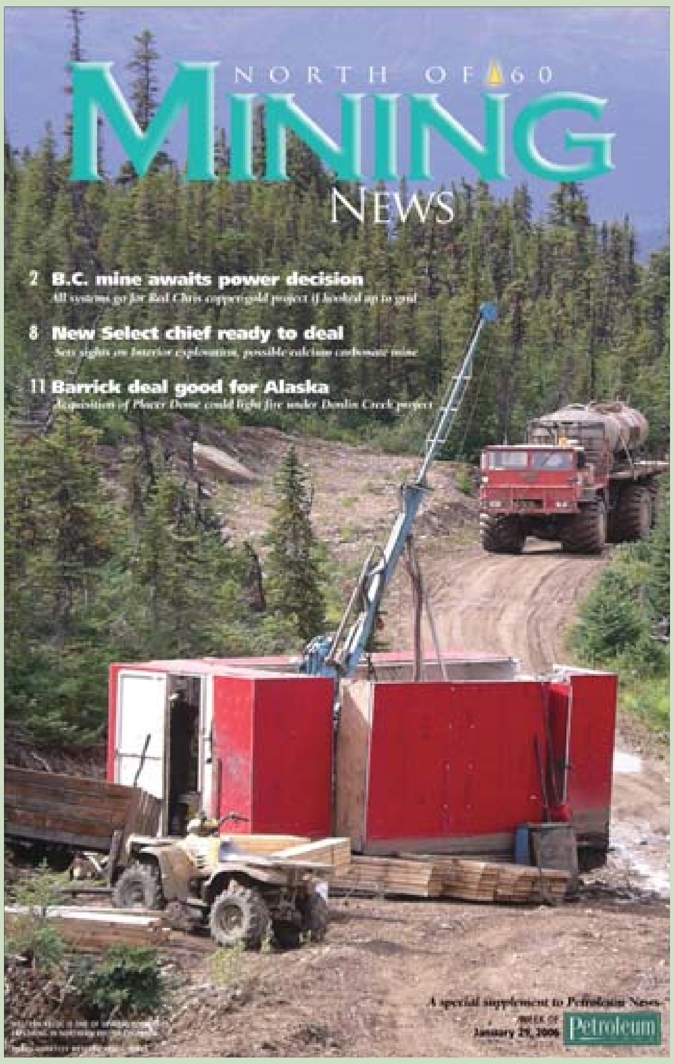
Petroleum news

Vol. 11, No. 5 • www.PetroleumNews.com | A weekly oil & gas newspaper based in Anchorage, Alaska | Week of January 29, 2006 • $1.50

page A5 Prudhoe study, negotiations on access to Point Thomson model

January Mining News inside



This month's North of 60 Mining News contains stories on everything from Barrick's Alaska acquisitions to the latest from the Pogo mine, which is headed for first-quarter startup, and Kutcho Creek's promising copper target.

Heinze predicts January '07 for Alaska gas pipeline contract vote; Canada elects new prime minister

WHAT WILL THE NEXT ALASKA LEGISLATURE be doing in January 2007?

If Harold Heinze is right, they'll be voting on a gas pipeline contract.

Heinze, chief executive officer of the Alaska Natural Gas Development Authority, told his board at a Jan. 23 meeting that he now believes it could be 2007 before the Legislature votes a gas pipeline contract up or down.

Earlier this January the Murkowski administration announced it would be introducing legislation to change the state's oil production tax system (see story in Jan. 22 issue of Petroleum News).

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BREAKING NEWS

A4 Global competition tough: Van Meurs says Alaska participation in gas line will reduce investment required, protect state revenues

A6 Woodside goes offshore: Plans California LNG system offshore, hoping to sidestep terrorism, environmental concerns

A8 Canadians bet on diverse supply mix: Canadian Gas Association report sees growing demand, calls for more diverse supply

ANCHORAGE

Shell declares hand

Focused on offshore in Alaska, committed to using cutting-edge technology

By ALAN BAILEY

Petroleum News

When Shell announced its re-entry to the Alaska oil and gas industry through its purchase of a swathe of leases in the March 2005 Beaufort Sea outer continental shelf lease sale, many people speculated on the mega-major's intentions. Those intentions became crystal clear on Jan. 20 when Rob Ryan, Shell Exploration and Production's vice president for corporate affairs, addressed the Alaska Support Industry Alliance's Meet Alaska conference in Anchorage.

ROB RYAN

"We've been watching for the right opportunity to re-enter the Alaska scene, and we believe that time has come," Ryan told the conference attendees.

Ryan cited new technology and available capacity in the trans-Alaska pipeline as key factors in Shell's decision.

"Shell's re-entry focuses on the outer continental shelf with 102 leases now in the Beaufort," he said. "We're looking to try seismic this season (summer) and we're hoping to drill our first well of this modern campaign no later than next year."

Shell also purchased 33 nearshore and onshore leases in Bristol Bay in the state of Alaska's fall 2005 lease sale Ryan said.

But Shell is no newcomer to Alaska.

"Since the 1950s Shell has explored almost all of the major Alaska basins," Ryan said.

Ryan explained that in the 1980s Shell was a part-

see **SHELL** *page A11*

NORTH SLOPE

LoSal™ test at Endicott

BP plans worldwide pilot for enhanced waterflood recovery on North Slope

By KRISTEN NELSON

Petroleum News

A new enhanced oil recovery technique using water could be tested at Endicott on Alaska's North Slope.

BP Exploration (Alaska) is doing preliminary engineering for a full field test of its proprietary low-salinity waterflood, LoSal™, and hopes to sanction the project this year.

Steve Marshall, president of BP Exploration (Alaska), gave an overview of the project at the Alaska Support Industry Alliance "Meet Alaska" conference Jan. 20.

Petroleum News sat down Jan. 25 with BP's John Denis and Kirk Johnson to learn more about the project. Denis is BP's Alaska consolidated team subsurface team leader; Johnson is the Endicott LoSal™ project manager.

> *"It's really fun to be in a place where we're doing things that are going to be game changes for Alaska, or game changes for BP or maybe game changes for the industry."* **—John Denis, BP Exploration (Alaska) ACT subsurface team leader**

Waterflood, like gas flood, is one of the standard techniques industry uses, Dennis said. Gas flooding is followed by miscible injectant, an EOR technique, and LoSal is "almost like the water equivalent" of miscible injectant, with low salinity water following standard waterflood. Both miscible injectant and LoSal™ are techniques stimulating oil movement in the subsurface and both are EOR techniques, he said.

see **TEST** *page A10*

ANCHORAGE

Alaska target five years

Pioneer's CEO says takes 5 years to bring a development online in Alaska

By KAY CASHMAN

Petroleum News

Scott Sheffield, the chairman and CEO of Pioneer Natural Resources, gave a speech at the Jan. 20 Meet Alaska conference in Anchorage, re-confirming the company's plans for its Alaska oil and gas assets. In his presentation Sheffield revealed an interesting number.

SCOTT SHEFFIELD

He said his company is targeting a maximum of five years as the length of time it expects it to take to bring Alaska projects online — an aggressive number by North Slope standards but one Pioneer is likely to meet with its proposed North Slope Oooguruk discovery.

Sheffield said the five-year timeframe is for near-infrastructure discoveries such as Oooguruk and Cosmopolitan, which is in the Cook Inlet basin. In the more remote National Petroleum Reserve-Alaska where Pioneer's Alaska subsidiary is a minority partner with operator ConocoPhillips, he said it will take longer.

"We are hoping we can bring most of our … near-infrastructure projects online in a five year time period or less … except NPR-A," Sheffield told attendees of the annual energy conference.

see **PIONEER** *page A12*

contents

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

● PORT NARCOURT, NIGERIA

Agip offices in Nigeria robbed; nine are killed

By ONYEMA GODWIN
Associated Press Writer

Camouflage-clad attackers raided an Italian oil company's riverside offices in Nigeria, sparking a gunfight that left nine people dead before assailants fled by speedboat into the oil-rich delta's waterways, police said.

The Jan. 24 attack on Agip's offices in the southern oil center of Port Harcourt was the latest in a recent rash of violence across the restive Niger Delta that has killed nearly two dozen people, cut petroleum production in Africa's largest oil exporter and helped push up prices of crude worldwide.

The attackers, wearing army-style uniforms, cruised up behind Agip's riverbank facility in their boat, forced their way into the compound and stole about US$28,000 in cash before the shoot-out with security forces, said Samuel Adetuyi, the head of the police in the city.

Seven uniformed police, a plain-clothed security official and one company employee died in the gunfight that ended when the attackers fled in their speedboat back into the region's labyrinth of creeks and swamps, he said.

Eni has temporarily evacuated staff

Agip's parent company Eni SpA said in Italy that it "has temporarily evacuated staff and contractors from the area of the base affected by the incident and the situation is currently under control."

The company said there were others injured, but it was unclear how many. Italy said none of its citizens were among the dead.

A rash of attacks and kidnappings in recent weeks by militia groups demanding the release from prison of local leaders have cut Nigeria's daily exports of 2.5 million by nearly 10 percent and claimed at least 23 lives.

But Adetuyi said there was no immediate evidence that the Jan. 23 attack on Agip was linked to that.

"I can't confirm whether there is any link with militiamen," Adetuyi said.

Much of Nigeria in poverty

Despite the massive amounts of crude pumped from southern Nigeria, much of the region remains in abject poverty and activist groups have been agitating for President Olusegun Obasanjo's federal government to provide them with a greater share of state oil revenues.

At least 14 other people have been killed in oil-platform attacks and other violence since earlier this year.

Meanwhile, militants claiming to hold four foreign hostages elsewhere in the Niger Delta said the oil workers are in decent health but had been moved deeper into the region of swamps and creeks after the government failed to meet the captors' demands. ●

WASHINGTON, D.C.

BLM proposes to update NEPA manual

On Jan. 25 the Bureau of Land Management placed in the Federal Register an announcement about proposed changes to the section of the U.S. Department of the Interior's manual that guides BLM's implementation of the National Environmental Policy Act.

The proposed changes would update BLM's NEPA procedures to include general requirements for consultation and coordination; public involvement; consensus-based decision making; and adaptive management. There is a new subpart in the manual that requires proposals to be in conformance with existing land use plans. Another new subpart incorporates current guidance for the use of previous NEPA analysis. The revisions include new proposed BLM categorical exclusions.

BLM said "the proposed revisions are necessary to update the procedures used to determine what level of NEPA compliance is appropriate for various types of actions taken in managing public lands," and that periodically updating the agency's manual "allows for increased efficiency in managing the NEPA process."

Comments on the proposed changes must be mailed by the close of the public comment period on Feb. 24. Details of the changes and information about submitting comments can be found in the Federal Register. BLM expects to issue a final version of the changes in the spring of 2006. BLM manages 261 million acres of surface land and 700 million acres of subsurface mineral estate, mostly in the 12 western states.

—ALAN BAILEY

BARENTS SEA

Norway, Russia discuss cooperating on oil and gas development in Barents

Norway's Oil and Energy Minister Odd Roger Enoksen was visiting Moscow Jan. 24 to 26 to meet Gazprom Chief Executive Alexei Miller, Russian Energy and Industry Energy Minister Viktor Khristenko and several energy and natural resource politicians, according to a Dow Jones report. Norway and Russia have signed memorandums of understanding to study cooperation in petroleum development in the Barents Sea, in which the two countries share a disputed border. The Barents Sea is estimated to hold around 40 billion barrels of oil and gas.

Russia wants to use Norwegian offshore technology and Norway wants involvement in developing Russia's huge petroleum reserves.

Gazprom has short listed Norwegian companies Statoil ASA and Norsk Hydro ASA for participation in developing the 3.2 trillion cubic meter Shtokman gas field in the Barents Sea. Chevron, ConocoPhillips and Total SA are also short listed. Gazprom has said that it plans to decide on the final stakeholders in the project by March. The Norwegian government owns major shares in the two Norwegian companies.

—ALAN BAILEY

CORRECTION

State did not convert any Pioneer leases to Net Profit Share leases

In the Dec. 25 and Jan. 22 editions of Petroleum News we reported that the commissioner of the Alaska Department of Natural Resources had signed a preliminary findings and determination document on a royalty modification for Pioneer Natural Resources that essentially approved Pioneer's request. That decision started a 30-day public hearing process.

We reported in both stories (the one on Jan. 22 was about Kerr-McGee's royalty application but referred to Pioneer's preliminary findings document) that the commissioner decided to drop royalties from 12. 5 and 16.6667 percent to 5 percent on all of the 18 Ooogurük leases and that four of those were 30 percent Net Profit Share leases.

We also reported that the commissioner decided to convert five other leases to NPS leases, which was incorrect. He did not convert any of the leases to NPS leases.

The text in both stories on Petroleum News' Web site will be changed to reflect the correct information.

● ANCHORAGE

Van Meurs: Global gas competition tough

Consultant says Alaska participation in gas pipeline will reduce investment required, keep total revenues to state the same

By KRISTEN NELSON
Petroleum News

The administration of Alaska Gov. Frank Murkowski has been trying to move a pipeline gas project forward through negotiations for a fiscal certainty contract with the North Slope producers.

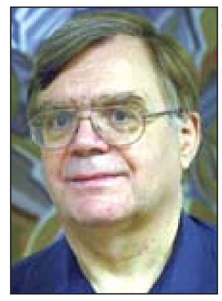
In the 1990s Alaska tried to move a liquefied natural gas project forward with the original Stranded Gas Development Act. This LNG proposal was the project Yukon Pacific had been promoting, consultant Pedro van Meurs said Jan. 20. It would have moved Alaska North Slope gas to the Far East as LNG.

That project didn't work out, he told the Alaska Support Industry Alliance "Meet Alaska" conference, "because of strong competition from other projects in the East Asian market."

Van Meurs, the State of Alaska's chief consultant in the gas fiscal negotiations, said there are stranded gas reserves in the world equal to 150 North Slope projects, all seeking markets. Each year there is room for one stranded gas project in the world market.

"So you can imagine that the competition is fierce," he said.

Alaska's gas project weak


JUDY PATRICK

There are stranded gas reserves in the world equal to 150 North Slope projects, all seeking markets. Each year there is room for one stranded gas project in the world market. "So you can imagine that the competition is fierce." —Pedro van Meurs

Van Meurs said Alaska's gas project is weak "compared to other gas projects in the world. It has a low rate of return; it has a low relative wellhead netback value; it has a long lead time; it has high risks, in particularly precisely because the project is so large."

At a Chicago gas price of $5.50 per million Btu, he said, the project makes a 20 percent rate of return. The future price of gas may average $5 per million Btu over the next couple of decades, but van Meurs said he had been in the energy business long enough "to know what whatever goes up comes down. After every boom, it's a bust. And consequently the most dangerous thing today is that we are now in a boom and we don't know when the bust will come."

You can't base the pipeline on "fantasy prices that may occur," he said. The state has compared this project to other projects at a "stressed price" of $3.50 in Chicago, and at that price the project makes a 15 percent rate of return.

Van Meurs said he researched more than 50 projects worldwide and "could only find one that made a lower rate of return number at stressed price," a field in Norway with special financing.

The Alaska project is weak "from the rate of return point of view," he said, and that "justifies that we consider this stranded gas and that we have stranded gas negotiations" on the project.

Strengthening the profitability

Van Meurs said profitability for an economist is the ratio between profits and investment. To improve profitability you can increase profits or reduce the required investment.

The State of Alaska could improve profits by eliminating its take from the project. Van Meurs said he looked at a case where the state set all of its taxes for the project at zero: no royalty, no production taxes, no property taxes and no corporate income tax.

At a stressed gas price of $3.50 that improved the project's rate of return by about 2.5 percent.

"That's not much: there's not much Alaska can do about this project," he said.

That's because the project is so large and the lead time is so long — and then for every dollar Alaska takes off, the federal government gets 35 cents. "So taking money off is an inefficient way of promoting this project."

Reducing the investment

But, he said, with 20 percent participation by the state, including taking gas in kind from royalties and taxes, the rate of return improves about 2 percent. "Almost the same improvement in profitability for this project if you participate for 20 percent or if you take all the state's revenues out," van Meurs said.

Alaska, he said, loses nothing: "The total revenues to Alaska are the same as under the status quo; in fact, they are slightly better."

Van Meurs said that in his model he had deducted what the state had to invest in the line as well as $700 million (5.5 cents per million Btu) for extra gas marketing costs.

What the state has proposed, he said, is to take its royalty and tax in-kind, make its own shipping commitment, market its own gas and participate for 20 percent of the gas pipeline.

"And this is such a significant boost to the economics of this project, and lowers the fiscal risk of this project so significantly that we have dramatically improved the possibility that this project will actually come about, and not be nibbled to death by other more competitive projects over the next 10 years." ●

The stick

If the Murkowski administration is offering the North Slope producers a carrot to develop the slope's natural gas through state participation in a gas pipeline, an Anchorage lawmaker is offering a stick.

Rep. Eric Croft, D-Anchorage, the sponsor of House Bill 223, introduced last year, told the House Ways and Means Committee Jan. 13 that Alaska falls in line behind foreign gas projects for company investment because the companies that own the North Slope natural gas, BP, ConocoPhillips and ExxonMobil, also have gas in other countries.

If a company has reserves elsewhere in the world and there is pressure to develop those reserves, if Indonesia and Russia and the Middle East are better at pressuring for production, then Alaska's gas reserves will stay at the end of the line, he said.

Croft told the committee that the fundamental idea of a state oil and gas lease is that the state puts itself in the same place as the companies. The equation breaks down, he said, when our interests start to diverge from those of the companies.

Reserves are important to a company's stock price and as companies combine and get larger and larger there is pressure for more reserves: "I don't want to be Exxon's reserves," he said.

Croft said his bill, which proposes a tax on large North Slope gas accumulations, ensures that Alaska won't be a warehouse for the companies' reserves.

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NORTH SLOPE

AOGCC begins Prudhoe reservoir study

Six-month modeling effort under way to study Prudhoe gas off take; negotiations with Exxon for access to Thomson model

By KRISTEN NELSON

Petroleum News

Alaska Oil and Gas Conservation Commission Commissioner Cathy Foerster told the Alaska Natural Gas Development Authority board Jan. 23 that typically you produce all of the oil from a reservoir before you produce the gas and replace the voidage with water. The commission is just beginning a six-month study using the Prudhoe Bay reservoir model developed by the owners, based on an agreement the commission reached with operator BP and the other owners at the field, to determine what the maximum gas production could be from Prudhoe before the end of oil production to maximize total hydrocarbon production.

JUDY PATRICK

CATHY FOERSTER

In the 1970s, before production began, the commission set a maximum daily withdrawal rate of 2.7 billion cubic feet; the current plan the North Slope producers are discussing calls for 4.5 bcf a day of gas offtake.

At Prudhoe, where wells were drilled to produce oil, the field eventually began to also produce gas, so in addition to injecting water into the field, gas is also injected back into the field. This, Foerster said, maintains reservoir pressure, keeping the reservoir energy high enough that there is enough pressure to push oil out of the field.

The oil sits in the reservoir in the spaces between sand grains, she said, and pressure allows it to move to wells and rise to the surface. If the gas were produced now, a lot of pressure in the reservoir would go a way, and eventually there would be no pressure left. Think of an aerosol can, she said: When the pressure in the can goes to zero, you can't get the remaining contents out.

The second thing that would happen with gas production now is that the oil would move up into the dry rock in the reservoir — the space now occupied by the gas cap. Oil that had been in rock already wet from oil moves to dry rock, and oil will cling to the rock, reducing the amount of oil that can be produced.

A third thing happens with early gas production: As the gas is produced, the pressure drops, and with lower pressure, the oil becomes thicker and harder to produce, Foerster said.

Oil produced first

In an ideal world the oil would be produced first, but on the North Slope there are other considerations, she said. The economic life of the facilities is a factor. You might get all the oil and then there might not be enough economic justification to replace facilities needed for gas, Foerster said.

The rate of throughput on the trans-Alaska oil pipeline is also a factor, and while the commission's role is to ensure maximum recovery of hydrocarbons, there is a balance that needs to be considered, Foerster said.

The operators are already implementing mitigating measures that will minimize the oil loss once gas production begins. Water is being injected into the gas cap, which will help ensure that the oil does not move up into what is now a dry gas cap, and will keep pressure up, she said.

