Petroleum news

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page 8 Labor and equipment in short supply for Gulf O&G recovery

WASHINGTON, D.C.

ANWR down in flames

Fiery Congressional debate marks end of fight for drilling legislation in '05

By ROSE RAGSDALE

Petroleum News Contributing Writer

ROGER HERRERA

SEN. TED STEVENS

SEN. LISA MURKOWSKI

JUDY PATRICK

After a tumultuous year of steady progress toward passage of an Arctic oil and gas drilling provision in Congress, Alaska senators Ted Sevens and Lisa Murkowski had to settle Dec. 21 for promises from congressional leaders that they will take up the issue again in the New Year.

The drilling proposal would open 2,000 acres to development on the 1.5 million-acre coastal plain of the vast Arctic National Wildlife Refuge in the northeastern corner of Alaska.

The Alaska delegation, including Rep. Don Young, R-Alaska, came closer to victory in recent weeks than it has since 1995 when both houses of Congress approved the measure only to see it vetoed by President Bill Clinton.

The Senate finally rejected the oil drilling bill

see **ANWR** *page 18*

WESTERN CANADA

Shell digs deep in Canada

Spends C$350M on Alberta, B.C. land in '05, with heavy emphasis on gas prospects

By GARY PARK

Petroleum News Canadian Contributing Writer

Shell Canada is pointing the way to Western Canada's gas future as it rounds up major land holdings in tight gas plays.

It has been at the forefront of recent bidding for properties in Alberta and British Columbia as the shift to resource plays gathers momentum and it joins the ranks of those unveiling huge, accelerated spending plans for 2006.

At the final auctions of 2005, Shell — which has hiked its 2006 capital budget by 60 percent to C$2.7 billion — spent C$185 million for about 110,000 acres in the two provinces, including C$86 million for 22,800 acres of oil sands leases.

Shell Canada President Clive Mather

But what gained the greatest attention was Shell's continued push towards a pre-eminent role in Deep Basin, a tight gas play that straddles the northern Alberta-British Columbia border, further signaling the return of Canada's second largest oil producer and refiner to the gas sector.

For C$99 million, the company picked up a 100 percent interest in seven parcels covering 66,400 acres near Hinton, in west-central Alberta, just across the border from 58,000 acres of British Columbia gas exploration lands it acquired in June for C$85 million.

Shell also acquired an interest in 20,000 acres in the northeastern British Columbia foothills that offer

see **SHELL** *page 16*

ALASKA

BLM working on NPR-A

Focus on unit regulations, old wells; different leasing program elsewhere

By KRISTEN NELSON

Petroleum News Editor-in-Chief

The Bureau of Land Management is working on revised regulations for lease extension and unitization in the National Petroleum Reserve-Alaska based on the 2005 Energy Policy Act and plans to have a draft out for public comment within a few months.

The agency put out NPR-A unitization regulations in 2002, Colleen McCarthy, deputy state director, Division of Energy and Solid Minerals, BLM Alaska, told Petroleum News.

The reaction was "pretty much universal disapproval from all the stakeholders," the State of Alaska, the oil and gas industry and the Arctic Slope Regional Corp., McCarthy said.

COLLEEN MCCARTHY

The compromise reached was embodied in the 2005 Energy Policy Act, in Section 347, which also allows for lease extension for other than producing wells. The Naval Petroleum Reserves Production Act only allowed for the extension of a lease if there was a well in production. McCarthy said that is "different than the way BLM administers this responsibility anywhere else in the country under the Mineral Leasing Act," which allows lease extension for a well "capable of producing," rather than a well which is producing. That's important, she said, because "the timeline ... from discovery to production

see **BLM** *page 19*

JUDY PATRICK

Alyeska: trans-Alaska oil pipeline hits 15 billion barrel milestone

The trans-Alaska oil pipeline marked a milestone Dec. 21 when the 15 billionth barrel of oil was received at Pump Station One on Alaska's North Slope, TAPS operator Alyeska Pipeline Service Co said. Oil began flowing through the pipeline June 20, 1977 with the first oil arriving in Valdez July 28, 1977 and the first tanker departing from the terminal Aug. 1, 1977.

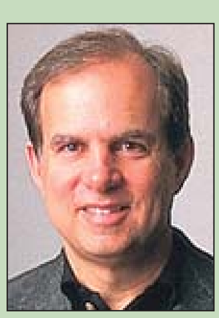
The pipeline had another milestone Dec. 14, Alyeska said, when the company's Ship Escort Vessel Response System conducted it 10,000th tanker escort with the marine tanker Polar Resolution departing the Valdez Marine Terminal under escort by the tugs Alert and Nanuq. The escort and response system was established in 1989, after the Exxon Valdez oil spill, to assist tankers through Prince William Sound and to provide rapid and effective response services to the Valdez Marine Terminal and Alaska crude oil shippers.

Peak production from the North Slope was 2.1 million barrels per day and the trans-Alaska oil pipeline currently moves less than a million barrels a day. Alyeska said that volume represents some 17 percent of U.S. crude oil production. Because some crude oil is used by in-state refiners, the 15 billionth barrel of oil isn't expected to be loaded onto a tanker until December 2007.

—PETROLEUM NEWS

Meet Alaska conference set Jan. 20

The Alaska Support Industry Alliance's annual conference, Meet Alaska, is scheduled for Jan. 20 at the Sheraton Anchorage Hotel. This year's conference is titled: "The end of the rainbow: Reaching Alaska's elusive oil and gas pot of gold."



Scott Sheffield, CEO of Pioneer Natural Resources, is one of several speakers scheduled to speak at the upcoming conference

Confirmed speakers include: William Berry, executive vice president production and exploration for ConocoPhillips; Cheryl Knight, executive director and CEO, Petroleum Human Resources Council of Canada; David MacInnis, Canadian Energy Pipeline Association; Kirk Pickerel, national president, Associated Builders and Contractors; Rob Ryan, vice president corporate affairs, the Americas, Shell Exploration and Production; Scott Sheffield, chief executive

see **CONFERENCE** *page 4*

BREAKING NEWS

5 Energy shapes Canadian economy: Economist sees possible C$19B budget surplus in Alberta, triggering a shift of money, workers

6 Tundra travel validation: DNR says seismic work in 2004-'05 under new standard resulted in no significant environmental change

12 Mac numbers game: Studies grapple with initial marketable gas resources available for a pipeline; anchor fields rated at 5.8 tcf

contents

Petroleum News | *A weekly oil & gas newspaper based in Anchorage, Alaska*

ON THE COVER

ANWR down in flames

Fiery Congressional debate marks end of drilling legislation in '05


Shell digs deep in Canada

Spends C$350M on Alberta, B.C. land in '05, with heavy emphasis on gas prospects


BLM working on NPR-A

Focus on unit regulations, old wells; different leasing program elsewhere

Alyeska: trans-Alaska oil pipeline hits 15 billion barrel milestone

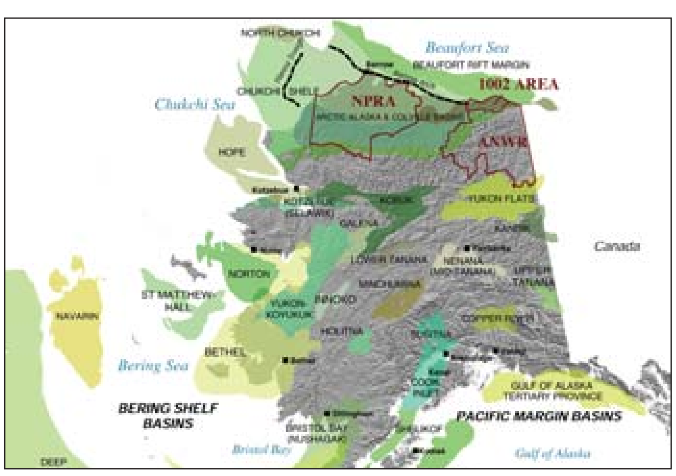
Meet Alaska conference set Jan. 20

EXPLORATION & PRODUCTION

4 '05 candidates for rigs-to-reefs triple

8 Shortage of labor for Gulf O&G recovery

Equipment also in short supply as industry works to restore platforms, pipelines damaged by hurricanes Katrina and Rita



10 Reaching Alaska's pot of gold

Remaining oil and gas in northern Alaska is likely in the range of 50-60 billion barrels for oil, 200 tcf-plus for gas, excluding hydrates

13 Upgraders on the up and up for Alberta

Canada-China venture joins three other plans to process oil sands' bitumen in Edmonton area, ignoring Imperial's message

FINANCE & ECONOMY

4 Oil prices slip below US $58 a barrel

U.S. forecasters predict warmer weather, causing prices to drop; OPEC head expects $45-$55 a barrel oil through 2007

5 Energy shapes Canadian economy

Economist points to possible C$19 billion budget surplus in Alberta, triggering a shift of money and workers

5 **SIDEBAR:** Canada heads for new gas export marks

15 OPEC likely to cut output for 2nd quarter

GOVERNMENT

6 BLM begins review of oil shale in Rockies

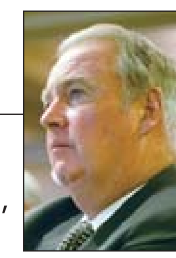
Public meetings for environmental review of oil shale development begin in January; focus on issues, not any specific site

6 Alberta stalls shift in oil sands policy

7 DNR releases tundra travel validation

Department: seismic work in 2004-05 under new standard resulted in no significant environmental change; monitoring continues

14 Big transportation projects in budget



$50 million to study linking Alaska and Canada by rail in Gov. Murkowski's proposal, along with planning for North Slope roads

14 Arctic Power plots new strategy for ANWR

15 Phillips departs EVOS Trustee Council

Reopener clause allows state and federal governments to seek additional $100 million for continuing, unforeseen spill impacts

INTERNATIONAL

5 Exploration drilling yields promising Barents Sea oil, natural gas finds

14 Bolivia's Morales to renegotiate contracts

15 Qatar contracts for $4B twin LNG plants

LAND & LEASING

13 Yukon Flats EIS scheduled to start in 2006

Land swap would consolidate Doyon Ltd. oil and gas prospects; basin has estimated 173 million barrels of oil, 5.5 tcf gas

NATURAL GAS

12 The Mackenzie gas line numbers game

More studies grapple with initial marketable gas resources available for a pipeline from Canada's Arctic; anchor fields rated at 5.8 tcf

PIPELINES & DOWNSTREAM

9 Enstar to reposition pipeline crossing

5,000-foot horizontal directional drill at Susitna River will exceed state record set by previous Beluga pipeline project

LOUISIANA

’05 candidates for rigs-to-reefs triple

Damage to offshore oil and gas platforms from Hurricanes Katrina and Rita has tripled the number of requests to convert rigs into artificial reefs in the Gulf of Mexico.

The Louisiana Department of Wildlife and Fisheries usually gets 10 to 12 requests each year to use abandoned rigs to create fish habitat. But that number has soared to 40 requests this year, Rick Kasprzak, program manager of the Louisiana Artificial Reef Program, told The Advocate of Baton Rouge for a story in Dec. 26 editions.

Oil and gas platforms in the program are located in federal waters, more than three miles off the Louisiana shore, with most between 35 and 75 miles out, clustered in nine approved planning areas. To date, 144 have been used as reefs.

This year’s hurricanes damaged another 166 rigs.

The Louisiana Artificial Reef Council will soon decide evaluation criteria for which rigs are suitable to serve as artificial reefs, Kasprzak said. The assessments include potential effects on the environment, navigation and fishing interests.

Hurricane Ivan in 2004 didn’t hit the Gulf of Mexico nearly as hard, passing over about 150 platforms, said Larry Wall, a spokesman for the Mid-Continent Oil and Gas Association. Hurricane Katrina swept over 1,500 platforms, and Hurricane Rita passed over 1,600, he said.

—THE ASSOCIATED PRESS

continued from page 1

CONFERENCE

officer, Pioneer Natural Resources; and Dr. Pedro van Meurs, international oil and gas consultant.

James Bowles, president of ConocoPhillips Alaska Inc. and Steve Marshall, president of BP Exploration Alaska Inc., will present local industry updates.

Alaska Gov. Frank Murkowski has been invited to speak.

The last event of the day is called “Turning the tables on Meet the Press.” Alliance board members will address questions to John Tracy, KTUU-TV news director; Patrick Dougherty, Anchorage Daily News editor; Steve Heimel, Alaska Public Radio senior reporter and producer; and Kay Cashman, Petroleum News executive editor.

For registration information go to http://alaskaalliance.com or call the Alliance at (907) 563-2226.

