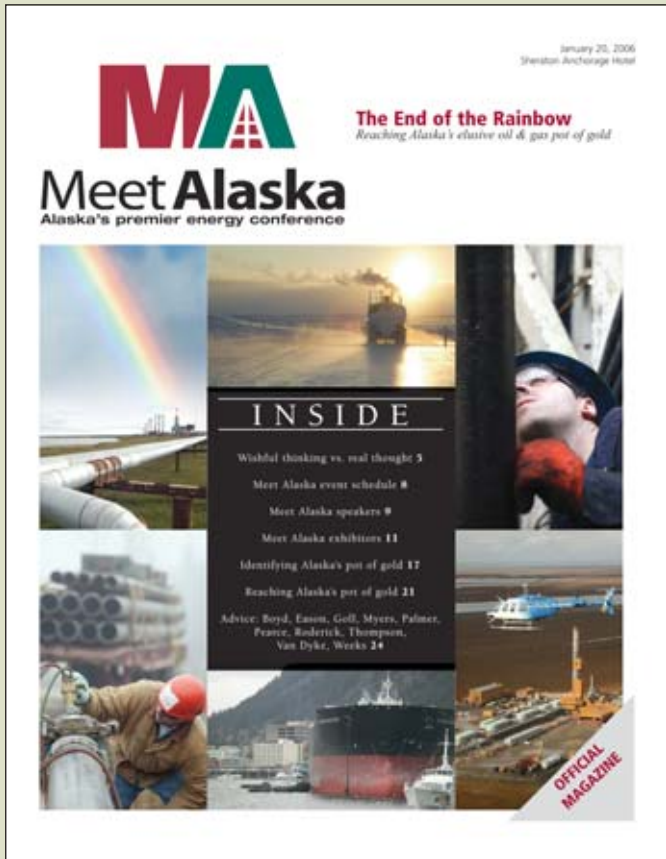




page B1 Pioneer's North Slope Oooguruk project takes another step forward

## Murkowski to launch Meet Alaska

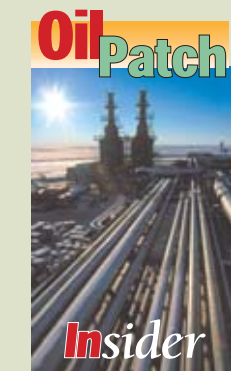


Alaska Gov. Frank Murkowski will launch the Alaska Support Industry Alliance's 24th annual Meet Alaska energy conference with a keynote address on oil and gas issues facing the state. Senior executives from top oil and gas companies doing business in Alaska, as well as the state's leading consultant on North Slope gas project negotiations, are also part of the conference, which will be held Jan. 20 at the Sheraton Anchorage Hotel. For more information see news item on page A3. Pictured above is the official magazine of Meet Alaska 2006, which was produced by Petroleum News for The Alliance.

## May conference will focus on natural resource development

"NORTH TO ALASKA: geoscience, technology and natural resources" will be the theme of a joint meeting of the Pacific Section — American Association of Petroleum Geologists, Western Region — Society of Petroleum Engineers and Cordilleran Section — Geological Society of America taking place in Anchorage in May 2006. Technical sessions of the joint conference will take place May 8 to May 10 and there will be pre-meeting and post-meeting field trips. The conference will include exhibits, theme sessions, workshops and short courses.

The broad format of the conference will promote innovation and cross-discipline approaches in energy and natural resources development. The conference will provide a stimulating forum for the



see INSIDER page A12

## BREAKING NEWS

**B1 Beluga waters opened:** Canada calls for bids on Beaufort, Mac parcels involving 386,344 acres in previously protected whale habitat

**B1 Pinpointing the traps in NE NPR-A:** 3D seismic, geologic modeling have proven key in locating oil and gas plays west of Alpine

**B2 Alaska's coastal plan wins federal OK:** NOAA gives final approval to ACMP, finalizing 2003 legislative changes

## NORTH SLOPE

# Amendment OK'd

Interior approves Northeast NPR-A plan changes; sale planned for fall

By KRISTEN NELSON  
Petroleum News

The U.S. Department of the Interior has approved a plan amendment for the northeast area of the National Petroleum Reserve-Alaska, allowing leasing north of Teshekpuk Lake but also expanding areas where no surface occupancy will be allowed.

The plan amendment allows for leasing of the area north of Teshekpuk Lake in seven large tracts. This area was off limits to leasing under the original 1998 plan for northeast NPR-A.

But, BLM Alaska State Director Henri Bisson told Petroleum News Jan. 11, surface development on those seven tracts will be limited. "We have put a cap



Henri Bisson, BLM

of 300 acres of new surface disturbance for construction of things like in-field roads, air strips, production pads, satellite pads and that sort of thing.

"So that means that there's a cap of roughly 2,100 acres of possible disturbance on that 389,000 acres (the area now available for leasing north of the lake) which is less than one-half of 1 percent of the area."

The amended plan uses lease stipulations and required operating procedures similar to those adopted for the northwest NPR-A in 2004.

The northeast NPR-A planning area has some 4.6 million acres, and the amendment makes additional acreage available for leasing and uses "performance-

see AMENDMENT page A11

## WESTERN CANADA

# Sands in shake out year

Not all upstream plans to survive; focus shifts to settling market, downstream

By GARY PARK  
For Petroleum News

It's the C\$100 billion question that is expected to get some significant answers in 2006.

Quite simply, how many of the oil sands projects making up that gigantic spending plan will actually proceed?

There is a growing view that the upstream line-up has reached, if not exceeded saturation point in terms of the sector's ability to raise financing, hire engineers and construction workers, obtain materials, refine and transport their production and, ultimately, find markets.

Adding to the pressures on labor and materials is the prospect of the two Arctic gas projects — North Slope and Mackenzie Delta — mov-



Rising oil prices are "going to be here for a long time, meaning the oil sands have simply gained in economic value." —EnCana Chief Executive Officer Randy Eresman

ing ahead in the next decade.

The sense that the oil sands might be overheated peaked in November when Canadian Natural Resources and EnCana startled the market by announcing plans to add another C\$37 billion to projects proposed or under construction.

## Bullish mood based on oil prices

EnCana Chief Executive Officer Randy Eresman, defending his company's decision to embark on building its oil sands output from 42,000 barrels per day to 500,000 bpd over the next 10 years, said rising oil prices are "going to be here for a long time, meaning the oil sands have simply gained in economic value."

"While the numbers are big, they seem doable if

see OIL SANDS page A8

## NORTH SLOPE

# Sales set for March 1

Shorter terms, higher royalties for some North Slope, Beaufort Sea tracts

By KRISTEN NELSON  
Petroleum News

The state has set a date, March 1, for its North Slope and Beaufort Sea areawide oil and gas lease sales, kicked out of their October slot last year by the new Alaska Peninsula sale.

Compared to the last sales for these areas, in 2004, most lease terms have been shortened and, for the Beaufort Sea, royalty rates have been raised for tracts off the National Petroleum Reserve-Alaska and the coastal plain of the Arctic National Wildlife Refuge.

"With access expanding across the North Slope, we don't believe it's necessary that companies need



Bill Van Dyke, Division of Oil and Gas

10 years to explore some of these areas," said Bill Van Dyke, acting director of the Alaska Department of Natural Resources Division of Oil and Gas. With more explorers on the North Slope and more interest in the area, "the lease terms still provide an adequate time to go explore and then for companies that don't explore, the leases will turn over quicker and can be re-offered to other companies."

The remoteness of Beaufort Sea tracts "over against the Canadian border" is recognized, Van Dyke said, and the 10-year primary lease term retained for that area. "But when you're

see SALES page A12

# contents

Petroleum News

A weekly oil & gas newspaper based in Anchorage, Alaska

## ON THE A COVER

### Amendment OK'd

Interior approves Northeast NPR-A plan changes; sale planned for fall



### Sands in shake out year

Not all upstream plans to survive; focus shifts to settling market, downstream

**SIDEBAR:** Tackling labor shortage a priority



### Sales set for March 1

Shorter terms, higher royalties for some North Slope, Beaufort Sea tracts

## OIL PATCH INSIDER

**A1** May conference will focus on natural resource development



## ON THE B COVER

### Borough OKs rezone

Pioneer's proposed Oooguruk oil project rezoned for resource development

**SIDEBAR:** Pioneer's Oooguruk project one step closer

### Beluga waters opened

Canada calls for bids on Beaufort, Mackenzie parcels involving 386,344 acres

### Pinpointing the traps

Three dimensional seismic and geologic modeling in Northeast NPR-A have proved key factors in locating Jurassic oil and gas plays west of Alpine



**Dene Tha' lose one bid to delay Mackenzie gasline hearings**

**Marathon applies to State of Alaska for Kenai gas storage lease**

**Economic growth talk kicks oil above \$64**

## ASSOCIATIONS

**A3** Murkowski to launch Meet Alaska conference, scheduled for Jan. 20

## EXPLORATION & PRODUCTION

**A4** Prudhoe output reduced by maintenance



**A6** Identifying Alaska's pot of gold, PART 2 OF 2

## FINANCE & ECONOMY

**A5** EIA projects \$63 WTI in '06, \$60 in '07

Henry Hub natural gas prices expected to grow from \$9 per mcf in '05 to \$9.80 per mcf in '06, and back down to \$8.84 in '07

**B4** Shell settles federal trade charges

## GOVERNMENT

**A5** RCA orders hearing on new gas contract

Regulatory Commission of Alaska suspends Enstar-Marathon gas sales agreement; entities have until Jan. 27 to intervene

**B2** Alaska's coastal plan wins federal OK

National Oceanic and Atmospheric Administration gives final approval to ACMP, finalizing legislative changes made in 2003

## INTERNATIONAL

**A4** Chinese man jailed in oil well dispute

**A5** Venezuela to expand discounted fuel sales

Program for poor in Massachusetts, the Bronx, Vermont and Rhode Island, will be expanded to four Maine Indian tribes

**B2** BP's West Azeri oil field begins production

**B3** Norway confirms Eni's Arctic oil find

Barents Sea Goliat field 50 miles northwest of northernmost town; environmentalists claim area too sensitive for development

**B3** Investors sue Shell over stock losses

## LAND & LEASING

**B3** Tentatively scheduled Alaska lease sales

## NATURAL GAS

**A3** Irwin, Myers, Menge address open caucus

Legislators hear different viewpoints on how gas fiscal contract negotiations going; Harris promises all sides a hearing



**A7** Gas line negotiations under way again

House Speaker John Harris says it's his 'gut feeling' the Murkowski administration will 'go a different route' if can't reach a contractual agreement with Alaska North Slope producers by early to mid February; ELF will go away, says governor

• J U N E A U

# Irwin, Myers, Menge address open caucus

Legislators hear different viewpoints on how gas fiscal contract negotiations going; Harris promises all sides a hearing

By KRISTEN NELSON  
Petroleum News

Republican legislators held an open caucus in Juneau Jan. 12 and invited former Department of Natural Resources Commissioner Tom Irwin and former Director of the Division of Oil and Gas Mark Myers to talk about gas pipeline fiscal contract negotiations. They also invited current DNR Commissioner Mike Menge to comment, although House Speaker John Harris said the administration, the public, the producers and TransCanada will all have later opportunities to talk to the caucus.

Irwin told legislators their intent was good when they passed the Stranded Gas Development Act — prices were low, he said, and the intent was to jump start a gas line. But the economics now are very good, he said.

He said what worries him is that billions are at stake — the future of his kids and his grandkids.

Legislators will be told how much the state is going to make from a gas pipeline, but Irwin said he worries that they won't be told how much the state could have made.

He asked that legislators dig into the details when the contract becomes public. The companies will look out for themselves, but the Legislature needs to look out for Alaska, Irwin said. He also said he believes the Legislature needs to have more than one option to look at when it makes a decision, not just the proposal from the North Slope producers.

Irwin said he wants a gas pipeline as much as any legislator, but let's make sure we get the best deal, he said, urging the Legislature to be the state's champion on the gas pipeline contract.

## Hard negotiations needed

Myers said the state needs to negotiate hard with the producers: in his time as director the division never lost a negotiation with the companies, never lost an appeal and never lost a court case because

the division did its homework and worked hard, and "when we made a deal we made them keep it."

The gas line negotiations were the same, he said: sophisticated negotiating was required, but DNR believed it could get a fair deal for all sides. He told legislators that work commitments are a crucial part of a contract. Incentives are appropriate if the state wants to accelerate a gas pipeline, he said, but that requires real work commitments. Myers said he is concerned that the state has said its contract relies on due diligence rather than work commitments.

On the issue of the state being in the gas business, Myers said the state doesn't control the gas — it doesn't have an upstream arm, so has no authority upstream to manage the flow of gas into the pipeline. That means it takes a significant business risk in what he described as a difficult and risky business.

The alternative is for the state, under its lease terms, to take the gas in value — the producers use their expertise to market the gas and give the state the best price.

Access to the pipeline for explorers is also an issue, he said, because explorers are the most active drillers

## Whether gas stranded an issue

Asked if the gas is truly stranded, Irwin said he thinks the gas is economic and not stranded. Myers said there are numerous tests for whether gas is stranded. He told legislators you can't rely on pre-built infrastructure, rather it's an economic test involving reasonable rates of return. The Legislature, through Legislative Budget and Audit, has plenty of data to look at this issue, he said.

In response to a question about the administration's negotiating, Irwin said he loves the word leverage and is willing to walk away from the table if that's what it takes. This really isn't a political issue, he said, it's a big-time business issue, and the state is dealing with some of the best

in the world, and they don't mind using leverage and they don't mind saying no.

If he had it to do all over, Irwin said, he thinks the Legislature should have formed a business unit that had its own board of directors accountable to the Legislature to work on a deal. He also said he thought the federal government took the right tack by putting incentives out there for anyone to use, rather than trying to negotiate a deal with a few parties.

## Business rather than litigation

Menge said the administration made

the decision to do a business deal rather than proceed through litigation to take the gas. Every question posed by legislators will be answered, he said, when a contract is brought forward.

But, he said, the truth of a contract will lie 20 to 30 years in the future.

He urged the Legislature not to abandon a business deal for litigation if the project doesn't move forward quickly, and said each of the points raised by Irwin and Myers were valid, but would look very different to legislators when seen in the context of the overall negotiation. ●

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## ANCHORAGE

### Murkowski to launch Meet Alaska energy conference, scheduled for Jan. 20

Alaska Gov. Frank Murkowski will launch the Alaska Support Industry Alliance's 24th annual Meet Alaska energy conference with a keynote address on oil and gas issues facing the state. The conference, which will focus on emerging opportunities in Alaska's oil and gas industry, will be Jan 20 at the Sheraton Anchorage Hotel.