The six-month reservoir study starts today, Foerster told the board Jan. 23. This process was negotiated with BP, ConocoPhillips and ExxonMobil. The commission got money from the Legislature last year to do its own reservoir modeling, she said, although the commission hoped it wouldn't have to build its own model, and was able to reach an agreement to use the operator's model.

Foerster told the House Special Committee on Oil and Gas Jan. 24 that the commission is in discussions with the Point Thomson owners for a reservoir model study similar to that being done for Prudhoe, although she said the issues with Point Thomson will be different than those at Prudhoe.

Point Thomson negotiations under way

Foerster told the House Special Committee on Oil and Gas Jan. 24 that the commission is in discussions with the Point Thomson owners for a reservoir model study similar to that being done for Prudhoe, although she said the issues with Point Thomson will be different than those at Prudhoe.

She said what the commission wants is the same thing: the ability to lift up the hood and take the engine apart on the reservoir model so it knows what's in the model assumptions. Commission staff and a reservoir modeling engineer consultant will then be passengers in the car and get to see what the operator is doing to model when you start gas offtake, how much offtake there is and what the mitigation measures are. The Prudhoe agreement gives commission staff and consultant access to computers and allows them six months to get familiar with all details of the Prudhoe reservoir as modeled, and to see how the variables affect each other.

Foerster told the committee the commission is confident it can get what it needs in six months, but if more time is needed, the agreement allows the commission to request a reasonable extension.

The commission is still in the early stages of the process of working out a Point Thomson agreement with ExxonMobil, the operator of that field. She said the commission expects an agreement this summer. While there is no production from Point Thomson, ExxonMobil has been looking at the reservoir for a long time she said, and has updated the model with results from seismic. ●

Bill would change commissioner qualifications

A bill to change qualifications for the public member of the Alaska Oil and Gas Conservation Commission, introduced last year by Rep. Vic Kohring, R-Wasilla, chair of the House Special Committee on Oil and Gas, has been revised and passed out of Oil and Gas.

The original bill required that the public member should be a licensed, experienced attorney or have a bachelor's degree in business management and not less than two years of business management experience or not less than six years of experience in business management.

The original bill required that the public member should be a licensed, experienced attorney or have bachelor's degree in business management and not less than two years of business management experience or not less than six years of experience in business management.

The committee substitute changes the requirement for the public member to "training or experience that gives the person a fundamental understanding of the oil and gas industry in the state."

AOGCC Commissioner Dan Seamount, who holds the geology seat on the commission, told the committee that the commission supports the bill, but said the commission doesn't feel there's been a problem with public members. Since oil and gas operations are becoming much more complex, Seamount said it is good insurance that all members have good knowledge of the industry.

Asked by Rep. Ralph Samuels, R-Anchorage, if "fundamental understanding" has a definition, Seamount said the wording of the committee substitute leaves evaluation of fundamental understanding up to the governor and the Legislature.

Commissioner Cathy Foerster, who holds the petroleum engineer seat on the commission, said the commission didn't want to see the Legislature limit good applicants by requiring things such as college degrees.

John Norman, an attorney, currently holds the public seat on the commission and is the commission chairman.

Rep. Norm Rokeberg, R-Anchorage, said the seat should not be a political award. A standard of knowledge has been missing in the past, he said.

The bill, House Bill 300, was passed out of Oil and Gas Jan. 24 and goes next to House Resources.

—KRISTEN NELSON

● VIENNA, AUSTRIA

Oil could top $100 if U.N. sanctions Iran

Experts: oil prices could rise producing economic slowdown if Iran cuts oil exports in response to action against nuclear program

By BRAD FOSS & GEORGE JAHN
Associated Press Writers

A surge in oil prices in mid-January to almost $70 a barrel on concerns about the restart of Iran's nuclear program only hints at what may lie ahead.

Prices could soar past $100 a barrel, experts say, if the U.N. Security Council authorizes trade sanctions against the Middle Eastern nation, which the West accuses of trying to make nuclear bombs, and Iran curbs oil exports in retaliation. A sharp global economic slowdown could follow.

That's the dilemma the United States and European nations face as they decide whether to act. But Iran would also pay a hefty price if the petro-dollars that now represent 80 percent of export revenues are reduced, potentially stirring civil unrest in a nation with a 14 percent unemployment rate.

"They would shoot themselves in the foot," said Mustafa Alani, director of national security and terrorism studies at the Dubai-based Gulf Research Center. "It's one thing to test the market psychology, it's another to take the actual step and stop oil exports."

Iran exports 2.5 million bpd

Iran, the second-largest oil producer within the Organization of Petroleum Exporting Countries, exports roughly 2.5 million barrels per day — 1 million barrels more than current excess production capacity worldwide. It also controls the strategic Strait of Hormuz, a critical shipping lane in the Middle East.

"Even if Iran pulled a small amount of its oil off the market, say it pulled a half million barrels a day, I could see oil prices literally jumping over the $100 per barrel mark," said James Bartis, a senior researcher at Rand Corp.

But other oil analysts say prices would likely not climb much higher than $75 a barrel before strategic reserves would be released and demand would begin to taper off as economic activity slowed around the world.

So who would be hurt more? The United States and other nations say it would be Tehran and argue against succumbing to economic blackmail in any case. "We cannot be intimidated by economic threats from their side," Sen. Trent Lott, a Mississippi Republican told CNN.

DOE: exports finance half of Iranian budget

The U.S. Department of Energy estimates that oil exports finance about half of the Iranian government's budget. And while high oil prices have boosted the annual growth rate to about 5 percent, Iran has never really recovered from its 1980-1988 war against Iraq and trade restrictions on sensitive technologies. The Iran Nonproliferation Act, which the U.S. Congress passed in 2000, deters international support for Iran to develop nuclear, chemical and biological weapons programs and missile-delivery systems.

For weeks, Iran's state television has sought to show a people united behind the leadership, showing passers-by on Tehran city streets expressing their support for the country's strivings for nuclear independence.

Still, Alani of the Gulf Research Center questioned "whether the ordinary citizens will be willing to risk sanctions and endure a lot of suffering like the Iraqis suffered for 13 years" under U.N. sanctions.

Consuming nations have reserves

Oil consuming nations, meanwhile, have at least one ace up their sleeves — crude reserves. The United States and other members of the International Energy Agency have a combined 1.48 billion barrels of oil in their emergency stocks. That's equivalent to about 600 days of Iran's net oil exports of 2.4 million barrels per day.

OPEC might be able to add 1.5 million barrels per day to world production, mostly from Saudi Arabia. And oil analyst Fadel Gheit at Oppenheimer & Co. in New York said Russia might be able to crank up exports by about 500,000 barrels once its domestic home-heating demand eases.

Gregory L. Schulte, chief U.S. delegate to the International Atomic Energy Agency, accused Iran the week of Jan. 16 of deceiving the world about its atomic program, declaring that moves to haul it before the U.N. Security Council were meant to deny "the most deadly of weapons to the most dangerous of countries."

His comments were part of increasing international pressure on Iran since it removed seals from uranium enrichment equipment earlier in January and said it would start small scale work on the process that can make both fuel and the fissile core of nuclear warheads.

Who will blink first?

"It's a very difficult situation where you don't know which side is going to blink first," said Leonard Spector, deputy director of the Monterey Institute of International Studies' Center for Nonproliferation Studies.

It's also not clear the United States could win a referral on sanctions at the Security Council, where members Russia and China are Iran's main allies. Both have strong economic and strategic ties to Iran, with China a large oil consumer and drilling partner and Russia a key supplier of arms and nuclear technology and services for what Tehran says is a peaceful program. Additionally, oil-rich Russia would benefit from higher prices and increased demand for its crude if Iran's oil were off the market.

Influential India, which imports 75 percent of the crude it consumes, some from Iran, is a wild card in the referral struggle.

It joined the U.S., Britain, France and Germany in September to back an IAEA resolution that set the stage for reporting Iran for violating the Nuclear Nonproliferation Treaty. But pressure is building on the Indian government not to vote against Iran when the 35-nation IAEA board meets Feb. 2 to consider actual referral.

"India must not allow itself to be dragooned into joining the Washington-led nuclear lynch mob against Iran," The Hindu, one of India's most influential newspapers, cautioned Jan. 19. "Aside from the lack of any legal basis for threatening Iran with sanctions, India should consider what the U.S. pressure on Tehran will do to international oil prices as well as to the overall security scenario in West Asia."

The United States and its allies are thought to have the majority behind them on any vote for referral. Still they would like to see India, China and Russia on board — all three countries carry weight among other IAEA board nations, and Moscow and Beijing both have the power to veto any resolution before the Security Council on what to do about Iran, once it is referred. ●

● CALIFORNIA

Woodside plans offshore California LNG system

Australian company hopes to sidestep concerns about terrorism, environmental problems with tankers that can regasify LNG onboard

By ALLEN BAKER
For Petroleum News

Woodside Petroleum Ltd. is abandoning the traditional route for bringing Australia's LNG into the California market, announcing it would use offshore regasifying tankers instead. The system used by Woodside would be similar to the Gulf Energy Bridge that Excelerate Energy LLC put into operation in the Gulf of Mexico last March, using an underwater buoy 116 miles offshore.

The Australian company said Jan. 19 that it would put its OceanWay unloading operation at least 15 miles off the coast of California. Several sites are being considered, the company says, with Woodside looking for a site well removed from population centers, with safe oceanographic conditions and minimal on-shore disruption.

Approvals will be needed from the U.S. Coast Guard and the California State Lands Commission, the company said, and probably the Federal Energy Regulatory Commission and others as well.

Woodside had been a backer of the Crystal Energy LLC proposal for an offshore LNG terminal on a former oil platform, but withdrew from that project last summer.

Most other projects stalled

Competitor Sempra Energy of San Diego is building a terminal in Baja California, just south of the U.S.-Mexico border, but other projects to serve the California market have been stalled by controversy. Australian rival BHP Billiton wants to build a terminal 14 miles off the coast near Malibu. ConocoPhillips and Mitsubishi Corp. have proposed an onshore facility in Long Beach.

see WOODSIDE page A10

● CARACAS, VENEZUELA

Chavez: Venezuela will get $1.5 billion more

Additional income will come from return of 32 privately operated fields to state control; government has also audited companies

By NATALIE OBIKO PEARSON

Associated Press Business Writer

President Hugo Chavez said Jan. 20 that Venezuela expects to reap an additional US$1.5 billion this year in oil income with the return of 32 privately operated oil fields to state control.

This "shows how important it is that a country manages its strategic resources," Chavez said in a nationally broadcast speech.

Chavez's government has declared as illegal contracts under which foreign oil companies like Royal Dutch Shell PLC, Chevron Corp., BP PLC, and Brazil's Petrobras S.A. independently pumped oil at the Venezuelan fields.

He said Jan. 20 that those contracts allowed foreign companies to extract oil at US$4 a barrel then sell it to the national oil company, Petroleos de Venezuela SA, or PDVSA, at US$20. The contracts also required PDVSA to pay the related royalties.

New state-controlled JVs required

The government recently made all companies sign agreements to give up those contracts and form new state-controlled joint ventures, known as "mixed companies," with PDVSA.

HUGO CHAVEZ

"Now this perverse mechanism is over," Chavez declared as he promised to divert the additional revenues from the mixed companies to social programs.

In its effort to squeeze more money from the industry amid high oil prices, the government conducted an audit of the companies and claimed they owe billions of dollars in unpaid taxes.

On Jan. 20, the tax agency, however, sharply revised downward its tax bill for Royal Dutch Shell, saying the company owed US$13 million instead of US$130 million for the tax period from 2001 to 2004 — a 90 percent cut.

The agency said in a statement that it reached the figure after reviewing tax documents that the company submitted following the original bill last year.

Chavez: foreign companies have looted VEnezuela

Chavez, who accuses foreign oil companies of having looted Venezuela, has promised his socialist "revolution" is freeing the country from "imperialist" interests and restoring its sovereignty.

On Jan. 20 he also said that Venezuela plans to replace domestic fuel consumption with natural gas in order to export an extra US$9 billion worth of petroleum a year.

"We are consuming in fuel — gasoline, gas oil, fuel oil — about 50,000 barrels a day of petroleum. When there comes a point in the coming years that we are able to substitute that internal consumption with gas, we can export (that oil)," he said.

Venezuela would earn an extra US$25 million a day or US$9 billion a year with those sales, Chavez said.

Venezuela is the world's fifth-largest exporter of oil. It has the largest proven oil reserves outside of the Mideast and the second-largest gas reserves in the Western Hemisphere. ●

● MOBILE, ALA.

Barge spill highlights hurricane hazards

November Gulf spill due to submerged drilling platform; owners didn't have lighted buoy at wreck; 167 storm-damaged platforms

THE ASSOCIATED PRESS

A double-hulled tanker barge spilled more than one million gallons of oil in the Gulf of Mexico last year after hitting a submerged drilling platform wrecked by Hurricane Rita, the Coast Guard says.

The Nov. 11 spill off the coasts of Louisiana and Port Arthur, Texas — and the $35 million cleanup associated with it — might have been avoided if the owners of the oil platform had marked the submerged wreck with a lighted buoy, as required under federal law, Coast Guard officials told the Mobile Register for a story Jan. 20.

The barge operator, K-Sea Transportation, based in Staten Island, N.Y., paid for the cleanup, but future litigation is expected against the owner of the platform, Coast Guard environmental specialist Patrick Cuty in New Orleans told The Associated Press on Jan. 20.

Marker at wreck not lighted

The wrecked platform, owned by Houston-based Targa Resources, was marked only with floating plastic balls described as "cherry fenders." Such buoys are not lighted and would be difficult to see at midnight, when the accident happened.

Targa spokesman Joe Bob Perkins said Jan. 20 there were no lights on the WC-229 platform, but "it was marked" and the loca-

see HAZARDS page A10

● CANADA

Gas industry bets on diverse supply mix

Canadian Gas Association report sees growing demand, calls for more diverse supply mix, policy action by Canadian government

By GARY PARK

For Petroleum News

You might expect a gas industry association to see natural gas as a key component of a sustainable energy world over the next 30 to 50 years.

But the vested interests of the Canadian Gas Association do not prevent it from calling for a deeper debate on what constitutes a "sustainable energy future" and what role gas can play in that future.

Wrestling with many long-held assumptions takes on added significance as Alaska and Canada sit on the doorstep of opening up trillions of cubic feet of Arctic resources.

In a recent report entitled "A Sustainable Energy Future: The Role of Natural Gas", the association attempts to get the ball rolling on a debate in an environment of "increasingly tight supply/demand balances, high prices and environmental challenges" and the desire to ensure continued economic and social benefits from the gas delivery system.

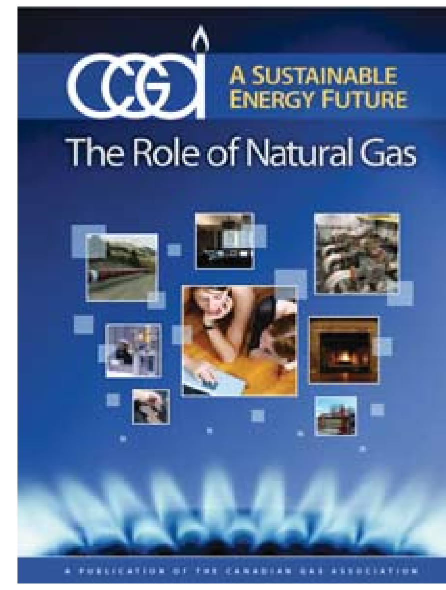
The association's bottom line conclusion is that growing demand will require a supply mix that is more diverse, with gas sharing the stage with traditional and alternative energy sources.

Evolution expected

The study believes the next several decades will see the evolution of an energy system that embraces current or emerging fuel and technology options, but will see traditional and alternative sources working together.

However, for natural gas to play a key role in residential, commercial, industrial, power generation and motor vehicle uses needs the participation of policy makers at a time when Canada's growing economy requires incremental energy supplies, notwithstanding dramatically stepped up conservation and efficiency measures, the association suggests.

The report said its most basic proposition is to determine the meaning of "sustainability," while rejecting simplistic notions of "energy policy and/or sustainability" that "in the past have led us down blind alleys and there is a risk that they will do so again today."



"In our view, sustainability in a meaningful and operational sense needs to consider multiple characteristics.

"A sustainable energy future is one that meets the diverse energy service needs of society in a reliable, secure, efficient, affordable and environmentally acceptable way."

Consumers need maximum choice

Moving towards a sustainable future will "rest largely on well functioning energy markets where consumers have maximum choice, good information and are able to respond to a market price when they make their choices."

In examining the special attributes of gas, the association notes that gas accounts for 46 percent of Canada's primary energy production, exceeding domestic requirements and allowing for about half of the production to be exported to the United States.

On the issue of reliability, the association said that close to 300,000 miles of underground transmission and delivery systems can hold 14-16 percent of North America's total consumption and achieve 99.999 percent reliability, which is measured as the number of service days lost as a proportion of the total number of gas service days in a year. ●

The recipe for an energy future

The Canadian Gas Association calls for policy action in Canada to:

• Recognize the connectivity of the energy system, not just individual elements.

To that end government and regulatory policy must recognize that significant investment in existing and new gas transmission and distribution systems will be needed over the next decade to ensure the continued reliability of Canada's gas system. Policy must establish the necessary conditions for long-term contracts to allow investment in infrastructure projects.

• Allow consumers to see the price signals for their energy options.

Consumers must see the costs for their energy supply choices, with those vulnerable to higher energy prices gaining protection through income-based measures.

• Approval processes to co-ordinate and run in parallel to improve efficiency and timeliness.

A streamlined regulatory, environmental and commercial framework to promote innovative energy sources such as liquefied natural gas, coalbed methane and methane hydrates.

• Achieve desired near- and long-term environmental outcomes rather than specifying particular fuels or technologies.

Policies need to encourage environmental improvement across the spectrum of fuel sources and technologies.

• Develop appropriate government codes and standards for all energy activities.

Recognition and support of the benefits of combined heat and power and distributed generation systems.

• A proactive government role in supporting technology development.

A joint effort by educational institutions and government to promote research and technology development aimed at new uses of natural gas.

• Emissions management through a variety of mechanisms such as emissions trading and carbon sequestration.

• Change tax treatment.

A capital cost allowance should be structured to at least be consistent with the useful economic lives of assets, while avoiding internationally uncompetitive tax treatment which inhibits Canadian industry's ability to compete for capital. Tax incentives are also urged to promote innovation and technology development.

—GARY PARK

CANADA

Canada topples gas export volumes

The pockets of Canadian natural gas producers are bulging from new export records.

National Energy Board statistics show that revenues from the contract year of November 2004 to October 2005 edged past C$33 billion, beating the previous high of C$28.6 billion in 2000-01.

October's average export price of C$12.84 per gigajoule was more than double the C$6.01 in the same month of 2004, while volumes climbed to 303.2 billion cubic feet from 283.4 bcf, with shipments up to the Midwest, Northeast, Pacific Northwest and Rocky Mountain regions.

For the first 10 months of 2005, the tally was C$27.4 billion, toppling the full-year benchmark of C$26.7 billion set in 2004.

For the contract year, the board reported average export prices of C$8.19 per gigajoule, compared with C$6.52 the previous year, while volumes rose to 3.72 trillion cubic feet from 3.54 tcf.

October's average export price of C$12.84 per gigajoule was more than double the C$6.01 in the same month of 2004, while volumes climbed to 303.2 billion cubic feet from 283.4 bcf, with shipments up to the Midwest, Northeast, Pacific Northwest and Rocky Mountain regions.

For the contract year, exports to the Midwest totaled 1.56 tcf, followed by the Northeast at 1.26 tcf, the Pacific Northwest at 446.5 bcf, California 439.1 bcf and the Rocky Mountains 14.4 bcf.

—GARY PARK

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

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Business Spotlight

By PAULA EASLEY

COURTESY PHOTO

Aaron Athanas, Mechanical Engineer, P.E.

Great Northern Engineering

Great Northern Engineering is a full-service engineering firm specializing in industrial power and petrochemical engineering. Its range of comprehensive services includes mechanical, electrical, civil, structural, rotating equipment and corrosion engineering. Great Northern also provides consulting services in project design, preparation of project documents, bid assistance, project management and cost estimating and inspections.