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Dan Wilcox	PUBLISHER & CEO
Mary Lasley	CHIEF FINANCIAL OFFICER
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Kristen Nelson	EDITOR-IN-CHIEF
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Tim Kikta	CIRCULATION REPRESENTATIVE
Dee Cashman	CIRCULATION REPRESENTATIVE

ADDRESS
P.O. Box 231651
Anchorage, AK 99523-1651

EDITORIAL
Anchorage
907.522.9469

Editorial Email
Anchorage
publisher@petroleumnews.com
Canada
farnorth@petroleumnews.com

BOOKKEEPING & CIRCULATION
907.522.9469
Circulation Email
circulation@petroleumnews.com

ADVERTISING
907.770.5592
Advertising Email
scrane@petroleumnews.com

CLASSIFIEDS
907.644.4444

FAX FOR ALL DEPARTMENTS
907.522.9583

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● VIENNA, AUSTRIA

Oil prices slip below US $58 per barrel

U.S. forecasters predict warmer weather, causing prices to drop; OPEC head expects $45-$55 a barrel oil through 2007

By GEORGE JAHN
Associated Press Writer

Crude futures fell Dec. 27 in thin post-Christmas trading, after U.S. forecasts of milder weather in the week ahead raised traders’ expectations of lower demand for heating fuels.

Prices fell despite the latest figures showing a drop in heating oil stocks.

Light, sweet crude for February delivery slipped 53 cents to US$57.90 a barrel on the New York Mercantile Exchange by afternoon in Europe. The contract on Dec. 23 rose 15 cents to settle at US$58.43 a barrel. On Dec. 26, the market was closed for the Christmas holiday.

Brent crude was down 50 cents at US$56.19 on the ICE Futures exchange.

According to Accuweather.com, temperatures in most of the United States apart from the Northwest will be higher than normal in the next six to 10 days.

“The weather is unusually passive for late December,” the forecaster said.

Milder weather in the world’s largest energy consumer means less heating fuel consumption, which tends to put a downward pressure on oil prices.

The week of Dec. 19 the U.S. petroleum snapshot showed the supply of crude oil rose by 1.3 million barrels to 322.5 million barrels — 12 percent above year ago levels.

But U.S. inventories of distillate fuel, which include heating oil and diesel, fell by 2.8 million barrels to 127.7 million barrels. Gasoline inventories declined by 300,000 barrels to 204.1 million barrels.

“The weather factor seems to have outpaced the stock-draw of gasoline and distillates in the U.S.,” noted Vienna’s PVM Oil Associates in its daily energy market report.

Prices reacting to weather

Crude futures have in recent weeks been reacting to fluctuations in Northern Hemisphere temperatures, especially in the U.S. Northeast, the world’s biggest heating oil market.

“Ever since winter officially began last week, the weather in the Northeast (and across much of the country) has gone the other way. It’s not that we’re having a heat wave in the Northeast, but we are certainly in a different regime than we were earlier in the month,” said Accuweather forecaster Elliot Abrams in a report.

Milder weather in the world’s largest energy consumer means less heating fuel consumption, which tends to put a downward pressure on oil prices.

Abrams said he did not expect any more snow storms to hit the country in 2005.

Nymex heating oil lost 2.58 cents to trade US$1.6795 a gallon while gasoline declined 1.63 cents to US$1.5343 a gallon.

Natural gas, which is most commonly used to heat homes in the Midwest, slipped 93.3 cents to US$11.350 per thousand cubic feet. The contract reached an all-time high of US$15.78 per mcf in mid-December on cold weather and predictions of snow storms.

The price of crude is 19 percent below its all-time high of US$70.85 after Hurricane Katrina made landfall on Aug. 30.

OPEC, Russia to meet annually

In news that could affect longer term prices, OPEC, which over the past year has tried to reduce market volatility by raising or lowering production, announced that it and Russia, the largest non-OPEC oil exporter, would meet annually on the ministerial level to coordinate policies.

The announcement followed a meeting in Moscow between OPEC’s outgoing president, Sheikh Ahmad Fahad Al Ahmed al-Sabah and Russia’s minister of industry and energy, Viktor Khristenko.

Dow Jones reported Dec. 27 that Sheik Ahmad told the Russian paper Vremya Novostei that OPEC expects oil prices to be between $45 and $55 a barrel through 2007. The sheikh said oil production may rise after two years, and then prices will depend on demand.

“If it increases, prices will go even higher. If not, they will fall a little bit,” the sheikh said.

Sheikh Ahmad said OPEC will meet Jan. 31 to consider lowering production in the spring. ●

● CANADA

Energy shapes Canadian economy

CIBC chief economist points to possible C$19 billion budget surplus in Alberta, triggering a shift of money and workers

By GARY PARK

Petroleum News Canadian Contributing Writer

An economic gulf is opening in Canada between those who produce oil and natural gas and those who merely consume the resources.

Forecasting that oil prices will jump about 20 percent in 2006 to US$70 per barrel and gas prices will get pulled along to US$13 per million British thermal units, CIBC World Markets predicts that the four dominant petroleum-producing provinces — Alberta, British Columbia, Saskatchewan and Newfoundland — will all exceed Canada's 2.9 percent Gross Domestic Product increase in 2006.

The other six will hover between 1.5 percent and 2.5 percent, while Alberta rockets to 7.1 percent, Newfoundland hits 6 percent, British Columbia edges above 4 percent and Saskatchewan reaches 3.7 percent.

For the most populous and industrial provinces of Ontario and Quebec, GDP will flounder under 2 percent and their economic growth slows under the weight of high energy prices, rising interest rates and a stronger Canadian dollar.

Alberta: the money pours in

For Alberta it shapes up as a case of the province attaining a level that most governments and individuals dream of — it just sits back and watches the money pour in.

CIBC chief economist Jeffrey Rubin said Alberta's budget surplus could climb to breath-taking levels of C$19 billion, giving the province the ability to eliminate income taxes entirely and skew the national economy in the process.

Rubin expects there will be at least some tax cuts, opening the door to an exodus of corporate head offices from Toronto to Calgary.

He said "people and capital will vote with their feet," turning Alberta into a haven for money and workers.

The Toronto-Dominion Bank differs with the CIBC only in degree, said TD deputy chief economist Craig Alexander.

His bank is counting on oil easing to US$50 per barrel as the U.S. economy gears down, but even at that level Alberta will continue to accumulate budget surpluses in the billions and its economy will expand by 3.7 percent.

A further downside for Ontario and Quebec in particular is the prospect that Alberta's rapid expansion will force the Bank of Canada to hike interest rates to head off inflation.

Alberta expected to have record exports

Unless oil and natural gas prices take a tumble, Alberta expects to exceed a jaw-dropping C$70 billion in goods and service exports in 2005, eclipsing the record C$66 billion set in 2004.

To the end of October, Alberta exports had tallied C$63.2 billion, up 16 percent from the same period of 2004, according to Canadian government departments.

Economic Development Minister Clint Dunford said the returns are "probably without precedent in Canada."

He conceded energy has a "lot to do with it, but Alberta also benefits from higher productivity levels than the rest of Canada.

The statistics show that energy shipments from Canada netted C$9.2 billion in October alone, shouldering aside the perennial leaders — manufactured goods at C$7.9 billion and automobiles C$7.8 billion — contributing to Canada's overall trade surplus for the month of C$7.2 billion.

Higher natural gas exports were the "main contributor" to a 2.3 percent gain in U.S.-bound exports during the month, while shipments to all of Canada's other trading partners fell a combined 4.5 percent.

Rising oil and gas prices have underpinned a surge in the value of the Canadian dollar this year against its U.S. counterpart. It has climbed 5.6 percent this year and 37 percent since the start of 2003.

But Rubin warned that if the dollar climbs from its latest peak of 87.45 cents against the U.S. dollar to 90 cents, Canada's manufacturing sector will take a hit. ●

Canada heads for new gas export marks

The value of Canadian natural gas exports to the United States was rapidly closing in on a new record with three months of the year left, according to the latest data from the National Energy Board.

To the end of September, revenues from exports were just C$3.5 billion short of the 12-month record of C$26.7 billion established in 2004.

Statistics from the regulator showed exports for the January-September period fetched C$23.21 billion, C$3.87 billion ahead of the same pace last year.

Export prices for September averaged C$10.47 per gigajoule, up close to 81 percent from 2004's comparable returns of C$5.80, while the nine-month average was C$7.84, up C$1.09 per gigajoule.

Canadian gas accounts for 85 percent of U.S. imports, "demonstrating again the importance of Canada's natural gas industry to meeting U.S. demand," said the U.S. Energy Information Administration.

September volumes were 299 billion cubic feet, 3.8 percent higher than the same month of 2004, but the only increases were posted in the Pacific Northwest, up 28.6 percent to 33.4 bcf, and the Northeast, up 17 percent at 105.6 bcf. The Midwest was off 4.3 percent at 121.5 bcf.

—GARY PARK

BARENTS SEA

Exploration drilling yields promising Barents Sea oil, natural gas finds

An exploration well drilled off Norway's northern tip has hit promising oil and natural gas reserves in the Barents Sea, a project partner announced Dec. 21.

The small Norwegian oil company DNO did not estimate the size of the far north find.

"It's a little too early to say," DNO managing director Helge Eide told the Associated Press. "But it is positive."

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

The state radio network NRK said there is enough oil to make development possible, which it said could make the field, called Goliat, the first oil field developed in the Norwegian sector of the Barents Sea.

NRK reported preliminary estimates of 100 million barrels of oil, which it said was not a huge find but was enough to be commercially exploited.

Goliat is about 85 kilometers (50 miles) northwest of Norway's northernmost town, Hammerfest, and is in an area environmentalists say is too ecologically sensitive to withstand oil production.

"The Goliat field is in one of the Barents Sea's most vulnerable and valuable nature areas," said the conservation group WWF in a statement. "WWF demands that the government reject any application to develop the field."

Norway has been encouraging exploration

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

DNO broke Norwegian tradition by announcing the find before the Norwegian Petroleum Directorate was informed and make the news public.

Project operator ENI Norge AS, the Norwegian subsidiary of Italian oil company Eni, declined comment until it had formally notified the government directorate.

Eide said DNO felt bound to release the information immediately under Norwegian stock market laws requiring full disclosure.

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

—THE ASSOCIATED PRESS

ALBERTA

Alberta stalls shift in oil sands policy

The Alberta government has backed away from a controversial plan to give the "highest priority" to oil sands mining over other forms of development across a broad swath of the province's north — a strategy shift that critics argued would have reduced environmental protection and wildlife.

Energy Minister Greg Melchin

Instead of proceeding with three public workshops in January and an Internet consultation, the government has asked a group led by a member of the Alberta legislative assembly and including representatives of industry, environmental groups and five Athabasca Tribal Council First Nations to take a fresh look at the public consultation process.

Critics said the scope of that process was too restricted given the major shift in government policy that was being proposed.

Oil sands would have been managed as one development zone

The Mineable Oil Sands Strategy, developed by the energy, environmental and sustainable resource departments, proposed that oil sands exploitation should be managed in one development zone, rather than project-by-project.

Energy Minister Greg Melchin said the strategy would give regulators, industry and the public a "clearer understanding of how development and land reclamation will be managed in the mineable development zone."

Officials of the Pembina Institute for Appropriate Development and the Sierra Club said the plan was an abdication of environmental responsibility and posed a threat to the region's boreal forest and the people who live, fish and hunt in the area.

Chris Severson-Baker, director of Pembina's Energy Watch program, said the policy shift would result in less environmental protection, without containing any provision for compensation.

He said the strategy also bypassed work under way by a multi-stakeholder Cumulative Environmental Management Association to identify the best ways to manage the impact of oil sands development.

A spokesman for the environment department said that when the review group delivers its findings by March 31, the government could be forced to rethink its plan, which he conceded was seen by some as being imposed unilaterally.

Some groups are hoping the new round of hearings will include sessions in Calgary and Edmonton as well as the oil sands region.

—GARY PARK

● DENVER

BLM begins review of oil shale in Rockies

Public meetings for environmental review of oil shale development begin in January; focus will be on issues, not any specific site

By JUDITH KOHLER

Associated Press Writer

The Bureau of Land Management has launched an environmental review intended to guide oil shale development on huge stretches of federal land in Colorado, Wyoming and Utah over the next several years.

The BLM, which oversees millions of acres in the three states, has 18 months to gather public comments and complete an environmental impact statement. The push, mandated in a federal energy bill, comes more than two decades after the first oil-shale boom busted, leaving western Colorado's economy reeling for years.