In addition to the governor, the conference will feature senior executives from top oil and gas companies doing business in Alaska, as well as the state's leading consultant on North Slope gas project negotiations.

Speakers include William Berry, executive vice president, production and exploration for ConocoPhillips; Rob Ryan, vice president, corporate affairs for Shell Exploration and Production; Scott Sheffield, chief executive officer of Pioneer Natural Resources; Dr. Pedro Van Meurs, international oil and gas consultant; Cheryl Knight, executive director for Petroleum Resources Council of Canada; David MacInnis of the Canadian Energy Pipeline Association, and Kirk Pickerel, national president of Associated Builders and Contractors.

Steve Marshall, president of BP Exploration Alaska, and Jim Bowles, president of ConocoPhillips Alaska, will present local oil and gas updates.

A new feature of the conference includes a panel of industry representatives questioning local media executives on their coverage of the Alaska oil and gas issues. Participants include John Tracy, KTUU-TV; Patrick Dougherty, Anchorage Daily News; Steve Heimel, Alaska Public Radio, and Kay Cashman, Petroleum News.

For more information visit the Alliance web site at [www.alaskaalliance.com](http://www.alaskaalliance.com) or call 907 563-2226.

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## BEIJING

## Chinese man jailed in oil well dispute

A Chinese businessman who led a group of investors in protesting local authorities' seizure of privately owned oil wells was sentenced Jan. 5 to three years in prison, his family and a lawyer said.

Feng Bingxian and two co-defendants were convicted of disturbing social order by the Jingbian County Intermediate People's Court in the central province of Shaanxi, said his son, Feng Yanwei.

Feng was arrested after leading protests by investors who challenged local authorities' seizure in 2003 of hundreds of privately developed oil wells in Jingbian County.

The case highlighted ongoing uncertainty about control of private property in China even after the communist government amended the constitution in 2004 to add the first guarantee of property rights since the 1949 revolution.

"My father thought the ruling was very unfair. But there was nothing he could do," Feng Yanwei said. "He will appeal, even though he thinks he'll lose in the next round."

## China says it will protect private property

Asked about the case by reporters, a foreign ministry spokesman, Qin Gang, said that though he had no details, "China will protect the private property of its citizens in accordance with the law."

Feng's two co-defendants, Feng Xiaoyuan and Wang Shijun, were convicted of the same charges but received a lighter sentence of two years in prison, suspended for three years, Feng Yanwei said.

Feng Xiaoyuan, who was no relation to Feng Bingxian, was an investor who owned a share in the oil wells, Feng Yanwei said. He said he didn't have any other details about Wang.

A lawyer in the Beijing-based law firm that defended Feng Bingxian, Hu Xiao, said Feng was convicted in a one-hour trial.

Feng complained in his written defense statement that authorities pressured prosecutors to bring charges against him, the Financial Times newspaper reported in December. He called on the judges to resist the pressure and act from their sense of "justice and professional ethics," the newspaper said.

Human rights and legal activists complain that Chinese government and Communist Party officials frequently interfere in court proceedings.

—THE ASSOCIATED PRESS

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## • COOK INLET

## RCA orders hearing on new gas contract

Regulatory Commission of Alaska suspends Enstar-Marathon gas sales agreement; entities have until Jan. 27 to intervene

By ALAN BAILEY

Petroleum News

On Jan. 5 the Regulatory Commission of Alaska ordered the suspension until Aug. 15 of the proposed new Cook Inlet gas sales agreement between Enstar Natural Gas Co. and Marathon Oil Co. There will now be a hearing into the terms of the agreement.

Any entity wishing to intervene in the proceedings relating to the sales agreement needs to file a petition with RCA by Jan. 27. Agrium Inc., the owner of the Nikiski fertilizer plant on the Kenai Peninsula, and Tesoro Alaska Co., the owner of the Nikiski refinery, have already filed petitions to intervene.

## Many questions

Enstar's filing on Nov. 14, 2005, of its new sales agreement triggered many questions regarding proposed gas pricing levels and other contract provisions. An article entitled "New contract sparks debate" in the Jan. 8 edition of Petroleum News reviewed the various issues that the new agreement raises.

RCA's suspension of the tariff filing reflects the recommendations of the commission's staff, as expressed in a memorandum to the commissioners on Jan. 5. That memorandum concludes that "the terms and conditions proposed in the Marathon GSA (gas supply agreement) between Enstar and Marathon ... may not be in the public interest. Enstar bears the

burden of proof and should be allowed an opportunity to show that the Marathon GSA and revised tariff are in the public interest." The memorandum lists seven issues that the staff says should be investigated.

- The gas prices proposed
- The gas transportation price proposed
- The termination date of the GSA
- The potential for Marathon to arbitrage gas by buying cheap gas from a third party producer and then reselling the gas to Enstar at the contract price
- The question of whether Enstar should be required to build gas storage facilities, to enable Enstar to purchase lower cost gas during periods of low demand. That might provide an alternative to Enstar paying premium prices to have producers accept the risk of meeting peak demand.
- The question of whether the gas prices in the new GSA should be included in Enstar's weighted average cost of gas that determines tariffs charged to gas consumers.
- The question of whether all contract costs related to the new GSA should be included in Enstar's tariff rates.

A prehearing conference will take place on Feb. 8, to establish a procedural schedule. This schedule must ensure that the hearing on the supply agreement concludes no later than June 15, to allow a 60-day period for RCA to review the hearing record and issue a final order. ●

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## NORTH SLOPE

## Prudhoe output reduced by maintenance

Alaska Department of Revenue crude oil production figures showed Prudhoe Bay averaged 400,965 barrels per day in December, down an average of 23,428 bpd from November, a 5.5 percent drop.

BP Exploration (Alaska) operates Prudhoe; production figures for the field include western Prudhoe satellites Midnight Sun, Aurora, Polaris, Borealis and Orion.

BP spokesman Daren Beaudou said the drop was mostly due to unscheduled maintenance at Gathering Center 1. He said work was performed on a flare knockout drum from Dec. 20 to Jan. 3, "reducing the total amount of production through that facility."

GC-1 normally produces 95,000-100,000 bpd, he said, but the work at the facility resulted "in a gross production deferral" of approximately 30,000-35,000 bpd.

—KRISTEN NELSON

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• WASHINGTON, D.C.

# EIA projects \$63 WTI in '06, \$60 in '07

Henry Hub natural gas prices expected to grow from \$9 per mcf in '05 to \$9.80 per mcf in '06, and back down to \$8.84 in '07

PETROLEUM NEWS

The U.S. Department of Energy's Energy Information Administration is projecting an average price of \$63 per barrel for West Texas Intermediate crude oil in 2006, with the average price dropping to \$60 per barrel in 2007. WTI averaged \$56 per barrel in 2005, the agency said Jan. 10 in its short-term energy outlook.

Retail prices for regular gasoline, which averaged \$2.27 per gallon in 2005, are projected to average \$2.41 in 2006 and \$2.33 in 2007, the agency said.

Henry Hub natural gas prices, which averaged \$9 per thousand cubic feet in 2005, are projected to average \$9.80 per mcf this year, and \$8.84 per mcf in 2007.

The agency said that recovery from hurricanes Katrina and Rita continues as expected, with 27.4 percent of normal daily federal Gulf of Mexico oil production and 19.5 percent of federal Gulf natural gas production remaining shut-in at the beginning of January. Only one refinery, in New Orleans, remains out of service and it is projected to return to operation in the first quarter, but some refineries are still operating below normal capacity.

Households are expected to spend an average of 35

percent more this winter than last to heat with natural gas, 23 percent more for heating oil, 17 percent more for propane and 10 percent more for electricity. "Should colder-than-normal weather prevail, expenditures could be significantly higher than currently projected," the agency said.

**World oil demand growth to increase**

The agency said it expects the oil price trend of the last two years — a steady increase — "to slow and even turn around, although dramatic reductions are not anticipated."

2006-07 oil markets will continue to be affected by factors seen in 2005: low spare production capacity and rapid demand growth. Other factors which are less certain include frequency and intensity of hurricanes and other extreme weather and geopolitical instability.

The agency said world oil demand growth is expected to increase from 1.2 million barrels per day in 2005 to 1.6 million bpd in 2006, largely because U.S. demand growth is expected to recover. U.S. demand had a net decline in 2005 and is expected to grow by 410,000 bpd in 2006. Demand growth is projected to increase to 1.9 million bpd in 2007 due to economic growth in develop-

ing Asian countries excluding China, with Chinese demand growth expected to stay on an overall annual trend of about 500,000 bpd.

World spare oil production capacity is also projected to increase in 2006-07, both from OPEC and non-OPEC sources. "This increase in spare capacity is expected to ease the current tightness in world oil markets and moderate the world oil price increases seen during the past year," the agency said.

Non-Organization of Petroleum Exporting Countries supply grew by an average of 800,000 bpd between 1995 and 2005 and is expected to grow by an average of 900,000 bpd in 2006 and by 1.7 million bpd in 2007. The agency said this non-OPEC supply "hinges on the U.S. forecast, and whether a repeat hurricane scenario next summer takes out production in the Gulf of Mexico again."

Outside the United States the agency expects non-OPEC net production increases of 100,000-200,000 bpd in 2006 in the Caspian, Canada, Angola, Russia, Brazil and Mexico.

Large increases are expected in 2007 with new projects of almost 500,000 bpd in Angola, almost 400,000 bpd in the Caspian and more than 200,000 bpd each in Brazil and Canada. ●

• CARACAS, VENEZUELA

# Venezuela to expand discounted fuel sales

Program for poor in Massachusetts, the Bronx, Vermont and Rhode Island, will be expanded to four Maine Indian tribes

By IAN JAMES

Associated Press Writer

Venezuela said Jan. 6 it will expand a program to provide cheap home heating oil to poor Americans, bringing savings to low-income families in Vermont and Rhode Island, as well as four Indian tribes in Maine.

Venezuela's Citgo Petroleum Corp. has already begun selling millions of gallons of discounted fuel in Massachusetts and the Bronx in New York City as part of a plan by Venezuelan President Hugo Chavez to aid poor communities that he says are neglected by Washington.

Bernardo Alvarez, Venezuela's ambassador to the U.S., said he will sign an agreement Jan. 12 in Maine to start providing heating oil to four Indian tribes — the Penobscot, Micmac, Passamaquoddy, and the Houlton Band of Maliseet Indians.

"The Penobscot Nation is very grateful," tribal chief James Sappier said by phone from the reservation near Bangor, Maine. "This is probably one of the greatest decisions for our tribe in years."

Many in the tribe of 2,261 people are facing tough times economically as jobs have moved out of the area, and the discounted fuel could save a family \$1,000 or more this winter, he said.

Residential heating oil has been selling in the U.S. at more than \$2.40 a gallon recently, and Venezuela estimates participants in will save 60 to 80 cents per gallon.

**Program expanding to Vermont, Rhode Island**

Alvarez said Venezuela also will extend the deal the week of Jan. 9 to Vermont and Rhode Island. Other communities in New York City — Harlem, Queens and Brooklyn — will soon begin benefiting, he said.

Chavez's opponents accuse him of

**Chavez's opponents accuse him of using Venezuela's oil wealth to win friends while trying to one-up U.S. President George W. Bush, whom he calls a "madman."**

using Venezuela's oil wealth to win friends while trying to one-up U.S. President George W. Bush, whom he calls a "madman." But Chavez's supporters defend the heating oil program as another example of a generous deed by a president leading a socialist revolution for the poor.

Alvarez was accompanied by a group of American activists on a tour of a state-funded cooperative in Caracas where the poor receive free health care

and hundreds work in textile and shoe-making shops.

The visitors included singer Harry Belafonte, actor Danny Glover, Princeton University scholar Cornel West and farm worker advocate Dolores Huerta.

"It was impressive for everyone to see that progress is being made," said Tavis Smiley, who joined the group and hosts a talk show on PBS television.

Belafonte, who has praised the heating oil program, said the group came to learn about the situation in Venezuela. He was sharply critical of the situation in the U.S., noting poverty and a huge prison population.

West, a professor of religion and author of the 1993 best seller "Race Matters," spoke admiringly of Chavez's

programs, saying they show "this revolution is real; it's not something that people are just talking about."

When asked about U.S. funds channeled to opposition-aligned groups, he said it should be expected that "covert funds" are being sent.

"The only thing that stands in the way of the United States undermining" Chavez's revolution, he said, "are institutions like this (cooperative) that are able to convince people to come together and stand with dignity."

Meanwhile, Sappier said snow was falling in Maine, and his tribe was grateful for Chavez's help.

"We appreciate him very much as a leader," Sappier said. "It's been said he's one of us. His thinking is like ours." ●

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• ALASKA

# Identifying Alaska's pot of gold

By KAY CASHMAN

Petroleum News

The Alliance's theme for Meet Alaska 2006 — The end of the rainbow: Reaching Alaska's elusive oil and gas pot of gold — begs the question: What's left in Alaska's hydrocarbon pot of riches?

Alaska north of the Brooks Range was covered in last week's Petroleum News.

In southern Alaska, the Cook Inlet basin has been in production since before the start-up of the North Slope's giant Prudhoe Bay field. Yet substantial

aspects of Cook Inlet remain unexplored, partly due to industry attention being diverted to the North Slope with the discovery of Prudhoe, the largest oil field in North America.

The area has produced approximately 1.3 billion barrels of oil and 9 trillion cubic feet of gas since the late 1950s.

The U.S. Geological Survey's 1995 assessment estimates undiscovered, technically recoverable oil resources of 0.19 billion to 0.97 billion barrels for the whole of southern Alaska. USGS also estimated 0.68-2.14 tcf of natural gas.