Aaron Athanas is a UAF graduate in mechanical engineering who worked for Design Alaska and RSA Engineering before joining Great Northern this summer. He and wife Adrienne are competitors in the local and state championship Alaska Motocross circuit. Weather permitting, they spend leisure time training, repairing and riding motorcycles. Aaron and Adrienne have two toddlers, Anthony and Alexander. Dad's motto: Seize the day, not your engine!

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TEST

Idea has long history

Denis said the idea of using different water has been around in the industry for decades, but "I don't think the industry ever really figured it out. We think we may have. And so we're moving forward with this in a new and different way than anybody else has."

The process has been under development by BP at its Sunbury research lab in England for about three years.

There's been anecdotal evidence, some of it on the North Slope, but in the last few years BP researchers "began to connect the dots," he said.

At Milne Point BP does some waterflood with low salinity water, using source water from a well which is less saline than Beaufort Sea water. BP Exploration (Alaska) spokesman Daren Beaudo said BP "saw an impact from the lower salinity water" at Milne Point.

The technique has worked in the lab, where core from reservoirs is flooded with different waters. BP has also done "near-wellbore tests where we're investigating out a few tens of feet into the reservoir," using tracers to watch for changes, Denis said.

The technique works in the lab and in well tests. What BP needs now, he said, is tests between wells of a few thousand feet in a reservoir.

"And that's the piece where you have to just go and put your money down and ... test it and get the confirmation."

Endicott has production of more than 200,000 barrels of water a day, Denis said. "We won't build a plant big enough to replace all of that, but we'll build a plant to produce 50,000" bpd.

BP screened its worldwide portfolio of fields and Endicott was selected as the best place to test the technology, Denis said.

Preliminary engineering

Johnson said preliminary engineering for the Endicott test is going on now. In the conceptual phase Endicott was selected for the test both because of the kind of field it is and because it "has much of the infrastructure already in place required to produce a lower-salinity water source to the wells" such as the seawater processing facility.

The elements that BP will add are reverse osmosis and micro-filtration. Both are membrane technologies, Johnson said, and BP wants to "prove these up for future use in the near term ... at Prudhoe Bay and then eventually at our global facilities."

Reverse osmosis technology is used worldwide in desalination to take solids and salt out of water. It's not a new technology, Johnson said, but is a new technology for this application. Micro-filtration will be used to take solids down to less than 10 microns.

There will be some retrofit to existing facilities at Endicott, "but we do plan to construct and erect a module that will require sealift, a pretty substantial-sized module," Johnson said. The module will come up on sealift in 2008.

There will be some civil work required at Endicott, a new pipeline will be built and some wells will be converted.

A good portion of the work will probably be in 2008, Johnson said, but BP would like to do some work — "retrofit of existing modules, the pipeline, that type of work" — in advance of 2008 because of limited space at Endicott.

Plant will handle 50,000 bpd

Endicott has production of more than 200,000 barrels of water a day, Denis said. "We won't build a plant big enough to replace all of that, but we'll build a plant to produce 50,000" bpd. The field will be flooded area by area, and as each area is depleted of oil, they'll move on to another area.

The surveillance portion of the project will also require some new technology, Johnson said. Because Endicott is producing so much water in some areas "it's going to take some new technology to really pick up subtle changes in water cut because the rates are so high."

Endicott is "so mature, we've stripped the easy oil out," Denis said.

But significant oil remains, although incremental oil recovery is now in the 3 percent to 7 percent range, and "you'll want to be precise in finding those small differences because that's actually a big chunk of your recovery given there's mostly water left and not much oil left."

Endicott currently produces some 19,500 bpd, down from a peak of 115,000 bpd, Denis said. State records show that through November the field had produced almost 444 million barrels of oil.

Marshall said the incremental recovery at Endicott from this technology could be some 30 million barrels, with hundreds of millions of barrels possible across the North Slope.

Part of the reason Endicott was chosen is that the field has 400 million to 500 million barrels of oil remaining in the ground, Denis said. "And without this technology we might walk away from that field and shut it and there'd still be 400 million barrels down there just because the oil hangs onto the rock and you can't liberate it."

The remaining oil at Endicott is a large target, and with infrastructure in place, "if we can find these new technologies," there are "nice targets" remaining, he said.

Should apply to Prudhoe, other fields

In terms of the sub-surface the technology should work at Prudhoe and in the Prudhoe satellites, Denis said. BP has already done some low-salinity work at Milne Point.

The fluids in each reservoir are unique, he said, and you have to get "the right cocktail for the right application. But early indications are that there's a lot of the North Slope reservoirs that this will work for."

The exception, Denis said, is Northstar, "essentially a clean reservoir with very volatile fluids. If you don't have a lot of residual oil left, you don't have a big target to chase."

Applications would be at fields with significant residual oil, "most of our big major fields and our more viscous fields." But there is a limitation to the technology with viscous oil, because some viscous oil is waterflood-able, and some is not. Where viscous oil can be waterflooded, low-salinity may have applications, Denis said.

Challenge of new technology

Marshall talked about a "buzz" in BP's Anchorage headquarters.

"It's really fun to be in a place where we're doing things that are going to be game changes for Alaska, or game changes for BP or maybe game changes for the industry." There's uncertainty that goes with being the first to try something new, and certainly naysayers, he said. It was the same with miscible injectant: there were industry experts who said that wouldn't work when it was first tried.

With any new EOR process you're changing things in the subsurface. You can do remote sensing, but you can't actually see what's going on, Denis said.

He compared it to going to the moon: you can do all the work, but you don't know until you actually do it. "We can do all this work; we can do all the analysis; we can do all the modeling; we can do all the testing."

The proof will be in the full-field test at Endicott. ●

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WOODSIDE

Shipments for the Woodside venture would start in 2010, the company said, with the aim of bringing ashore 700 million to 1.4 billion cubic feet of natural gas daily. It would take several ships to make deliveries at that rate, with each ship costing in the neighborhood of a quarter to a third of a billion dollars. So it's an expensive proposition.

But Woodside wants to fast-track its $3.7 billion Pluto project offshore Western Australia, and it also could send some of its share of LNG from the North West Shelf venture, which it operates. The Browse and Sunrise fields could also provide fuel, possibly via an expanded LNG liquefaction plant in Darwin. Pluto is expected to produce 7 million tonnes of LNG annually, which converts to nearly a billion cubic feet of gas per day. ●

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HAZARDS

tion was well known to mariners. He said the barge was "significantly" off course when it struck the platform.

"The Coast Guard advised all mariners of the location of the sunken platform and that it was only marked with unlighted buoys," Perkins told the AP.

The damaged 442-foot barge, now floating upside down at a dock off Mobile Bay, has been drained. A gash in the hull is 35 feet long and 6 feet wide.

The fuel oil on board was so heavy it sank to the seafloor as it gushed from three separate cargo holds and, according to Coast Guard news releases, has not washed up on any shorelines.

An estimated 134,400 gallons of the spilled oil was recovered from the seafloor. But rough weather immediately after the accident thwarted cleanup efforts for days at a time. The barge held 9.3 million gallons.

At least 167 platforms damaged

Federal records show at least 167 Gulf platforms were damaged or destroyed during the active 2005 hurricane season, the Register said.

Many of these are now submerged or so damaged that the warning beacons on them no longer function, and federal officials acknowledge they have no idea how many have working marker lights.

The Register said that www.tradewinds.no, an online shipping trade journal, reported in December that Coast Guard officials had instructed Targa Resources to install a lighted buoy over the wrecked platform.

According to the Tradewinds article, Targa Resources was "unable to locate one amid an equipment shortage in the aftermath of back-to-back Gulf hurricanes."

Targa's spokesman said Jan. 20 the Coast Guard approved using unlit buoys and advised Targa it could deploy lighted buoys when they became available and when crews and ships could be found to deploy the buoys.

According to the Code of Federal Regulations, it is the responsibility of the owner of a wrecked platform to ensure that it is appropriately marked.

Officials at Coast Guard headquarters said the agency does not have an inspection process to determine if the wrecked platforms have been properly marked. But, they said, companies are subject to fines if they are found to have shirked the buoy requirement.

Targa has cooperated fully with the Coast Guard's investigation of the barge's accident, the company spokesman said, and no action has been taken against Targa. ●

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SHELL

ner in six of the 12 Beaufort Sea discoveries and drilled four of the five exploration wells in the Chukchi Sea. But oil prices had not been high enough to justify development of any discoveries and the company relinquished all of its leases.

Ryan pointed out that, whereas Shell has not been active in Alaska in recent years, the company has been involved in some major Arctic projects in Russia, the Mackenzie Delta and Norway.

Global agenda

Alaska dovetails right into Shell's current global business strategy.

That strategy consists of three themes: new material oil; more unconventional oil; and more integrated gas — Alaska enjoys huge potential to support all of these themes, Ryan said.

"We need to make Alaska one of Shell's production heartlands in support of this strategy," he said.

From the point of view of material oil, "there are still many unexplored and underexplored basins in Alaska," Ryan said. There are major discoveries for those willing to make the commitment and develop them in a responsible manner, he said. And unconventional oil, especially in the form of heavy oil deposits, exists in billions of barrels.

Additionally, Alaska is rich in gas.

"We are excited about the positive steps to see that gas eventually gets to market," Ryan said.

Ryan said that Shell also sees potential for a world-class liquefied natural gas project in the Bristol Bay area.

"One area that could provide relatively direct access to the U.S. and Asia-Pacific LNG market is Bristol Bay," he said. "We look forward to the opportunity to one day acquire seismic and explore in the shallow ice-free waters of this prospective basin. We believe it can be done with no adverse impact on the fisheries or the marine mammals."

Ryan emphasized that Shell did not see that type of LNG project competing with or undermining the proposed North Slope gas line development.

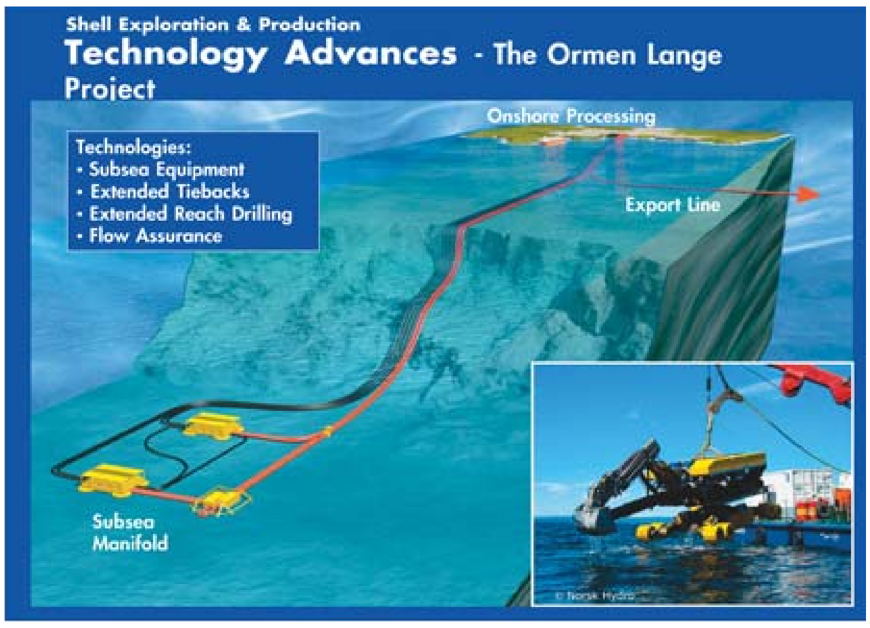
Shell sees new technology as a key component of Arctic exploration and development, especially in the ice-prone and stormy outer continental shelf offshore northern Alaska. Recent advances in subsea technology may, in particular, unlock oil and gas deposits in this challenging environment.

"Long distance subsea projects can extend our onshore reach without the need for permanent offshore structures," Ryan said.

Ryan particularly cited the Ormen Lange gas field, offshore Norway, where subsea completions are being tied back 75 miles to onshore facilities. State-of-the-art remote operated vehicles have also made deep-sea work possible. In the United States, for example, Shell has used remote operated vehicles to repair the Mars field export pipelines that were damaged in last year's Gulf of Mexico storms.

"You can imagine 3,000 feet of water and doing the repairs on two pipelines which were damaged by the storm entirely with remote operated vehicles," Ryan said.

Shell's experience in deep waters of the Gulf of Mexico also gives the company confidence that it can maintain product flow through pipelines in frigid water — the water temperature at depths of 8,000 feet in the Gulf of Mexico is similar to that in the Arctic, Ryan said.



COURTESY SHELL EXPLORATION AND PRODUCTION

Is this the future of Alaska offshore oil and gas development? Subsea completions and a remote operated vehicle in Norway's Ormen Lange gas field.

"Over the past 10 years our deep-water operations have taught us much about how to keep oil and gas flowing in such frigid conditions," he said. "Much of this technology is directly applicable to the Arctic subsea."

But sea ice remains a major challenge, especially when drilling wells. Shell hopes to try the use of air cushion supported drilling rigs, with a hovercraft-like rig design pioneered on the Siberian tundra back in the 1960s. This type of rig could perhaps hover over ice after the end of the open water season.

"In areas where the open season is very short this type of drilling platform might be able to extend the drilling season by more than 50 percent, and so reduce exploration and development time and cost," Ryan said.

Shell is also investigating the use of ice-resistant tension leg drilling platforms. Ryan said that this technology did not exist in a mature form when Shell last explored offshore Alaska. A study has now indicated that a flexible structure using a tension leg platform designed for Arctic applications could withstand sea ice up to six feet thick, he said.

The environment and communities

Ryan said that in addition to having clear oil and gas business objectives in its new foray into Alaska, Shell views environmental protection and the interests of local communities as top priorities "to cause no long term harm to the environment and to make a positive impact on the community." Protecting the environment involves operating in the most responsible and safest manner, and leaving as small a footprint as possible, Ryan said. Working with local communities means being a good corporate citizen, providing jobs, respecting cultures and enhancing the lives of people.

"For Shell it just makes good business sense," he said.

Ryan cited Shell's Athabasca oil sands project in Canada as an example of community involvement. There the company worked with the local First Nations community to establish contracts for services such as heavy trucking, he said. That has resulted in local long term employment, with $1 million per year in local services 10 years ago growing to more than $20 million per year now.

And in the massive Sakhalin-2 project, in the Russian Far East, more than 75 percent of the 17,000 project workers are Russian and more than 40 percent of the workers are from Sakhalin Island, Ryan said. Shell has a 55 percent interest in that project, he said.

Ryan also described Shell's efforts to minimize the impact of gas development around Wyoming's environmentally sensitive Pinedale anticline, a critical habitat area for deer, antelope and other wildlife. He said that Shell has minimized the footprint of operations that produce 150 million cubic feet per day of natural gas from more than 60 wells. Additionally the company has funded local wildlife protection initiatives and taken other measures to minimize environmental impacts.

"By deploying portable gas processing units Shell has reduced flaring during completion operations 98 percent in just three years," Ryan said. "… (That was) something that needed to be done and we've started to do it."

And for Alaska, Ryan said that Shell is designing new and better emergency response systems for ice-covered seas and finding ways to protect endangered marine mammals.

Alaska communities

Shell has already started talking to local communities in Alaska about the company's plans, Ryan said. In particular the company has been working to complete a conflict avoidance agreement with the communities for the upcoming exploration season. Ryan said that Shell pioneered this type of negotiation back in the 1980s.

"We have great respect for the people who live in the area in which we plan to operate, generations of whom have developed a livelihood and a culture in these extreme conditions, and for whom the Arctic is home," Ryan said.

He said that Shell will also develop contracting strategies to support its exploration programs. The company anticipates development opportunities and jobs in the communities where it operates and sees many opportunities for local people if the company's operations prove commercially successful.

Meantime the company has been moving ahead with a program of Alaska hire in support of its growing Alaska operations. Earlier in January the company announced the hiring of an Alaska management team consisting of Alaska Asset Manager Rick Fox; Alaska Government and External Affairs Manager Cam Toohey; and Community Affairs Manager George Ahmaogak Sr. Fox has previously worked in the Bering, Beaufort and Chukchi Seas; Toohey is a lifelong Alaskan; and Ahmaogak is a lifelong Alaskan, who was formerly mayor of the North Slope Borough, president of Ukpeagvik Inupiat Corp. and Piquniq Management Corp. and a member of the Interior's National Outer Continental Shelf Policy Committee.

"We're not done hiring," Ryan said, adding that Shell also looks forward to working with Alaska Support Alliance companies. Shell wants to employ Alaskans with the critical skills needed to operate its future assets, Ryan said.

"To achieve this we will partner with the University of Alaska, the community colleges, industry liaisons and other as we search out proactively staff that can fill our needs," he said. Meantime the company expects to hire about six interns this year, with a need for more interns in future as the operations mature.

"We really are glad to be back in Alaska," Ryan said. "… The world needs energy and it's no secret that Shell is in the energy business … and we believe responsible development of Alaska's resources is in everyone's best interests.

Ryan said that Shell wants to set the standard for socially responsible and environmentally mindful development.

"Alaska is a place of great vision, commitment and stamina," he said. "We see how the land is and we intend to be part of it." ●

continued from page A1

INSIDER

Heinze's timeline includes introduction of that legislation in February. In March a contractor for the Legislature would analyze the revenue impacts. His estimate is that House and Senate committee would hold hearings on the proposed oil tax changes in April and a new production tax bill would be passed in May.


FORREST CRANE

HAROLD HEINZE

Consultant Pedro van Meurs told legislators that passage of a revised oil production tax would have to happen before a gas pipeline fiscal contract is presented to the Legislature.

Heinze estimates that the governor will reach agreement with the producers and a contract and best interest finding will be finished in June and released in July, with public review and legislative hearings in August and September, followed by revisions to the contract based on public input in October.

The revised contract and related legislation would be sent to the Legislature in November.

Nov. 7 is Election Day — for both the Legislature and the governor.

Heinze told the board that after the issue of the oil production tax was added to the mix it seemed to him the process would probably take longer. If it gets to be fall and there hasn't been a vote, he said he thinks the vote likely won't take place until January.

There's a lot of risk in this decision, Heinze said, and he doesn't think legislators will want to be exposed to risk over a very short time before an election.

If he's right, the Legislature would organize in December and the vote wouldn't come up until the new Legislature convenes in January.

Deputy Revenue Commissioner Steve Porter told the board the state's negotiators have long since given up predicting timing. But, he said, it is the governor's intention that this Legislature and this governor make this decision this session.

Porter said Revenue has been working on the production tax issue for a couple of years, and both the Legislature and the administration have spent a lot of time working on the present system and the economic limit factor.

The question, he said, is how fast the Legislature will act on a tax change.

—KRISTEN NELSON

Canada elects new prime minister

THE RESULTS OF CANADA'S elections are in and Gary Park, Petroleum News' Canadian writer, is out — just for a few days, so watch for more in next week's edition.

Here's the basics from PN's Yanks: New Conservative Party Prime Minister-elect Steven Harper defeated Paul Martin, unseating Martin's Liberal Party after 13 years in power.

Still, according to the New York Times, without a majority in the House of Commons "Harper may lead a weak, unstable government opposed by three left-of-center parties represented in Parliament."


STEVEN HARPER

The Times also says Harper will "almost certainly bring, at the least, a warming of relations" with Washington and the Bush administration.

Harper, 46, an economist and social conservative who is writing a book on the history of ice hockey, is from Alberta where the energy industry is the prime economic driver, so it's no surprise he opposes the Kyoto Treaty. Since Canada isn't anywhere near reaching its Kyoto targets will Harper consider joining the Asian Pacific Partnership forged by Bush last year? Or, as some suggest, drop Canada's opposition to ANWR drilling?

We'll leave the answers to Mr. Park…..

—KAY CASHMAN

continued from page A1

PIONEER

In an interview with Petroleum News following his speech Sheffield said five years is an acceptable number — about the same amount of time it takes to bring a deepwater Gulf of Mexico discovery online.

"If we were a ConocoPhillips or a Shell we could look at projects that took 10 to 15 years to bring online, but we're a mid-cap independent … with a $9 billion enterprise value … and anything longer than five years could hurt our rates of return … involve a higher level of risk that wouldn't be acceptable to our investors," he said.

When asked if his company was interested in moving into the federal waters offshore the North Slope, Sheffield said probably not.

"We have our hands full with the 1.6 million acres (gross) we have onshore and near shore. And we're looking at adding more onshore acreage in northern Alaska, but I don't see us being interested in the OCS," he said, referring to Pioneer's preferred five-year time period for bringing projects online in Alaska, which wouldn't be the likely time frame for a discovery in the federal waters of the Chukchi or Beaufort seas, he said.