Soaring oil prices and demand are behind the revived interest in trying to tap the large reserves of oil trapped in rock and sand.

Colorado BLM state chief Sally Wisely said Dec. 19 the public meetings that start Jan. 10 and the comment period will allow the agency to consider the potential environmental, social and economic impacts of development while giving the country a chance to reap the benefits of "energy availability, reliability and security."

Review programmatic

The BLM will conduct a programmatic environmental review, meaning that it will be an overview of various issues rather than a study of a specific project at specific site. The Interior Department estimates there are about 16,000 square miles of oil shale lands, or more than 10 million acres, in western Colorado, northeastern Utah and southwestern Wyoming.

Environmentalists and a county commissioner in western Colorado said it's important for the public to weigh in on development that could have profound effects in a region already undergoing widespread natural gas drilling.

Matt Sura of the Western Colorado Congress, a conservation group, said he was glad to see Congress in mid-December scuttle a proposal to speed up leasing of oil-shale lands. He said the provisions by the House Resources Committee would have turned any environmental review into mere window dressing.

Still, Sura questioned whether the government is moving too quickly.

"One of the more troubling things is there isn't really any technology in place that works for extracting oil shale," Sura said. "They're looking at these impacts in the dark."

Congress created the Synthetic Fuels Corp. in the 1970s to find more domestic sources of oil after oil prices shot up and appropriated billions of dollars for development.

Shell working in Rio Blanco County

Shell Exploration & Production Co. is trying to free the oil from shale at a site in Rio Blanco County by using heating rods drilled into rock. The company, however, figures it is about five years away from proving the technology or deciding whether to build a commercial-scale operation.

Sura said he believes the potential environmental impacts would be more extreme than those from conventional oil and gas development because of the large amounts of water and energy needed to process oil shale. He said extracting the oil could require large open-pit mines and disposal of "a tremendous amount of waste rock."

A study released in August by the RAND Corp. cited some of the same concerns. The report, sponsored in part by the Energy Department, said while the economic benefits could be great, significant environmental problems could occur.

Local concern over '82

People who lived through the oil shale bust of the 1980s are leery of the kind of economic devastation that occurred when the fledgling industry failed despite huge government subsidies. They refer to "Black Sunday," when Exxon closed its $5 billion oil shale project near Parachute on May 2, 1982, putting 2,200 people out of work.

"To avoid another social and economic catastrophe in the western region rich in oil shale, impacted stakeholders need to be involved from the beginning in this federal process to ensure that all sides and views are fully heard, understood, analyzed and considered," Garfield County Commissioner Tresi Houpt said.

Kathy Hall of the Colorado Oil and Gas Association, an industry group, said a lot has changed since the 1980s. She said she expects energy companies to be more careful this time, in part because private funds will be fueling the operations.

Congress created the Synthetic Fuels Corp. in the 1970s to find more domestic sources of oil after oil prices shot up and appropriated billions of dollars for development.

"I also think local communities are a lot better prepared this time," said Hall, a former Mesa County commissioner. ●

● NORTH SLOPE

DNR releases tundra travel validation

Department: seismic work in 2004-05 under new standard resulted in no significant environmental change; monitoring continues

By KRISTEN NELSON

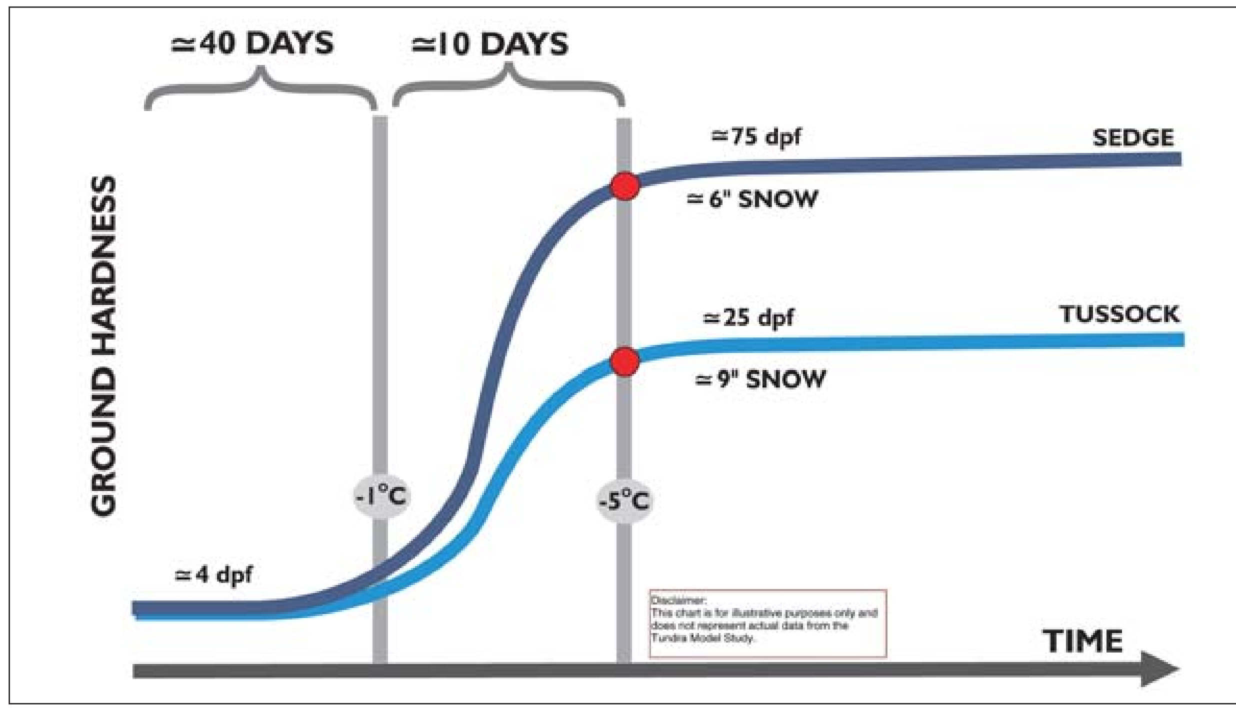
Petroleum News Editor-in-Chief

The Alaska Department of Natural Resources said Dec. 23 that a study of the impact of seismic work done in the winter of 2004-05 shows its new standards for allowing exploration on frozen North Slope tundra are proving reliable in protecting the tundra.

The state's new standard, developed as a result of work completed in October 2004, limits tundra travel to areas where the soil has reached minus 5 degrees Centigrade at a 12-inch depth, and there is six inches of snow cover in coastal areas and nine inches in the foothills. The standard was developed with support from the U.S. Department of Energy, Yale University's School of Forestry, the Alaska Oil and Gas Association and oil and gas companies.

The verification study looked at areas where seismic exploration was done in 2004-05; the state is also continuing to monitor the experimental plots used for the original study.

The follow-up study was produced for DNR's Division of Mining, Land and Water under contract by Harry Bader, project consultant, Betula Consulting of Alaska. Bader was formerly northern region land manager for the Division of Mining, Land and Water and headed up the original study which resulted in the 2004 change in how the dates for tundra openings are determined.



ALASKA DEPARTMENT OF NATURAL RESOURCES

The Alaska Department of Natural Resources formerly measured ground hardness using a drop hammer. Following completion of a study in the fall of 2004, the department began measuring ground hardness by measuring ground temperature. Snow cover is also a requirement before the tundra is opened for travel.

Report: standard prevented significant environmental change

The Betula Consulting report says the department's new standard, "derived from the model prediction (developed in the study), resulted in preventing significant environmental change as a consequence of overland vehicle travel pursuant to hydrocarbon exploration under actual working conditions."

The report also said "no delayed effects" were observed in the second year after treatment in the experimental plots.

The report notes that the department's new standards for opening the tundra were generated in "an empirical study under controlled field conditions," and the department validated the results in the winter of 2004-05, testing predictions "under routine activity as conducted by geotechnical companies in the normal course of actual seismic exploration." The tundra disturbance from 2004-05 winter seismic work was evaluated in the summer of 2005, along with a continued evaluation of the original study plots.

Validation study in collaboration with Veritas

The department selected a validation study site in collaboration with Veritas, a Canada-based seismic exploration company. The site was approximately 11 miles south and nine miles west of the Deadhorse airport, close enough to the Dalton Highway that department staff could access it by snow machines, had topographic variability, proximity to University of Alaska ground temperature monitoring stations and was free of prior disturbance.

In exchange for confidentiality, Veritas provided coordinates of the survey where receiver and source lines crossed. The report said such intersection points are crossed once by a vibrator (a track vehicle containing a pedestal which vibrates against the ground) and twice by vehicles laying out and picking up receiver lines. A seismic operation typically creates more than 2,000 miles of combined source and receiver lines in a season.

The department sent staff to 12 intersection points selected from among the 1,000 provided by Veritas in advance of the seismic work, but the study areas were left unmarked "so as not to alert seismic crew of their location. Blowing wind and snow obscured all trace of the measure work by the time crews came in contact" with the study areas some 24 hours later. Department staff collected snow depth, snow slab thickness and ground hardness data in advance of the seismic work.

Sites marked later

Two months later department staff returned in a track vehicle and re-surveyed and marked the locations with metal rods pounded into the frozen ground. The report noted that the Haagland tracked vehicle used by the department represented an additional pass over the points, with the potential for greater disturbance than under exploration conditions.

In July 2005 the department flew to the sites by helicopter and measured depth of the active layer and soil moisture.

The department's modeling study (completed in October 2004) "anticipated that a snow cover of 15 cm and a ground soil temperature of minus 5 degrees C throughout a 30 cm deep soil profile would ameliorate the effects of cross country travel over sedge dominated tundra by exploration equipment."

Prior to exploration equipment traveling over the 2004-05 study areas, the department found an average snow depth of 19 centimeters and a ground temperature of minus 8 degrees C at the surface, minus 7.5 degrees C at a 15 centimeter depth and minus 7 degrees C at a 30 centimeter depth.

The report said when the department evaluated the area in the summer it found "no statistically significant differences" between areas where seismic vehicles passed and control areas with no vehicle passage.

Long-term monitoring

The report also evaluated summer 2005 measurements at the experimental plots evaluated for the 2004 study, with comparisons between the treatment and no treatment plots.

In its first (2004) report the department found statistically significant changes in soil moisture and depth of active layer between no treatment plots and plots traveled by a tractor when the ground temperature was warmer than minus 5 degrees C and snow depth less than 15 centimeters in wet sedge tundra and less than 23 centimeters in tussock tundra. The report said 2005 monitoring found "resiliency in these same plots" with the difference between the treatment and no treatment plots converging.

Differences between treatment and no treatment plots in 2005 were no longer statistically significant in the sedge tundra, the report said. While there were still statistically significant differences between depth of active layer and soil moisture in the tussock tundra tractor plots in the foothills, both "actual and relative differences in depth of active layer" between treatment and no treatment plots declined from 2004 to 2005.

The report said that based upon 2005 findings at the experimental plots, the department "is confident that no new manifestations of disturbance type or trend have developed in the study plots." The department does not anticipate new disturbance indicators, but will continue to take monitoring measurements at the plots. ●

● GULF OF MEXICO

Shortage of labor for Gulf O&G recovery

Equipment also in short supply as industry works to restore platforms, pipelines damaged by hurricanes Katrina and Rita

By BRAD FOSS

Associated Press Business Writer

There is no shortage of work these days for Bay Ltd., which specializes in repairing offshore oil and gas platforms. The trouble is, the same hurricanes that slammed the Gulf of Mexico's energy infrastructure and created this extra business also upended the company's southern Louisiana work force.

"If we had more people, we could definitely get more work," said Mark Comeaux, manager of Bay's fabrication plant in Belle Chasse, La., just south of New Orleans. Comeaux, who lost half of his 80-person crew after hurricanes Katrina and Rita, said employees either moved away or they found better-paying blue-collar jobs once federal reconstruction funds began flowing to the region.

Enough work, not enough workers — a familiar refrain among companies supporting the Gulf's oil and gas industry. It underscores one of several major problems the industry faces as it struggles to rebuild a complex web of platforms, pipelines and processing plants before the next hurricane season arrives.

Labor and equipment shortages

With demand outstripping supply for everything from inspection and repair crews to supply ships to power tools, the price for all of these things is going up. Also on the rise are wait times for some much-needed oilfield services and equipment as competing oil and gas producers sign longer than usual contracts in order to avoid finding themselves at the back of the line.

"There's so much work down here for diving it's unbelievable," said Jeff Sikut, president of Avondale, La.-based J&J Diving, an underwater pipeline inspection and repair company that is turning away two to three potential new customers a day. Sikut said he'd love to hire an additional 50 divers and take on additional work, but the available labor pool is extremely shallow and those who would consider relocating to southern Louisiana often cannot find reasonably priced housing.