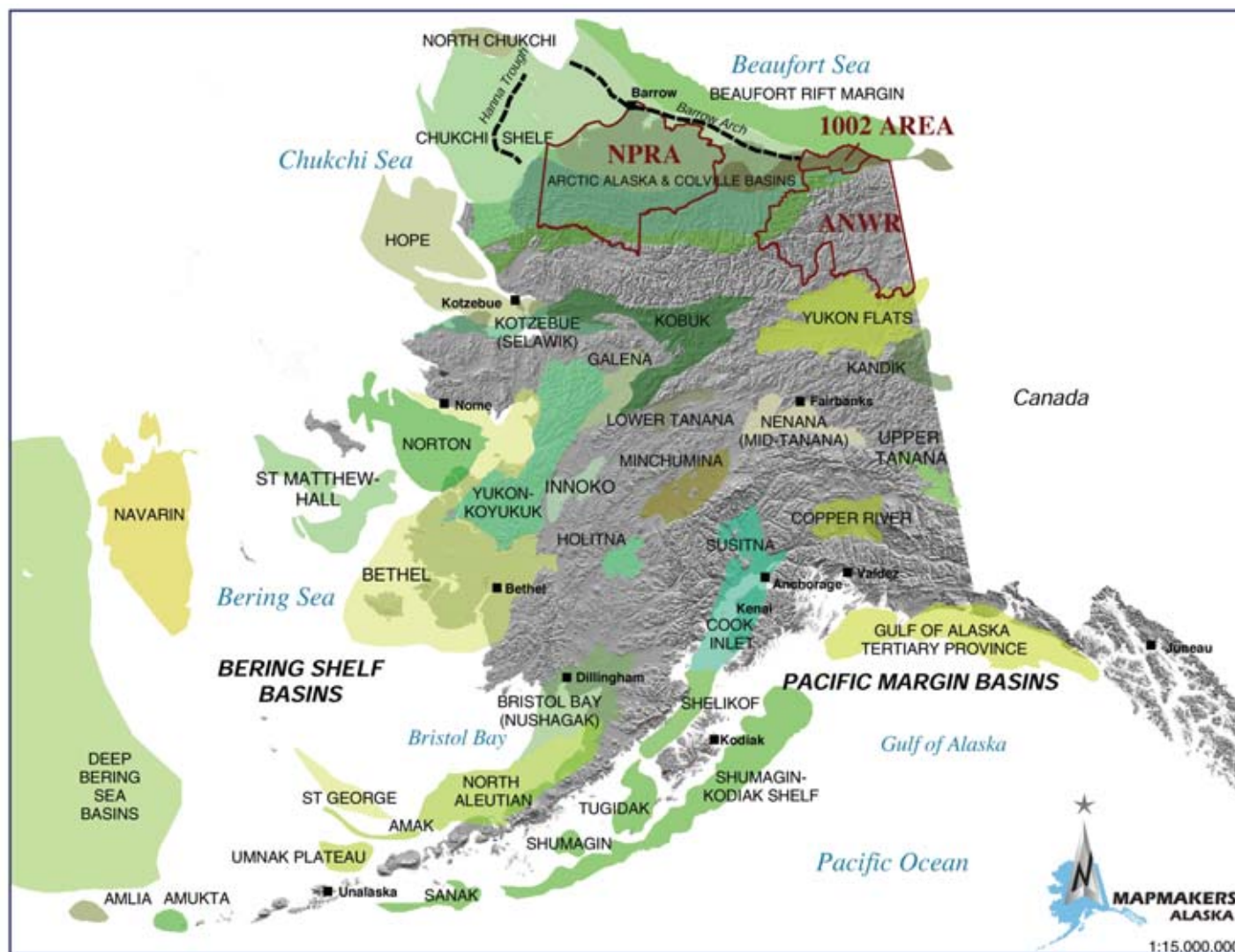
These estimates now seem conservative — a 2004 U.S. Department of Energy report on Southcentral Alaska gas said there might be as much as 10-14 tcf of undiscovered, conventionally recoverable gas in the Cook Inlet basin, plus 7 tcf of coalbed methane.

Sections of the southern Alaska basins lie within U.S. federal offshore and were not included in the USGS assessment. In 2000 MMS estimated 0.34-1.42 billion barrels of conventionally recoverable oil under lower Cook Inlet, with a mean (average) of 0.76 billion barrels.

The Susitna basin, a northern extension of Cook Inlet, remains largely unexplored.

## Bristol Bay barely explored

The huge Bristol Bay basin shares many of the geological features of Cook Inlet but remains substantially un-



Generalized oil and gas basins/provinces in Alaska

explored — all but one of the 26 wells in the area have been drilled onshore at the edge of the basin.

A 1995 MMS assessment suggested the existence of up to 0.55 billion barrels of conventionally recoverable oil, with a mean of 0.23 billion barrels in the federal offshore. MMS estimated up to 16.03 tcf of natural gas (mean of 6.791 tcf).

The MMS 1995 assessment also contains estimates for the offshore areas of the Gulf of Alaska Shelf: 0.183-1.434 billion barrels of conventionally recoverable oil (mean of 0.630 billion barrels) with natural gas ranging from 0.937-10.589 tcf.

The Copper River basin north of Valdez contains similar geology to Cook Inlet and so offers some hydrocarbon

potential.

## Interior and other basins

Sedimentary basins in Interior Alaska include: the Holitna and Minchumina basins northwest of the Alaska Range; the Nenana basin near Fairbanks; the Yukon Flats basin, northeast of Fairbanks; and the Kandik basin on the Canadian border.

With the exception of Kandik, all of these basins share similar geological characteristics and probably contain gas.

The lower sections of the Yukon Flats basin may be more oil prone.

For central Alaska, the USGS 1995 assessment estimated up to 0.06 billion barrels of technically recoverable oil (mean of 0.32 billion barrels) and 0.51-7.31 tcf of conventional natural gas

(mean of 2.76 tcf).

However, a 2004 USGS assessment estimated up to 600 million barrels of oil and up to almost 15 tcf of gas in just the Yukon Flats basin. (Mean values were 173 million barrels and 5.5 tcf.)

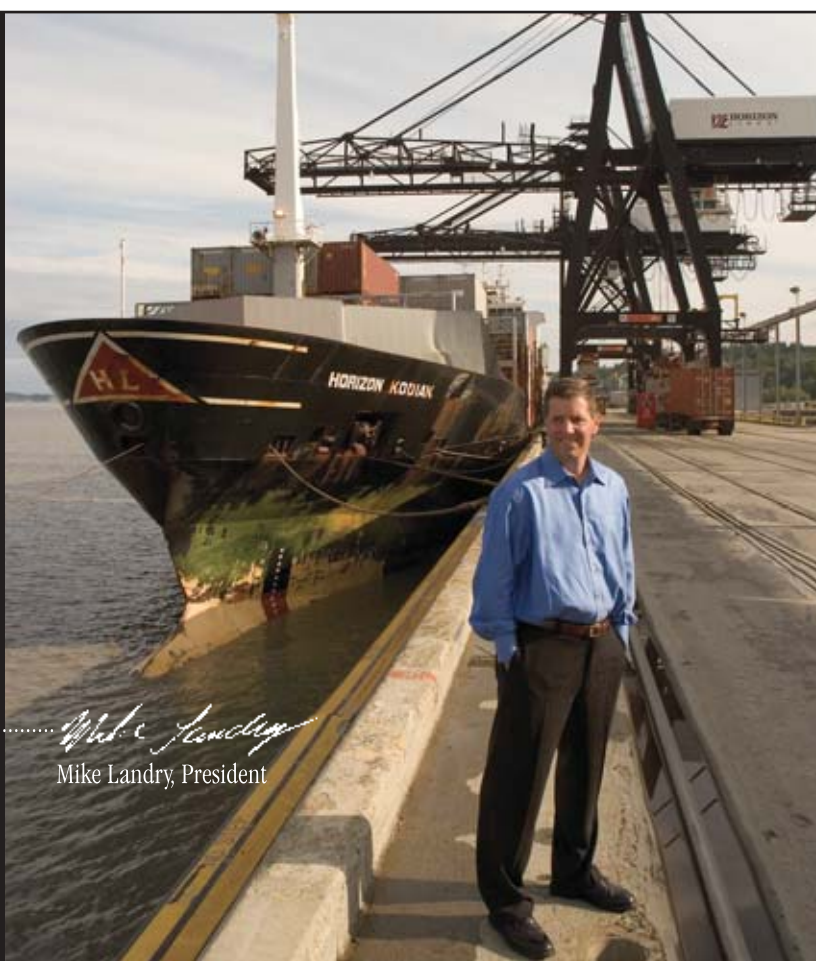
The gas-prone Norton Sound basin, offshore south of Nome, has many of the geological characteristics of the Interior basins. MMS estimated there may be up to 0.15 billion barrels of conventionally recoverable oil (mean of 0.05 billion barrels) and up to 8.74 tcf of recoverable gas (mean of 2.71 tcf).

The Navarin, St. George and St. Matthew-Hall basins on the Bering Sea outer continental shelf contain substantial thicknesses of Tertiary sediments and are all thought to be gas prone. ●

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• J U N E A U

# Gas line negotiations under way again

House Speaker John Harris says it's his 'gut feeling' the Murkowski administration will 'go a different route' if can't reach a contractual agreement with Alaska North Slope producers by early to mid February; ELF will go away, says governor

By KRISTEN NELSON  
Petroleum News

Alaska Gov. Frank Murkowski said in his Jan. 10 state of the state address to the Legislature that negotiations for a fiscal contract for a gas pipeline from the North Slope between the administration and the North Slope producers have resumed after a holiday break. The governor said negotiations resumed in Juneau Jan. 9 and will continue in Juneau until completed.

The governor said it was taking so long to negotiate an agreement because he is fighting to achieve the six principles he has set out for the contract: fair share of revenues from the project for Alaskans; access to gas for Alaskans; access to the gas pipeline for future explorers; an expandable gas pipeline; an equity share of the gas pipeline for the state, with 20 percent ownership proposed; and jobs and training for Alaskans.

The state is also negotiating for fiscal certainty on oil, Murkowski said, and will include the oil tax system in the gas line contract. The state's oil production tax system needs to be reformed, the governor said, and a new oil tax system will ensure that at high oil prices Alaska gets a reasonable share, a share "comparable to what these companies are paying in similar areas around the world."

The governor said a net profits tax would do that, is the industry standard and would allow Alaska to share risks and rewards from anticipated higher oil prices.

The economic limit factor (ELF) oil tax regime is flawed,



The state's oil production tax system needs to be reformed, Alaska Gov. Frank Murkowski said, and a new oil tax system will ensure that at high oil prices Alaska gets a reasonable share, a share "comparable to what these companies are paying in similar areas around the world."



The state is also negotiating for fiscal certainty on oil, Murkowski said, and will include the oil tax system in the gas line contract. (Picture taken at Prudhoe Bay on Alaska's North Slope.)

he said, and within 15 years only one barrel out of five would be taxed. He also said the state's current production tax system is flawed because oil and gas companies reinvesting in Alaska pay the same tax as companies taking their profits out of the state.

### Legislature could see contract in April

At a House Republican press conference Jan. 9, Speaker John Harris, R-Valdez, said that his understanding from a meeting with Jim Clark was that the Legislature shouldn't expect to see a gas line proposal until at least the first of April. Harris noted that a contract first has to go through a 60-day public review period and he said the administration

anticipates having an agreement by the end of January "then you have a 60-day review period and then it's sometime around the first part of April" before it comes to the Legislature.

Harris also said that it is his "gut feeling" that if the administration cannot reach contract agreement with the producers by the first or second week in February, "they may go a different route, they may try to go a different way."

But, he said, he doesn't know that for a fact, although he thinks it is a possibility.

### Binding future Legislatures an issue

Rep. Lesil McGuire, R-Anchorage, said in response to a question on whether a future Legislature could be bound by the action of this Legislature that she doesn't think so. "That's my basic fundamental belief, that one Legislature cannot bind another." McGuire said it's "the fundamental aspect of democracy, that the public gets an opportunity every election cycle — in the House more often than in the Senate — to weigh in on who they want making decisions for them for the future."

The decisions we make, she said, "may not be the decisions that the public would like to have made in subsequent years."

McGuire said she think it's "a big issue and a big part of this gas line debate and makes it very difficult, not just with the gas line but with other long-term decisions that we make as a Legislature." ●



At a House Republican press conference Jan. 9, Speaker John Harris, R-Valdez, said ... it is his "gut feeling" that if the administration cannot reach contract agreement with the producers by the first or second week in February, "they may go a different route, they may try to go a different way."

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continued from page A1

## OIL SANDS

oil prices stay strong," said Alistair Dunn, a money manager at Connor Clark & Lunn, which is among the largest shareholders in Canadian Natural (best known by its stock symbol CNQ).

Wilf Gobert, vice-chairman of Calgary-based investment dealer Peters & Co., said the latest project announcements reflect the level of confidence in a resource that was once viewed as a marginal mining venture.

"When you know that 80 percent of the oil sands is recoverable (using current extraction technologies), you have unleashed the potential for a massive number of projects," he says.

### Momentum of announcements

But the mood is not all bullish.

Murray Edwards, CNQ vice-chairman and one of the industry's most respected voices, said it "would be naïve of anybody to think there are not tremendous challenges in execution in the oil sands projects."

More analysts and observers are suggesting the frenzy is partly tactical, as companies roll out long-term strategies to improve their chances of retaining existing staff and scaring off smaller competitors.

Jiri Maly, an energy expert at McKinsey & Co., said announcements on a grand scale generate their own momentum, with companies serving notice of plans to put their competitors "on edge about whether to invest or not."

Some might conclude that the sector "has become overheated and is not an attractive place to go."

Given the sweeping nature of some of the forecasting, Marcel Coutu, chief executive officer of Canadian Oil Sands Trust, the largest partner at 35 percent in Syncrude Canada, the world's largest producer of synthetic crude, said he is concerned about the accuracy of long-range production and pricing forecasts.

He also questions the ability of the Fort McMurray region of northeastern Alberta to meet the infrastructure needs when the boom city of 70,000 is already unable to meet the demand for housing, health-care, education and other basic services.

Coutu said the Syncrude consortium, which has already paid the price for over-ambitious expansion plans, now prefers to take a "discreet" approach to disclosing plans that "are more than five to 10 years out."

In unveiling additions to its existing bitumen and heavy oil program that could cost C\$25 billion more than its current C\$10.8 billion Horizon project and yield 860,000 bpd by 2020 CNQ said it is confi-

dent the plan could be paid for out of cash flow, with little or no need to issue new shares or add debt if oil stays above US\$28 per barrel.

Regardless of how the big-ticket plans shake out there is every reason to believe that oil sands production will triple to 3 million bpd by 2015 and could climb to 5 million bpd by the 2025-2030 period.

That forces the sector to get to grips with the next phase of oil sands expansion — opening new markets, building pipelines and meeting refinery demands.

### To market, To market

Other than meeting Canada's domestic oil needs, the obvious market bet to absorb the bulk of new production is the United States, where the oil sands have registered among federal energy officials and lawmakers.

Sen. Orrin Hatch of Utah, one of the most influential Republicans on Capitol Hill, gave a ringing endorsement to the oil sands during October when he said the northern Alberta resource means Canada "will inevitably overtake Saudi Arabia as the world's oil giant. It means that the United States can enjoy a new gigantic source of oil from a friendly neighbor."

David Conover, the U.S. energy department's assistant secretary for international affairs, echoed Hatch's sentiment by conceding the United States will not be able to meet its future energy needs without the oil sands.