But Ken Sheffield, president of Pioneer's Alaska subsidiary, said the company "wasn't completely ruling out" the federal offshore.

The company is up to 26 employees in Alaska, having first entered the state at the end of 2003. Sheffield said Pioneer will add another six or seven employees in 2006.

Excited about Cosmopolitan

In his speech Scott Sheffield addressed his company's interest in the Cosmopolitan oil exploration prospect for the first time in any length.

Although Pioneer isn't interested in pursuing any other investments in Cook Inlet, he said the company was "very excited" about Cosmopolitan where it is partners with Devon Energy and operator ConocoPhillips.

"We shot 3D seismic there (last summer). We're evaluating it now. … We're looking at making a decision early this summer about picking up another 40 percent interest and taking over operations" at Cosmopolitan.

Corps permit only hold-up

In reference to Pioneer's proposed Oooguruk project, Sheffield said the company was "within days" of making a decision to sanction development.

Located in the shallow waters of the Beaufort Sea, Oooguruk is expected to hold some 70 million barrels of recoverable oil and produce 15,000 to 20,000 barrels per day.

But Sheffield offered a different start-up date than he previously anticipated for Oooguruk, saying first oil would be produced in 2008, maybe 2009. The company had initially hoped for production to start as early as 2007.

The only holdup on the project is the U.S. Army Corps of Engineers permit.

Pioneer is also waiting for approval of royalty modification from the State of Alaska, but state officials say it will likely be approved and signed in the next few days.

Pioneer is hoping to begin construction of the project's gravel island this winter, but that is dependent on when — and if — the company receives a permit from the Corps, which has said it hopes to have a decision by the end of January. Corps officials have not indicated whether Pioneer's permit application will be approved.

Fiscal package a draw

The company is up to 26 employees in Alaska, having first entered the state at the end of 2003. Sheffield said Pioneer will add another six or seven employees in 2006.

Sheffield said one of the reasons Pioneer recently pulled out of Argentina was because the country was "becoming over-taxed."

"Tax relief in Alaska … is one of the reasons we are here," he said, referring to exploration incentives offered by the state. "The openness of the government, of the governor, Congress and the agencies up here … welcoming the independents" is why Pioneer came to Alaska.

An attractive fiscal regime is one of the reasons Pioneer also has a strong presence in South Africa, Sheffield said, noting South Africa offered the equivalent of a one percent royalty.

The best way to attract new oil and gas companies to Alaska is an attractive fiscal package, he said, noting there has been a lot of exploration in Alaska over the last 20 years but many of the discoveries have not been developed.

Higher oil prices, he said, will likely improve Alaska's competitive position. Sheffield thinks the price of crude oil will probably stay in the $50 to $100 range "for the next several years."

Maybe four wells this winter

Sheffield said Pioneer hoped to drill as many as four exploration wells this winter on the North Slope, whereas previous estimates put the top number of wells at three.

"We're now drilling Hailstorm in the Storms area, which will be followed by Cronus and then Antigua. Two of those wells are being drilled with ConocoPhillips," he said.

"We expect to have a very, very active drilling program on the North Slope over the next several winters. … We're looking forward to a long relationship in Alaska," Sheffield said. ●

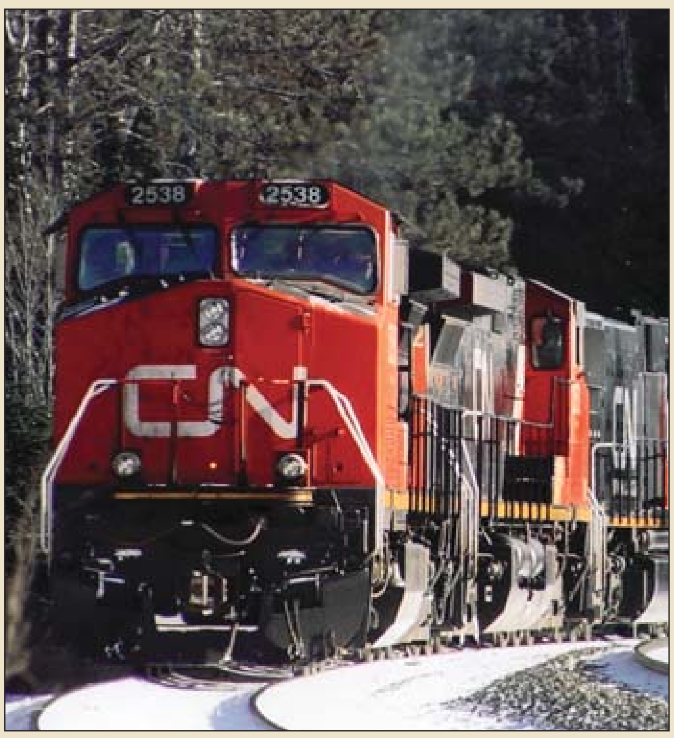
Petroleum news

B SECTION

www.PetroleumNews.com • *A weekly oil & gas newspaper based in Anchorage, Alaska*

PETROLEUM NEWS
Volume 11, No. 5
WEEK OF
January 29, 2006

CN repurchases rail lines

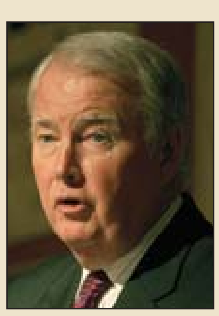


CN Rail has repurchased a pair of short-line railroads in northern Alberta to provide feeder lines for the railroad's bulk commodity and merchandise businesses. The lines being purchased are the Mackenzie Northern Railway and the Lakeland & Waterways Railway, both north of Edmonton. The Lakeland line will boost CN's oil sands area network, while the Mackenzie line will help serve the proposed Mackenzie natural gas pipeline. See story on page B5.

State wants stake in oil pipeline

Gov. Frank Murkowski has been saying for months that the state should own a piece of the proposed natural gas pipeline.

Now he's touting another idea: buying a share of the 800-mile trans-Alaska oil pipeline.



JUDY PATRICK

Gov. Frank Murkowski

It's a concept state political leaders have kicked around since before oil starting sliding down the nation's most famous pipeline in 1977.

Even though the pipe is nearly 30 years old, and Prudhoe Bay and other North Slope oil fields are wearing out after pumping more than 15 billion barrels, it still could be a smart move for the state to buy into the line, Murkowski said.

The governor mentioned the idea in his State of the Budget speech Jan. 12 and again at a meeting of oil industry contractors Jan. 20.

Murkowski and his aides say an ownership stake could save the state millions of dollars in payments to ship the state's

see **STAKE** page B9

Conference abstracts due Feb. 7

The deadline is approaching for abstracts for the May joint meeting of the Cordilleran Section of the Geological Society of America, the Pacific Section of the American Association of Petroleum Geologists and the Western Region of the Society of Petroleum Engineers.

The meeting will be in Anchorage; the theme is "North to Alaska: geoscience, technology and natural resources." Technical sessions of the joint conference will take place May 8 to May 10 and there will be pre-meeting and post-meeting field trips. The conference will include exhibits, theme sessions, workshops and short courses.

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

Further information on the joint conference is available at http://www.anchorage2006.com.

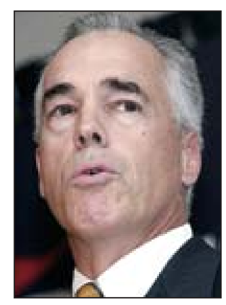
ANCHORAGE

Busy times for Conoco

Construction, well work hit highs; exploration near Teshekpuk, in Chukchi

By ALAN BAILEY
Petroleum News

To stem the decline in North Slope oil production ConocoPhillips is forging ahead on three fronts: developing new satellite fields near the Alpine field, developing viscous or heavy oil in the central North Slope and exploring for new oil fields. That was a key message that Jim Bowles, president of ConocoPhillips Alaska, delivered at the Alaska Support Industry Alliance's Meet Alaska conference on Jan. 20.



AL GRILLO

2006 "will be the biggest year we've had in Kuparuk since the early '80s." —Jim Bowles, president, ConocoPhillips Alaska

"We offset (production decline) with continuing investments in our work on the slope," Bowles said.

Fiord and Nanuq

ConocoPhillips is bringing Alpine satellite fields, Fiord and Nanuq, on line in the Colville River delta.

"Those are two satellite fields that will come into Alpine," Bowles said. "… Both of those when they're done will ultimately produce peak rates upwards of 30,000 barrels a day."

The company plans a third-quarter 2006 startup for Fiord and a fourth-quarter startup for Nanuq, Bowles said.

And viscous oil development also continues apace.

Bowles said that ConocoPhillips had

see **CONOCO** page B11

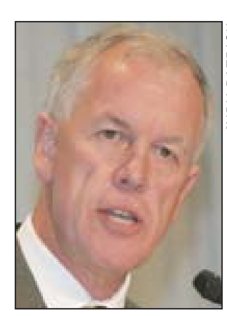
ANCHORAGE

BP to invest $14 billion in Alaska over next 10 years

Marshall: '05 turning point with pipeline refurbishing, Prudhoe wells, tanker fleet

By KRISTEN NELSON
Petroleum News

BP plans to spend some $14 billion in Alaska over the next 10 years, almost half of that on the company's oil business, BP Exploration (Alaska) President Steve Marshall told the Alaska Support Industry Alliance's annual "Meet Alaska" conference in Anchorage Jan. 20.



JUDY PATRICK

STEVE MARSHALL

He said 2005 was "something of a turning point for BP here," citing the addition of the second and third new tankers to the company's Alaska fleet, refurbishing of the trans-Alaska pipeline and a commitment "to the biggest refurbishment program for Prudhoe Bay wells in its history, laying the groundwork for the future."

Marshall said, as BP officials have said before, that the company envisions being in Alaska for another 50 years or more. While the company is no longer exploring for oil in Alaska, it has 5 billion to 6 billion barrels of oil and gas resources in the state yet to be developed, much of that "critically challenged."

He said he has been asked how the company

see **BP** page B9

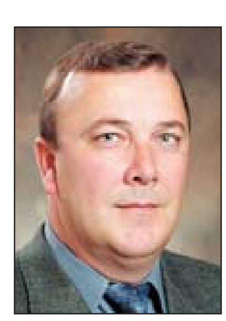
CANADA

Invaders on the horizon

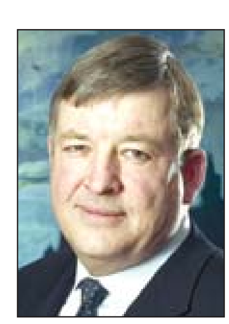
Canadian-owned companies shed foreign production, brace for possible takeovers

By GARY PARK
For Petroleum News

Having ended a year when its companies staged a major pullback from global operations, Canada could face a year when a foreign invasion changes the complexion of its domestic industry.



EnCana CEO Randy Eresman



Talisman CEO Jim Buckee

Producing properties, reserves and pipeline assets were shed in large quantities as Canadian-based companies disposed of holdings that in many cases were a greater source of grief than reward and in others were part of a strategic realignment.

Now speculation is building that at least one of Canada's leading oil and gas producers will be swallowed by one of the many international giants scouring the world for fresh opportunities.

Based on the 13th annual Canadian Energy Venture Abroad report by analyst Ian Doig, Canadian E&P companies entered 2005 producing 905,000 barrels per day of crude oil and natural gas liquids in 31 countries and almost 2 billion cubic feet per day of gas.

Over the past 12 months there has been a dramatic slide in those volumes.

see **INVADERS** page B10

● COOK INLET

Beluga whale numbers stagnant

NOAA survey in Alaska's Cook Inlet last summer estimated 278 whales southwest of Anchorage

By MARY PEMBERTON

Associated Press Writer

A survey of beluga whales in Cook Inlet finds that numbers remain stagnant and could be declining despite a lengthy effort to get the white whales to rebound.

Fisheries biologists with the National Oceanic & Atmospheric Administration conducted an aerial survey of the inlet just southwest of Anchorage early last summer to count the belugas. An analysis of the survey data indicates there were an estimated 278 beluga whales in Cook Inlet in 2005, down from 366 the year before, scientists said Jan. 20.

The estimate, while lower than previous years, does not necessarily mean numbers are falling, said Rod Hobbs, a researcher at the Alaska Fisheries Science Center in Seattle, who conducted the population analysis. However, the best that can be said is numbers are remaining flat, he said.

"We expect a certain amount of variability from year to year and survey to survey, however this falls near the lower limit of the expected variability for a stable population," Hobbs said.

There were an estimated 1,300 belugas in Cook Inlet in the 1970s. The goal is to help the whales recover to about 780 animals.

The reason for the stagnant numbers remains largely a mystery, Hobbs said.

Recent subsistence take down

It was believed that over-harvesting by Alaska Natives was largely to blame for the stock declining by nearly 50 percent between 1994 and 1999. But the stagnant numbers since the subsistence harvest was severely restricted has scientists looking for other reasons for why the population is not growing.

In the last seven years, only five Cook Inlet belugas have been taken for subsistence compared to an average harvest of about 70 before restrictions were enacted in 1999.

"We felt the harvest was the key problem, when the harvest was reduced the population would recover," Hobbs said. "It hasn't shown the sort of recovery we were anticipating."

So far, nothing has panned out for certain; the subsistence harvest is minimal, contaminant loads are comparable or less than other Alaska and Canada belugas and the number of strandings was within the expected range in 2004 and 2005, said Doug DeMaster, administrator of the Seattle center.

Hobbs said calving rates and available habitat are being looked at, as well as predation by killer whales, the idea being that "the harvest was fairly significant and that certainly had some impact, but may have been masking other problems that were impacting the whales."

"Nothing really stands out as a factor," Hobbs said.

New review under way for depleted status

The belugas were declared depleted under the Marine Mammal Protection Act in 2000. At that time, they were not recommended for listing under the federal Endangered Species Act because the subsistence harvest was believed to have been the reason for the decline.

Brad Smith, a biologist with the National Marine Fisheries Service in Anchorage, said a new review for ESA listing is being conducted and should be completed at the very latest by this fall. The new review is looking at the stagnant or declining numbers, he said.

There are five beluga stocks recognized in U.S. waters: Cook Inlet, Bristol Bay, eastern Bering Sea, eastern Chukchi Sea and Beaufort Sea. Researchers estimate there are about 60,000 belugas in Alaska waters outside of Cook Inlet. ●

● JUNEAU

Conoco pans Dems' plan to tax gas

Spokesman questions measure's constitutionality, says lost interest would offset any tax credits from plan

By ANNE SUTTON

Associated Press Writer

A plan to tax oil companies as long as Alaska's natural gas remains untapped would penalize ConocoPhillips despite its willingness to move forward on construction of a natural gas pipeline, an oil company executive said Jan. 25.

Jack Griffin, vice president of external affairs for ConocoPhillips Alaska, testified against the bill that would tax North Slope companies $1 billion for every year they didn't deliver the gas to market.

Sponsors of the bill, Anchorage Democrats Eric Croft and Harry Crawford, said the measure would help spur construction of a natural gas pipeline. They also have as backup a proposed citizen's initiative that would levy the same $1 billion tax on oil companies.

ConocoPhillips, the state's biggest oil producer, says it has reached a tentative agreement with the state on fiscal terms for the joint pipeline project.

Griffin said the project cannot move forward, however, without the economies of scale that would result from an agreement with all three of the major producers. Those talks with ExxonMobil and BP are still under way with the governor's office.

$200M tax even with cooperation

Griffin told the House Ways and Means Committee that ConocoPhillips has worked cooperatively with the governor and Legislature, but even so, it would be taxed an estimated $200 million a year for the next 10 to 25 years.

"This tax is automatic and unavoidable. If we started welding steel and laying pipe tomorrow, we could not avoid this new tax," he said.

The bill would be repealed if a pipeline were built. At that time, oil companies could claim credit for some of the taxes they would have paid.

The producers estimate it would take at

see TAX *page B3*

ALASKA

DGGS releases new geophysical data, maps

By ALAN BAILEY

Petroleum News

Alaska's Division of Geological and Geophysical Services has released new airborne electromagnetic and magnetic data and maps for five areas in Alaska. The areas covered consist of a 1,447-square mile National Petroleum Reserve-Alaska tract in the north-central Brooks Range in the Howard Pass and Misheguk Mountain quadrangles; 405 square miles in the Circle quadrangle northeast of Fairbanks; 224 square miles in the east Richardson area; 67 square miles around Liscum; and 222 square miles in the Black Mountains. The east Richardson, Liscum and Black Mountains areas are in the Big Delta quadrangle.

The survey northeast of Fairbanks provides contiguous coverage between the division's previously published Fairbanks and Circle airborne geophysical surveys.

Detailed surveys

Most of the surveying involved flying at 200 feet above ground level with a line spacing of one-quarter mile. Areas with tighter line spacing include the western half of the Liscum survey, which was flown with three-sixteenths-mile line spacing, and the Drenchwater Creek area in the southern NPR-A survey, which was flown with one-eighth-mile line spacing.

The detailed geophysical data obtained in the surveys shows contrasts in the magnetic and electrical properties of rock units.

Products available include 1:63,360-scale full-color maps of aeromagnetic data, 1:63,360-scale full-color apparent resistivity maps and CD ROMs containing gridded and processed data from the surveys. The maps and data provide tools for exploration for new mineral resources and could enable new interpretations of some of the existing mineralized areas.

Obtain from DGGS

The data were compiled and processed under contract between the division and Stevens Management Corp. Subcontractor Fugro Airborne Surveys acquired the data in 2005. The U.S. Bureau of Land Management funded the south NPR-A survey to assist in an ongoing mineral assessment. This information will aid BLM and stakeholders in developing an integrated activity plan for the southern NPR-A planning area. The State of Alaska funded the other surveys, with AngloGold Asanti (U.S.A.) Exploration Inc. partially funding the Liscum survey.

A location map and ordering information is available at www.dggs.dnr.state.ak.us/geophys.htm#geophysical_data. All of the materials are available at the cost of reproduction from DGGS, 3354 College Road, Fairbanks, AK 99709-3707, telephone (907) 451-5020, and at the Alaska Department of Natural Resources Public Information Center, 550 West 7th Ave., Suite 1260, Anchorage, AK, telephone (907) 269-8400. Mail orders should be sent to the Fairbanks DGGS office, fax (907) 451-5050.

The materials will be also available for inspection beginning Feb. 13 at the Alaska Resources Library and Information Services, 3211 Providence Drive, Anchorage, AK 99508, telephone (907) 272-7547. And beginning on Feb. 20 the materials will be available at the Historical Collection of the Alaska State Library in the State Office Building in Juneau from 1 p.m. to 5 p.m. Monday through Friday, contact Patience Frederikson at (907) 465-2927. ●

continued from page B2

TAX

least 10 years from the time an agreement was reached to begin flowing gas through a pipeline.

Griffin said by that time lost interest on the tax payments and other factors would significantly offset any refund.

He added that requiring a private company to spend billions of dollars whether or not the investment makes sense is an unprecedented use of the state's taxing authority, one he suggested may run afoul of state and federal constitutions.

Croft says producers could recoup

Rep. Norm Rokeberg, R- Anchorage, agreed. He told Griffin it appeared "grossly unfair to point a pistol at your head when common sense requires you move forward."

But bill sponsors say the companies have reason to stall for competitive purposes while they develop gas reserves in other parts of the world.

Croft said producers could recoup the entire tax "if they move quickly."

"And every year they will start to pay more, and more so, if they do put it on hold, they will start to pay without any hope of getting it back," he said.

Croft said a similar tax on oil producers in the 1970s helped spur the flow of oil from Prudhoe Bay.

Committee chairman Bruce Weyhrauch, R-Juneau, said he will continue to hold meetings on the bill. He said the committee will expand its meeting schedule to include Monday meetings in order to address its busy calendar.

The bill is House Bill 223. ●

NEWFOUNDLAND

Husky boosts Newfoundland offshore hopes with $C350M spending pledge

Husky Energy has given a major lift to hopes for offshore Newfoundland, pledging to spend C$350 million in the region this year.

Having picked up more than 38,000 acres in the Jeanne d'Arc Basin at a recent land sale and brought its White Rose oil project on stream ahead of schedule and under budget, Husky is now ready to tackle a fourth well at White Rose and conduct drilling to delineate reserves in a second White Rose pool.