Another very important platform for the region is Royal Dutch Shell Group's Mars platform, which was producing 130,000 barrels per day of oil and 150 million cubic feet a day of natural gas pre-Katrina. Mars, which suffered extensive damage, is expected to resume operations in the second half of 2006.

Labor and housing isn't all that's scarce. Sikut said projects have been slowed by the shortage of hydraulic and pneumatic tools _ a byproduct of soaring construction demand throughout the Gulf Coast — as well as a tight market for the jet pumps that are used to move sand in order to bury pipelines.

Even when all the best crews and equipment are available, it is slow going.

"There are boats sunk everywhere. Platforms were mangled, and the pipelines look like spaghetti," Sikut said.

Progress being made

To be sure, oil and gas producers have made significant progress in restoring production in spite of these challenges.

"The impression we're getting from our members is that it's going even better than expected," said Larry Wall, a spokesman for the Baton Rouge-based Louisiana Mid-Continent Oil and Gas Association.

Still, about a quarter of the Gulf's daily oil output, and one-fifth of its natural gas output, remains offline and the pace of progress is expected to slow in the months ahead, a trend that could keep upward pressure on energy prices.

The region's daily output of oil and natural gas is not anticipated to reach pre-hurricane levels until next summer. It could be at least two years before all of the damaged energy infrastructure in the Gulf of Mexico is fixed, those involved in the recovery effort say.

Todd Hornbeck, chairman and founder of Covington, La.-based Hornbeck Offshore Inc., believes that if current weather patterns persist and more oil and natural-gas drilling occurs in the Gulf — a region he called "hurricane alley" — the industry may find itself in a "perpetual repair cycle."

However, Hornbeck said the current labor crunch shouldn't come as a surprise. It is partly a reflection of the industry's history of boom and bust cycles, whereby employees laid off during periods of low energy prices move on to other skilled professions and do not return.

Thunder Horse, Mars to have large impacts

About 110 of the Gulf's roughly 4,000 production platforms were destroyed by Katrina and Rita and some may never be rebuilt, industry and government officials said.

"There were a fair number of those platforms that were destroyed that were very low producers, so if they do not come online it doesn't mean we cannot get back to a pre-hurricane level," said Gary Strasburg, a spokesman at the Minerals Management Service.

Yet even the platforms that are eventually rebuilt will not all be in place by the middle of next year. Instead, in order to get back to pre-hurricane levels by then, the industry is relying on the addition of one major platform that was under construction prior to Katrina and Rita — BP's Thunder Horse.

Once up-and-running in the second half of 2006, Thunder Horse will have the capacity to produce as much as 250,000 barrels per day of oil and 200 million cubic feet a day of natural gas. It is equivalent to more than half of the region's daily oil production still offline, and almost 10 percent of the daily natural-gas production offline.

Another very important platform for the region is Royal Dutch Shell Group's Mars platform, which was producing 130,000 barrels per day of oil and 150 million cubic feet a day of natural gas pre-Katrina. Mars, which suffered extensive damage, is expected to resume operations in the second half of 2006.

Some 150 pipelines damaged

Restoring oil and natural-gas production to pre-hurricane levels isn't simply a matter of repairing and rebuilding platforms.

About 150 pipelines that gather and transport oil and natural gas from offshore wells were damaged by the back-to-back storms, according to federal statistics. That is 50 percent more pipeline damage than Hurricane Ivan caused in the summer of 2004.

London-based BP says its daily output was down by 135,000 barrels of oil equivalent per day in the third quarter and it expects to be down 160,000 in the fourth quarter, in large part because of problems with pipelines.

Another key bottleneck exists onshore, in the form of damaged natural-gas processing plants.

Dominion Resources had been pumping 435 million cubic feet of natural gas per day before Katrina and is now producing slightly more than that, but still 15 percent short of its goal of 525 million cubic feet by now, due to the processing shortfall, said spokesman Dan Donovan.

Gas Daily, a trade publication, reported late last month that nine plants with 5.7 billion cubic feet of processing capacity remained shut down because of storm damage.

The Minerals Management Service, a division of the Interior Department that regularly gathers such information from the industry, is expected to release a comprehensive update on the region's recovery before the end of the year, a spokesman said. ●

● COOK INLET

Enstar to reposition pipeline crossing

5,000-foot horizontal directional drill at Susitna River will exceed the state record set by a previous Beluga pipeline project

By ALAN BAILEY

Petroleum News Staff Writer

The rapid westward migration of the east channel of the Susitna River is forcing Enstar Natural Gas Co. to reposition more than a mile of the Beluga gas line that carries natural gas from the west side of the Cook Inlet to the Matanuska-Susitna Borough and Anchorage. The pipeline crosses the river near its mouth at the north end of the Cook Inlet. At the crossing point the river consists of three major channels, the west, middle and east channels, in the river's flood plain.

"You have a five-mile floodplain there with three channels and probably 90 percent of the water goes down this east channel," John Lau, Enstar's director of transmission operations, told Petroleum News. "The whole (east) river channel is moving sideways — it's washing away for about a mile upstream (of the pipeline crossing)."

Enstar is moving the crossing to an alignment about 40 feet north of its current location in a project that involves drilling a 5,000-foot horizontal hole that will accommodate the 20-inch pipeline 60 feet below the river bed. Including trenched sections beyond the ends of the buried pipeline, 5,400 feet of the pipeline will be repositioned.

The project resembles the 2004 repositioning of the middle channel crossing — that project involved a 4,305-foot horizontal directional drill, a state record at the time.

Conam Construction Co. will be the general contractor for the $5 million east channel project, with ARB Inc. doing the directional drilling, Lau said. Enstar has applied to the Alaska Department of Natural Resources for a coastal consistency review for the project and public comments for the review are due on or before Jan. 4.

1993 crossing threatened

Enstar constructed the current east channel crossing in 1993 using a 3,400-foot directional drill, as a consequence of erosion of the west bank of the channel since installation of the pipeline in 1984. The company set the entry point for the directional drill 600 feet back from the channel, a distance that seemed more than adequate at the time, Lau said.

But exceptionally large volumes of water coming down the river in recent years have accelerated the river erosion. Last year there was a big runoff in the spring and another heavy flow in August, Lau said.

"We lost about 150 feet in two years," he said.

The channel has now migrated 400 feet from its 1993 location and, at present rates of erosion, could threaten the current pipeline crossing as soon as the spring of 2006. A loss of as little as 70 feet of additional riverbank would bring the bed of the river dangerously close to the pipeline as it transitions upwards to the surface tie-in at the west end of the crossing. So, with Southcentral Alaska's dependence on the natural gas that passes through the pipeline, repositioning of the crossing has become urgent.

"This time we're going back 2,000 feet (from the channel's west bank)," Lau said.

On the east side of the channel the tie-in to the crossing will be set back about 400 feet from a small river channel off the main channel.

ALASKA PIPELINE CO.

Route of the relocated Beluga pipeline crossing of the east channel of the Susitna River.

Mature technology

Fortunately the maturing of directional drilling technology over the past few years has eliminated much of the risk from this type of project, Lau said.

"The drillers didn't seem too alarmed — they just looked at it and said okay," Lau said.

In fact, worldwide, there have been horizontal directional drills as long as 6,500 feet to install similar 20-inch pipe, Lau said.

Pulling pipe through this length of hole requires a powerful horizontal drilling rig. The 1993 installation of the east channel crossing used a 330,000-pound rig but ran into problems pulling the pipe. For this new crossing the contractor will be bringing a 750,000-pound rig, a size well in excess of the contract's minimum requirement of 500,000 pounds.

But drilling the initial pilot hole that's then reamed out to accommodate the pipeline is actually more challenging than pulling the pipe through the hole, Lau said. It's critical that the pilot hole follows the precise design path of the crossing and that it surfaces at the correct tie-in point. Unlike directional drilling of an oil well, a shallow horizontal drill uses electromagnetic technology to locate the position of the drill bit and, hence, guide the directional drilling.

"They put a (wire) grid on the surface and it detects where the bit is," Lau said.

However, the silty sands in the river floodplain should work to the project's advantage by keeping the hole stable.

"Once the pilot's across the risk factor is down," Lau said.

Weather challenges

The need for cold weather actually presents a bigger challenge than the drilling, Lau said. Cold winter conditions are vital for the construction of ice roads and ice bridges that will enable equipment to reach the work site some 12 miles west of the road system to the west of Goose Bay on the Knik Arm. The ice road route lies along the pipeline right of way.

Although the warm December weather that Southcentral Alaska has been experiencing is cause for concern, a cold November enabled snow machining of a route to the site; good progress in ice road construction should enable project completion this winter.

"Nature did its thing — we have a great ice road out there," Lau said. "We're working on the ice bridges and they're coming along. If we have a reasonably cold January, February there shouldn't be any risk."

But how long will this new crossing last, before it, too, is overtaken by the eroding river? Lau said that the 2,000-foot setback should protect the crossing for at least several decades.

"Even if we lose 40 feet a year we've got a 50-year pipeline," he said.

And with most of the river water coming down the east channel, the other two channels shouldn't present a problem. The 2004 relocation of the middle channel crossing has dealt with problems there and the west channel hasn't moved at all for many years, Lau said. It's the east channel that has caused most of the concern.

"We've known for years that we're going to come back out to this one," Lau said. "It's not a surprise." ●

● ALASKA

Identifying Alaska's pot of gold

Remaining oil and gas in northern Alaska is likely in the range of 50-60 billion barrels for oil, 200 tcf-plus for gas, excluding hydrates

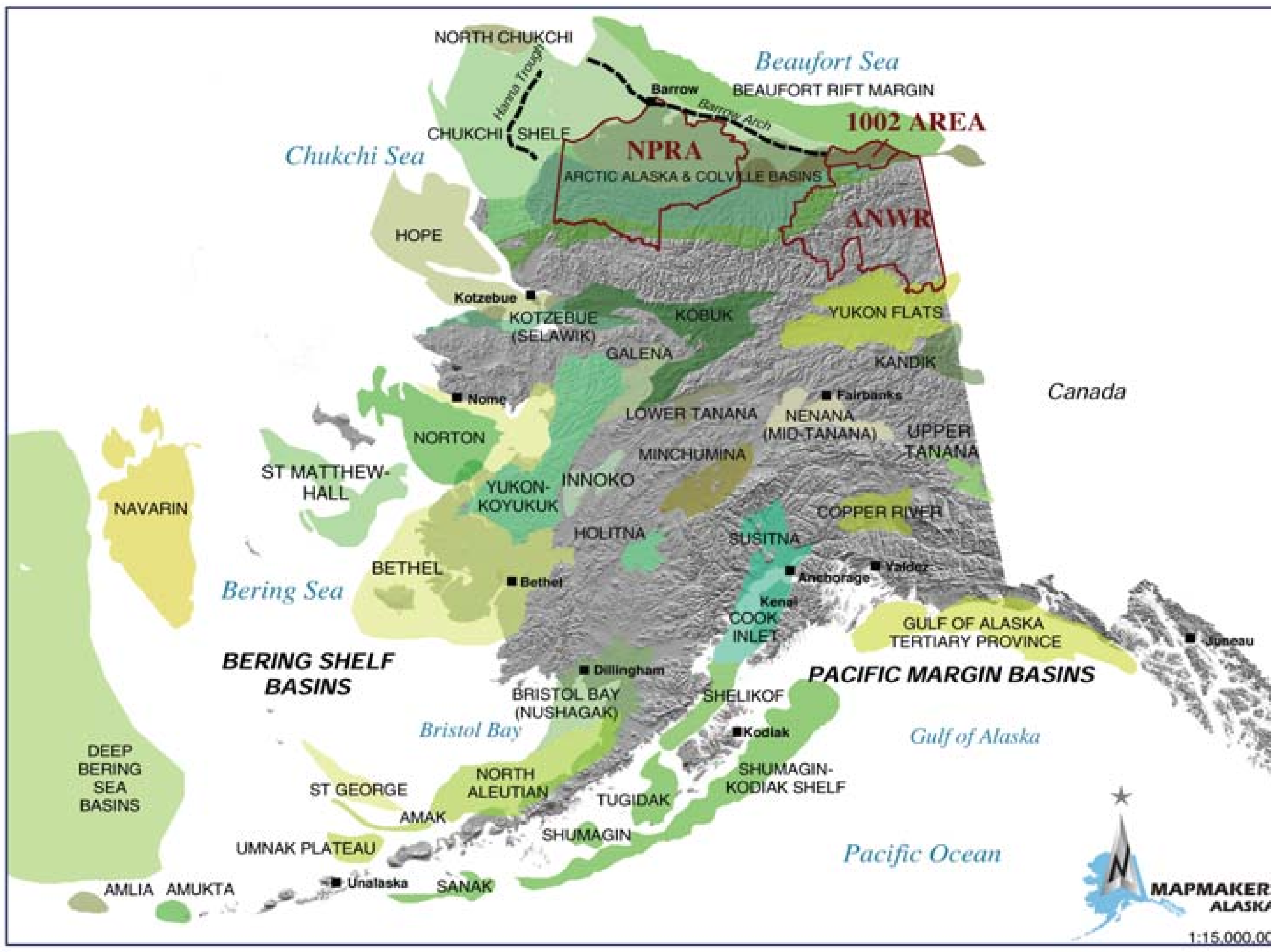
By KAY CASHMAN

Petroleum News Executive Editor

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

1 2 SERIES

In the northern part of the state more than 15 billion barrels of oil have been produced from the central North Slope since the start-up of the trans-Alaska pipeline in 1977. What remains now that the giant Prudhoe Bay field has hit a new output low, dropping from a peak of 1.6 million barrels a day to an average of 381,000 barrels per day in fiscal year 2005 and overall North Slope production has dropped to an average of 916,000 barrels per day from 2 million barrels in the same period?