To that end, he says, finding ways to get the heavy oil to market must be addressed if the resource is to have any hope of reaching its full potential.

But the Canadian government, infuriated by a series of cross-border trade spats, has delivered a clear message that the United States should not take Canada's oil supplies for granted.

Natural Resources Minister John McCallum pursued market diversification in a fall visit to China where he met with heads of PetroChina and China National Offshore Oil Corp.

Emboldened by their reception, he said 450,000 bpd of oil sands production — one-quarter of current Canadian crude exports south of the 49th parallel — could be destined for China by 2011.

McCallum also found a strong desire among the Chinese companies to build on the oil sands foothold they established in 2005 when CNOOC and Sinopec became partners in production ventures and PetroChina struck a deal to become the 50 percent anchor tenant in Enbridge's Gateway pipeline proposal to ship 400,000 bpd to the British Columbia coast, targeting 300,000 bpd for Asia and 100,000 bpd for California.

### Pipe dreams

The pipeline sector has awoken from its prolonged slumber with a jolt.

Canada's three established oil and gas carriers and one unknown are trying to round up support for connections from northern Alberta to the U.S. Gulf Coast, California and Asia.

It has turned into the most competitive battle among established and emerging companies in North American pipeline history.

"There is a lot of opportunity and a lot of capital available right now," says Guy Jarvis, Enbridge's upstream vice president.

But Brian Purdy, an analyst with FirstEnergy Capital, cautions that few of the major upstream projects have been confirmed and "not all can go ahead at the same time" because of the accelerating demand for construction labor, engineering and materials, for both oil sands production and the prospect of natural gas pipelines from Alaska's North Slope and Canada's Arctic in the next decade.

The general consensus points to the need for about 750,000 bpd of new pipeline capacity out of Alberta in the next five to seven years.

Winners and losers among the contenders are expected to be determined over the next few months by the oil sands producers, who must select their preferred carrier and commit volumes.

### Nothing like current competition

Rich Ballantyne, the former president of Terasen Pipelines (now Kinder Morgan Canada, with Ian Anderson as president), said last year he had seen nothing to match the current competition in more than 20 years in the business.

What was once a "relatively monopolistic business now has all of us in each other's business," he said, indirectly referring to TransCanada's surprise entry into the big-time oil side of the transportation sector.

Enbridge and Kinder Morgan, as Canada's two leading oil pipeline companies, are obvious favorites to grab a slice of the action; TransCanada, traditionally a natural gas carrier, has emerged as a serious contender; and a privately held Altex Energy has surfaced with plans for a direct Alberta-to-Texas link.

Enbridge, as well as testing producer support for a staged extension of its pipeline network from the U.S. Midwest to the Gulf Coast refinery region, has surprised even itself with the response to a non-binding open season for the Gateway pipeline project from Alberta to Kitimat, British Columbia, for tanker connections to California and Asia.

Having set 400,000 bpd as its economic

threshold, Enbridge easily surpassed that level, although it will not say by how much until firm shipping contracts are in place and an application is filed with the National Energy Board in the second quarter.

But the company has given broad hints of the level of support by studying expansion of the pipeline to 36-inch diameter from 30 inches, which it says could lead to peak capacity of 800,000 to 1 million bpd with the addition of compressor stations.

Just as significantly, thoughts that the U.S. West Coast would take 25 percent or 100,000 bpd of the initial volumes have now been revised, with thoughts that the U.S. percentage could be even higher.

### PetroChina could be anchor tenant

Also still "very much alive" is a joint effort by Enbridge and PetroChina to secure producer commitments for 200,000 bpd, making PetroChina the anchor tenant on the C\$4 billion pipeline.

To broaden Gateway's appeal, Enbridge is willing to sell 49 percent ownership to investors who make shipping commitments. It has already signed definitive agreements to provide services for the 100,000 bpd oil sands project being developed by a ConocoPhillips-Total partnership.

Kinder Morgan is testing support for a rival scheme to carry up to 650,000 bpd of oil sands production to a deepwater port on the British Columbia coast for tanker shipment to Asia and California. It is reporting "significant progress" in its discussions with potential shippers.

Altex is the surprise late entry, unveiling plans for a US\$3 billion, 250,000 bpd pipeline to Texas, but it has yet to identify any clients.

### Illinois refining centers a target

TransCanada, despite its limited experience carrying oil, is going head-to-head with Enbridge to access the Illinois refining centers of Wood River and Patoka. Its chances were bolstered in November when ConocoPhillips negotiated an option for a 50 percent stake in the 435,000 bpd Keystone pipeline.

That was a sharp reversal from a mid-summer warning by TransCanada Chief Executive Officer Hal Kvisle, who said that if Enbridge and Kinder Morgan succeeded in locking up several hundred thousands barrels of production the need for Keystone would evaporate.

"We don't think it serves the producing sector's best interests to overbuild a lot of pipe that people are paying unnecessarily high tolls on. And we're not about to build a large pipeline on spec."

Teaming up with ConocoPhillips has

see OIL SANDS page A10



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By PAULA EASLEY



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Ron Burnett joined the company in May 2005 as Lead CADD designer for civil and structural projects and has more than 17 years' experience in this field. Responsibilities have included working as project engineer, structural field engineer, and principal structural designer. Ron is a single parent of two boys, Ryan and Matthew. Flyfishing, fourwheeling and snowmachining are favorite family activities.



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## Tackling labor shortage a priority

Canadian Natural Resources offered a candid explanation for dramatically accelerating its oil sands program from C\$10.8 billion to about C\$35 billion.

President and Chief Operating Officer Steve Laut said there is a race to lock-up labor before the oil sands construction boom starts in earnest in 2007.

He said labor availability and inflationary pressures could create havoc for the timelines of some smaller projects.

"We know it's going to be very tight in 2007," Laut said.

Shell Canada understands the full scope of the headache.

To more than triple output from its 155,000 bpd Athabasca operation over the next decade it will need 10,000 welders, pipe fitters, electricians and skilled workers covering a broad spectrum of trades.

### Request for national strategy

"Where is the next welder going to come from?" said Shell Canada oil sands Vice President Neil Carmata. "Where will the next plant operator come from?"

Even before the latest flurry of mega-project announcements, he estimated oil sands construction will require an extra 25,000-30,000 trades people, of which only 10,000 are in Alberta.

Importing temporary workers to close that gap can easily double the total labor costs for a skilled pipe fitter to C\$80 an hour, Carmata warned.

A broad coalition of Canada's leading energy producers — oil, gas, power, nuclear, wind and coal — along with pipeline companies and service providers have already made their case to the Canadian government for a national strategy to tackle issues such as labor shortages and regulatory delay.

The Energy Dialogue Group said a framework is urgently required to solve a vast array of challenges to help industry overcome a labor crunch in areas of high activity such as the oil sands.

### Shortage of technical talent

Jiri Maly, a principal with consulting firm McKinsey & Co., said the shortage of technical talent in Canada has become a CEO-level concern and a national productivity issue. He said the competition for workers has spread far beyond Canada to a global stage, with countries such as Singapore or Dubai prepared to "do whatever it takes to get the best people."

The scope of the problem is reflected in the Edmonton region, which is the manufacturing hub for many oil sands components and the transportation staging area.

Over the last 10 years, Edmonton, with a population of less than 900,000, has added 120,000 new jobs, the bulk of them tied to the energy industry.

In the process the available labor pool has been drained, forcing some oil sands companies to start recruiting drives outside Canada.

CNQ has gone one step further by building an airstrip capable of handling Boeing 737s near its Horizon site to speed the arrivals and departures of its workers.

On another front, the pipefitters and welders union for northern Alberta has appealed to U.S. members to sign up for work in their region.

### More than 50% of employers report difficulties

But the scope of the problem is reflected in a survey conducted by the Canadian and Alberta governments.

It said the number of Alberta employers who reported difficulties finding workers rose to 56.3 percent in 2005 from 51.5 percent in 2003, despite an average 8.67 percent jump in wages to C\$21.39 per hour.

The vacancy rates included 13.2 percent among structural metal and platework fabricators and fitters and 9.7 percent among oil and gas drilling, servicing and related laborers. The Conference Board of Canada said energy sector workers can expect the largest wage increases of all non-union employees in 2006 because their industry has been hardest hit by shortages.

The board predicted a 4.3 percent hike for oil and gas workers, compared with an average 3.6 percent for non-unionized workers.

"The intense competition for labor in Alberta's energy sector is the sharpest example of growing pressure in the labor market," said board Vice President Prem Benimadhu.

"After easing in recent years, recruitment and retention have re-emerged as priorities for organizations," he said.

—GARY PARK

continued from page A8

## OIL SANDS

sharply improved TransCanada's odds. Purdy said that taking on such a major partner "validates" the Keystone proposal.

### Getting refined

Of all the obstacles, the need for new upgrading/refining capacity is perhaps the most troublesome, given the reluctance of North American companies to enter that sector over the past two decades.

However, U.S. lawmakers, shaken by last year's gasoline shortages, are scrambling to find answers.

Dennis Hastert, speaker of the House of Representatives, reflected the mood in Congress when he told oil companies to "do their part to help ease the pain American families are feeling from high energy prices.

"When are new refineries going to be built?" he asked, challenging ExxonMobil and BP to divert some of their record profits to ease tight supplies by building the first new U.S. refineries in 30 years.

### Alberta-industry initiative

Eager to become part of that solution, the Alberta government and 16 energy companies including Petro-Canada, EnCana and Canadian Natural Resources, pipeline companies Enbridge and TransCanada, utility TransAlta and petrochemical manufacturer Nova have taken a bold initiative.

They expect to release findings by June of a study weighing the merits of a combined refinery-petrochemical complex, costing up to C\$7 billion and capable of processing up to 300,000 bpd of bitumen and heavy crude.

Alberta Energy Minister Greg Melchin says the objective is to explore the economics of doing more refining in the province after two decades of excess capacity, gyrating oil prices and shaky profits that have driven producers away from investing in refineries.

But, given predictions of oil sands output tripling to 3 million bpd by 2010 and adding a further 2 million bpd within 20 to 25 years he says "someone" has to move on the refinery front.

Spokesmen for EnCana and Canadian Natural say they are eager to determine whether a shortage of refining capacity is hindering oil sands investment and whether the integration of an upgrader (which converts bitumen into synthetic

crude), refinery (which upgrades the synthetic crude to fuels) and a petrochemical plant makes economic sense.

### Companies have own plans

In addition to their success in blending synthetic crude and bitumen as feedstock for existing US refineries, oil sands producers are also working on their own upgraders and refineries.

CNQ, as part of its plan to invest about C\$35 billion in the oil sands over the next 25 years, is evaluating the economics of building its own C\$6 billion upgrader to process up to 175,000 bpd by 2015.

Company Vice Chairman John Langille said the upgrader would help open new markets for synthetic crude and give Canadian Natural a chance to "capture more value from the heavy oil chain.

But there was a sharp setback for EnCana late in 2005 when negotiations with Valero Energy to convert the Lima refinery in Ohio at a cost of US\$2 billion to process 140,000 bpd of oil sands production, and help set EnCana on the path to 500,000 bpd of oil sands volumes by 2015, fell through.

Valero said the project would not have competed with the economic returns from "other strategic investment opportunities," forcing EnCana to return to a shortlist from 20 companies it said have expressed interest in oil sands initiatives.

A Canadian Energy Research Institute report last September underscored the value of following CNQ's example, estimating that, based on oil prices of US\$32 per barrel, upgrading more raw bitumen into synthetic crude could generate an economic spinoff for Canada of more than C\$1 trillion by 2020.

Currently only 64 percent of all low-grade bitumen produced in Alberta is upgraded.

### Petro-Canada looks at reconfiguration

But simply adding new refining capacity is not the only answer.

Reconfiguration of existing plants to handle greater quantities of heavy crudes is just as important.

Petro-Canada has made one of the boldest moves in that direction, spending C\$1.4 billion to convert its Edmonton refinery to exclusively process oil sands feedstock.

By mid-2008 the plant will handle about 135,000 bpd, displacing 85,000 bpd of conventional crude feedstock, reflecting Alberta's declining conventional output and its swing to oil sands development.

Of the 2.5 million bpd that Canadian refineries can handle, only 360,000 bpd or 14 percent can be heavy oil, indicating there is ample scope for others to follow Petro-Canada's lead. ●



Alberta Energy Minister Greg Melchin



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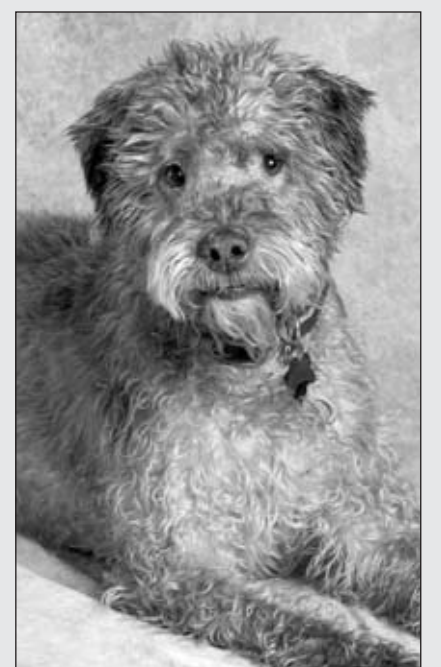


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COURTESY ALASKA PETOGRAPHY

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continued from page A1

## AMENDMENT

based lease stipulations and required operating procedures to increase flexibility in protecting important surface resources from the impacts of oil and gas activities," Interior said in its record of decision.

Some 4.4 million acres, 95 percent of the planning area, are now available for oil and gas leasing, with leasing deferred on Teshekpuk Lake, approximately 211,000 acres, and leasing in the Colville River special area deferred until the Colville River management plan is completed.

### Record of decision has changes

The amendment was developed by the Bureau of Land Management, which manages NPR-A. The record of decision was signed Jan. 11 by Deputy Assistant Secretary of the Interior Chad Calvert.

Bisson said the record of decision contains a number of changes based on comments from local government, North Slope residents and various organizations. The changes, he said in a statement, "have been included specifically to benefit subsistence users and wildlife values in the northeast planning area."

Bisson told Petroleum News that while companies can explore anywhere in the 389,000 acres north of Teshekpuk Lake during the winter, 242,000 of those acres are "not available for construction of any permanent facilities," an increase from 217,000 acres in the January 2005 plan and environmental impact statement. This expansion is in goose molting habitat north of Teshekpuk Lake.

He said BLM has "imposed a requirement on ourselves to do three years of study regarding the impact of disturbance on molting geese, before we would permit development," research which is expected to get under way this year.