"We believe there is strong potential for development of further oil and gas reserves in Jeanne d'Arc," Husky President John Lau said in a news release, noting that his company is now one of the basin's largest landholders.

He said the White Rose infrastructure is a platform for growth and adding to the land portfolio, underscoring Husky's "confidence and long-term commitment" to offshore Newfoundland.

The company has two production licenses and several exploration licenses as the basis for an active drilling program, depending on the availability of rigs.

—GARY PARK

WASHINGTON, D.C.

McCain: U.S. can't depend on 'wackos'

A top Republican lawmaker said Jan. 22 that America must explore alternate energy sources to avoid being held hostage by Iran or by "wackos" in Venezuela — an apparent reference to Hugo Chavez, Venezuela's populist president.

U.S. Sen. John McCain, a potential presidential contender in 2008, said recent action by "Mr. Chavez" and by Iran's leaders make it clear that the United States will be vulnerable as long as it remains dependent on foreign energy.

"We've got to get quickly on a track to energy independence from foreign oil, and that means, among other things, going back to nuclear power," McCain said on Fox News.

"We better understand the vulnerabilities that our economy, and our very lives, have when we're dependent on Iranian mullahs and wackos in Venezuela," said McCain, who challenged President George W. Bush for the Republican presidential nomination in 2000.

Iran is OPEC's second-largest producer. Venezuela is the world's fifth-largest oil exporter, with the largest proven oil reserves outside of the Mideast.

Chavez, a frequent U.S. critic, accuses foreign oil companies of having looted Venezuela. He has promised that his socialist "revolution" is freeing the country from "imperialist" interests and restoring its sovereignty.

—THE ASSOCIATED PRESS

ALASKA

Sale dates set for Cook Inlet, Foothills

May 24 has been set as the proposed sale date for the state's 2006 Cook Inlet and North Slope Foothills areawide sales.

The Alaska Department of Natural Resources Division of Oil and Gas is requesting new information which has become available since its most recent findings for the sale areas were written.

The call for new information opens Jan. 23 and closes Feb. 22.

The division said that based on information received it will determine whether there is "substantial new information" which justifies supplements to the existing best interest findings.

All available state acreage in the areas would be offered.

The final best interest findings and their supplements are available on the division's Web site: www.dog.dnr.state.ak.us.

—PETROLEUM NEWS

ALBERTA

Paramount enters sands with 2 projects

Paramount Resources has tossed its name in the oil sands ring by unveiling plans to develop two projects, including a wholly owned operation and a joint venture with North American Oil Sands Corp., both of them designed to produce 10,000 barrels per day.

The company expects to drill 40 evaluation wells and acquire four square miles of 3-D seismic in the Surmont area of northeastern Alberta this year and next, following 10 evaluation wells over the past two years.

The company expects to drill 40 evaluation wells and acquire four square miles of 3-D seismic in the Surmont area of northeastern Alberta this year and next, following 10 evaluation wells over the past two years.

It is also working on front-end engineering designs for both ventures.

The project with North American Oil Sands involves 150 evaluation wells this year, following 24 over the past two years, and 157 square miles of 3-D and 2-D seismic.

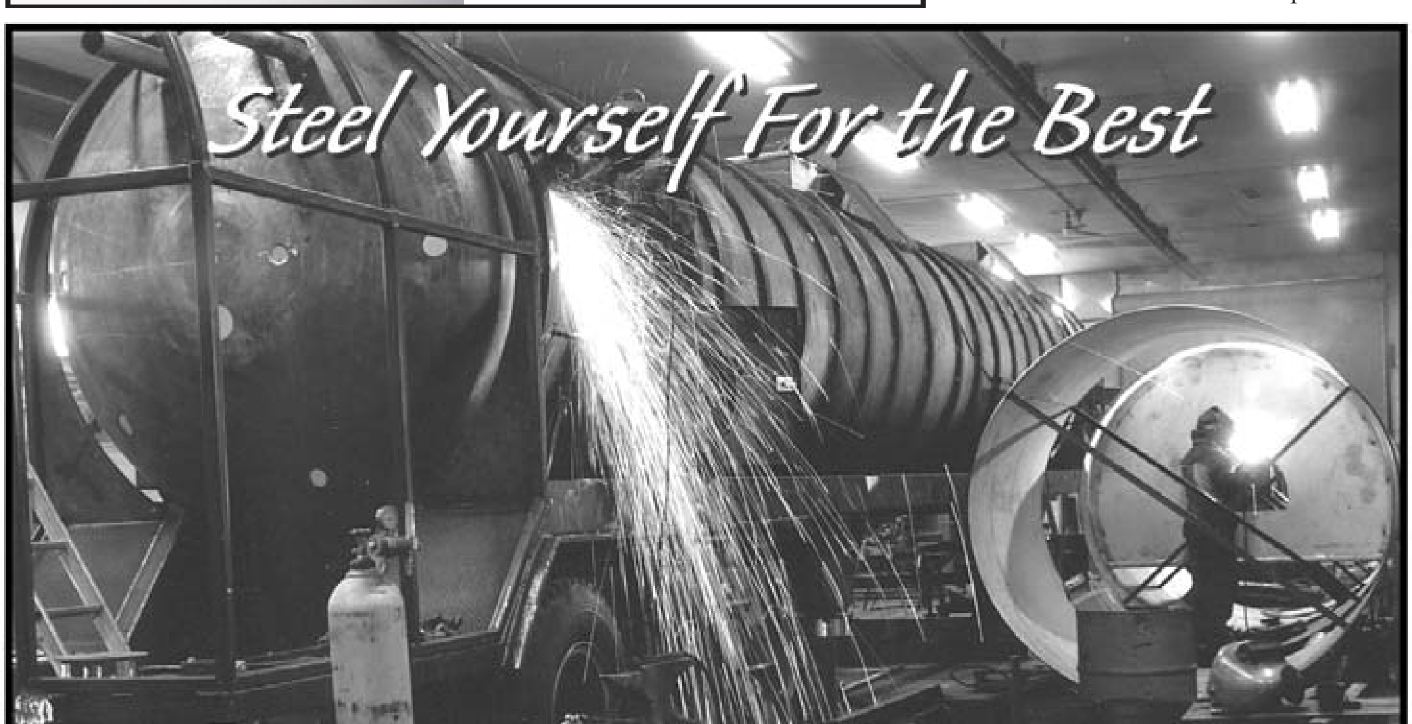
The Surmont site could generate 30,000 bpd of production at its peak and the joint venture with North American Oil Sands is targeted at 80,000 bpd.

Independent evaluations estimate Paramount's leases contain 3.58 billion barrels of bitumen in place — 1.07 billion on the Surmont lease and 2.52 billion at the joint venture.

Total recoverable resources are thought to range from 1.63 billion to 523 million barrels, with 923 million thought to be most likely.

The net present value of Paramount's recoverable bitumen is estimated at C$1.18 billion (most probable), C$178 billion (high) and C$553 million (low).

—GARY PARK



● ALBERTA

Three-way race shapes up in oil sands

United States, China, France expected to take major stakes in Athabasca region; Japan interested in more non-Middle East oil

By GARY PARK

For Petroleum News

The United States, China and France are all saddling up for the Great Alberta Oil Sands Derby, with Japan emerging as an outsider.

As global interest builds in the potential of the resource, companies from the three countries are expected to take major stakes in the Athabasca region over the next 12 months.

France's Total, which has already set a goal of producing 500,000 barrels per day from the oil sands, anticipates spending billions over the next few years on both upstream and upgrading ventures.

France's Total, which has already set a goal of producing 500,000 barrels per day from the oil sands, anticipates spending billions over the next few years on both upstream and upgrading ventures.

Now a survey of industry executives and investment bankers by research firm Mergermarket for the law firm of Blake, Cassels & Graydon points to the U.S. and China battling to see which of the two will become the most active foreign investor.

Craig Spurn, head of oil and gas practice in the law firm, said "enormous" interest from Chinese investors could see China grow rapidly from its current small-player role.

To date, Sinopec and China National Offshore Oil Corp., or CNOOC, have minority stakes in start-up projects and PetroChina is a contender as the anchor shipper on Enbridge's planned Gateway pipeline.

But the survey points to a major surge in interest from Chinese producers following the rejection of CNOOC's attempted takeover of Unocal.

Spurn said so long as oil and gas prices stay robust there is every reason to expect greater merger and acquisition activity in the oil sands sector.

Total eyes upgrader

Jean Luc Guiziou, president of Total's Canadian unit, sent out a clear message that China and the U.S. will not have the field to themselves.

In addition to the ambitious production target set by the world's fourth-largest integrated oil company, he has disclosed that the company — which has considerable experience in Venezuela's heavy oil fields — is now eying a 200,000 bpd upgrader in the oil sands to convert raw bitumen into refinery-ready crude.

Guiziou said Total will not be content to confine itself to production alone, telling a Calgary conference that a downstream strategy is necessary to protect bitumen producers from price swings between heavy and light crudes.

He said Total could invest US$9 billion in its Joslyn project, including US$5 billion for an upgrader to handle the project's 200,000 bpd output, indicating that a decision on upgrader location will be made in the next 12 to 18 months.

Guiziou said Asia is emerging as a possible market for oil sands production, although the U.S. will remain the primary outlet.

So far, Total has made no moves to secure capacity on any of the proposed pipelines to the British Columbia coast for tanker delivery to Asia, he said.

Although its major Canadian focus is on the oil sands, Total is also open to taking on prospects in the Arctic and East Coast, but has yet to identify the right opportunity, Guiziou disclosed.

"If geology looks good on any given prospect, we would be interested," he said, listing the Mackenzie Delta as a contender.

But he conceded that Total has yet to develop the expertise required to embark on the frontier plays.

Japanese companies could be buyers

Japanese companies are moving into line as prospective investors or buyers of oil sands crude, the Japanese consulate in Canada says.

A delegation of government and industry officials was in Alberta in mid-January meeting with production and pipeline firms.

The delegation included representatives from Japan's natural resources ministry and officials from Cosmo Oil, Idemitsu Kosan, Nippon Oil, Japan Energy Corp., Mitsubishi and Mitsui.

In fact, Japan has had a low-key presence in the oil sands for three decades, with Japan Canada Oil Sands operating a 10,000 bpd project in northeastern Alberta, but has been reluctant to take on a larger role because of its well-established reliance on Middle East oil, which contributes 85 percent of its imported oil.

But the Japanese government has shown signs of wanting to diversify its supply sources, bringing the oil sands into focus.

The Gateway pipeline could open that door, with 100,000 bpd or more up for grabs in Japanese and South Korean markets if China and California take their expected 75 percent share. ●

GULF OF MEXICO

MMS: Production off to next storm season

Agency says at least one-sixth of Gulf of Mexico oil production will still be off when 2006 hurricanes begin; future repairs slow

By ALAN SAYRE

Associated Press Business Writer

The Gulf of Mexico's offshore petroleum industry is far from recovering from hurricanes Katrina and Rita, and at least one-sixth of the region's normal daily oil production will still be off line at the start of next storm season, a federal agency says.

"The overall damage caused by hurricanes Katrina and Rita has shown them to be the greatest natural disasters to oil and gas development in this history of the Gulf of Mexico." —MMS regional director Chris Oynes

Katrina and Rita destroyed 115 of the Gulf's 4,000 production platforms and damaged another 52, according to a report released Jan. 19 by the Minerals Management Service, which manages federal offshore leases.

The storms' combined fury was much stronger when they swept across the Gulf than when they hit shore, and they also damaged 183 pipelines, including 64 classified as major. As of Jan. 19, only 22 had been returned to service, the MSS said.

There are about 33,000 miles of petroleum pipelines in the Gulf of Mexico, 22,000 miles of which were exposed to the two storms.

As of the week of Jan. 16, MMS said 396,000 barrels per day of the Gulf's normal production of 1.5 million bpd of oil were being kept from market because of storm damage, along with 1.8 billion cubic feet of the region's normal daily production of 10 bcf of natural gas.

MMS: future repair work slow

Future repair work will be slow, the MMS projected.

The report indicates the Gulf will not be able to provide any immediate relief to consumers from high oil and natural gas prices. Oil prices have been around $67 per barrel and gas has hovered — after a huge jump in the fall — around $9 per thousand cubic feet.

"For a long-term projection, approximately 255,000 barrels a day and 400 million cubic feet of gas a day will probably not be restored to production prior to the start of the 2006 hurricane season," the report said.

Hurricane season begins June 1.

The report indicates the Gulf will not be able to provide any immediate relief to consumers from high oil and natural gas prices. Oil prices have been around $67 per barrel and gas has hovered — after a huge jump in the fall — around $9 per thousand cubic feet.

To quantify the damage caused by the two storms, the MMS said Hurricane Ivan in 2004 destroyed only seven production platforms.

"The overall damage caused by hurricanes Katrina and Rita has shown them to be the greatest natural disasters to oil and gas development in this history of the Gulf of Mexico," said MMS regional director Chris Oynes.

The MMS said Katrina, which was a Category 5 storm as it moved through the petroleum regions of the Gulf, destroyed 46 platforms and damaged 20 others. Rita, a Category 4 storm in the Gulf, destroyed 69 platforms and damaged 32 others on a course much closer to Texas.

There were 418 minor pollution incidents and no major incidents reported, the MMS said. The agency defined a minor incident as one involving a spill of less than 500 barrels of oil that does not reach the coastline. ●

CANADA

CN repurchases short oil sands rail lines

CN Rail has repurchased a pair of short-line railroads in northern Alberta to provide feeder lines for the railroad's bulk commodity and merchandise businesses. It had shed the lines back in the 1990s.

CN will pay C$26 million to RailAmerica, with a possible additional payment of up to C$4 million if the lines bring in more business, the company announced Jan. 19.

The lines being purchased are the Mackenzie Northern Railway and the Lakeland & Waterways Railway, both north of Edmonton. As part of the deal CN will also add the Central Western Railway, a 21-mile line in east-central Alberta used mostly for training. RailAmerica had announced it wanted to exit the Alberta business.

Tracks will be upgraded

CN plans to upgrade tracks on the Mackenzie and Lakeland lines to provide more capacity for hauling building materials, oil sands by-products, minerals, forest products and grain. The improvements are expected to cost around C$40 million.

The Lakeland line will boost CN's oil sands area network, while the Mackenzie line will help serve the proposed Mackenzie Delta natural gas pipeline.

The 600-mile Mackenzie line runs north from Smith, Alberta, about 130 miles north of Edmonton, to Hay River, Northwest Territories. The Lakeland line connects with CN in the Edmonton area and runs 118 miles to Boyle, Alberta, where it connects with the Athabasca Northern Railway. The Central Western Railway links with CN near Drumheller, Alberta.

CN, which began operating the rail lines Jan. 19, has promised to honor existing labor contracts. The operations have a total of about 130 employees and handled about 50,000 carloads of freight last year.

—ALLEN BAKER

● ANCHORAGE

Web posting calls for attacks on pipeline

Site claiming al-Qaida affiliation; nonprofit translated information in December; security agencies, Alyeska, aware of posting

THE ASSOCIATED PRESS

A Web site claiming to be affiliated with al-Qaida has called for attacks against the trans-Alaska oil pipeline.

The posting calls on jihadists to shower the pipe with bullets or hide and detonate explosives along its length, the Anchorage Daily News reported. It also calls for attacks on the Valdez tanker dock.

The unknown author encourages small cells of four or five mujahedeen, or Muslim guerrillas, living in the United States or in Canada or Mexico to mount the attacks.

The 10-page posting includes numerous links to Web sites providing maps and other information about the pipeline.

Attacking oil and gas targets in the United States and other countries is key to bringing down the economy of the "American devils," the author wrote, saying the message was posted in response to calls from Osama bin Laden and his top al-Qaida deputy, Ayman al-Zawahri.

JUDY PATRICK

The trans-Alaska oil pipeline

The Arabic posting was discovered and translated in late December by the SITE Institute, a Washington, D.C., nonprofit organization that tracks international terrorists.

There is no way to identify the author or know whether it could inspire an attack, said SITE director Rita Katz.

Security agencies aware of posting

Spokesmen for the FBI and other security agencies said they were aware of the posting. None would say whether it had prompted extra measures in Alaska.

Curtis Thomas, a spokesman for the Alyeska Pipeline Service Co., the oil company consortium that runs the 800-mile pipeline, said his company also was aware of the posting.

"We're not aware at this time of any imminent threat," he said.

Company policy prohibits discussion of security procedures, staffing levels or other issues, he said.

FBI spokesman Eric Gonzales said the posting did not seem to contain information beyond what is readily available to anyone with a little digging.

"I don't think it's a secret to anyone that the trans-Alaska pipeline, the terminal at Valdez, is a critical asset not only to the state but the country," Gonzales said. "It's stating the obvious — that this pipeline plays a critical role in this nation's economy."

Line carries about one-eighth of U.S. production

The Alaska pipeline carries more than 800,000 barrels of crude a day from the North Slope oil fields to the Valdez tanker port, about one-eighth of the U.S. production. The author notes that 300,000 gallons of crude oil spewed out of a bullet hole in 2001 and that the pipeline is largely above ground, exposed and close to a highway.

A Livengood man was sentenced to 16 years in state prison after his conviction for oil pollution, criminal mischief, handling a firearm while drunk and other charges. Authorities say he shot the pipeline with a .338-caliber hunting rifle.

Pipeline operators have found numerous other bullet strikes over the years that did not puncture the pipeline's steel wall.

Security for the pipeline and Valdez tanker dock was heightened after the Sept. 11, 2001, terror attacks in New York City and Washington, D.C. One of the biggest changes was creation of a security zone the Coast Guard enforces around the dock. The zone remains in effect.

Posting contains errors

The posting includes numerous errors, including a sentence saying the pipeline starts at the North Pole and ends at Valdez "on the Atlantic Ocean."

Katz, the SITE director, said her organization has analyzed and translated many terrorism-related Web postings for its clients, including oil companies, and this one stood out.

"When I saw this message, I was shocked," Katz said. It was much longer, more thoughtful and more fully researched than the normal posting, she said.

The posting might have come from anyone. What's more important than the source is the influence it might have.

"Once there's an idea there, then you don't know who saw that idea and might take the initiative and go forward," she said.

"We take all of these matters quite seriously," said John Madden, state Homeland Security director. However, the posting was "not any great, analytical document," but rather a collection of information available from open sources.

In December federal pipeline regulators ordered Alyeska to develop new spill cleanup drills with "terrorist attack scenarios" in mind. ●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YIELD

● ONTARIO

Nukes, natural gas, renewables in, coal out

Ontario lays out roadmap for energy future; emphasis on salvaging nuclear power; natural gas figures large despite uncertainties

By GARY PARK
For Petroleum News

Those looking for a blueprint on future energy consumption in North America might be well advised to pay close attention to Ontario, Canada's industrial heartland and most populous province with 13 million residents.

Pledged to close all of its coal-fired power plants and facing an uncertain supply and price future with natural gas, the province is set to embrace a revival of nuclear-powered electricity generation, while reaching out to renewable energy sources.

Premier Dalton McGuinty has also left a crack in the door open should efforts to develop clean-coal technology achieve a breakthrough.

The outline was contained in a report by the Ontario Power Authority, a government-created independent body assigned to ensure long-term energy supply in a province facing a widening gap between supply and demand.

In an effort to placate the "green" community, the government followed the report by negotiating C$2 billion in contracts to build wind and hydro power projects to have 10 percent of electricity in Canada's biggest market come from renewable sources.

Nuclear recommendation most controversial

The report's most controversial recommendation is to spend C$40 billion on nuclear plants over the next two decades, regardless of woeful experience with nuclear power, including a C$20 billion debt left by Ontario's earlier misadventures in the sector.

The authority says the province needs to add 9,400 to 12,400 megawatts of nuclear energy by 2025. Currently, Ontario has 16 nuclear reactors that generate a total of 11,400 megawatts.

It is adamant that by properly managing the construction and financial risks and maintaining high capacity factors and consistent operation, nuclear generation offers an "excellent alternative" to natural gas generation, which is expected to be a major resource to carry Ontario through its phase-out of coal-fired power, then play a "more targeted role," reflecting unease over future supplies from Western Canada and the Arctic.

Gas is expected to edge up from 7 percent as feedstock for current electricity production to 11 percent in 2015, then slide to 9 percent in 2020 and 6 percent in 2025, but more than double as an output source from just under 5,000 megawatts in 2005 to 11,000 megawatts in 2025.