Generalized oil and gas basins/provices in Alaska

USGS assessment

According to a 2005 U.S. Geological Survey assessment there is a possibility of 4 billion barrels (mean average) of undiscovered, technically recoverable oil between the National Petroleum Reserve-Alaska and the Arctic National Wildlife Refuge — that's north of the Brooks Range to the boundary of the outer continental shelf (federal waters).

And a possibility of 33.3 trillion cubic feet (mean average) of undiscovered, non-associate natural gas and a mean of 4.2 tcf of associated natural gas and 387 million cubic feet of natural gas liquids in the same area.

A 2002 USGS assessment of NPR-A indicated mean recoverable oil reserves of 10.6 billion barrels and mean recoverable gas reserves of 61.4 billion cubic feet for that region — numbers that top agency personnel have since indicated could be low because of public information gleaned from recent discoveries in NPR-A.

see GOLD page 16


The End of the Rainbow
Reaching Alaska's elusive oil & gas pot of gold
FEATURED SPEAKERS
• Governor Frank Murkowski (invited)
• William Berry, Executive Vice President, Production & Exploration, ConocoPhillips
• Kirk Pickerel, National President, Associated Builders & Contractors
• Rob Ryan, Vice President, Corporate Support, the Americas, Shell Exploration & Production
• Scott Sheffield, CEO, Pioneer Natural Resources
• Dr. Pedro Van Meurs, international energy consultant
LOCAL INDUSTRY UPDATES:
• James Bowles, President, ConocoPhillips Alaska, Inc.
• Steve Marshall, President, BP Exploration Alaska Inc.
SPECIAL SEGMENT
Turning the Tables on Meet the Press
A panel from the Alliance cross-examines the media on their coverage of the Alaskan oil and gas industry.
FEATURING:
• John Tracy, News Director, KTUU-TV
• Patrick Dougherty, Editor, Anchorage Daily News
• Steve Heimel, Senior Reporter & Producer, Alaska Public Radio Network
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● CANADA

The Mackenzie gas line numbers game

More studies grapple with initial marketable gas resources available for a pipeline from Canada's Arctic; anchor fields rated at 5.8 tcf

By GARY PARK

Petroleum News Canadian Contributing Writer

One of the imponderables of the Mackenzie Gas Project will come under growing scrutiny as the venture enters the regulatory hearing process in late January.

For now, getting a fix on the reserves that are available from the Mackenzie Delta, Beaufort Sea, Colville Hills in the Central Mackenzie Valley and even the Yukon's Eagle Plains to back the C$6.9 billion undertaking — based on 2003 dollars and Imperial Oil's latest calculations — is as varied as the responses.

The latest round of filings with the National Energy Board does little to achieve consensus.

Various petroleum engineering consultants turned in varying assessments of the ultimate initial marketable gas resources — but they were all responding to different instructions.

Anchor fields number constant

The one number that seems to remain fairly constant is the 5.8 trillion cubic feet assigned to the three anchor onshore Delta discoveries — Imperial's Taglu 3 tcf, Parsons Lake 1.8 tcf shared by ConocoPhillips Canada 75 percent and ExxonMobil Canada 25 percent and Shell Canada's Niglintak 1 tcf.

Even then the consulting firm of Gilbert Laustsen Jung Associates has disagreed slightly by estimating the recoverable marketable gas at 5.69 tcf from original gas in place of 8.273 tcf.

A GLJ study estimates ultimate resources of 21 tcf of initial marketable gas in the Mackenzie-Beaufort region and 3 tcf at Colville Hills.

The breakdown of discovered resources puts the Mackenzie-Beaufort at 10.3 tcf, Colville Hills at 400 billion cubic feet and Eagle Plains at 100 billion cubic feet. It excluded 600 billion cubic feet of discovered initial marketable gas in the deepwater Beaufort.

The production forecasts were based on a period ending in 2054.

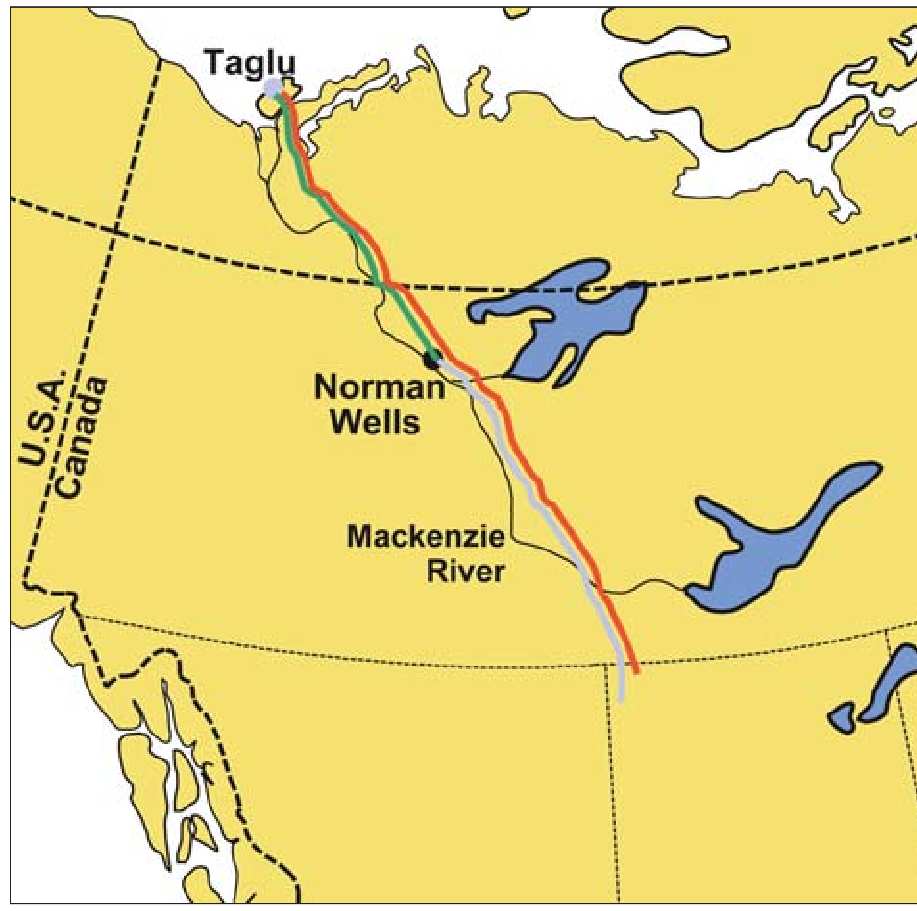
GLJ hired by anchor gas owners

GLJ was hired by the anchor gas owners to establish that there is sufficient gas to support initial shipments of 820 million cubic feet per day by the producers, with another 400 million cubic feet per day coming from other producers to cover a one-third equity stake by the Aboriginal Pipeline Group.

Sproule Associates, in a study commissioned by the Mackenzie Explorer Group — made up of companies expected to be the source of gas for the aboriginal group — calculated the marketable resources that might ultimately be available for a Mackenzie pipeline at 67.9 tcf, of which it said 11.5 tcf has been discovered.

Sproule projects that the Mackenzie-Beaufort has 56.7 tcf of ultimate initial marketable gas onshore and offshore, of which 10.9 tcf is discovered and 4.2 tcf at Colville Hills, of which 500 billion cubic feet is discovered.

That study estimates there could be a further 7 tcf in the Yukon and Mackenzie Valley, of which only 100 bcf has been discovered in Eagle Plains.



The one number that seems to remain fairly constant is the 5.8 trillion cubic feet assigned to the three anchor onshore Delta discoveries — Imperial's Taglu 3 tcf, Parsons Lake 1.8 tcf shared by ConocoPhillips Canada 75 percent and ExxonMobil Canada 25 percent and Shell Canada's Niglintak 1 tcf.

Sproule: 1.7 bcf per day for 20 years

Dealing only with resources that represent primary supplies for the Mackenzie pipeline, Sproule said onshore resources alone should be able to support a pipeline capable of carrying 1.7 bcf per day for more than 20 years.

The Sproule base case also said that by removing constraints on pipeline size to handle undiscovered resources, initial sales gas volumes of 1.1 bcf per day should be able to grow over 10 years to 2.5 bcf per day and hold that level for 10 years without having to develop higher-risk, deeper-water Beaufort plays.

A study by Cizek Environmental Services for the Canadian Arctic Resources Committee, based on the Sproule and GLJ work, forecasts the three anchor fields could be able to deliver 1.2 bcf per day for 14 years and 1.8 bcf per day for 9 years, suggesting that the pipeline would need connections to other existing and undiscovered fields to keep it operating at capacity for 50 years.

Cizek said that a pipeline capacity of 1.8 bcf per day and total sales gas of 22.81 tcf would require 44 discovered fields. ●

● INTERIOR ALASKA

Yukon Flats EIS scheduled to start in 2006

Land swap would consolidate Doyon Ltd. oil and gas prospects; basin has estimated 173 million barrels of oil, 5.5 tcf gas

By ALAN BAILEY

Petroleum News Staff Writer

The U.S. Fish and Wildlife Service has contracted with ENSR International to do the environmental impact statement for the proposed Yukon Flats land swap, Ted Heuer, Yukon Flats National Wildlife refuge manager, has told Petroleum News. A kick-off meeting for the EIS will be scheduled in 2006, he said.

The purpose of the land swap, which would be between Fish and Wildlife and Doyon Ltd., a Fairbanks-based Alaska Native regional corporation, is to consolidate some existing Doyon oil and gas prospects in the Yukon Flats with prospects on adjacent Fish and Wildlife Service land.

The Yukon Flats consists of a 13,500 square mile lowland area around the Yukon River, between the trans-Alaska pipeline and the Canadian border. According to a 2004 U.S. Geological Survey assessment the Yukon Flats sedimentary basin might contain 173 million barrels of oil, 5.5 trillion cubic feet of gas and nearly 127 million barrels of natural gas liquids. And, since the area of the proposed land swap is thought to be particularly prospective, the swap would likely lead to oil and gas exploration in the flats.

Controversy among communities

Some communities in the flats have expressed vehement opposition to the land swap proposal while others have expressed support.

Supporters of the land swap see an opportunity for economic development in an area. An influx of oil and gas money could help ensure the survival and long-term sustainability of the Yukon Flats communities, they think. And oil and gas development in the area would provide income for Doyon, the owner of Native subsurface land in the region. Doyon profits generate dividends for Native shareholders from the region.

However, the residents of some communities see the swap as a threat to the traditional way of life in the flats especially as, under federal regulations for land valuations, the Native people would relinquish a larger land acreage than they would receive. Opponents of the swap also think that oil or gas development would damage the natural environment on which the communities depend for their subsistence lifestyle.

EIS not legal requirement

Although an EIS is not a legal requirement for the land swap, the level of controversy and a barrage of questions relating to the proposals convinced Fish and Wildlife that an EIS should be carried out.

"One of the things that we did hear from a lot of people in the public meetings and through the comments that we've received so far was that people wanted us to do an EIS," Heuer told Petroleum News in June. "We decided to give everyone who wants to weigh in on the issues more time to think about it and we'll have a better evaluation of the social and economic-type impacts that could be associated with this."

