the latest in slope protection and local input from villages and the North Slope Borough on ice conditions.

Seal Island will feature a gravel berm built around the island at a depth of 15 feet below water surface. This will be sufficient to protect the island from ice. By drilling directly from the island, development and production activities will not be as noisy as the island itself absorbs sounds better than manmade structures.

"We are able to adapt the technology BP has developed for offshore operations around the world by using the lessons we've learned from almost 30 years of construction in the Arctic."

- Mike Skitmore

BP's Northstar Manager

Local concerns about ice scouring along the route of Northstar's buried pipeline prompted BP to take another look at pipeline design. To provide an extra measure of safety, BP will bury the line well below ice scouring depths determined by extensive surveys.

Listening to a suggestion in Nuiqsut, BP will change the color of production facilities on the island to neutral, natural colors to lessen possible visual disturbances to migrating whales. To accommodate another concern, the company will reduce the amount of seasonal boat traffic in re-supplying island facilities.

"We're absolutely committed to build Northstar in the best and most environmentally-responsible manner," Skitmore said. "We are able to adapt the technology BP has developed for offshore operations around the world by using the lessons we've learned from almost 30 years of construction in the Arctic."

BP's preferred pipeline route, identified as Alternative 2 in the DEIS, covers less distance than any other route—a 20-mile straight line from the production island to the trans-Alaska oil pipeline. BP's route minimizes the offshore portion to six miles while the "environmentally-preferred" alternative in the Corps' DEIS increases the offshore portion of the pipeline by 50 percent and requires additional gravel at Prudhoe Bay's West Dock.

BP says its route not only represents the shorter area for pipelines to span, it does the best job minimizing environmental impacts. The company believes that the offshore impacts and the additional placement of gravel on the causeway for the "environmentally-preferred" alternative do not present environmental benefits commensurate with the longer and more expensive routing, since the DEIS portrays the onshore impacts as generally negligible or minor for all alternatives. In its evaluation of the DEIS West Dock Alternative 5, BP has identified concerns with ice override and additional gravel placement.

"Having reviewed the DEIS, we strongly believe BP's proposed Action (Alternative 2) remains technically and environmentally sound," said Skitmore.

The onshore portion of the pipeline will be elevated to a minimum five feet to facilitate caribou/wildlife passage and will be constructed in winter when little wildlife is present. BP also notes that construction activity will not interfere with whale migration.

BP looks to boost production

20% increase in North Slope output

BP Exploration (Alaska) Inc., is planning to boost oil output from its North Slope fields by 100,000 barrels a day over the next several years - more than a 20% increase.

BP currently produces about 460,000 barrels of oil per day on Alaska's North Slope, with more than half coming from the Prudhoe Bay field. The company aims to increase output to more than 500,000 barrels a day by early next century and to sustain it at more than 500,000 barrels a day for the foreseeable future.

Meanwhile, ARCO Alaska has said it will bring into production new reserves over the next several years that will allow it to sustain its projected 1999 output of 360,000 barrels a day through at least 2007.

BP's increase would be fueled by four new fields scheduled to begin production by 2001 -- Badami, Northstar, Liberty and Tarn -- as well as ongoing drilling, enhanced oil recovery and satellite development projects in existing fields, including Prudhoe Bay.

A combination of recent discoveries and upgrades to producing fields has increased BP's Alaskan resource base to more than 7 billion barrels. More than a third is proven reserves.

Since early in 1997, BP has participated in satellite and stand-alone discoveries at Sourdough, Liberty, Tarn, Midnight Sun and Sambuca. The company last month announced additional discoveries at Eider and Northwest Eileen.

"In addition, we believe we have in excess of 1 billion barrels of potential reserves in our current leases," said Richard Campbell, president of BP Exploration Alaska. BP is the largest leaseholder of North Slope acreage,

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