Renewables are projected to climb in increments from 23 percent today to 40 percent, 42 percent and 43 percent by 2025, increasing from 7,855 megawatts in 2005 to 15,500 megawatts in 2025.

Nuclear to be 50% of electric generation

Nuclear generation will stick close to 50 percent of electricity production over the two decades, with its contribution to production rising from 11,397 megawatts to 15,000 megawatts.

Under government policy, coal is forecast to drop from 6,434 megawatts in 2005 to zero by 2015.

However, the authority concedes that gas-fired generation has a number of attractive features: It can be built quickly, located to relieve transmission bottlenecks and can complement wind generation in meeting demand, especially in summer.

But a four-fold rise in gas prices over the past five years gives rise to a belief that gas prices will "remain high and volatile" and, because of competition among residential, commercial and industrial users, "puts its availability at a premium or even at risk."

The authority did not recommend gas-fired generation "for base-load generation because in that role it presents risks across all three dimensions of cost, environmental impact and financial risk."

As a result, the report turned its major thrust to the building of new reactors or refurbishing existing plants to maintain nuclear power's 50 percent share of the province's overall electricity production.

It suggests the government needs to spend up to C$83 billion over the next two decades to build reactors and hydroelectric dams as well as some gas-fired generation plants.

Electricity bills expected to grow 17%

Chief executive officer of the authority, Jan Carr, said the capital costs of such a plan will increase customers' electricity bills by 17 percent from the current C$12 billion a year.

But that doesn't end the bad news. A separate report by the Association of Major Power Consumers in Ontario warns the government's plan to shut down all of the coal-fired generating plants by 2009 will add another C$3 billion a year to electricity bills.

But the 1,100 page report said it would "make sense to continue monitoring the timing risks" around the current schedule to phase out coal plants.

It says the facilities at coal-fired plants should be retained in case technology to clean up and increase the use of coal becomes economically feasible, despite the insistence of Energy Minister Donna Cansfield that there is no such thing as clean-coal technology and her determination to eliminate up to 30 million metric tons a year of greenhouse gas emissions by replacing coal.

In an effort to placate the "green" community, the government followed the report by negotiating C$2 billion in contracts to build wind and hydro power projects to have 10 percent of electricity in Canada's biggest market come from renewable sources.

Cansfield granted contracts for eight wind facilities and one hydroelectric development to supply 975 megawatts to power more than 250,000 homes over the 2006-2008 period.

"We have made an important commitment to clean, green, renewable energy," she said. ●

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STAKE

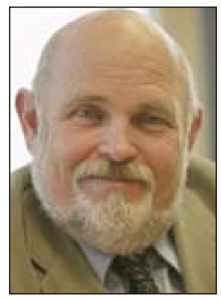
share of North Slope oil through the pipeline, and it could end chronic legal fights between the state and the pipeline owners over pipeline transportation rates, which have a big bearing on how much oil revenue the state collects.

In the governor's view, "it makes good business sense" to evaluate a pipeline purchase, although he said the work won't begin in earnest until after state negotiators finish work toward a tax contract for possible construction of a $20 billion gas pipeline to carry the North Slope's prodigious gas reserves as far as the Midwest.

Difficulties

But buying into the oil pipeline presents difficulties.

First, one of the five oil companies that own the line would have to agree to sell. The state also would have to figure out where to get the money to make the purchase, and owning the pipeline could conflict with the state's role as a pipeline regulator.



JUDY PATRICK

MIKE MENGE

Mike Menge, the state's natural resources commissioner, said no decision has been made on how big a share the state would pursue, or whether to use the state's recent budget surpluses or some other funding source to pay for it.

Murkowski, however, mentioned that the state might seek a pipeline piece equal to the state's share of oil pumped from beneath state-owned tundra. This royalty oil amounts to 12.5 percent of total North Slope production.

The pipeline, though aging, still has a lot of life left, the governor said. In 2002, regulators approved new 30-year right-of-way agreements for the pipeline across state and federal lands. And if a gas pipeline is ever built, that could spark a rush of exploratory drilling and new finds of oil to keep the pipeline busy, he said. The pipeline currently carries close to 900,000 barrels of oil per day, about half what it once did but still about one-eighth of total U.S. production.

Ownership would produce savings

Chuck Logsdon, a Murkowski aide and the state's former chief oil economist, said the state pays about $230 million a year to have its oil shipped down the pipeline.

"If we owned the pipeline, we wouldn't save that entire amount," Logsdon said. That's because, as an owner, the state would have a share in the costs of operating the pipeline, he said.

But most likely, state ownership would result in substantial savings — plus a share of the pipeline's profits.

"How much we could save, that's going to take some analysis," Logsdon said.

On the downside, the state might be buying a costly obligation because, someday, the pipeline will have to be dismantled and the route cleaned up, said Ken Boyd, a former state oil and gas director now working as an industry consultant.

Pipeline valued at $3 billion

And buying even a small share of the

see STAKE *page B11*

continued from page B1

BP

can have a 50-year future in Alaska without exploration. In addition to working on developing what's already been discovered, BP is also looking at ways to improve recovery factors from known reserves: A 1 percent improvement in recovery is about 600 million barrels, he said, the equivalent of four fields the size of Northstar.

What would it take to do that? Marshall listed several technologies: moving beyond 3-D seismic to 4-D seismic; looking at carbon dioxide injection; cheaper ways of drilling wells; thermal technologies to unlock heavy oil; ultra-extended reach drilling; and low-salinity waterflood.

BP is "not chasing new barrels through wildcatting" in Alaska, but it is chasing more barrels. Over the past 10 years, he said, "we had five times more success doing that" — making known barrels commercial — than in exploration drilling.

The future: gas, Liberty, LoSal™; heavy oil

Natural gas development will extend North Slope field life, Marshall said. "The life of oil fields will go on way beyond what they might have otherwise done. It causes us to think very differently about our oil business. We have to think in a 50 or 50-year plus kind of vision."

As for the future of BP's oil business in Alaska, Marshall discussed three projects.

Liberty is a 150 million barrel field offshore. "It's arguably one of the best undeveloped reservoirs on the North Slope," he said.

BP made a decision last year to develop Liberty from shore using extended reach drilling and estimates the project at about a billion dollars, Marshall said.

BP developed Northstar, another offshore North Slope field, as an island and he said regulatory issues around that development were a contributing factor to "a three-times cost overrun" on the project. Drilling Liberty from shore eliminates island, causeway and some environmental and regulatory issues, he said.

The Alaska ERD record is about 19,000 feet or some three miles, set at Niakuk. Liberty is four to eight miles offshore, so wells will be the equivalent of a rig in downtown Anchorage drilling out to Rabbit Creek Road, and hitting a target about the size of a single-car garage, Marshall said.

He said the Liberty project will entail a single pad and require a new rig because there isn't a rig in Alaska capable of pulling tubing and casing for eight miles. Production will be tied back to either Badami or Endicott.

LoSal™ for Endicott

BP will be doing a low-salinity waterflood at Endicott (see story in this issue), a first for this BP technology.

BP produces 10 barrels of water for every barrel of oil at Endicott, which is the downside of water in oil fields, Marshall said, while on the plus side, waterflood, along with enhanced oil recovery, can double recovery from a field.

BP is injecting 2 million barrels of water daily at Endicott to help maximize oil recovery.

Marshall said a BP team investigated what would happen if salts were taken out of the water being injected and found "when we inject cleaner, low-salinity water we get up to about a 15 percent" increase in the recovery, an expected addition of some 30 million barrels from Endicott.

The project requires a plant at Endicott and will cost some $100 million.

This is BP's worldwide test of its LoSal™ technology, Marshall said. "We decided Alaska is the right place to do it and the Endicott reservoir is the best reservoir we could try that on." He said BP wants to make sure the technology is scalable to other fields, and estimates that when applied to other fields in Alaska it has the potential to add "hundreds of millions of barrels to the producing reserve base."

The team is in place, he said, and BP hopes to have the project operational in 2008.

Heavy vs. viscous oil

The main production on the North Slope has been conventional oil. More recently viscous oil has been produced and Marshall noted that it took the industry an investment of three-quarters of a billion dollars before viscous oil, the consistency of molasses compared to an olive oil like consistency for conventional oil, became commercial.

It took new technologies — multi-lateral drilling and jet pumps — to make viscous commercial, and he said the operators are "still encountering significant operational headaches with sand and sand management and the need to add heat to the facilities that weren't designed for this viscous oil."

But beyond — and above — viscous oil, there is heavy oil.

Some 20 billion barrels, Marshall said, "about the same size Prudhoe was before we started producing." This heavy oil, which has the consistency of liquid asphalt, overlies Kuparuk and Milne. It's just below permafrost, so it's cold. "And it's got tremendous, tremendous challenges," he said.

In Canada heavy oil exists at even shallower depths and without permafrost and there are plans to drill 20,000 wells to access the heavy oil. "We just can't see that working here," he said: not 20,000 wells.

Viscous oil is being accessed with multi-laterals, wells with three or more branches off the main well bore.

What if, Marshall asked, in 10 or 15 years drilling technology had developed to the point where 20 branches could be drilled from a single main bore? That would reduce 20,000 wells to a thousand. And those wells produce for 75 years: "They don't produce a lot; they go on for a long, long time."

Steam-assisted gravity drainage is used elsewhere in the world to produce heavy oil: Two horizontal wells are drilled parallel to each other and steam is injected into one and oil is produced out of the other. Another method involves injecting steam for six months, allowing it to soak and heat up the reservoir, producing oil for a few months and then flipping back to steam injection. That goes on for 20 to 70 years. "It's quite a different business from what we do today."

Today BP is looking at the possibility of an 8 percent recovery rate from the 20 billion barrels of heavy oil on the North Slope, Marshall said, while in Canada they are looking at 50 percent recovery rates.

Three or four years out we could see an Alaska heavy oil pilot project, he said.

But all of these projects are based not on just an oil industry, but on an oil and gas industry. "Some people say we're not interested in gas: I would say just the opposite — we need gas," Marshall said. ●

continued from page B1

INVADERS

EnCana's focus in North America

No company was more active than EnCana, which has decided its future lies in unconventional resource plays in North America.

It bailed out of an increasingly troublesome venture in Ecuador by selling 75,000 bpd of production, 143 million barrels of reserves and a 36.3 percent stake in a 450,000 bpd pipeline for US$1.42 billion to Andes Petroleum, a joint venture of Chinese state-owned companies believed to include China National Petroleum Corp.

That was followed two months later when it unloaded a 50 percent interest in the Chinook heavy oil discovery offshore Brazil to Norway's Norsk Hydro for US$350 million, although EnCana had not booked any reserves for the discovery and is continuing an active exploration program on several other concessions offshore Brazil.

Those deals trailed EnCana's late 2004 bailout from the British North Sea, when it sold interests in a major discovery, two producing fields and interests in exploratory blocks covering 740,000 net undeveloped acres for US$2.1 billion.

The surprise buyer of those holdings, including a resource base of 250 million equivalent barrels and output of 19,000 barrels of oil equivalent per day expected to reach at least 90,000 barrels in 2007, was EnCana's cross-town rival Nexen.

PetroKaz departs Kazakhstan

By far the most celebrated and controversial sale of 2005 involved the departure from Kazakhstan by PetroKazakhstan, ending a turbulent 15 years in the one-time Soviet republic.

China National Petroleum Corp. paid US$4.18 billion for 550 million barrels of reserves, production of 153,000 bpd and Kazakhstan's key refinery.

The transaction was concluded amid a tangle of threats, lawsuits and accusations of an unfair deal, but has since been resolved with state-owned KazMunaiGaz negotiating a deal with the Chinese owner to acquire a major stake in the oil production and refinery.

Simultaneously, Nelson Resources, another company with Canadian interests, was pulling up stakes in Kazakhstan after five years of turning a bargain purchase of Kazakh oil fields into 270 million barrels of reserves and 32,000 bpd of production.

Russia's giant Lukoil scooped up those assets for US$2 billion, amid accusations from angry Nelson shareholders that five insiders of their company had sold 4.7 million shares for C$2.82 each two weeks before the Lukoil offer of C$2.57.

China National teamed with India

China National Petroleum Corp. again surfaced in a Canadian-related deal in December when it teamed up with India's state-controlled Oil & Natural Gas Corp. to pay C$676 million for Petro-Canada's 38 percent share of a Syrian oil project.

The two Asian buyers will share 58,000 bpd of production from reserves of 66.3 million barrels in the Al Furat field, a venture with Royal Dutch Shell and Syria's national petroleum company.

Although the assets contributed significant volumes, they represented less than 4 percent of Petro-Canada's earnings and were an increasing source of grief because of the fiscal terms imposed by the Syrian government.

In addition Al Furat was in rapid decline from the net 106,300 bpd that Petro-Canada enjoyed three years ago and was blamed by analysts for a large portion of a 12 percent drop in Petro-Canada's shares a year ago.

Wilf Gobert, vice chairman of Peters & Co., described the economics of operating in Syria as "horrendous," with the government taking 95 percent of any price increases.

Talisman adds to North Sea holdings

The one significant reversal of the Canadian pullback occurred in late 2005 when Talisman Energy hooked Britain's Paladin Resources for C$2.5 billion, adding to its substantial North Sea holdings.

Of Paladin's 190 million boe of proved plus probable reserves, 75 percent are in the Norwegian, British and Danish sectors. In addition, Norway offers 600,000 net undeveloped acres and underpin Talisman's goal of boosting output to 70,000 boe per day in 2009 from the current 46,000 boe per day.

Even limiting the count to the major divestitures, it appears overseas oil production by Canadian-owned companies dropped by about 318,000 bpd, wiping close to one-third of the 2004 tally.

What's next is far from certain, but persistent speculation focuses on the chances of a Canadian company falling into the fold of an international company other than one based in the United States.

The Chinese and Indians are always a threat as they fan out around the globe in their desperate effort to meet domestic oil demand; Royal Dutch Shell is hungry for new reserves; and France's Total has set a goal of producing 500,000 bpd from the Alberta oil sands, more than double the projects it already has under way.

When such super-majors are in the buyers' market, virtually every Canadian-controlled E&P company could be seen as potential quarry.

There has been no shortage of rumors over recent months involving EnCana, Petro-Canada, Talisman Energy, Nexen and Canadian Natural Resources.

Speculation over Shell and EnCana

The speculation reached fever pitch in October when Royal Dutch Shell was claimed to have made an offer for EnCana, forcing the Canadian independent to issue a denial.

Randy Eresman, who has just taken over as EnCana chief executive officer from Gwyn Morgan, said that even if his company stumbles in its pursuit of production goals it will remain a large company, outside the reach of all but a few predators.

It would also be challenging for those companies larger than EnCana to launch a raid, given that they trade on measures of earnings, while independents trade on measures of cash flow, he said.

It would be difficult for one of the global giants to digest EnCana because of the impact "we'd have on their earnings in the short run," Eresman told the Calgary Herald.

He left no doubt that EnCana will not be a willing seller because of its unwavering commitment to its asset base and its "unbooked" resource potential in natural gas and the oil sands.

At the same time, Eresman said EnCana has no thoughts of doing major acquisitions because of the large inventory of land in its portfolio.

"There is no need for us to do any acquisition," and besides making a deal in a high price environment "is very challenging," he said.

Speculation around Talisman

Talisman Chief Executive Officer Jim Buckee has often said he would not want or welcome a takeover bid, although the door is open to any prospective buyer who is willing to pay a premium.

Intense speculation in the second half of 2005 that Talisman was being targeted culminated in November when Buckee confirmed that an offer had been made by an unidentified "major," and was rejected because it fell short of the required "fat premium."

One of the first to topple in 2006 could be high-flying Niko Resources, which produces oil and gas in India and Bangladesh.

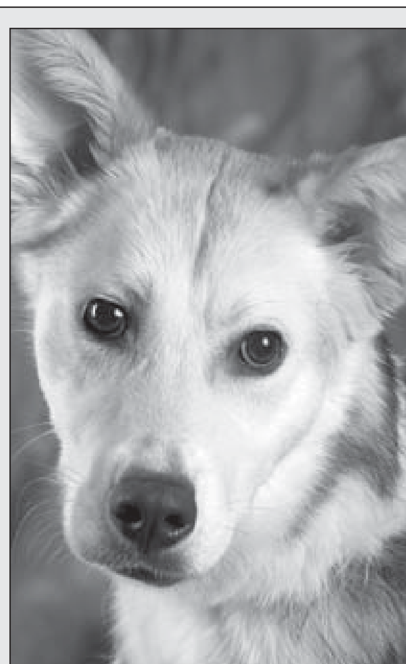
Before Christmas it rejected a preliminary US$1.4 billion takeover bid by Indian Oil Corp., India's largest refiner, for most of Niko's assets in that country.

Indian Oil offered roughly C$50 a share and was expected to return with something closer to C$70, despite a 28 percent slide in Niko's stock in recent months from a record high of C$71 in March.

Niko has an estimated 530 billion cubic feet of proved plus probable gas reserves and 200 million barrels of oil and liquids.

Vic Vallance, an analyst with Fraser Mackenzie in Toronto, said the attempted takeover of Niko was an example of how shareholders in higher-risk international plays were able to cash in on speculative investments.

He said there are usually exit opportunities for companies "if they get to a certain size," especially in a country like India where there are many buyers for not many properties. ●



COURTESY ALASKA PETOGRAPHY

continued from page B1

CONOCO

started up production from the viscous oil West Sak accumulation from the Kuparuk unit 1E pad last year and from the 1J pad through the end of the year. The company expects ultimate peak production upwards of 45,000 barrels per day from West Sak.

"This is a project that could really make significant advancement over the years," Bowles said.

Spending on the satellite fields amounts to about $500 million, as does spending on West Sak development, Bowles said.

Moving west

Development of new fields is progressively moving west, with permitting in progress for Alpine West, in the northeast National Petroleum Reserve-Alaska. ConocoPhillips is also in the process of authorizing funding for that project.

"That would be the first field that would actually be developed and produced out of NPR-A proper," Bowles said.

The next field in line will be Lookout, a little further into NPR-A than Alpine West.

"Roughly $500 million we're looking at on these two projects here, hopefully in the 2007-2008 timeframe," Bowles said.

Exploration

Bowles said that ConocoPhillips will be participating in seven exploration wells on the North Slope this winter — he included three West Sak-equivalent viscous oil wells in that count. He also included the recently announced I-100 heavy oil well, in which ConocoPhillips will be participating with BP.

Bowles said that success with drilling for viscous oil could lead to some major new development.

"If we can have some success drilling those, it could spin off a future large project development for this West Sak viscous oil," he said. "So, it's going to be an important season for us as far as what we see on the exploration front."

ConocoPhillips also plans to push the frontiers of exploration in northern Alaska by participating in two new 3D seismic surveys. One of these surveys will be in the Teshekpuk Lake area of NPR-A, recently opened for exploration by BLM.

"We see that as a significant area," Bowles said. "… We have a lot of high hopes for what that might lead to."

The other 3D survey will be in the Chukchi Sea.

"That's an area where we are preparing to participate in a 3D survey and we do see a lot of resource potential in the Chukchi," Bowles said.

As an example of what can happen after conducting a 3D survey, Bowles cited this season's flurry of exploration activity in the Storms area, southeast of the Kuparuk River unit, following a 3D survey last winter.

Increased well work

In addition to new development and exploration, the past few years have seen a major increase in well work in existing fields. And that trend looks set to continue.

2006 "will be the biggest year we've had in Kuparuk since the early '80s," Bowles said.

Bowles particularly pointed out an increase in the use of coiled tubing drilling in field development. From relatively little use a few years ago, this technique has become a normal part of business, he said. The technique is helping maintain production rates.

"Kuparuk set a world record of an 18,000-foot plus departure with 2-inch coiled tubing," Bowles said.

Low sulfur diesel

The introduction of low sulfur diesel to replace conventional diesel fuel on the North Slope is also triggering a major amount of work. But in addition to being a large project in terms of the work involved, Bowles sees conversion to low sulfur diesel as having a major impact on the slope. Conversion will reduce acid fuel emissions by 40 percent over a four-year time period, he said.

ConocoPhillips, in conjunction with BP and Exxon, plans to transition to the new fuel two years earlier than mandated and has agreed with the state on some flexibility around how to do the transition. The transition project will involve a major modification to the Kuparuk topping plant that refines diesel fuel — that modification will entail a major sealift in 2007, Bowles said.