And as part of the standard EIS procedure, Yukon Flats residents and other interested parties will enjoy an early opportunity to help specify the scope of what the EIS will consider.

"We will be scheduling a series of public (scoping) meetings in the middle to end of March," Heuer said.

Heuer thinks that it will take about a year to complete a draft EIS document. ●

● ALBERTA

Upgraders on the up and up for Alberta

Canada-China venture joins three other plans to process oil sands' bitumen in Edmonton area, ignoring Imperial's message

By GARY PARK

Petroleum News Canadian Contributing Writer

What made Imperial Oil uneasy has not deterred others as they roll out plans for upgraders to support rapid growth in Alberta's oil sands production.

Start-up producer Synenco Energy, in partnership with China's Sinopec, said it has chosen a location for a two-stage, 100,000 barrel per day plant near Edmonton linked to its Northern Lights mining and extraction operation in northeastern Alberta.

In gearing up to file a regulatory application for the facility, Synenco joins North West Upgrading, Heartland and Shell Canada's Scotford refinery — all of them in the Edmonton region — in pressing ahead with upgraders, which turn raw bitumen into synthetic crude.

The Synenco announcement came two weeks after Imperial Chief Executive Officer Tim Hearn announced his company would not proceed with an upgrader at the site of its possible 300,000 bpd Kearl project because of a concern that the line-up of projects was growing too long.

He said a combination of surplus oil capacity as more non-OPEC production comes on stream and an economic slowdown could cause a "lot of pain" for upgrader owners.

Upgraders profit from value added

The upgraders derive their profit from buying feedstock at low prices, converting the raw material into a value-added product and selling high, with bitumen generally priced at 40 percent below the synthetic crude that comes from the plants.

But their success is based on those market "differentials" holding firm.

Synenco said it plans to build a 50,000 bpd plant at a cost of C$1.7 billion to come on stream in 2010, followed by a second phase in 2012.

With Sinopec as a 40 percent partner in Northern Lights and now that it is trading publicly, Synenco is hoping to file its mining and extraction application by mid-2006.

It is already spending C$250 million on advance work and is placing deposits for long lead-time equipment orders.

Northern Lights estimated at 1.49 billion barrels

The Northern Lights lease covers almost 50 square miles and independent estimates put the in-place bitumen deposit at 1.49 billion barrels, with high and low estimates ranging from 2.38 billion to 836 million.

To make the project "virtually energy self-sufficient," the partnership is developing plans for a gasification unit to turn bottom-of-the-barrel bitumen into synthetic gas, eliminating the need for natural gas to fuel mining, extraction and processing.

Synenco has updated its budget projections to C$5.3 billion, but has warned that could reach C$6.9 billion.

Synenco President Todd Newton is not troubled by the number of upgraders in the works.

North West is moving ahead with a C$1.6 billion plant to produce premium grades of refinery-ready oil; Heartland has started construction on its C$1.8 billion facility; and Shell's Scotford facility is targeted for additions as part of a planned C$7.3 billion expansion of the Athabasca oil sands project.

Newton told the Edmonton Journal he does not see the upgraders entering competition with each other.

Noting industry and government forecasts that oil sands output will increase from 1 million bpd to between 3 million and 5 million bpd over the next 10 years, he said that so long as the profile holds up there will be sufficient bitumen for all of the upgraders.

North West President Robert Pearce shares the view that "there's room for more than one project." ●

WASHINGTON, D.C.

Arctic Power plots new strategy for ANWR

The nonprofit group that lobbies for the opening of the coastal plan of the Arctic National Wildlife Refuge to petroleum drilling is regrouping after the latest rejection by Congress. Lobbyists for Arctic Power said they are not sure what the future holds. They will talk with Sen. Ted Stevens and rethink a strategy, they said, then follow the senator's lead. The U.S. Senate refused to include the drilling measure in a defense spending bill passed before Christmas.

Jerry Hood, an Arctic Power lobbyist, said the group is not ready to give up.

"They say, 'I don't know if you can ever do it,'" Hood said. "I don't really believe that. I think we can."

David van den Berg, director of the Northern Alaska Environmental Center, said that with a $1.2 billion surplus, the Legislature likely would continue to support the organization. "I wouldn't be surprised if legislators doubled it next year," van den Berg said of the state's contribution to Arctic Power. "They continue to be hopeful, but they need to have it sink in that from a national perspective, the interest in draining America first doesn't work. I just think they're barking up the wrong tree."

The Legislature has given Arctic Power millions over the past decade, including $1.2 million this year. Past supporters continue to back the group.

"I've always thought, and I hope to think others think, of Arctic Power as an investment to help the next generation of Alaskans," said state Sen. Gary Wilken, R-Fairbanks, co-chairman of the Senate Finance Committee.

Rep. Vic Kohring, R-Wasilla, who sponsored a bill giving Arctic Power money this year, hopes the state keeps supporting the organization.

"They are an excellent staff and have done a great job in lobbying to open the coastal plain," said Kohring. "As far as whether we continue with further money, it will be up to my colleagues in Juneau."

"We've really waited to hear from Senator Stevens as to what to do, and at what level," Wilken said.

If the Legislature or the Senate Finance Committee continues to see Arctic Power as an investment, they will find money for the group in the budget next year, he said.

—THE ASSOCIATED PRESS

● ALASKA

Big transportation projects in budget

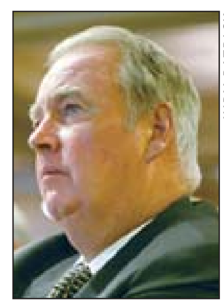
$50 million to study linking Alaska and Canada by rail in Gov. Murkowski's proposal, along with planning for North Slope roads

THE ASSOCIATED PRESS

A railroad to Canada is one of a few huge transportation projects the governor wants to fund with tens of millions of dollars in seed money.

Gov. Frank Murkowski proposes spending $50 million in state general funds to study the possibility of linking Alaska and Canada by rail.

The Republican governor is also calling for $45 million to better connect Juneau, Alaska's isolated capital, to the road network. It's expected to cost more than five times that much if built.



JUDY PATRICK

Gov. Frank Murkowski

The governor's budget, released Dec. 15, includes smaller amounts to plan roads on the North Slope and study a road link from the Southeast town of Wrangell over the Coast Mountains to British Columbia.

Murkowski campaigned for governor on a bold transportation platform. Now he has the money to try to make it happen. High oil prices have given the state a projected $1.2 billion surplus this year.

But Murkowski acknowledged he might have trouble getting the Legislature to agree to his proposals.

Democrats have criticized Murkowski for not saving surplus money to absorb deficits when oil prices drop. Republicans, who control the Legislature, have hesitated at the size of Murkowski's spending increases and have their own hometown projects to fund.

Environmental review of railroad extension

Still, some legislators in the Interior and elsewhere are intrigued by the possibility of extending the Alaska Railroad.

"It's an interesting proposal. I think we're going to dissect it in the Legislature," said House Finance Co-Chairman Mike Chenault, R-Nikiski.

Murkowski wants the state funds for an environmental review of extending the railway from Delta Junction to connect with the northern Canadian railhead that deadends at Fort Nelson and Dease Lake, British Columbia.

State project documents say the project would require extending the track by 1,100 miles.

State transportation special assistant Mark Taylor said the project's current cost estimate is $6 billion to $8 billion. That's at least double the state's entire general fund spending this year.

Taylor said the governments of the Yukon and Alaska are splitting the costs of a roughly $7 million study of the economic benefits of such a rail link. He said the report is expected in late summer.

Another longtime dream of Murkowski's is to extend the road out of Juneau. He is proposing $45 million in state general funds. Add to that $15 million in recently acquired federal funds, state officials say, and it could start construction on the first 23 miles. That could help the Kensington gold mine being developed north of Juneau, state officials said.

The state's $250 million Juneau access plan calls for a 50-mile road north from Echo Cove to a ferry terminal to be built at the Katzehin River. Shuttle ferries would be purchased to run people and vehicles from there to the state road system in Haines or Skagway.

Murkowski is entering the final year of his first term and hasn't said whether he will seek re-election. ●

LA PAZ, BOLIVIA

Bolivia's Morales to renegotiate contracts

Bolivia's future president said Dec. 20 he plans to strengthen relations with state-owned foreign companies as he seeks to assert ownership over his nation's large energy reserves. Indian coca farmer Evo Morales has pledged to increase state control of Bolivia's oil and gas reserves, but says he will not confiscate refineries or infrastructure. Instead, his government would renegotiate contracts so that multinationals are partners but not owners in developing Bolivia's resources, he said.

"Many of these contracts signed by various governments are illegal and unconstitutional. It is not possible that our natural resources continue to be looted, exploited illegally, and as the lawyers say, these contracts are legally void and must be adjusted," Morales told reports Dec. 20.

He said his government would start a dialogue with the governments and leaders of the corresponding companies, and "we are going to strengthen our relations with state oil companies and welcome and value their proposals."

Morales has close relations with Venezuela President Hugo Chavez, who is also trying to change the role of foreign oil companies in his country.

With just over half the votes counted, the leftist Morales had 50.1 percent of the Dec. 18 vote. He needs a bare majority to win outright and avoid having congress choose between him and conservative rival Jorge Quiroga in mid-January.

President Eduardo Rodriguez's administration said it was organizing a transition team in anticipation of Morales' inauguration on Jan. 22.

On Dec. 19, Morales said Brazilian oil company Petrobras must turn two refineries it owns in Bolivia back to Bolivian control. Morales announced that he had asked Brazilian President Luiz Inacio Lula da Silva to return the refineries, which Petrobras purchased in the last decade. Petrobras bought the two refineries from Bolivia's state-owned oil company in 1999 for roughly US$100 million.

—THE ASSOCIATED PRESS

● ANCHORAGE

Phillips departs EVOS Trustee Council

Reopener clause allows state and federal governments to seek additional $100 million for continuing, unforeseen spill impacts

THE ASSOCIATED PRESS

The Exxon Valdez Oil Spill Trustee Council will be seeking a new director.

Gail Phillips, a former speaker of the Alaska House, is departing the state-federal council, state officials said Dec. 19.

Phillips worked for nearly three years as the council's head. She is leaving Jan. 3 under a "joint decision of everyone concerned," said state Fish and Game Commissioner McKie Campbell, one of three state trustees on the six-person council.

GAIL PHILLIPS

He would not elaborate, other than to praise Phillips' work with the council.

Michael Baffrey, a career federal employee who is a liaison to the council from the U.S. Interior Department, will step in as interim director.

Phillips is leaving so she can devote her energies to the Alaska Statehood Celebration Commission, where she is the unpaid chairwoman, according the council. The commission was created by the Legislature to organize a celebration for 2008, culminating in the 50th anniversary of Alaska statehood on Jan. 3, 2009.

"It's nice to be going into something that's real meaningful for the state," Phillips said.

Appointed by Murkowski

Phillips was appointed to the $100,000-a-year council job in March 2003 by Gov. Frank Murkowski, replacing director Molly McCammon.

A five-term legislator from Homer, Phillips ran briefly for governor in 2002.

When Frank Murkowski entered the race, she stepped aside and ran for lieutenant governor. She lost to Loren Leman in the Republican primary.

Phillips is a longtime advocate for resource development and a promoter of oil drilling in the Arctic National Wildlife Refuge.

The council was charged after the 1989 Exxon Valdez oil spill with using the $900 million settlement with Exxon for research and restoration. Just more than $100 million of that settlement is left.

"Having a strong advocate for oil development managing an oil spill restoration effort seemed a mismatch from the start," said one critic, University of Alaska Anchorage marine biologist Rick Steiner. He was concerned that the council, under the Bush and Murkowski administrations, understated long-term damage from the spill to promote oil development elsewhere.

Steiner, however, said Phillips appeared to do a good job.

"She seemed like an amiable person and was willing to listen," he said.

Council adopted different work plan

Council members — three trustees representing state agencies and three from federal agencies — sometimes differed with the executive director.

At a meeting last August, council members adopted a work plan for the coming year that they introduced at the last minute, setting aside the plan that Phillips and her staff had drawn up.

Trustees are trying to focus the council's energies on "resources most directly impacted by the spill," Campbell said. "We want to make sure that it's not just funding academic science."

Campbell and Phillips said Dec. 19 that they had agreed on that direction. Campbell attributed the blind-siding of staff last summer to "logistical problems in communication."

Hanging over the trustee council is the deadline next summer for the spill settlement's reopener clause, which would allow the state and federal governments to return to federal court seeking up to $100 million more for continuing and unforeseen spill impacts.