Shown in red on the map in one of the large, 45,000 to 60,000 acres, tracts north of the lake is an area where "results of the three years of study that we do on goose disturbance will be used to help us make any decisions on where a facility might or might not be located somewhere in that area," he said.

Bisson said additional areas of no surface occupancy have been added north of the lake and to the south and west because of caribou calving habitat. Some of those areas were in the original northeast plan and have been put back in, he said.

An additional 47,000 acres of caribou habitat and calving area southwest of the lake has been designated no surface occupancy; there was already 141,000 acres of protected caribou calving habitat southeast of the lake. Caribou movement corridors have also been expanded by 9,700 acres northwest of Teshekpuk Lake, reflecting 56,000 acres of corridor protection.

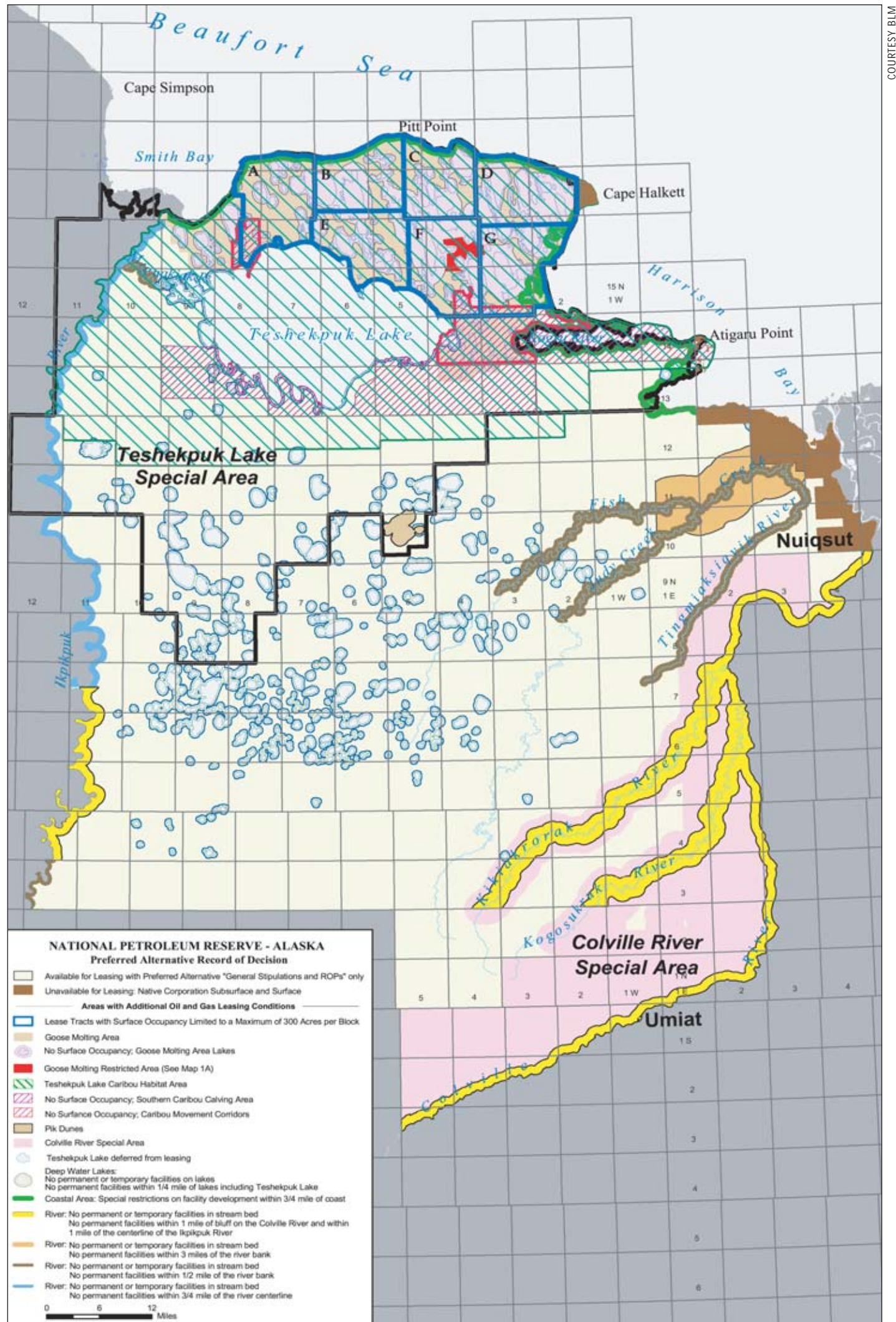
### No community road

Bisson said that a provision which would have allowed construction of a community road into the area north of the lake has been removed. Now the only roads allowed will be in-field roads which will count against the maximum 300 acres of development per tract, he said.

The plan amendment has also increased a winter exploration buffer of 1,200 feet around subsistence cabins to a mile.

The special buffer around Fish Creek has not been changed, and a buffer on an additional river has been added.

"And basically from the time we completed the final EIS last January what we've done is added additional protection as a result of discussions that we've had with the North Slope Borough and other parties. We've actually added additional protection to improve our protection of subsistence resources and molting geese."



Not all issues raised are settled in the plan amendment.

BLM will hold community workshops before a pipeline is proposed through either of two caribou migration corridors. The North Slope Borough, Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, BLM and the companies would all be involved in making decisions on "how best to locate that pipeline," Bisson said.

"Ultimately we'll make the decision" about a pipeline, he said, but the workshop would look at things like the height of the pipeline and specific location. There is a lot of concern about whether a pipeline is to the right or left of a caribou migration route. Bisson said that isn't a decision that needs to be made now. "When we have a proposal let's sit down with everybody and decide where the best place to put a pipeline is."

### 2 billion barrels

"And the bottom line, for me anyway, is that we have, I think, developed the most environmentally responsible approach to oil

and gas leasing that the BLM has ever entertained," Bisson said. For the entire northeast NPR-A planning area "we're talking about a maximum potential disturbance of one-tenth of 1 percent of the area."

It is "a very sensitive wildlife area," Bisson said. "But on the other hand we're talking about a difference of 600 million barrels of potential production that was authorized in the existing plan going to better than 2 billion barrels and an additional 3.5 trillion cubic feet of gas."

"At this stage of the game the country needs access to that resource. And we think we're doing it responsibly."

BLM has begun work on a plan for NPR-A south and a management plan for the Colville River special area, and additional leasing will be deferred in the Colville River special area within NPR-A until that plan is completed, Bisson said. The same decision has already been made for the northwest NPR-A and has been extended to the northeast.

Leasing in that area, in pink on the map, has been deferred until the plan is complet-

ed, which won't be for several years, he said.

The entire northeast area, including the seven tracts north of Teshekpuk Lake, will be offered in a lease sale planned for fall, along with tracts not previously leased in the northwest area, excluding the Colville River special area.

Bisson said BLM anticipates that the lease sale will be in late September.

BLM is already being sued over the northeast EIS, and Bisson said there has not yet been a decision out of the U.S. 9th Circuit Court on the suit over the northwest.

Under the plan amendment lease stipulations for the northeast area will be similar to those adopted in 2004 for the northwest NPR-A.

There are different restraints on what can be done, based on geographic area between the northeast and northwest, "but the performance-based steps, the required operating procedures, all those are consistent from one location to the other," Bisson said.

The record of decision and maps are available on BLM's Web site at [www.ak.blm.gov](http://www.ak.blm.gov). ●

COURTESY BLM

continued from page A1

## SALES

talking about tracts in and around Kuparuk and offshore Alpine and certainly even offshore NPR-A these days ... five to seven years is more than adequate."

Pat Galvin, division petroleum land manager, said unitization also played a role in shortening the primary term of the leases. Companies don't need to explore every tract, just enough to justify unitizing to hold tracts beyond the primary term. "We're seeing an expansion in unitization and using unitization to hold exploration acreage and that in response to that we don't see a need to keep such long primary terms," Galvin said.

Division Deputy Director Pirtle Bates said there is another reason for shortening the primary lease term. "And that's the fact that the areawide leasing program has been going for a few years now and no longer does industry have to worry that we might not hold a sale for three to five to seven years for an area; they're being offered each year."

The North Slope and Beaufort Sea areawide sales, which have been held in October, were rescheduled last July when the administration decided to focus attention on the new Alaska Peninsula areawide sale, also set for October, and to spread the work of the state's leasing staff more evenly over the annual schedule. The sales were originally rescheduled for February, and bids are still due that month, on Feb. 27.

### North Slope terms shortened

The division said more northerly North Slope areawide tracts in the 2006 sale will be offered for a primary lease term of five years, compared to a seven-year term in the state's last North Slope areawide sale in 2004. The more southerly tracts will be offered for seven years, compared to 10 years in the previous sale.

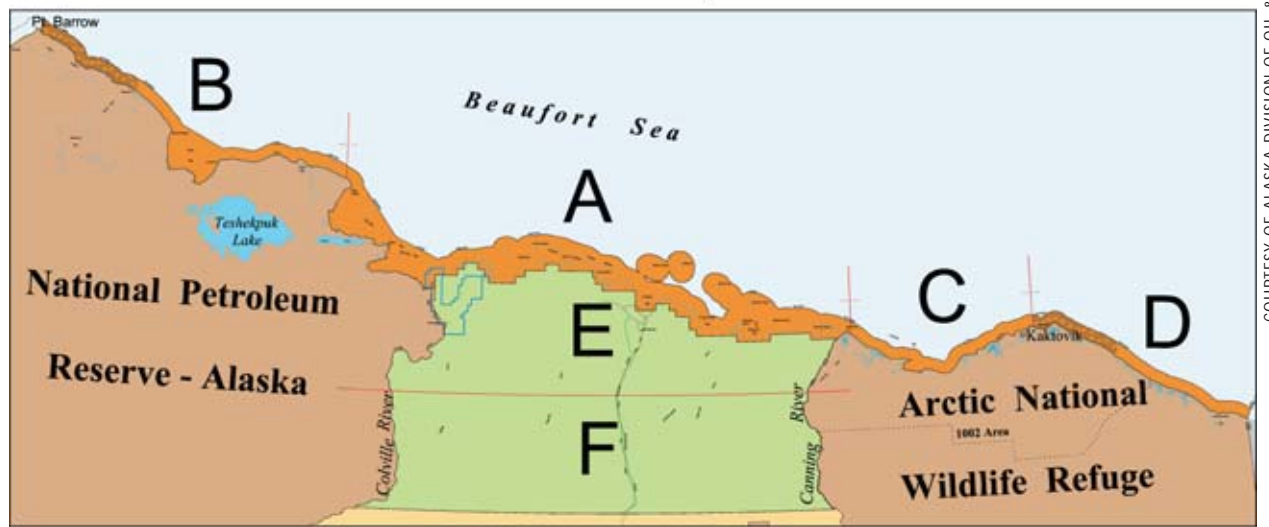
North Slope sale area royalty rates remain the same as in the previous sale: 12.5 percent for more southerly tracts and 16.67 percent for northern tracts.

The Beaufort Sea areawide sale, which has been divided into three areas, is divided into five areas this year, with primary lease terms of five, seven and 10 years, and royalty rates of 12.5 percent (in the 10-year term area) and 16.67 percent in the remainder of the lease sale area.

Tracts offered and tracts deferred in the Beaufort Sea are the same as in the last sale, Bates said. The previous sale tracts were divided into three areas: the left shoulder, the right shoulder and the core. There are five areas in this year's sale, he said, although just three sets of terms.

The state's core Beaufort Sea area and three tracts which include both state and Arctic Slope Regional Corp. land

## 2006 Beaufort Sea and North Slope Areawide Sale Terms



Beaufort Sea Sale Area North Slope Sale Area

KEY		2006 Sale		2004 Sale	
Area	Sale	Royalty	Term	Royalty	Term
A	BS	16 2/3 %	5	16 2/3 %	7
B	BS	16 2/3 %	7	12 1/2 %	10
C	BS	16 2/3 %	7	12 1/2 %	10
D	BS	12 1/2 %	10	12 1/2 %	10
E	NS	16 2/3 %	5	16 2/3 %	7
F	NS	12 1/2 %	7	12 1/2 %	10

0 Miles 25

January 2006  
ADNRDOG



share the same set of terms, five-year primary lease terms and 16.67 percent royalty rates, and the Camden and western areas both have seven-year primary lease terms and 16.67 percent royalty rates. The farthest east area tracts have 10-year primary terms and 12.5 percent royalty rates.

Galvin said terms are being shortened for everything except the farthest east tracts, with the royalty raised for the far west and the near east.

### Rates reflect interest

Van Dyke said increases in the royalty rates are "just an effort in part to get out ahead of the exploration interest and in part to recognize that there has been a shift in the commodity prices and just the overall attractiveness of the North Slope acreage."

Galvin said before an annual sale the division evaluates whether changes are needed and then meets with the commission to discuss whether there are reasons to change the terms of the sale. This year in addition to other factors they also looked at changes in the price of oil and changes in the amount of activity, he said.

There is a "lot more interest in the Beaufort Sea right

now," Van Dyke said, while onshore, companies are continuing to march south from the coast.

This interest, Galvin said, "caused us to think now is a good time to reexamine our terms."

The division also looks at what other oil provinces are doing, areas such as Alberta and Texas. Some of these areas have royalty rates up to 25 or 30 percent, Van Dyke said, with three-year lease terms. "We don't have the same environment as Alberta or West Texas but the trends are the same."

Van Dyke noted that the minimum bid per acre, \$10 in both sales, is the same as the last sales. "We're not trying to price anybody out of the sale," he said.

As to the tracts that will be included, Jan. 5 was the cut-off date, Galvin said: tracts relinquished or in default on that date will be included in the sale.

The North Slope areawide sale covers an area of approximately 5.1 million acres, the Beaufort Sea sale area is 1.5 million acres.

Complete sale information, including tract maps, is available on the division's Web page: [www.dog.dnr.state.ak.us/oil/](http://www.dog.dnr.state.ak.us/oil/). ●



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continued from page A1

## INSIDER

exchange of ideas and innovations across the disciplines of geoscience and petroleum engineering. A varied list of topics will include the petroleum geology of the North Slope; emerging opportunities through viscous oil and Arctic gas development; rural energy in Alaska; recent advances in reservoir characterization and the geology of the circum-Arctic and Cordillera.

Registration for the conference is open now. And anyone also wishing to submit an abstract for an oral or poster technical presentation needs to do so by Feb. 7.

Field trips will include a Kuparuk field tour on Alaska's North Slope, at no cost to participants. BP (Exploration) Alaska will provide transportation and ConocoPhillips will host the tour. But space on the tour will be limited — early conference registration will be necessary to secure a place.

Further information on the joint conference is available at <http://www.anchor-age2006.com>.