High workload

With so many projects going on, the ConocoPhillips' North Slope workload is particularly high at the moment — the company estimates that it will require about 2.2 million man hours just in construction work in 2006. There's a 50 percent increase from 2004 in direct man hours on construction projects, Bowles said.

"This just goes to show that there's a lot of activity on the Slope in trying to continue development of reserves," Bowles said. "… It's going to be a very busy year for us in '06."

But, with so much work going on, Bowles emphasized the continued need to focus on safety. 2005 showed a 28 percent improvement in contractor safety for ConocoPhillips, he said.

"Be careful out there," he said, as he concluded his presentation to the Meet Alaska conference. ●

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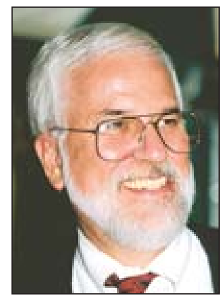
STAKE

pipeline would be expensive.

Last year, state tax officials valued the pipeline overall at $3 billion. The industry, resisting higher property taxes, pegged the value at half that.

Since 2000, several ownership shares have changed hands. Most recently, in 2004 a subsidiary of Koch Industries paid The Williams Cos. $100 million for a 3.08 percent share of the pipeline, according to an appraisal report the pipeline owners prepared last year. The appraisal, however, says the price was "not ... a reliable indicator of the value" of the pipeline because the sale was part of a much bigger transaction involving a refinery in North Pole.


KEN BOYD

The same 3.08 percent share traded for $35 million in 2000, and again for $40 million the next year, according to the appraisal.

In the late 1970s, BP offered to sell its pipeline interest to the state, but the state rejected the offer "in part because state officials believed state ownership would unacceptably increase the conflict between the state's regulatory responsibilities with respect to pipeline operation and the state's interest in maximizing public revenue," according to a 2002 Department of Revenue study.

BP holds largest share

BP holds the largest share of the pipeline at 46.93 percent, followed by ConocoPhillips at 28.29 percent, ExxonMobil at 20.34 percent, Koch at 3.08 percent and Chevron at 1.36 percent.

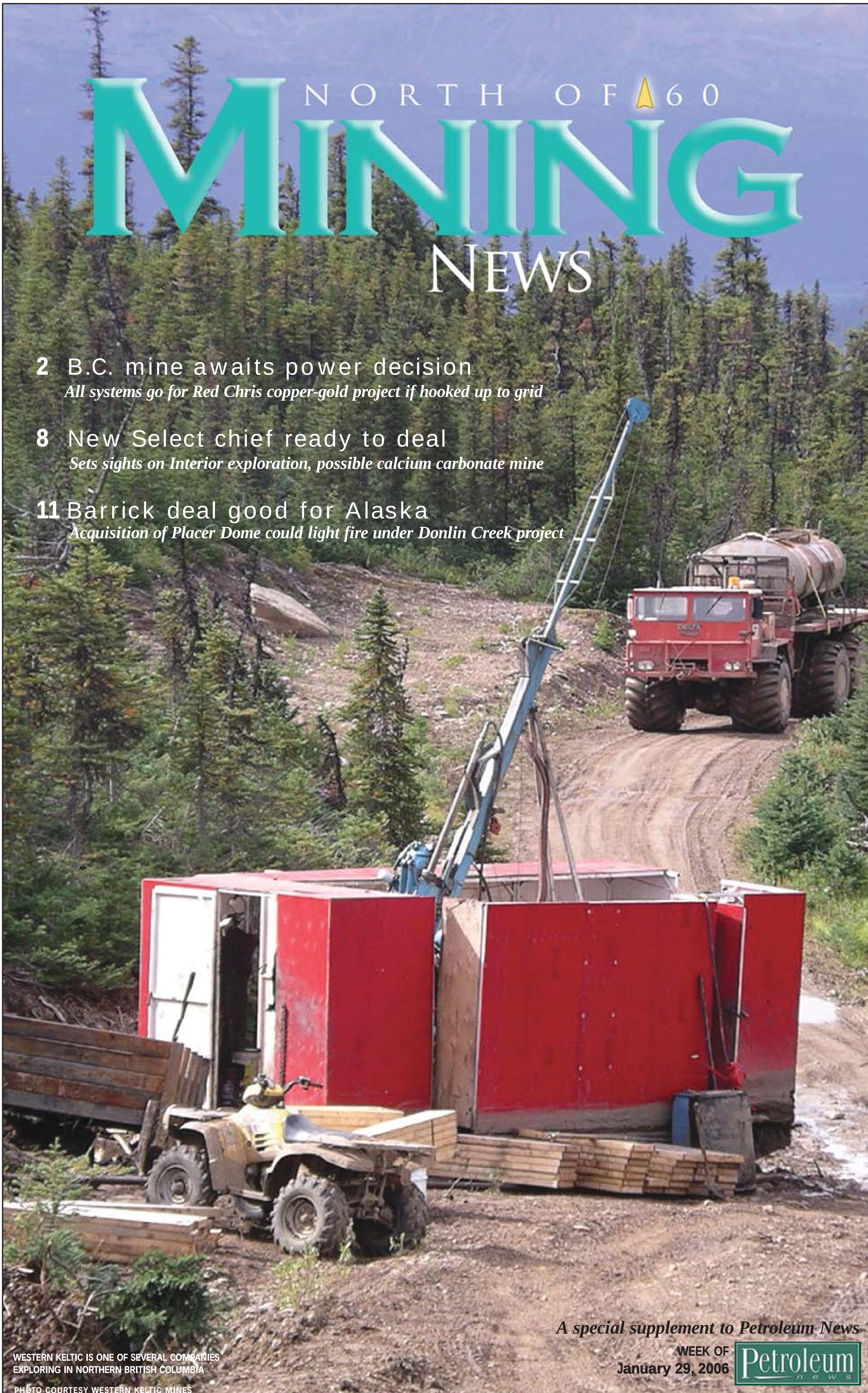
BP still is interested in selling some of the pipeline to the state, and company and state officials have talked recently about it, BP spokesman Daren Beaudo said Jan. 23.

"We're willing to discuss it in more detail when the state thinks the time is right," he said.

Chevron, which last year took over Unocal and its small share of the oil pipeline, announced it planned to spin off some assets. But no decisions have been made on the fate of Alaska properties, spokeswoman Roxanne Sinz said.

—WESLEY LOY
Anchorage Daily News

NORTH OF 60 MINING NEWS



WESTERN KELTIC IS ONE OF SEVERAL COMPANIES EXPLORING IN NORTHERN BRITISH COLUMBIA

PHOTO COURTESY WESTERN KELTIC MINES

A special supplement to Petroleum News

WEEK OF
January 29, 2006

Petroleum news

● BRITISH COLUMBIA

B.C. mine awaits power line decision

All systems go for Red Chris copper-gold project as soon as the provincial government hooks undeveloped region up to the grid

By SARAH HURST
For Mining News

As the mining industry booms and companies rush to develop new properties, there is often one major snag in remote northern regions: inadequate infrastructure. This is the case with the Red Chris property in British Columbia, which completed the province's environmental assessment process last August. Vancouver-based bcMetals is champing at the bit to obtain permits and start construction of its proposed copper-gold mine, but everything hinges on whether or not the British Columbia government will build a 37.5-megawatt power line into the area.

A decision on the power line could come at any time, but neither bcMetals nor the government can or will say when that might be. The mining company has been one of the leaders of a coalition of interested firms, associations and individuals called Highway 37 to campaign for the power line, which would be an extension of the existing line from Meziadin Junction to Iskut or Dease Lake. The extension could be up to 208 miles long and cost between C$185 million and C$368 million, according to studies done for B.C. Transmission.

Power for region

"This is not a power line for Red Chris, it's for an undeveloped region — we just happen to be the first ones who will use it," Ian Smith, president and CEO of bcMetals, told Mining News. "We've brought together the coalition to get broader-based awareness of the benefits that would accrue," he added. A spokesman for the British Columbia government's Ministry of Energy, Mines and Petroleum Resources, Jake Jacobs, told Mining News that he had no information about whether a decision on the power line would soon be forthcoming.

In the meantime, bcMetals is proceeding on the basis that the power line will be built, according to Smith. The company has arranged US$110 million of debt financing with the UK subsidiary of South African bank Investec. Repayment would take place over seven years, commencing in year three following a two-year construction period.

COURTESY BCMETALS

COURTESY BCMETALS

Above, the mining company has been one of the leaders of a coalition supportive of the proposed power line, which would be an extension of the existing line from Meziadin Junction to Iskut or Dease Lake. At left, the camp at the Red Chris property is in place and construction of the mine could start soon after the power line decision comes.

The bank has been performing due diligence on the company and lawyers are fine-tuning the details of the agreement, Smith said. The extension of the power line is a condition of the financing.

BcMetals also announced in December that it had issued letters of intent to enter into contracts with AMEC Americas and Merit Consultants International to provide engineering and construction services for the Red Chris project. Located 280 miles north of Smithers and 11 miles southeast of the village of Iskut, Red Chris would be an open pit mine that would employ approximately 250 people full-time during operations. The capital cost of building the mine is estimated at C$200 million and annual operating expenditures would be approximately C$70 million.

Company intends to develop mine

Unlike many projects, where junior mining companies enter into partnerships or sell their properties to larger companies, bcMetals intends to develop the Red Chris mine and put it into operation by itself, Smith told Mining News. Smith brought his expertise as a mining engineer to the company in 2003. He graduated from the University of Queensland, Australia in 1966 and has worked in Papua New Guinea, New Mexico, South America and China.

"The difference here obviously is the climate," Smith said. "But Red Chris is in the rain shadow, we don't get a lot of snow like Eskay Creek or Galore Creek. It's a run-of-the-mill porphyry copper-gold project, smaller than others I've worked in. Red Chris will be one of the easiest mines to develop — it's close to a main road, pre-production stripping will be minimal and we don't have to get into any major clearing of trees."

The company was co-founded by another two mining heavyweights, Carl Zuber and Bob Buchan, both formerly from Kinross Gold — the owner of Alaska's Fort Knox mine. Buchan was president and CEO of Kinross until last year. "BcMetals was formed to be another Kinross with the focus on the base metals side," Smith said. "Bob and Carl are obviously two people who have immense experience and standing within the mining community. They're a huge plus." Initially Buchan and Zuber formed an Alberta-based company that was exploring for oil in Guatemala, but when they saw the political climate changing in British Columbia with the election of the right-of-center Liberal Party in 2001, they decided to move into the province and look for minerals.

Also has properties in Alaska

BcMetals was exploring for molybdenum at the Fire Mountain property east of Atlin until recently, but has now dropped that project. It has picked up some additional properties in the Alaska Range area, 93 miles southeast of Fairbanks, and did limited drilling there in 2005. "Unfortunately we had exceptional snowfall and couldn't get to the more prospective locations," Smith said. "Our main focus is on getting Red Chris up and running."

AMEC compiled the now approved application for an environmental assessment certificate for the Red Chris project. The mine plan envisages processing 27,500 metric tons of ore per day through the mill over a projected mine life of 18 years, according to the application. The project will require cooperation with the First Nations in the region, the Tahltan and the Iskut, with whom bcMetals signed a Memorandum of Understanding in January 2004.

Metal mines operating in British Columbia have fallen from a peak of 120 to the current level of five, according to the Red Chris application. No new metals mines have opened in the province since 1997. "The current B.C. government has indicated that it wishes to send a clear message to the mining industry and the international finance community that B.C. is open for business and that mining in B.C. is a sunrise, not a sunset industry," the application says. ●

● ALASKA

Wastewater discharge rule changes on tap

Legislature to consider permanent prohibition on relaxing standards for wastewater discharge permits for Alaska's natural streams

By ROSE RAGSDALE
For Mining News

A bill being considered by the Alaska Legislature this session may put to rest, once and for all, recent controversy over proposed easing of certain restrictions on wastewater discharges in fish spawning areas of Alaska streams.

House Bill 328, introduced by House Fisheries Chairman Rep. Paul Seaton, R-Homer, would set in statute Alaska Department of Environmental Conservation regulations that prohibit the use of so-called "mixing zones" in the state's natural waterways.

The move is aimed at protecting the pristine image of Alaska's wild salmon and other fisheries, which the bill's advocates say offers considerable value to the state and its commercial fishing industry.

A "mixing zone" is a three-dimensional area in a body of water where wastewater that does not meet the strictest standards for removal of potential contaminants can be lawfully discharged.

Mixing zones are generally specified where an "end-of-pipe" discharge does not meet environmental regulators' Aquatic Life Standards but where mixing with receiving water will result in those standards being met further downstream.

Mixing-zone rule dates from '70s

Alaska's regulation prohibiting mixing zones dates back to 1973. Recently, DEC officials found that in some instances the rule seemed overly restrictive, and proposed a new regulation that allows site-specific exceptions while the general prohibition remains in place.

"Fish and Game actually observed spawning salmon in a mixing zone and did studies and found no harm was done to the fish," said Nancy Sonafrank, section manager in DEC's Division of Water.

An exhaustive process in which the state agency held public meetings and received more than 1,000 public comments culminated with a workshop Dec. 19.

DEC is expected to take feedback from the workshop and analysis of the latest round of some 400 public comments and come up with a final decision on the proposed rule in the near future, according to Sonafrank.

"If the commissioner decides to go ahead with a new rule, it then goes to the lieutenant governor and then we would need a 30-day waiting period," Sonafrank said. "It could be sometime before a new rule takes effect."

> *"Fish and Game actually observed spawning salmon in a mixing zone and did studies and found no harm was done to the fish," said Nancy Sonafrank, section manager in DEC's Division of Water.*

Bill protects pristine image

Meanwhile, HB 328 could set the prohibition against mixing zones in state statute, a move that could potentially create problems for mining operations seeking to do business in Alaska.

"If our bill goes through, exceptions to the prohibition on mixing zones in the state's natural streams would not be allowed," said Seaton aide Louie Flora. "By opening the door to that possibility, we will slowly open the door for undermining the purity of Alaska fish. Commercial fishermen in Alaska pay a marketing tax to promote that concept. We don't want to see it lost."

Flora said Seaton and the bill's other co-sponsors, Reps. Kurt Olson, R-Kenai, Carl Gatto, R-Palmer and Gabrielle LeDoux, R-Kodiak, do not believe the mining industry will be adversely affected by the legislation.

"We've been in contact with the developers of one of the largest gold mines in North America, the Pebble Mine on the Alaska Peninsula, and they said they won't need a mixing zone," he added.

Northern Dynasty Ltd., the Pebble project's developers, declined to comment on whether it will require a mixing zone to handle wastewater at the mine. However, a statement posted on the company's Web site indicated that current plans do not involve seeking a mixing zone permit from state regulators.

Measure accommodates miners

Still, HB 328 may already address the needs of miners.

"We added a provision that will allow mixing zones in manmade ditches such as tailings ponds or any artificial facility channeling or holding water," Flora said.

The exception is actually a case of art imitating life in that the Municipality of Valdez dug a ditch for wastewater that subsequently was invaded by pink salmon," he added. ●

JUNEAU

Lawmakers to hear mixing zones plan

The Alaska House Special Committee on Fisheries took up consideration Jan. 20 of House Bill 328, a bill that would prohibit mixing zones in freshwater spawning streams. (See related story on page 3 of this issue.)

Mixing zones are used throughout the state, mainly by municipal wastewater treatment plants, seafood processors and some placer mines.

State officials are confident newly revised, but controversial, Department of Environmental Conservation mixing zones regulations will protect Alaska's fish, including freshwater species such as grayling, trout and whitefish as well as spawning areas of salmon.

But legislators from fishing communities, led by Rep. Paul Seaton, R-Homer, want to set the mixing zones prohibition in state statute to prevent an undermining of those rules over time.

The committee was scheduled to hear the bill again on Jan. 27.

—THE ASSOCIATED PRESS

HEALY, ALASKA

Usibelli sets lost time injury record

Usibelli Coal Mine in Healy, Alaska, has achieved an all-time safety record for no lost time injuries. The company said Jan. 17 that from Jan. 27, 2004, to the present, Usibelli's employees have collectively achieved more than 720 days of continuous operations without a lost time injury.

"This is a significant accomplishment considering the challenging conditions we work in every day, while maintaining an impressive on-time delivery schedule to our customers," said Keith Walters, Usibelli's general manager. "We have produced approximately 1.5 million tons of coal each year during calendar year 2004 and 2005 for delivery to six Interior Alaska power plants and for export to South Korea and Chile."

"I am tremendously proud of every employee," said Usibelli Coal Mine President Joe Usibelli Jr. "We enjoy a very professional and dedicated workforce with great leadership and teamwork. Accomplishments like this don't come easy. Two years without a lost time injury is outstanding." Usibelli Coal Mine is a third-generation family owned business and the only operational coal mine in Alaska. The surface coal mine has been in operation since 1943.

—SARAH HURST

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● COLUMN

Mining news update from Curt Freeman: 'When the pony runs, you ride'

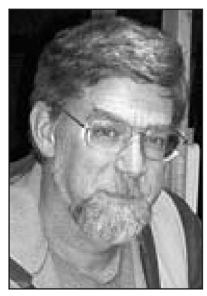
Metals high: Gold up 77% from January 2002, silver 94%, platinum 87%, copper 206%, nickel 429%, lead 174%, zinc 141% — exploration and development plans for Alaska focused on all of these metals in projects stretching from the Brooks Range to far southeastern Alaska, from the Alaska-Yukon border to the Seward Peninsula

In a welcome respite from the madness of most of 2005, the last month has seen a slowing of information from companies and individuals exploring and developing Alaska. While development work continues at Pogo and Kensington and permitting and feasibility/preliminary feasibility work continues at Rock Creek, Donlin Creek and Nixon Fork, the exploration industry is busy making plans for 2006.

With a number of metals pushing at all-time or generational price highs, I decided to quantify just how much has changed since the doldrums of 2001-2002 when the industry was on its knees and more than a few pundits were intoning last rights. Between January 2002 and January 2006 gold prices have risen 77 percent, silver 94 percent, platinum 87 percent, copper 206 percent, nickel 429 percent, lead 174 percent, zinc 141 percent, molybdenum 480 percent and uranium 172 percent.

Worldwide demand for each of these metals is outstripping supplies and the under-populated mining industry is finding itself hard-pressed to meet the demand. Exploration and development plans for Alaska that are already known for 2006 will be focused on all of the above-named metals in projects stretching from the Brooks Range to far southeastern Alaska, from the Alaska-Yukon border to the Seward Peninsula. As the old cowboy said, "when the pony runs, you ride".

The author



CURT FREEMAN

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Western Alaska

NORTHERN DYNASTY MINERALS LTD. announced additional high-grade intercepts in the East zone at its Pebble deposit near Iliamna.

Hole 5334 intersected 915 feet grading 1.38 percent copper equivalent consisting of 0.62 percent copper, 1.06 grams gold per tonne and 0.023 percent molybdenum including a 330 foot interval grading 1.82 percent copper equivalent (0.64 percent copper, 1.81 grams gold per tonne and 0.019 percent molybdenum).

Hole 5335 intersected 2,478 feet grading 1.21 percent copper equivalent consisting of 0.81 percent copper, 0.44 grams gold per tonne and 0.023 percent molybdenum.

Hole 5336 intersected 2,584 feet grading 1.13 percent copper equivalent consisting of 0.67 percent copper, 0.23 grams gold per tonne and 0.055 percent molybdenum.

Hole 5337 intersected 2028 feet grading 1.28 percent copper equivalent consisting of 0.83 percent copper, 0.34 grams gold per tonne and 0.041 percent molybdenum.

Mineralization in these holes was intercepted from 1,550 to 1,700 feet below surface and remains open to expansion to the east and at depth. The company indicated that it spent C$44.7 million (US$38.5 million) at Pebble in 2005 and intends to start the 2006 drilling program with four rigs beginning in March.

As a consequence of the significantly higher grades being encountered in the East zone, the company has revised its exploration and development plans to allow for a more complete drilling definition of the East zone. As a consequence, completion of the planned feasibility study and environmental applications has been deferred until the results of the East Zone drilling can be integrated into the overall project planning.

LIBERTY STAR GOLD CORP. announced preliminary results from its Big Chunk copper-gold project near Iliamna. Two areas of porphyry copper mineralization were partially tested by drilling (Baltusrol and Point Grey) while a third area will require additional geochemistry and IP geophysics to determine specific drill targets.