The decision on whether to seek more money will not be up to the trustees but will be based on research undertaken by scientists working for the council. ●

BEIJING

OPEC likely to cut output for 2nd quarter

The Organization of Petroleum Exporting Countries is likely to reduce its crude-oil production after the high-demand Northern Hemisphere winter, the group's president said Dec. 22.

"I expect OPEC to decrease output for the second quarter," Sheikh Ahmad Fahad Al-Ahmad Al-Sabah said, adding that the group isn't expected to change its production policy for the first quarter.

His remarks, made during a one-day visit to Beijing to meet with top Chinese policy makers, are the latest hint from OPEC of its concerns that oil demand will fall after winter, bringing prices down.

Al-Sabah is in Beijing with OPEC's acting secretary-general Adnan Shihab-Eldin on an official visit to try to further deepen dialogue between oil producers and consumers. China is the world's second-biggest consumer of oil and third-biggest importer.

Light, sweet crude for February delivery on the New York Mercantile Exchange traded up 69 cents at $59.25 a barrel after the news.

On Dec. 12, OPEC agreed to keep current production unchanged, although ministers have indicated they stand ready to cut back if needed at a meeting scheduled for Jan. 31 in Vienna.

The group's official quota stands at 28 million barrels a day, the highest in its history, and applies to the 10 active members, excluding Iraq.

Al-Sabah, who made several Asian stops last year in his capacity as Kuwait Energy Minister, will hand over the OPEC presidency to Nigeria's Oil Minister Edmund Daukoru on Jan. 1.

—THE ASSOCIATED PRESS

QATAR

Qatar contracts for $4B twin LNG plants

Twin plants capable of sending out 7.8 million tonnes of liquefied natural gas daily will be built in Qatar under joint venture arrangements involving ConocoPhillips and Royal Dutch Shell PLC.

The big multinationals are partnering with government-controlled Qatar Petroleum in the plants, which will be built by Chiyoda Corp. and Technip France Joint Venture, according to a Dec. 21 announcement by ConocoPhillips.

ConocoPhillips said its project had received commitments for more than $2.8 billion from 26 commercial banks, the Export Import Bank of the United States, and the Japan Bank for International Cooperation.

Japanese press reports put the value of the onshore engineering, procurement and construction contracts at $4.3 billion. ConocoPhillips said its project had received commitments for more than $2.8 billion from 26 commercial banks, the Export Import Bank of the United States, and the Japan Bank for International Cooperation.

In each of the joint ventures, Qatar Petroleum will hold a 70 percent interest. ConocoPhillips' project is named Qatargas 3, and Shell's is Qatargas 4. The projects are essentially identical, to provide economies of scale.

First cargoes from the plants are expected to depart Qatar in 2009. ConocoPhillips says its gas is destined for sale mostly in the United States.

Each of the plants will deliver the equivalent of just over a billion cubic feet of gas a day, coming from Qatar's massive North Field.

By 2010, Qatar aims to be exporting the equivalent of 10 billion cubic feet daily in the form of LNG. The nation has also contracted for some of the largest gas-to-liquids plants in the world to move its huge gas reserves to market.

ConocoPhillips says all the definitive agreements have been signed for its project, and all the financing is in hand.

The Chiyoda-Technip consortium now has about $12 billion in contracts for LNG facilities in Qatar. The groups had already won orders for two LNG plants involving ExxonMobil joint ventures, one a year ago, the other last fall.

—ALLEN BAKER

continued from page 1

SHELL

conventional gas exploration prospects in Triassic, Permian and other deep structures.

Mather: growing Western Canada gas production

Company President Clive Mather said Shell invested more than C$350 million in 2005 on land to support "our growth aspirations ... with these recent purchases we have more than tripled our basin-centered gas land holdings, providing us additional opportunity to grow our Western Canada gas production."

The turning point for Shell, which had been quietly fading from Western Canada's conventional scene, occurred in late 2004 with one of the region's biggest finds.

The Tay River strike has been estimated at 500 billion to 800 billion cubic feet, although the sulfur content could cut the saleable gas in half.

But Mather, who has pledged to reverse the slide in the company's gas production, said Tay River could "contribute to the future growth of our natural gas business," applying Shell's new technology to interpret seismic readings obtained from complex strata.

The discovery is now in production at about 50 million cubic feet per day, accounting for roughly 10 percent of Shell's output in Canada.

Ambitious drilling program

Even before it latest land acquisitions, Shell was unveiling an ambitious drilling program.

It hiked its 2005 exploration budget for Western Canada by 30 percent to C$335 million, setting in motion an active winter schedule.

Mather said the seismic technology has opened the door to a "whole string" of possible finds, although he cautioned that the chance of further discoveries is speculative.

The emergence of tight gas plays is being underscored in the latest drilling statistics which showed the average well depth was up to 3,720 feet in November from 3,050 feet a year earlier as the number of shallower wells declined.

Total gas well completions for the first 11 months slipped to 13,250 from 14,619, reflecting a decline in shallow development wells.

Shell is one of several companies turning their attention to the deeper targets in the costly effort to replace depleting reserves.

EnCana, Talisman Energy, Anadarko Petroleum, Burlington Resources, Canadian Natural Resources, Husky Energy and Petro-Canada all have the financial means to tackle the new horizon.

But they do so against a background of some doubt by analysts, including Standard & Poor's Ratings Services which said Dec. 19 that companies in Canada face considerable obstacles if they hope to sustain production levels.

Credit analyst Michelle Dathorne said that "while alternative natural gas may hold promise as a long-term solution for North American natural has supply, perhaps the more meaningful component of supply in the near or intermediate term lies in the development of the liquefied natural gas market." ●

COURTESY ALASKA PETOGRAPHY

continued from page 10

GOLD

And the 1998 USGS assessment of ANWR's coastal plain estimated 10.4 billion barrels of oil there. Some geologists say the area could hold 30 billion barrels, but only drilling will tell.

MMS OCS estimates

In a 2002 presentation the U.S. Minerals Management Service reported an estimated mean of 6.94 billion barrels of conventionally recoverable oil and natural gas liquids, and 32.07 tcf of conventionally recoverable natural gas under the outer continental shelf of the Beaufort Sea.

Add up all these estimates for northern Alaska and you obtain volumes of nearly 32 billion barrels of oil and more than 142 tcf of natural gas for the region. The gas figure doesn't include unconventional sources such as gas hydrates and coalbed methane — there may be as much as 519 tcf of additional gas in gas hydrates beneath the permafrost of northern Alaska. And then there's the Chukchi Sea with possibly 15 billion barrels of conventionally recoverable oil and 60 tcf of conventionally recoverable natural gas, according to an MMS assessment.

The 2005 USGS estimates for the central North Slope do not include billions of barrels of reserves in producing oil fields in northern Alaska, such as Prudhoe, Kuparuk and Alpine.

And these estimates take into account only a tiny portion of the huge viscous (heavy) oil resource identified by North Slope producers.

And then there's viscous oil

According to the U.S. Department of Energy, the heavy oil formations overlying the two largest oil fields on Alaska's North Slope, Prudhoe and Kuparuk, hold as much as 36 billion barrels of original-oil-in-place. Field operators BP and ConocoPhillips put the resource at 23 billion barrels — 20 to 22 percent of that recoverable with the best of today's technology.

The companies continue to invest in technology that will increase those percentages. Heavy oil, they say, could surpass the combined total of conventional oil in Prudhoe and Kuparuk, the two largest oil fields in North America.

Last year BP Exploration (Alaska) President Steve Marshall referred to the North Slope's heavy oil resource as a "world-scale" opportunity, noting that the Canadians are starting to achieve 50 percent recoveries "and if we can do that … that's twice the USGS estimate for what ANWR could hold."

Their estimates might differ, but they all agree it is a worthy target for extraction, especially since the West Sak-Schrader Bluff and Ugnu heavy oil formations are within the boundaries of existing infrastructure.

Heavy oil production made up between 75,000 and 85,000 of the 913,000 barrels of oil per day produced from the North Slope in FY 2005.

So how much recoverable oil and gas is left in northern Alaska's pot?

The answer likely lies in the 50-60 billion barrel range for oil, depending on technology, and in excess of 200 tcf for natural gas, excluding gas hydrates.

But answering that question is only a little easier than searching for a pot of gold at the end of a rainbow because explorers are constrained by access issues of all types, including political, technological challenges and cost constraints.●

Editor's note: Part two of this story will look at potential oil and gas reserves in the rest of the state, including southern Alaska where substantial aspects of the Cook Inlet Basin remain unexplored.

Judy Patrick Photography

Companies involved in Alaska and western and northern Canada's oil and gas industry

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Alaska Railroad Corp.	
Alaska Rubber & Supply	
Alaska Telecom	
Alaska Tent & Tarp	13
Alaska Textiles	
Alaska USA Mortgage Company	
Alaska West Express	
Alaska's People	12
Alliance, The	11
Alpine-Meadow	
Alyeska Prince Hotel	
American Marine	18
Arctic Controls	14
Arctic Foundations	
Arctic Fox Environmental	
Arctic Slope Telephone Assoc. Co-op	
Arctic Structures	
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Carolina Mat Company	
Chiulista Camp Services	
CN Aquatrain	
Colville	
ConocoPhillips Alaska	
Construction Machinery Industrial	
Coremongers	
Crowley Alaska	
Cruz Construction	12
Dowland - Bach Corp.	
Doyon Drilling	
Doyon LTD	
Doyon Universal Services	
Dynamic Capital Management	
Engineered Fire and Safety	
ENSR Alaska	12
Epoch Well Services	
ESS/On-Site Camp Services	
ESS Support Services Worldwide	
Evergreen Helicopters of Alaska	
Fairweather Companies, The	
Flowline Alaska	6
Friends of Pets	16
G-M	
Gene's Chrysler	
Great Northern Engineering	
Great Northwest	9
Hanover Canada	
Hawk Construction Consultants	
H.C. Price	
Hilton Anchorage	
Holaday-Parks	6
Hotel Captain Cook	
Hunter 3-D	
Industrial Project Services	
Inspirations	
Jackovich Industrial & Construction Supply	
JEMS Real Estate	
Judy Patrick Photography	3
Kenai Aviation	
Kenworth Alaska	9
Kuukpik Arctic Catering	
Kuukpik/Veritas	7
Kuukpik - LCMF	
Lasser Inc.	
LCMF	
LCMF - Barrow Village Response Team (VRT)	
Lounsbury & Associates	19
Lynden Air Cargo	
Lynden Air Freight	
Lynden Inc.	
Lynden International	
Lynden Logistics	
Lynden Transport	
Mapmakers of Alaska	
Marathon Oil	
Marketing Solutions	
Mayflower Catering	
MI Swaco	19
Michael Baker Jr.	
MWH	
MRO Sales	
N-P	
Nabors Alaska Drilling	
NANA/Colt Engineering	
NANA Oilfield Services	
Natco Canada	
Nature Conservancy, The	
NEI Fluid Technology	
NMS Employee Leasing	
Nordic Calista	
North Slope Telecom	
Northern Air Cargo	20
Northern Transportation Co.	5
Offshore Divers	4
Oilfield Improvements	
Oilfield Transport	
Pacific Power Products	
Panalpina	13
PDC Harris Group	13
Peak Oilfield Service Co.	
Penco	18
Perkins Coie	
Petroleum Equipment & Services	4
Petrotechnical Resources of Alaska	15
PGS Onshore	
Pipe Wranglers Canada	
Precision Power	
Prudhoe Bay Shop & Storage	
Q-Z	
QUADCO	
RAE Systems	
Rain for Rent	
Ranes & Shine Welding	
Renew Air Taxi	
Salt + Light Creative	16
Scan Home	
Schlumberger	
Security Aviation	
Seekins Ford	8
Sourdough Express	
Span-Alaska Consolidators	
Spenard Builders Supply	6
Steel Brothers	18
STEELFAB	
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Totem Equipment & Supply	
Trinity Inspection Services	18
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Business Spotlight

By PAULA EASLEY

FORREST CRANE

Paula Donson, Adjunct Professor

UAA, Department of Engineering

The University of Alaska Anchorage Department of Engineering's Science and Project Management graduate program offers sophisticated project management skills that facilitate the types of large-scale civil engineering projects being constructed in urban and rural Alaska. Dr. Donson teaches a class on managing human factors during project development. Class activities emphasize techniques for participative management, negotiation skills and cycling through project phases with self-directed work teams.

Paula Donson had a whirlwind career in the Lower 48 — primarily with Unisys — before coming to Alaska in 1994. She has since helped launch Mactel, built a cabin on Kenai Lake, spent a month trekking China last summer, works on literacy and education issues, and loves her new position as manager of training and development for the Alaska Railroad.

continued from page 1

ANWR

late Dec. 21, after more than eight hours of behind-the-scenes wrangling that began when the Republican majority failed to rally the 60 votes needed to prevent a possible Democratic filibuster against it. The Senate then passed the $453 billion defense spending package, without ANWR, 93-0.