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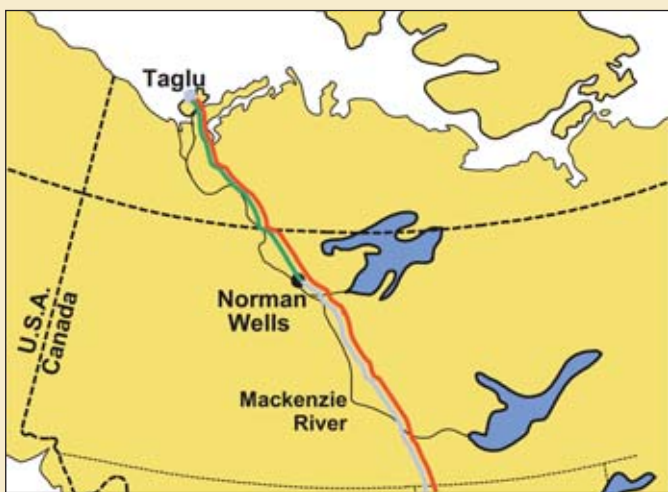
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## Dene Tha' lose one bid to delay Mackenzie gasline hearings

One obstacle to the upcoming Mackenzie Gas Project hearings has been partly removed. According to a Jan. 9 CBC News report the Joint Review Panel has refused a request from the Dene Tha' First Nation to delay hearings until a case filed by the tribe against the C\$7.5 billion project with the Federal Court of Canada has been decided. The Dene Tha', which has land claims pending in northern Alberta and the southern Northwest Territories, claims it has been shut out of the pipeline and wants the regulatory review halted until it gains a role in the process.

The court has set a two-day hearing for Feb. 20 and 21 to deal with the preliminary issues, the Dene Tha' said in a news release Dec. 9. CBC said Jan. 9 that the tribe's application for judicial review of the Mackenzie hearings won't be heard until June.

see HEARINGS page B7

## Marathon Oil applies to state of Alaska for Kenai gas storage lease

Marathon Oil Co. has applied to Alaska's Division of Oil and Gas for a gas storage lease within the Sterling formation pool 6 C1 and C2 sands of the Kenai gas field. The company wants to establish a gas storage facility that encompasses about 7,531 acres of the pool 6 sands. The reservoir lies in a mix of state, Cook Inlet Regional Inc. and Marathon subsurface land, as well as in multiple tracts of other privately owned subsurface. The lease would only apply to state land within the gas storage facility.

According to the draft lease "the Kenai field Sterling Gas Pool 6 is the stratigraphic equivalent of formations occur-

see MARATHON page B4



"It's become evident over the last several years that storage should play a key role in resolving the Cook Inlet natural gas needs." —John Barnes, Marathon's Alaska business unit leader

## Economic growth expectation kicks oil above \$64

Oil prices rose amid market jitters over Iran's nuclear development and on traders' convictions that economic growth will cause energy consumption to rise.

The upward pressure came despite a U.S. report Jan. 11 showing a surge in inventories of gasoline and heating oil.

Light, sweet crude for February delivery rose 72 cents to US\$64.66 a barrel. Heating oil jumped over 2 cents to US\$1.7480 a gallon, while gasoline surged 2 1/2 cents to US\$1.7579 a gallon. Natural gas gained 6 cents to US\$9.300 per thousand cubic feet.

February Brent crude rose 70 cents to US\$62.87 on the ICE Futures exchange in London.

The threat of instability in the Middle East raised concerns

see GROWTH page B5

### NORTH SLOPE

# Borough OKs rezone

Pioneer's proposed Oooguruk oil project rezoned for resource development

By KAY CASHMAN  
Petroleum News

On Jan. 10 the North Slope Borough Assembly unanimously passed ordinance 75-06-50, approving Pioneer Natural Resources' request to change the zoning of the proposed Oooguruk oil project area from conservation to resource development.

According to NSB land management specialist Gordon Brower there were a number of industry people in Barrow for the Assembly meeting, including people from Pioneer, BP and ConocoPhillips.

see REZONE page B4



## Pioneer's Oooguruk project one step closer

Last month Pioneer Natural Resources said it needed two things before it could submit its North Slope Oooguruk oil development for sanction to its board – approval from the North Slope Borough to rezone the Oooguruk area for resource development and permit approval from



KEN SHEFFIELD

see OOOGURUK page B5

### NORTHWEST TERRITORIES

# Beluga waters opened

Canada calls for bids on Beaufort, Mackenzie parcels involving 386,344 acres

PETROLEUM NEWS

The Oil and Gas Management Directorate of Canada's Department of Indian Affairs and Northern Development issued a call for bids Jan. 10 for two parcels of land in the Beaufort Sea and Mackenzie Delta of the Northwest Territories. The action opened to oil and gas development parts of protected beluga whale habitat in each area, which are considered gas-prone.

Bid closing is May 2, noon, Mountain Time.

Parcel MD-1 involves approximately 56,406 hectares (139,382 acres) and is located about 70 kilometers (43.5 miles) west of Tuktoyaktuk.

MD-2 involves about 99,942 hectares (246,962 acres) and is off the northern coast of the Yukon.

The Canadian government is offering nine-year exploration licenses to the successful bidders, in consecutive terms of five and four years.

Between 20,000 and 40,000 beluga whales migrate into the area every summer. According to a CBC report, drilling is currently prohibited in the most sensitive areas, but is allowed with some restrictions in the surrounding waters, most of which are already leased.

Canadian officials say the country's environmental screening processes will ensure explorers do not harm whale habitat.

"They have to be aware that it's not full blown or 100 percent business as usual if they get a license in this area. There might be some specifics that will be asked of them. If the migratory route happens during a specific period of time, they won't be allowed to pursue any activity during those months," CBC quoted Richard Casey of the Department of Indian and Northern Affairs as saying. The federal department

see PARCELS page B6

### NORTH SLOPE

# Pinpointing the traps

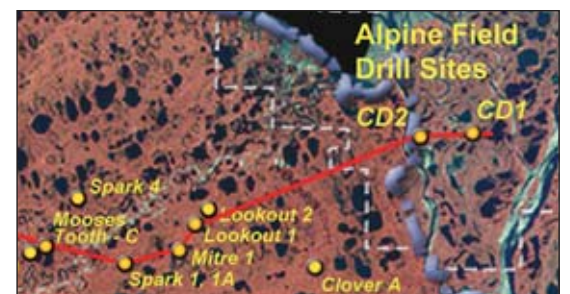
Three dimensional seismic and geologic modeling in Northeast NPR-A have proved key factors in locating Jurassic oil and gas plays west of Alpine

By ALAN BAILEY  
Petroleum News

When exploring for oil and gas, assumptions often turn out to be way off the mark. And it may take only one new find to turn conventional thinking on its head.

Take, for example, the National Petroleum Reserve-Alaska and the Jurassic rocks of that area.

ConocoPhillips geologist Greg Wilson described to a Geological Society of Alaska audience on Jan. 5 how several years ago some people had written off NPR-A as an area for oil and gas exploration — more than 100 wells had been drilled in the area without a major find. And despite the discovery of a significant North Slope oil field in almost every part of the geo-



See full-size map, page B7

logic column, explorers had drawn a complete blank in the Jurassic of the region.

Indeed, from what was known of the Jurassic strata, geologists saw little point in searching for Jurassic

see TRAPS page B7

• WASHINGTON, D.C.

# Alaska's coastal plan wins federal OK

National Oceanic and Atmospheric Administration gives final approval to ACMP, finalizing legislative changes made in 2003

By KRISTEN NELSON  
Petroleum News

The National Oceanic and Atmospheric Administration has given final approval to Alaska's revised coastal management plan, Gov. Frank Murkowski said Jan. 5.

"We have been working hard for nearly three years to update and reform our coastal management program into one that works for Alaska," Murkowski said in a statement. "The process was challenging, but the results were worth it. I'm very pleased that the National Oceanic and Atmospheric Administration and its Office of Ocean and Coastal Resource Management have recognized our desire, ability and legal right to manage development on our own shores."

There are federal standards for states to develop their own coastal zone management programs, balancing ecological, cultural, historic and aesthetic values with economic development. The state has been working with OCRM since 2003 on a revised program that reflects Alaska's unique conditions and needs, the governor's office said.

## ACMP moved to DNR

The governor moved the Alaska Coastal Management Program from the governor's office to the Department of Natural Resources in February 2003 and in May he signed a bill to reform the Alaska Coastal Management Program and amend its regulations.

In January 2005 the OCRM rejected the state's amendments as not complying with federal approval standards, but later reversed itself, the governor's office said, "acknowledging the legitimacy of the governor's legal objections."

In June 2005 the governor signed another bill which further amended the program's guiding statutes and allowed coastal resource districts eight additional months to submit revised district plans to the Department of Natural Resources.

OCRM gave preliminary approval to the amended ACMP in June 2005, and NOAA issued its final approval Dec. 29. A letter from Capt. Craig McLean, NOAA's acting deputy assistant administrator, said Alaska's amended plan met all federal requirements and standards. NOAA's approval formally incorporates into the ACMP the state's

statutory revisions.

## Changes made in 2003

When the Alaska Legislature revised the state's coastal management plan in 2003 the administration summarized the changes by saying that the coastal management program was an older program which hadn't adequately responded to change in Alaska statutes. It is unpredictable, overly broad and delays issuance of permits, the administration told the Legislature. Coastal districts retained a voice under the revised program, although the coastal policy council was eliminated and its duties placed with the Department of Natural Resources commissioner.

Murkowski signed the bills changing the program in May 2003: House Bill 191 streamlined the Alaska Coastal Management Program and Senate Bill 142 designated the Department of Natural Resources as the lead agency for natural resource development projects in the state.

Coastal districts and existing coastal resource service areas remain under the changed program, and districts were required to submit new or revised coastal management plans to the department for review and approval. ●



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## BAKU, AZERBAIJAN

### BP's West Azeri oil field begins production

A BP-led consortium said Jan. 5 that it has begun production at another section of one of Azerbaijan's largest offshore oil fields.

Oil from one of three wells at the West Azeri platform reached the Sangachal oil terminal, about 25 miles south of the Azeri capital, Baku, on Jan. 4, the Azerbaijan International Operating Co. said in a statement.

The terminal is the starting point for a 1,100-mile U.S.-backed pipeline that runs through Georgia to the Turkish Mediterranean port of Ceyhan and will bring Caspian Sea oil to Western markets.

David Woodward, who is overseeing BP's operations in Azerbaijan, said the startup of the West Azeri field, located about 60 miles east of Baku, came four months ahead of schedule.

The West Azeri platform is in the Azeri-Chirag-Gunashli field — one of Azerbaijan's largest fields, with an estimated 5.4 billion barrels of oil and 100 billion cubic meters of natural gas, according to the operating company.

The entire Caspian Sea is believed to contain the world's third largest reserves of oil and gas.

The company said other wells in the West Azeri section were scheduled to come online later this year and the facility would add 300,000 barrels per day on top of the 340,000-barrel daily production from the nearby Central Azeri section of the Azeri-Chirag-Gunashli field.

Other companies in the consortium include ExxonMobil, Unocal, Norway's Statoil and Azerbaijan's state oil company Socar.

—THE ASSOCIATED PRESS

• OSLO, NORWAY

# Norway confirms Eni's Arctic oil find

*Barents Sea Goliat field 50 miles northwest of northernmost town; environmentalists claim area too sensitive for development*

THE ASSOCIATED PRESS

Norwegian authorities on Jan. 5 confirmed a promising oil and natural gas find in the Barents Sea off the country's northern tip.

The Norwegian Petroleum Directorate said an exploration well drilled by project operator Eni Norge AS, a branch of the Italian energy group Eni SpA, made finds that were very promising.

"The find can have great significance for future exploration in the surrounding areas of the Barents Sea," the directorate said in a statement.

The field, called Goliat, is about 50 miles northwest of Norway's northernmost town, Hammerfest, and is in an Arctic area environmentalists claim is too ecologically sensitive to withstand oil production.

## Find announced in December

The find was first announced in December by the tiny Norwegian oil company DNO, a project partner, breaking a tradition of allowing the directorate to make such announcements first.

At the time, neither Eni nor the directorate would comment.

In the Jan. 5 news release, the directorate said drilling to a depth of 8,861 feet had hit hydrocarbons at three different levels of the well.

"The find in the deeper formations is seen as extremely positive because it indicates a petroleum potential that was not previously confirmed in that area of the Hammerfest basin," it said.

Neither the companies nor the directorate gave an estimate of the size of find.

Norway wants oil companies to look for oil and natural gas in the Barents Sea, hoping to maintain flow levels that make the Nordic nation the world's third-largest oil exporter, after Saudi Arabia and Russia.

Eni, with a 65 percent stake, operates the field on behalf of its partners, state-controlled Norwegian oil company Statoil ASA, which has a 20 percent stake, and DNO, which has 15 percent.

Last year Eni purchased Armstrong Alaska's assets in northern Alaska, entering the state for the first time. ●

## AMSTERDAM, NETHERLANDS

### Investors sue Shell over stock losses

A group of major shareholders is suing Royal Dutch Shell PLC for several hundred million dollars in damages after the company's 2004 oil reserves accounting scandal, their lawyers said Jan. 9. The group of 26 institutional investors represents up to 5 percent of Shell's stock, and is led by Dutch pension fund ABP — the world's second-largest pension fund by assets. The investors say they should be compensated for losses suffered when Shell's stock fell after the company admitted overstating the size of its estimated oil and gas reserves by up to 33 percent.

According to the filing, Shell made "materially false and misleading statements" that caused the investors "to sustain substantial losses."

A Shell spokeswoman said the company "contests these claims and will vigorously defend itself against the action."

The reserves scandal cost Shell almost \$150 million in fines imposed by U.S. and British regulators and led to the dismissal of three senior executives.

Shell has already paid \$90 million to settle one U.S. shareholder lawsuit related to the writedown of its reserves.

Spokeswoman Bernadette Cunnane said the company couldn't comment further on the pending case or speculate on whether it will eventually be settled.

The new suit, filed in Newark, N.J., names the company as well as past and current executives including current Chairman Jeroen van der Veer.

Shell shares were up 0.8 percent at \$32.71 in afternoon trading in Amsterdam.

—THE ASSOCIATED PRESS

## ALASKA

### Tentatively scheduled Alaska lease sales

Agency	Sale and Area	Proposed Date
DNR	North Slope Areawide	March 1, 2006
DNR	Beaufort Sea Areawide	March 1, 2006
DNR	Cook inlet Areawide	May 2006
DNR	North Slope Foothills	May 2006
BLM	NE NPR-A	September 2006
BLM	NW NPR-A	September 2006
MMS	Sale 202 Beaufort Sea	March 2007
MMS	Sale 199 Cook Inlet	May 2007
MMS	Chukchi Sea/Hope Basin	May 2007
BLM	NE NPR-A	2007
BLM	NW NPR-A	2007

Agency key: BLM, U.S. Department of the Interior's Bureau of Land Management, manages leasing in the National Petroleum Reserve-Alaska; DNR, Alaska Department of Natural Resources, Division of Oil and Gas, manages state oil and gas lease sales onshore and in state waters; MHT, Alaska Mental Health Trust Land Office, manages sales on trust lands; MMS, U.S. Department of the Interior's Minerals Management Service, Alaska region outer continental shelf office, manages sales in federal waters offshore Alaska.

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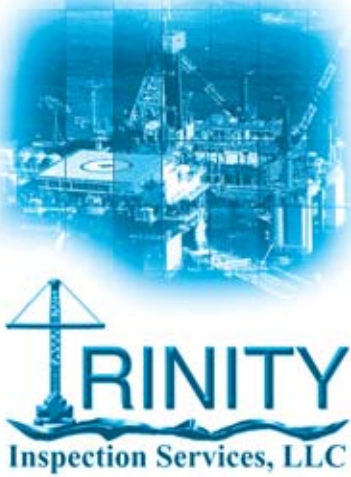
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continued from page B1

## REZONE

"I think they're just interested in what the borough's policy will be with these near shore developments," Brower told Petroleum News Jan. 11.

This is the second rezoning application that has been approved by the borough for a near shore development. Last year Kerr-McGee was able to rezone its proposed Nikaitchuq oil development which is about 9 miles east of Oooguruk.

"The NSB maintains its position in opposition to off-shore development, but citing policy and the area proposed, the planning department was able to balance this opposition using the North Slope Borough Coastal Management Plan and the policies of Title 19," Brower said, noting that "the design for the development was based on" Kerr-McGee's



NSB land management specialist  
Gordon Brower

Nikaitchuq development.

According to Brower, Pioneer said it needed a decision on the rezoning by Jan. 15 in order to start construction of the Oooguruk gravel island this winter.

Pioneer told borough officials that it intends to immediately apply for its NSB permits, which Brower said are expected to move quickly through the process. "Now that the assembly has made its decision ... all that's needed for the permits is administrative approval," he said.

He said it is his understanding that Pioneer expects to have all the gravel in place for the island "before the tundra travel closure date for this year. ... Pioneer will monitor the island to make sure it holds. Next winter they want to do the placement of the subsea pipeline." (See sidebar to this story.)

A few days before the Assembly vote the NSB Planning Commission passed a

***This is the second rezoning application that has been approved by the borough for a near shore development. Last year Kerr-McGee was able to rezone its proposed Nikaitchuq oil development which is about 9 miles east of Oooguruk.***

resolution recommending approval for rezoning to the Assembly on the condition that Pioneer be asked to "mitigate for subsistence and Native allotment impacts, with additional mitigation to implement an Economic Opportunity plan approved by the Land Management Administrator that would provide a vehicle for training and other opportunities for North Slope residents," Brower said.

Those conditions were part of the modifications attached to the approval by the Assembly.

The Oooguruk oil field development has not yet been sanctioned by Pioneer. ●

continued from page B1

## MARATHON

ring between the measured depth of 4,366 feet and 4,569 feet below the surface of the ground in the KU 31-07x well."

Because pool 6 contains "native" natural gas that has not yet been produced, Marathon will pay state royalties on a percentage of the gas removed from the reservoir, until all recoverable native gas has been extracted.

### Marathon's first inlet storage

This is Marathon's first foray into gas storage in the Cook Inlet area. Chevron,

another major Cook Inlet gas producer, has already established gas storage facilities in the Swanson River field on the Kenai Peninsula and in the Pretty Creek field on the northwest side of the Cook Inlet. The purpose of gas storage, a response to dwindling gas supplies in the Cook Inlet area, is to enable natural gas to be stored during periods of low demand to help meet peak winter demand.

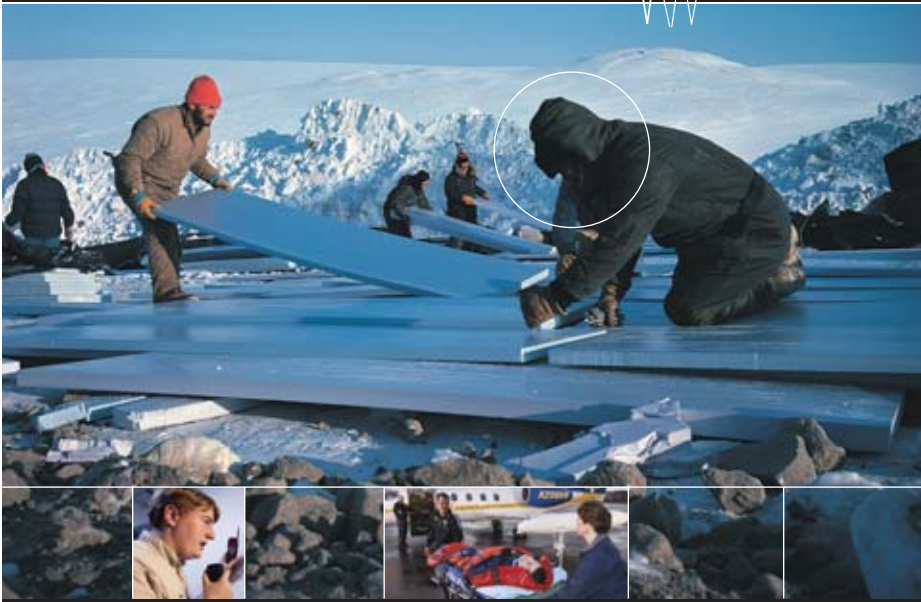
"It's become evident over the last several years that storage should play a key role in resolving the Cook Inlet natural gas needs," John Barnes, Marathon's Alaska business unit leader, told Petroleum News in July 2005. "Several small projects are either active

or proposed. Marathon is working towards a larger storage project in the Kenai gas field. This field has the capacity to store significant volumes of gas which will be needed to address larger seasonal swings."

Marathon said in September 2005 that the Kenai gas field facility would have the capacity to support annual injection and withdrawals of approximately 10 billion cubic feet at a rate of 60 million cubic feet per day. The company said that it envisages storing its own gas but doesn't discount providing gas storage services for other gas users at some time in the future.

—ALAN BAILEY

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## WASHINGTON, D.C.

### Shell settles federal trade charges

Federal commodity-trading regulators on Jan. 4 announced that a subsidiary of Royal Dutch Shell PLC has agreed to pay a \$200,000 penalty to settle charges of making "fictitious" trades of crude oil futures contracts.

The Commodity Futures Trading Commission said Shell International Trading and Shipping Co. of London engaged in prearranged "non-competitive" trades on the New York Mercantile Exchange with a U.S.-based Shell subsidiary, Shell Trading US Co., on five occasions between November 2003 and March 2004.

"In each instance, the traders prearranged the trade by agreeing on the quantity and the settlement month, and agreeing to take the opposite positions of the trade. There was no prearrangement as to price," the CFTC said in an order detailing the case against Shell. The head trader at Shell Trading, Nigel Catterall of Sugarland, Texas, will pay an additional \$100,000 to settle the charges. Catterall was involved in three of the five instances of alleged abuses, the CFTC said.

A spokeswoman for Shell said the company did not immediately have any response. As part of its agreement to pay the fines, Shell neither admitted nor denied the CFTC's findings.

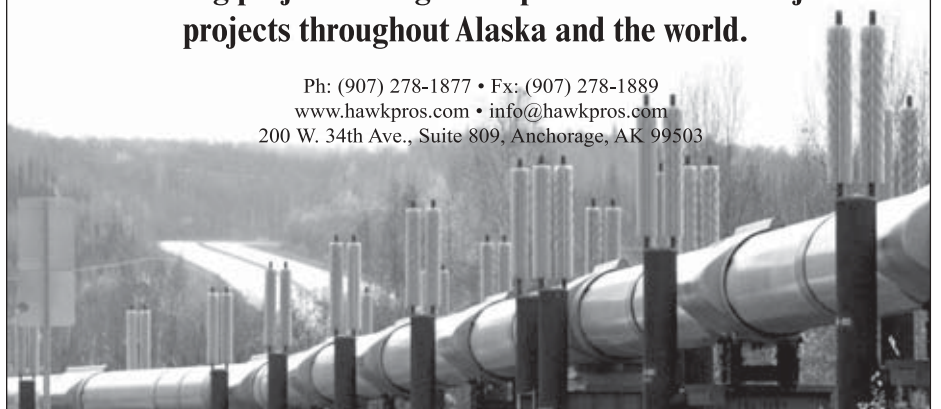
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continued from page B1

## OOOGURUK

the U.S. Army Corps of Engineers.

On Jan. 11 Oooguruk Pioneer got one of the two things it needed when the project area was rezoned by the North Slope Borough Assembly (see adjacent article).

A source at the Corps said agency personnel are in the process of writing the decision document/Environmental Assessment now, which contains their recommendation and justification for that recommendation, and expect to have it complete before the end of the month for review by their superiors. And while the Corps won't say if its staff is recommending Oooguruk permit approval, Corps spokeswoman Pat Richardson told Petroleum News Jan. 12 that the agency is "very close to a decision."

Pioneer officials told the borough they needed rezoning wrapped up by Jan. 15 if project construction was to begin during the current winter season.

### Can still happen this year

On Jan. 12 Petroleum News asked Pioneer Vice President of Corporate Affairs Susan Spratlen what would happen if the Corps permit was not approved until the end of January? Could Pioneer still get the project sanctioned to start construction this year or would Oooguruk work have to be postponed until next year?

Spratlen said Pioneer could "make it happen this month." The company's board of directors has "all the basic information. It's just a matter of tying up these loose ends" before voting on whether or not to approve the project, which she said can be done telephonically.

In early 2007 Pioneer would then "install the subsea flowline and get the drill site hardware on the gravel island," Ken Sheffield told Petroleum News in

December. Sheffield is president of Pioneer's Alaska subsidiary.

Pioneer does not yet have a "definitive" facility sharing agreement with Kuparuk River unit operator ConocoPhillips, where Oooguruk oil will be processed, but Sheffield said it does have a "Memorandum of Agreement with Kuparuk unit owners that lays the foundation for that future facility access agreement. ... The KRU ballot 255 and 255A (backout portion) will be the foundation of the future agreement."

Spratlen or Sheffield would not comment on whether the project would be sanctioned by Pioneer.

Pioneer's permit application with the Corps calls for a 10.85 acre offshore gravel island in the Colville River Delta halfway between Barrow and Deadhorse, involving almost 1.2 million cubic yards of fill and backfill from Mine Site E, 8 miles east and northeast from the onshore production tie-in pad, which is DS-3H in the ConocoPhillips-operated Kuparuk River field.

Fill will consist mainly of gravel; backfill will come primarily from in-situ material excavated from the Beaufort Sea floor or tundra. Total fill will impact 91.2 acres of the shallow waters of the Beaufort Sea and tides.

Erosion proof bags will be placed around the edges of the island, Richardson said.

"There will be a gravel access ramp on one side of the island and a sheet pile dock on the other," she said.

"A bundled flowline 5.7 miles long ... buried six feet under the seafloor will take crude oil, natural gas and produced water to shore. ... Onshore 300 feet will be buried," and then the final 2.7 miles of flowlines will be above ground on vertical support members, running in a straight line to the onshore pad," Richardson said.

In its Corps application Pioneer said "The produced fluids would be transported to the on-shore pad for processing through

an approximate 12-inch three phase (oil, gas and water) pipe-in-pipe pipeline. Also buried within the same trench would be an approximate 8-inch single pipe water injection line, 6-inch single pipe gas line, 2-inch single pipe Arctic heating fuel line and a power and communication cable."

The power and communication cable was the only line that won't be bundled with all the other lines, the company said.

In its Corps application Pioneer said if the Oooguruk project moved forward it would construct temporary ice roads and pads to access the work sites.

A temporary winter work camp would be set up for 200-225 people at Oliktok Point.

In the second quarter 2007 Pioneer hopes to install the drilling rig and begin drilling 40 to 60 wells on 7-foot centers, approximately half of which would be production wells and

half injector wells.

The island would be manned during development drilling, which is expected to take four years, with housing provided on-site. "During production—post-drilling—the island would be remotely operated with personnel quartered on-site as needed for operations and/or maintenance. Transportation would be by ice road, barge, hovercraft and/or helicopter. ... The island would have one Class I/II underground injection well and grind and inject equipment for disposal of drilling wastes. A barge may be moored at the island dock to store drilling supplies and equipment," Pioneer said in its application.

At peak production Oooguruk is expected to produce 18,000 to 20,000 barrels per day from the Nuiqsut and Kuparuk formations.

—KAY CASHMAN

continued from page B1

## GROWTH

after Iran — a major oil producer — said Jan. 10 it would allow work at its nuclear research facilities to resume despite warnings from Western countries.

"We believe that Iran matters more than is currently priced in, and that Iran's external relations remain the key wild card," Barclays Capital's Paul Horsnell wrote in a research note.

"We continue to see Iran as representing a severe upside risk for prices this year," he wrote.

Iran said its action was to prepare for fuel research only and that it was not resuming work to produce nuclear weapons.

### Economic sanctions threatened

The U.S. and Britain said Jan. 11 that Western countries will likely seek economic sanctions against Iran after it restarted nuclear activity. Iran's president said his

country would not be "bullied" and would push ahead with the program.

In Vienna, PVM Oil Associates suggested the Iran card — Security Council oil sanctions — might not be played, however.

"China is likely to veto such an action due to the Asian country being highly dependent on Iranian oil," PVM said in its daily energy market report.

On Jan. 11, the U.S. Energy Department said domestic supplies of gasoline grew by 4.5 million barrels last week and that supplies of distillate fuel, which include heating oil and diesel, increased by 4.9 million barrels.

"Most of the traders are looking at the Iranian issue over the bearish inventory report," said Tetsu Emori, chief commodities strategist at Mitsui Bussan Futures in Tokyo.

The agency's weekly report also showed that U.S. demand has held firm over the past month in the face of high prices.