Two days earlier, the House of Representatives had overwhelmingly passed the defense spending package with ANWR drilling, after 16 House Democrats rallied to help win an earlier procedural vote 214 to 201. Twenty-one Republicans opposed the motion.

The House reconvened Dec. 22 and approved final versions, without ANWR drilling, of defense spending, budget reconciliation and other bills requiring action before year's end.

ANWR ran into trouble in conference

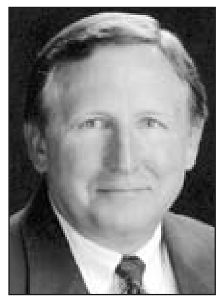
Stevens, who chairs the Senate Subcommittee on Defense Appropriations, had inserted the ANWR drilling provision into the defense spending legislation during the week of Dec. 12 when it ran into trouble in conference committee.

The Senate had approved Arctic drilling earlier this fall in a $35 billion budget reconciliation bill. Stevens realized the drilling measure had bogged down in conference negotiations over budget reconciliation, another Republican priority, after the measure ran into a wall of opposition in the House. House Democrats, unhappy about cuts to entitlement programs, unanimously opposed the budget reconciliation bill, forcing GOP leaders to bow to demands from moderate Republicans to strip ANWR drilling from the $50 billion House version of the deficit-cutting measure.

"(The close vote) points to the inevitability that the coastal plain will be open to drilling, sooner rather than later. Inevitably, we will prevail. But the greens have done a disservice to Alaska. They are doing their damnedest to wreck the Alaska economy, or at the least to disrupt it."

—Roger Herrera, pro-ANWR lobbyist

"This has been the saddest day of my life," said Sen. Ted Stevens, R-Alaska, after ANWR drilling failed in the Senate Dec. 21.



JERRY HOOD

"We are extremely disappointed by the outcome of the vote to break a likely filibuster on ANWR today," Murkowski said in the aftermath. "We won support from all but two Republicans for a bill that contained all the environmental stipulations needed to fully protect the environment and wildlife of the North Slope. Opening ANWR to limited oil and gas exploration is the right thing to do."

Arctic Power worked to end

Right up until the final hours of Senate debate, Arctic Power, the pro-ANWR lobbying group from Alaska, had continued to knock on doors in Congress.

"All of us who worked on the campaign are extremely disappointed," said pro-ANWR lobbyist Jerry Hood.

"It's a funny way to lose, by getting 57 votes," said Roger Herrera, in assessing the pro-ANWR drilling campaign. Herrera is a longtime pro-ANWR lobbyist who worked with Arctic Power, Alaska Native groups and others who pushed for oil and gas development on the refuge's coastal plain this year.

"(The close vote) points to the inevitability that the coastal plain will be open to drilling, sooner rather than later. Inevitably, we will prevail," Herrera said. "But the greens have done a disservice to Alaska. They are doing their damnedest to wreck the Alaska economy, or at the least to disrupt it."

During the Senate debate leading up to the critical vote, ANWR drilling opponents, including Sen. Maria Cantwell, D-Wash., thanked Stevens for his candor in telling the Anchorage Daily News and Fairbanks Daily News-Miner that ANWR drilling would be out if the Senate failed to rally 60 votes to keep the measure in the defense spending package.

Cantwell and other Senate Democrats hailed the vote as a victory, with Sen. Frank Lautenberg, D-N.J., saying "Santa's sleigh would not be delivering goodies to the oil companies."

Earlier, Stevens had threatened to continue the fight for ANWR drilling throughout the Christmas holidays, if necessary.

Stevens' appeal personal

Alaska's senior senator, who has campaigned to allow oil drilling in the refuge for more than a quarter-century, made an unusually personal appeal in the final minutes of the debate. "Every one of you, have you ever come (when I was) chairman of appropriations and tell me you needed help for your state and I have turned you down?" Stevens asked. "I have fought" to help, he added

Sen. Robert C. Byrd, 88, and a friend of Stevens for decades, rose to oppose him.

"He is my friend. I love him. But I love the Senate more," said the West Virginia Democrat, arguing that Republicans were breaking the rules to achieve their political purposes.

Stevens responded a few minutes later, speaking more softly than his "Incredible Hulk" necktie might have led spectators to expect. "I've had great admiration for you, and I've studied at your feet, but I do not believe that I deserve that speech on the rules," he said.

Murkowski also defended Stevens' actions after the vote. "What is clear from today is how much all Alaskans owe to my colleague Sen. Ted Stevens. He followed Senate rules, honored Senate traditions and worked harder on this issue than anyone could have. It is an honor to work with him and we will continue to work toward the goal of providing America with the energy this nation so desperately needs," she said.

Murkowski: commitment to continue

"Whether or not to develop America's most significant energy reserve is obviously not settled. The fight to open ANWR is not over. We have a commitment from congressional leaders that we will consider ANWR again next year. Hopefully, then we will finally get the fair vote where this issue will be decided by a simple majority of the U.S. Senate," Murkowski added.

Other advocates of ANWR drilling also said they would continue the fight next year.

But 2006 is an election year for Congress, which typically creates a highly partisan atmosphere on Capitol Hill, Herrera said.

"It's difficult to get legislation like this through in election years," he said. "But every month, we approach an inevitable energy crisis that is so (easily forecasted) by anyone willing to look for it. So the sooner we get this done, the better off everybody will be."

As for the immediate strategy: "We will think about it over the Christmas break and see what clearer thought will bring forth," Herrera added.

"I don't think any of us think it's over. We've agreed to get together after the holidays and talk about it," Hood said. "Certainly, Sen. Pete Domenici, R-N.M., has come up with some likely scenarios. With a majority of the Senate supporting ANWR drilling, I think there's still some life in the campaign."●

The Associated Press contributed to this report.

continued from page 1

BLM

is about nine years and the primary term of the leases is 10 years," so the "in production" standard is not easy to reach.

In addition to allowing lease extension for wells capable of producing, the Energy Policy Act also provides that leases without discoveries can be renewed for an additional 10-year term at a cost of $100 per acre, commensurate with what might be bid in a lease sale, as long as there has been some exploration on the lease, "either unsuccessful wells or seismic," she said.

Unitization: allocation issue

The unitization issue embodied in the Energy Policy Act involves how production is allocated.

In the Lower 48 BLM allocates production by surface acreage, but the "State of Alaska doesn't do it that way." The state, the oil industry and ASRC, the regional Native corporation on the North Slope, wanted allocation done based on "seismic information and reservoir modeling." The compromise in the Energy Policy Act is that BLM decides how production will be allocated on leases with only federal acreage. A lot of the NPR-A is only federal acreage, McCarthy said, and on this undeveloped acreage "it's easier and less costly" for BLM to allocate by surface acreage.

"But if we're bordering ASRC and state land, we're going to use a more sophisticated production allocation method ... because small percentage differences can amount to quite a bit of money and they want the most sophisticated information included in that decision," she said.

Production allocation decisions where federal land borders non-federal land would include characteristics of a specific oil or gas pool or reservoir, which is "more expensive because it involves pretty sophisticated software reservoir modeling techniques."

McCarthy said allocation issues were "one of the bigger problems" stakeholders had with the regulations proposed in 2002.

Draft regulations are scheduled to be out for public comment at the end of the first quarter or the beginning of the second quarter. McCarthy said the agency is "moving along pretty quickly on that process," but she noted that this section of the Energy Policy Act did not mandate a timeframe, while others did, so there are workforce allocation issues that have to be managed at the Department of the Interior. She said the hope is to have final regulations out in the fall.

Orphan NPR-A wells

Orphan wells in NPR-A are also included in the energy bill, which "provides for the opportunity for the secretary to grant royalty relief and direct reimbursement of costs."

McCarthy said BLM has talked to oil companies working in NPR-A about the option, but doesn't expect any takers this winter because of the short drilling season and because the program is a "zero-balance exercise" for the companies, which "have a hard enough time drilling the number of wells that they need to in a season to make it all economic as it is..."

But, she said, "I think in the future there's some potential for us to piggyback with staging areas and ice roads and there may be opportunities for us to remediate some of their costs — and costs could be lessened for a contract to do this work for us because we share some of that." That, she said, is "probably the avenue that we'll end up going."

Umiat, Cape Simpson work this winter

Some 100 wells were drilled in NPR-A from the mid-1940s to the early 1980s, with "somewhere around 38 of those wells that require some level of remediation," McCarthy said.

The Corps of Engineers plugged and abandoned two wells in Umiat in 2002 and BLM did four in Umiat in 2004, she said.

"We're planning to complete the Umiat wells," at least four more, this winter, and BLM will also be doing three wells in the Cape Simpson area, for a total of seven planned this winter, based on weather and contracting availability.

Of the 38 wells "in some state of disarray, these are the more serious," she said, and BLM plans to deal with most of the wells that are leaking hydrocarbon within the next couple of years.

In addition to wells, there are reserve pits and landfills "scattered throughout the NPR-A which require hazmat remediation which is a separate issue from the actual well bores" and "quite a bit more costly" because contaminated soil has to be dug up and hauled away.

The J.W. Dalton well that BLM plugged last winter cost just under $5 million, she said, "mostly because of removing the contaminated soil..."

The Cape Simpson work this winter will involve getting rid of pipes left standing, but that area is a natural seep. McCarthy said BLM will spend about half a million dollars at Cape Simpson, but doesn't believe any of the oil there is coming from the well bores, although "it's kind of hard to tell when it's in the middle of a natural oil seep."

McCarthy said it's hard to say how long it will take to work through the cleanup because money has to be allocated each year.

It also depends, she said, on "how dire" the situation is. The J.W. Dalton well didn't appear to be critical "until we lost 300 feet of coastline" and then the need for cleanup became immediate. BLM is watching reserve pits along the coastline and "keeping track of those" and moving them up the priority list "because we don't want to be responsible for contaminants into the marine environment."

Leasing different outside of NPR-A

While NPR-A has been the focus of BLM oil and gas lease activity in Alaska, the bureau manages land throughout the state.

In areas of Alaska outside of NPR-A if there were oil and gas leasing on BLM-managed land, it would be handled differently than it is in NPR-A.

The "petroleum reserve authorizing legislation required that leasing be conducted in accordance with the OCS Lands Act, which is how MMS does their leasing program and that involves the fair market value evaluation and the sealed bidding process," McCarthy said.

That process is different than how BLM does business elsewhere — in both the Lower 48 and in the rest of Alaska.

"This isn't, in my opinion, going to be a huge significant thing in Alaska because most of the prospective lands were selected by the state or Native corporations and we'll just have probably little isolated parcels scattered about," she said.

This was the conclusion BLM reached in its draft resource management plan and environmental impact statement for the Ring of Fire planning area, BLM lands from the end of the Aleutians to just above the Dixon Entrance in southeast Alaska. While the agency considered oil and gas development activity in the plan, it said most BLM-managed lands in Alaska have been selected by the State of Alaska and Native corporations (see story in Dec. 11, 2005, issue of Petroleum News).

Leasing under Mineral Leasing Act

Under the Mineral Leasing Act of 1920, as modified by the 1987 Federal Onshore Oil and Gas Leasing Reform Act, lands are first offered for competitive, oral auction, and then may be offered for over-the-counter leasing.

There is a minimum $2 per acre bid for the oral auctions and lands can be selected for leasing by the bureau or as a result of public interest, but National Environmental Protection Act documentation — either a resource management plan or an EIS — must be completed first.

A competitive lease notice is posted in the state office at least 45 days before the auction with a listing of parcels to be offered and the stipulations for each parcel. Successful bidders pay $130 per lease (share of sale costs), $1.50 per acre for the first year's rent (which increases to $2 per acre after the first five years) and the minimum bid bonus.

BLM said no bond is required at the sale, but a bond of at least $10,000 must be posted before any surface disturbing activities will be approved. Royalty is 12.5 percent and the initial lease term is 10 years. The maximum lease size is 2,560 acres in the Lower 48 and 5,760 acres in Alaska.

Tracts which do not receive qualified competitive bids are available the next business day for over-the-counter, noncompetitive leasing on a first-come, first served basis for two years, after which the tracts must again go through the competitive process. For the first month following the sale offers can only be made using the sale tract descriptions but thereafter a tract may be described by survey or protracted survey descriptions with a minimum tract size of 640 acres in the Lower 48 and 2,560 acres in Alaska. ●