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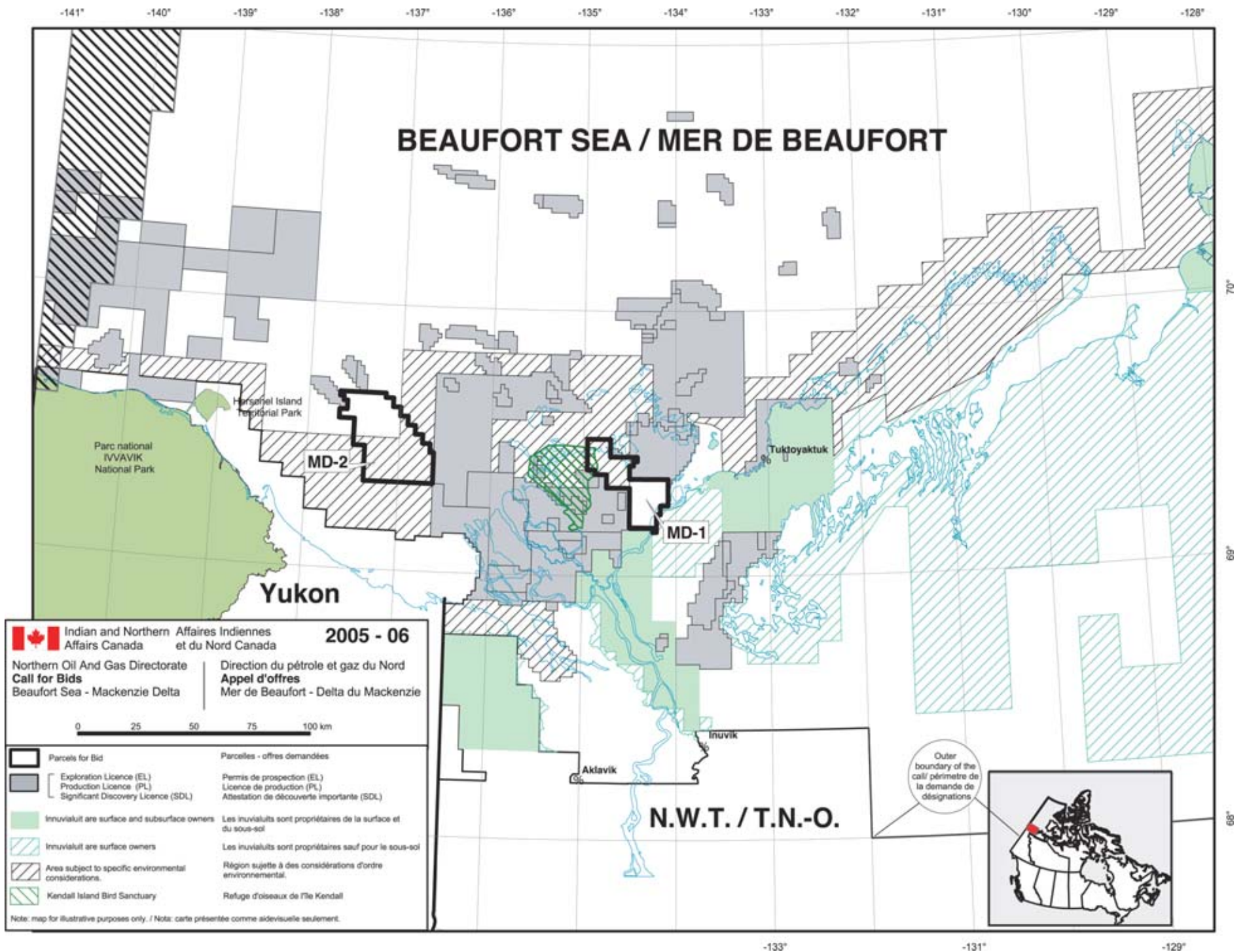
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continued from page B1

## PARCELS

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### Environmentalists question action

The move to lease the acreage has environmentalists concerned.

CBC quoted Peter Ewins of the World Wildlife Fund as saying, "The federal government is clearly continuing to respond to the pressure of the oil and gas sector to accelerate finds in the Mackenzie Delta-Beaufort region. And that's all well and good if there were an adequate marine and land-based conservation plan in place. There is not."

CBC said pressure is building on the beluga whale habitat in the Delta. One company, CBC reported, wants to "dredge through the protected area so it can move its gas

production facility into the area."

Up for bid within each parcel are the following:

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 69° 40' N 134° 30' W section 51  
 69° 30' N 134° 45' W sections 4-10, 14-20, 24-30, 35-40, 45-50  
 69° 30' N 134° 30' W sections 1-7, 11-17, 21-27, 31-37, 41-47, 51-60  
 69° 30' N 134° 15' W sections 1-2, 11-12, 21-22, 31-32, 41-42, 47, 51-52, 56-57  
 69° 30' N 134° 00' W sections 21-22, 31-32, 41-42, 51-52  
 69° 20' N 134° 15' W sections 1-60  
 69° 20' N 134° 00' W sections 27-30, 37-40, 45-50, 51-60

Note: For sections 1, 11, 21, 31, 41 and 51, including only that portion lying north of the Inuvik 7(1)(a) land selec-

tion boundary.

#### Parcel No. MD-2

Latitude Longitude Part  
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 69° 30' N 136° 45' W sections 1-60  
 69° 30' N 137° 00' W sections 1-60  
 69° 30' N 137° 15' W sections 1-30, 39, 40, 49, 50, 59, 60  
 69° 40' N 136° 45' W sections 1, 11, 21-23, 31-33, 41-45, 51-55  
 69° 40' N 137° 00' W sections 1-7, 11-17, 21-29, 31-39, 41-60  
 69° 40' N 137° 15' W sections 1-60  
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For more information on how to submit bids contact the Oil and Gas Management Directorate at (819) 997-0877 or visit the agency's Web site at [www.ainc-inac.gc.ca/oil](http://www.ainc-inac.gc.ca/oil). ●

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continued from page B1

## TRAPS

plays.

“Geologists wouldn’t have recommended the Jurassic as a target,” Wilson said. “... The Jurassic was a big pile of shale out there.”

### The discovery of Alpine

Then came the discovery of the 429 million barrel Alpine field in 1994, when ARCO (now ConocoPhillips) was drilling in the Jurassic beneath the Colville Delta, just east of NPR-A.

The Alpine reservoir is in a stratigraphic trap in Jurassic sandstones that straddle the upper Jurassic unconformity, Wilson explained. The upper sand, known as Alpine C, is fine-grained, with a porosity of 20 percent and a 15 millidarcy permeability. The lower sand, known as Alpine A, is very fine grained and not quite as clean. Although these fine-grained sandstones don’t make particularly good reservoirs, the light 40 degrees API oil in the field flows easily. And following first production in November 2000 the Alpine field continues to exceed expectations, Wilson said.

“We believe that the Alpine oils are Jurassic in source,” Wilson said.

The Alpine discovery quickly triggered interest both in Jurassic exploration plays and in exploring the nearby NPR-A.

So, in 1999 the Bureau of Land Management held a lease sale in the northeast planning area of NPR-A. That was followed by another sale in 2002 and a sale in the northwest planning area in 2004. ConocoPhillips, partnering with Anadarko and Pioneer Natural Resources, bought interests in a large number of leases in these sales.

The lease purchases have led to a series of exploration wells across a swathe of territory, southwest from Alpine and out into NPR-A: Clover A, Spark 1 and Rendezvous A in 2000; Lookout 1 and Moose Tooth C in 2001; and Carbon 1 in 2004. Most of these wells encountered significant hydrocarbon accumulations in Jurassic analogues to the Alpine field.

### Subtle traps

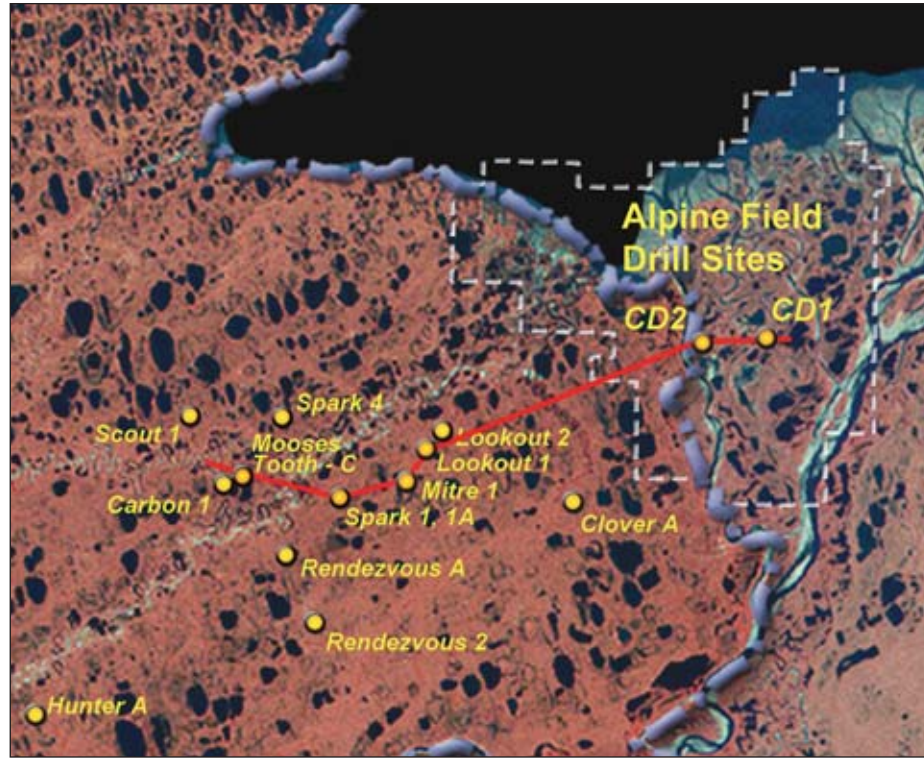
Locating these NPR-A discoveries has required state-of-the-art technology.

Using information from wells and seismic data at the Alpine field, ConocoPhillips was able to trace the Jurassic stratigraphy into seismic images of the subsurface in NPR-A. But pinpointing slivers of productive sand in thousands of feet of strata presents some formidable difficulties.

“The challenge out here was that we were looking at very subtle stratigraphic traps,” Wilson said.

Three dimensional seismic proved to be a key technology. This type of seismic involves combining data from a grid of seismic lines, rather from just single lines as in a 2D survey. The greater resolution of subsurface detail revealed in a 3D survey, as compared with a 2D survey, enables small stratigraphic features to be identified in the subsurface.

But even with high-quality seismic data, drilling can yield surprises. For example, an exploration well in one part of northeast NPR-A encountered what appeared to be 1,000 feet of the gamma ray zone, a distinctive North Slope horizon that is typically 100 to 200 feet thick. Geologists then realized that the well had encountered what people refer to as the “Fish Creek Slumps”, an area west of the Colville Delta in which some of the rock strata have become broken and jumbled. The gamma ray zone had become tipped on end, thus creating the illusion of a



Map showing the Colville River delta, the location of the Alpine field and the locations of exploration wells in northeast NPR-A

thicker rock horizon than actually existed.

One important tool in interpreting the seismic data and locating Jurassic oil and gas prospects is a depth structure map, Wilson explained. By using a prominent marker horizon known as the Nuiqsut as a datum level it is possible to reconstruct a map showing the depth of the erosion surface associated with the upper Jurassic unconformity. The Jurassic reservoir sands lie on that erosion surface.

### Ancient incisions

The map reveals a series of undulations in the upper Jurassic landforms, with deep incisions where ancient rivers had eroded into the land surface. Those incisions form complex patterns towards the Colville Delta but open into a simpler pattern of broad ridges and crests towards the west in NPR-A.

This detailed mapping from 3D seismic has changed geologists’ understanding of the subsurface structures. For example, Husky Oil drilled the North Inigok well in 1981 into a broad ridge in the Jurassic in NPR-A, to the west-southwest of the recent area of exploration activity. In 1981, using 2D seismic data, geologists interpreted the Jurassic ridge as an offshore bar in the ancient sea, Wilson said.

“What we know now, and with the 3D (seismic) ... this is an erosional remnant south of a deep incision,” he said.

And that’s a critical point when it comes to identifying oil and gas prospects — the ancient incisions formed spaces that accommodated sand accumulations that later formed stratigraphic traps.

“(Locating traps) requires detailed interpretation of erosional surfaces,” Wilson said. “... (There is) a complex set of stratigraphic traps in the area, but a very effective set of stratigraphic traps.”

Wilson showed a cross-section of

northeastern NPR-A, with wells such as Lookout A penetrating sand in the cores of the deep upper Jurassic incisions.

And a well core revealed marine reservoir sandstone containing the mineral glauconite above the sharply defined Jurassic erosion surface. Pebbles and organism burrows on that surface may indicate subaerial erosion, while siltstones and shales below the surface indicate an earlier marine environment.

### New opportunities

So, the discovery of Alpine truly opened some new opportunities that have resulted in some significant discoveries.

Wilson said that the discovery at Spark tested 1,550 barrels of oil per day and 26 million cubic feet of gas per day; Rendezvous A tested 360 barrels of oil per day and 6.6 million cubic feet of gas per day and Lookout 2 (the neighboring well to Lookout 1) tested 4,000 barrels of oil per day and 8 million cubic feet of gas per day; and Carbon 1 tested 1,250 barrels of condensate per day and 24 million cubic feet of gas per day. The low numbers for Rendezvous reflected the fact the testing was not stimulated, he said.

ConocoPhillips has not released reserves data for any of these discoveries. It’s clear, however, that the Jurassic of NPR-A has considerably more potential than people had thought not too many years ago. ●

continued from page B1

## HEARINGS

The head of the panel, Robert Hornal, was quoted by CBC as saying Jan. 6 that many of the Dene Tha’s issues are outside the scope of the panel’s work and that delaying the Mackenzie hearings won’t help anyone.

About 100 kilometers (62 miles) of the proposed Mackenzie pipeline, which would eventually carry 1.9 billion cubic feet of Arctic natural gas per day to Canadian and Lower 48 markets, crosses Dene Tha’ land in northern Alberta.

The National Energy Board has set Jan. 25 — two days after Canada’s federal election campaign — to start its proceeding in Inuvik on the Mackenzie Delta. The Joint Review Panel will begin hearings probing environmental and socio-economic issues on Feb. 14 in Inuvik.

Before 2006 is over it should be clear whether the Mackenzie Gas Project is on track for completion in 2011 or whether Canada’s northern petroleum riches will be shouldered aside by the much larger Alaska Highway gasline.

### Hearings still in jeopardy

But the hearing schedule could still be thrown off track by other unresolved aboriginal issues.

Talks with the Deh Cho First Nations could fall apart. The Deh Cho, whose land covers about 40 percent of the pipeline route, have been a persistent wild card by refusing to join other northern Native regions in settling benefits and access agreements.

Complicating matters, the K’asho, Gotine and Tulita/Deline communities have requested additional time to conclude their agreements.

—KAY CASHMAN

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