One large area of anomalous gold and molybdenum in vegetation requires additional geochemistry, IP and drill testing. Baltusrol is hosted by felsic porphyry intrusives, intrusive breccias and porphyry-style alteration and mineralization that returned 50 feet grading 1033 parts per million copper and 0.0018 ounces of gold per ton.

Mineralization remains open and untested to the northeast, south and at depth. A single drill hole at the Point Grey prospect intercepted 0.0078 ounces of gold per ton over 177 feet including 10 feet of 0.059 ounces of gold per ton. Associated minerals indicate this to be a gold-silver system. Mineralization remains open to expansion.

At the Augusta prospect on the western side of the claim block the company has outlined a 5.7 mile by 2 mile area of anomalous gold and molybdenum in vegetation samples. Additional work is planned for the project.

Alaska Range

USIBELLI COAL MINE recently celebrated two milestones for their 63-year old operations near Healy.

The first was the completion of a full year of operations without a lost time accident during 2005. This seminal event is accompanied by a coveted Sentinels of Safety award to be issued by the Mine Safety and Health Administration in conjunction with the National Mining Assoc.

The second milestone was passing 700 days without a lost time accident, a record the company has never exceeded. Hats off to the employees and management for a job more than well done!

PIPER CAPITAL announced that it has staked a large land position in the Mount Estelle area of the south-central Alaska Range. The South Estelle prospect is adjacent to **KENNECOTT EXPLORATION'S** Whistler copper-gold project. The company's interest in the South Estelle project area was the result of anomalous gold values in stream sediment samples reported by the U.S. Geological Survey.

Reconnaissance sampling by the company in September 2005 confirmed mineralization in the previously reported Revelation Vein and identified three new prospects designated Shoeshine, Train and Saddle.

Highlights of grab and chip sampling from this effort include 34.4 grams gold per tonne, 8.1 grams silver per tonne and 0.1 percent copper in a vein on the Revelation prospect that has been traced for over 200 meters on surface; 112.5 grams gold per tonne, 245 grams silver per tonne and 0.13 percent copper in an intrusive-hosted vein on the Shoeshine prospect; 23.8 grams gold per tonne, 91.4 grams silver per tonne and 0.33 percent copper in a sulfide boulder train on the Train prospect; and 7 grams gold per tonne and 1.9 grams silver per tonne in a mineralized dike that has been traced for over 2 kilometers on the Saddle prospect.

Mineralization in the Mount Estelle area is related to late Cretaceous composite alkalic intrusions within the 35 kilometer-long Mount Estelle batholith. These composite bodies are zoned from potassic gabbro and ultramafic rock on their margins to granites in their cores. Platinum group element mineralization often occurs in more mafic and ultramafic rocks while gold-silver occurrences are more typically associated with the central granitic facies.

The company's claims include rocks of both intrusive phases. The company is planning additional work on the project in 2006.

Earlier in the year, Kennecott announced discovery of both low grade and "significant" grade copper-gold mineralization on the adjacent Whistler prospect which now has 12 drill holes into it.

All of the holes intercepted broad intervals of copper and gold mineralization. Additional work is planned for 2006 by Kennecott at Whistler and at one or more of the eight other targets identified in the district. ●

● SOUTHWEST ALASKA

Pebble contractors: quality and quantity

Northern Dynasty employed 45 consulting firms last year to conduct baseline studies, is reaching out to the local community

By SARAH HURST
For Mining News

Northern Dynasty may only be a junior mining company, but it has marshaled an army of contractors to conduct baseline environmental studies for its Pebble project in southwest Alaska. Companies that competed against each other to win the contracts are now working as a team taking samples, monitoring conditions and analyzing data that will eventually be used in the permit applications for the proposed copper-gold mine.

In 2005 the Pebble project employed 45 consulting firms, with a total Alaska workforce of 457, plus another 152 non-Alaskans, according to Northern Dynasty. Of the Alaskans, 112 were from local Bristol Bay communities.

COURTESY SLR ALASKA

Willow Weimer, an environmental scientist, and Robert Klieforth, a geological engineer with SLR, working at the Pebble site.

HDR began work in 2004

One of these contractors, HDR, a large architectural, engineering and consulting firm with offices in Anchorage and Juneau, began working for Northern Dynasty in 2004. "We went through the pre-qualification process. They were looking for a variety of disciplines and wanted to know what we were interested in," Mark Dalton, HDR's Alaska operations manager, told Mining News. The company already had local expertise, as it had worked on various projects in the Iliamna-Nondalton area, including designing and permitting a small hydroelectric power plant on the Tazimina River.

HDR also had experience working with the mining industry: it did an environmental impact statement for Red Dog mine in the early eighties and more recently has been involved with Pogo and Donlin Creek and some smaller projects in Southeast Alaska. On the Pebble project Northern Dynasty initially wanted HDR to focus on fish and wetlands issues, with some limited stream biology work that involved sampling streams to find out what lived there. "In 2005 they came back to us and asked if we would take on additional work — water quality and surface water hydrology," Dalton said.

COURTESY HOEFLER CONSULTING GROUP

Eric Brudie, a lifelong Alaskan, is a field engineer with the Hoefler Consulting Group who helped install the weather stations for the Pebble project.

The Northern Dynasty contracts are worth more than $1 million annually to HDR. Out of their Anchorage workforce of 100, around 20 have worked on the Pebble project. HDR takes samples from the mine site and also the planned access road corridor year-round. All kinds of information is collected, from the types of species that are out there, to the chemistry of the water, when there are high flows and low flows, and when break-up takes place. "Northern Dynasty has done a very good job of laying out the logistics and requirements for field crews, and they are terribly sensitive to safety issues," Dalton said. "They provide places for people to live, helicopter support and communications."

SLR using local-hire helpers

Northern Dynasty also makes an effort to recruit local people to assist the various field crews. Like HDR, SLR is an environmental science and engineering consultancy firm with numerous offices around the country. SLR has 16 people in its Anchorage office and has been working on the Pebble project for the past year, implementing a ground water program and a program to identify trace elements in the soil and vegetation at the mine site. In the field, the scientists are usually accompanied by a local-hire helper and a local bear guard. "We needed people who were very good mechanically," said Scott Rose, SLR's principal geologist. "Northern Dynasty would find local people or give them the training."

"The bear guards added so much information about subsistence. It's amazing to me how much the locals use the plants," said Karen Cougan, SLR's principal scientist. "This is a new type of work for them. They liked being paid to be outside and look at the vegetation, and scope out for animals." To avoid endangering subsistence resources, the crews working for Northern Dynasty are not allowed to hunt, fish, or eat berries or other plants on the site.

Contractors are also prohibited from using vehicles on the ground, so instead of wheeling a drill rig 10 feet to a new location, it has to be dismantled and transported in 10 to 25 helicopter loads. SLR uses specialized drill rigs to drill wells for the ground water monitoring program. For almost four months last summer the company was drilling 24 hours a day in a 10-mile by 10-mile area. Including some that were drilled previously, there are now some 160 wells on the site, usually about 100 feet deep, which have to be monitored at monthly and quarterly intervals for two years.

"We're really getting to do true science, our life aspirations," Cougan said. "It has enormous benefits for the scientific community, to add to the databases. Getting a government grant for some of this would be much more difficult." The contracts with Northern Dynasty account for about 30 percent of the work of SLR's Anchorage office. Their other main clients are Alyeska Pipeline, ConocoPhillips and BP. Although the company only came to Alaska in 2001, its staff has decades of experience, including working on projects for Fort Knox and Greens Creek mines.

COURTESY HDR ALASKA

Local resident Dwight Analon and Rebecca Moore from HDR's Anchorage office worked on the fish crew for the Pebble project.

Biologist working on baseline info

Fisheries biologist Jim Buell also worked with Fort Knox last year on a re-evaluation of the mine's wetlands program, which rehabilitates wetlands in the area that were damaged by previous placer mining activities. Buell is based in Portland, Ore., but started working in Alaska in the late 1970s. In 1991-93, when Cominco owned the Pebble claims, Buell began putting together baseline information about fish on the site. Later the company put the project on hold, but after Northern Dynasty took over, Buell was invited to get involved again.

Buell was keen to answer some of the questions that had been raised when he first collected data on Pebble. "There was some very interesting stuff, very puzzling, to do with the distribution of juvenile salmon in the area," Buell told Mining News. "I had trouble understanding why they weren't in certain places. The south fork of the Koktuli River went dry in the summer, and the assemblage of species in the north fork was very rich, there were many kinds of fish, it was very impressive."

Flying over the Pebble site for Northern Dynasty in the winter of 2004, "I saw a lot of open water in certain areas and it all became clear," Buell said. "A lot of the streams are dominated by ground water influence. If you really want to understand this system, you have to go there in winter." Buell is now overseeing all the aquatic and fisheries investigations on the project, which takes about 60 percent of his time. "Northern Dynasty is being very attentive, that was part of the deal," he said. "I wanted to be part of the team in a real sense. Communication back and forth is very important."

Hoefler: air quality baseline work

On the air quality side, the Anchorage-based Hoefler Consulting Group has been collecting baseline data at the Pebble site, primarily by installing meteorological stations that measure conditions such as temperature, wind speed and humidity. The stations consist of 10-meter high towers with instrumentation at the top, which can be read remotely on the computers in the Anchorage office, Brian Hoefler, the firm's president, told Mining News.

"Northern Dynasty is a great set of folks, they understand the nature of the business, and they're working very hard to do the right thing. We've enjoyed working with them," said Hoefler. About 16 people from Hoefler's staff of 25 or so worked on the Pebble project in 2005, devoting 3,000 to 4,000 man-hours to the work, Hoefler said. Hoefler founded his environmental consulting company in 1995 and has been working with the mining industry since 1991, including projects for Teck Cominco at Red Dog, Teck-Pogo and the Mystery Creek mine. ●

● BRITISH COLUMBIA

Kutcho Creek makes promising copper target

Junior Western Keltic purchased B.C. property from two majors and has taken it into the environmental assessment process

By SARAH HURST

For Mining News

A Vancouver-based junior that has been conducting a drilling program on its sole property, Kutcho Creek in northern British Columbia, formally entered the environmental assessment process last summer with a view to developing a mine. Western Keltic Mines will soon start making presentations to local communities to ensure that First Nations are on board. The company is striving to catch up with the more advanced development projects in the area, NovaGold's Galore Creek and bcMetals' Red Chris. Near to all of those is Barrick Gold's Eskay Creek mine, which is approaching the end of its life.

Two of the Kutcho Creek property's three deposits have been found to be potentially economic so far. The Kutcho deposit contains measured and indicated resources of 13.1 million metric tons grading 1.94 percent copper, 2.59 percent zinc, 33.7 grams per ton silver and 0.41 grams per ton gold, while the Esso West deposit contains 2.1 million tons grading 3.3 percent copper, 5.8 percent zinc, 75.7 grams per ton silver and 0.71 grams per ton gold. The deposits contain a total of 670 million pounds of copper and 950 million pounds of zinc and are open to expansion, according to Western Keltic.

Two drilling campaigns

"The project since we acquired it two years ago has had two drilling campaigns," Brian Butterworth, a geologist with Western Keltic told Mining News. "The objective was to collect material for metallurgical test work." The company took samples to find out whether it would be viable to deal with the metallurgy of the deposits and the results were positive, Butterworth said. Next year there will be more drilling and environmental baseline studies.

COURTESY WESTERN KELTIC MINES

Anja Weiss, project geologist for Western Keltic Mines and Paul Wojdak, regional geologist with the B.C. government, sitting on core boxes at Kutcho Creek.

Previous owners of the property spent around C$20 million exploring it and Western Keltic has spent C$20 million in the past two years. If a mine is developed at Kutcho Creek, Western Keltic would most likely make a deal with a mid-tier producing type company such as Toronto-based Breakwater Resources, rather than a major, Butterworth said. There might also be investment from Asian countries that are keen to secure concentrate, he added. "There seems to be a voracious appetite for base metals at the moment," Butterworth said.

Kutcho Creek purchased in 2004

Western Keltic purchased Kutcho Creek in March 2004 from two majors, Barrick and Sumac Mines, a Canadian subsidiary of Sumitomo. The property, whose value was discovered in the late 1970s by Sumac Mines and Esso Minerals, is located approximately 56 miles east of the town of Dease Lake, on land which is part of the aboriginal territory of the Tahltan and Kaska Dena First Nations. Dease Lake has a population of 650. Other communities that may be affected by the development of a mine are Smithers, Talkwa, Terrace and Stewart.

After considering open pit and underground mining methods, Western Keltic now believes that a blend of both would be the best approach for Kutcho Creek. The company anticipates milling rates to be 3,000 to 4,000 metric tons per day, or approximately 1 million to 1.2 million tons per year, with a minimum 11-year mine life, according to the project description that it submitted to the British Columbia Environmental Assessment Office. The concentrates would be transported by truck from the mine to the port of Stewart for shipment to Asian smelters. ●

● ALASKA

State gets good report card, can do better

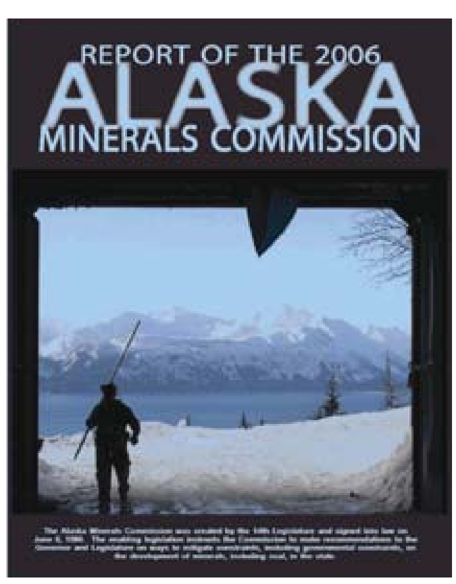
Alaska Minerals Commission encourages initiatives by governor, Legislature; calls for increased funding in '06 to back up ideas

By SARAH HURST

For Mining News

Permitting, legislation, taxation and education are some of the key issues discussed by the Alaska Minerals Commission in its 2006 report, published in January. The report praises the state's continuing efforts to improve the climate for the mining industry, but also gives a number of recommendations on what else could be done in this period of unusually high activity. The commission has advised Alaska's leaders since its creation in 1986.

"A cloud of uncertainty has been cast over the industry by the U.S. Army Corps of Engineers' decision to suspend a key permit for the Kensington mine," the report said. "This decision by the federal agency is counterproductive to the state's efforts to present itself as a jurisdiction possessing tough but efficient environmental permitting regulations. The state must demand that federal permitting agencies be accountable and provide timely, responsive product review and permit issuance in cooperation with state agencies."



The Murkowski administration's Roads to Resources program stimulates exploration investment and allows development projects to proceed more rapidly, according to the report, although the availability of electrical power is a significant challenge to mineral development in Alaska. The commission recommends that the governor and the Legislature support the development of a long-term electrical generation plan for the existing electrical grid in Alaska that incorporates the use of coal.

Ameref support needed

The governor and Legislature should also give a boost to activities of the Alaska Mineral and Energy Resource Education Fund by appropriating $100,000 to the Department of Education for curriculum development, the report said. The commission also points out that University of Alaska President Mark Hamilton has committed to funding a president's professor of Mining and Energy Technologies for the next five years — a world-class researcher who would help to "jump start" the University of Alaska Fairbanks's newly merged College of Engineering and Mines — but the position has not yet been filled. The Legislature should ensure that the university has the funding to support the position, the report said.

The possible formation of boroughs in rural areas of Alaska, with the intent to tax new mines such as Pogo, is an issue that has been hotly debated in the past year. The Alaska Miners Association supported a bill by Sen. Gene Therriault, R-North Pole, that would have established a set property tax for the unorganized borough, but the bill didn't pass.

"While the mining industry does expect

see REPORT CARD *page 7*

● DELTA JUNCTION, ALASKA

Pogo mine headed for first-quarter startup

Mine managers resolve power dispute with Golden Valley Electric, begin six-month climb to full gold production by mid-summer

By ROSE RAGSDALE
For Mining News

Teck-Pogo Alaska is back on track to achieve first production this quarter at the Pogo gold mine project near Delta Junction after clearing up a dispute that erupted last year with Golden Valley Electric Association over electricity rates.

Teck-Pogo complained to the Regulatory Commission of Alaska in October that GVEA planned to renege on a contract the two companies entered in January 2005 in which GVEA agreed to provide up to 13 megawatts of power to Pogo during its operating life and binding the mine's owner to a yearly minimum payment.

Under the contract, GVEA was not required to provide more than 2 megawatts of power to the mine during the first six months of 2006, according to the complaint.

When Teck-Pogo pushed forward the mine's completion date, mine managers asked for more than 2 megawatts of electricity earlier than July. GVEA answered that it would have to charge a much higher rate because the demand would require the use of rarely operated power plants that were expensive to run.

In December, the RCA decided to investigate the complaint and scheduled an initial hearing Jan. 24.

Two agreements in one stroke

But GVEA announced resolution of the dispute Jan. 13, after renegotiating a power sales agreement for the purchase of electricity from Aurora Energy's power plant on the Chena River in downtown Fairbanks.

The agreement paves the way for the Pogo mine, located 85 miles southeast of Fairbanks, to come on line in the first quarter and gradually ramp up to full production by July. Pogo is estimated to contain 7.7 million tons of ore that should yield just under a half-ounce of gold per ton.

GVEA said the new contract replaced the original one negotiated as part of the sale of the City of Fairbanks utility system in 1997. Aurora Energy has challenged the original contract before the RCA since 2003. The new contract, which is subject to RCA approval, resolves not only the dispute with Aurora Energy but also the more recent difficulty with Teck-Pogo, GVEA said.

"The Holy Grail in business ethics is negotiating the win-win agreement. This is a four-way win," said GVEA President and CEO Steven Haagenson. "It is a win for Aurora Energy, a win for Pogo, a win for the RCA and a win for Golden Valley."

RCA spokeswoman Grace Salazar said Jan. 17 the commission had received no notification of a settlement between GVEA and Teck-Pogo and still planned to conduct a pre-conference hearing Jan. 24.

But Pogo spokesman Karl Hanneman said GVEA and Teck-Pogo were working on documents to submit to the RCA Jan. 18.

"They (GVEA) have agreed to provide us the electric power we need to operate the Pogo facilities, and they agreed to provide it at the tariff rate we agreed to initially, which is what we requested from the RCA," Hanneman said.

Way clears for first gold

The agreement paves the way for Pogo, located 85 miles southeast of Fairbanks, to come on line in the first quarter and gradually ramp up to full production by July, he said.

Pogo is estimated to contain 7.7 million tons of ore that should yield just under a half-ounce of gold per ton. The mine will employ 240 permanent workers. Most positions have been filled, but managers are still recruiting underground miners.

Commissioning is under way on the mine's 2,500-ton-per-day mill, while construction continues underground on the conveyor, ore bin and feeder, said Hanneman, who is Pogo's manager of public and environmental affairs and special projects.

Commissioning is the process of going systematically through the plant to confirm that it is set up to operate according to its design.

"The objective is to synchronize the process for gold recovery," he explained. "We've put the first ore into the mill but we have no product yet. But we're certainly going to make our target to begin operation in the first quarter."

Underground, poor ground conditions continue to slow the advance of construction at Pogo, but crews are resolving the problems by applying shot-crete, a cement paste blown onto the walls in a spray application to strengthen tunnels, shafts and other mine structures.

Though its mill is relatively modest in size, Pogo is expected to produce 400,000 to 500,000 ounces of gold a year because of the high quality of its ore.

With capital costs ranging upwards of $330 million, the Pogo mine is expected to yield commercial quantities of gold for at least a decade with an average life-of-mine direct operating cost of about $150 per ounce. Gold currently sells for about $558.50 per ounce.

To be milled on site, Pogo's gold will be produced as bullion and cast as gold doré, or bars, ranging in size from several hundred to 1,000 ounces. It will then be shipped outside Alaska for additional processing.

Teck-Pogo is a subsidiary of Teck Cominco Ltd., which owns a 41 percent interest in the Pogo deposit. Co-owners are Sumitomo Metal Mining Co. Ltd. which owns a 51 percent stake and Sumitomo Corp., which holds 9 percent interest in the mine. ●

continued from page 6

REPORT CARD

to pay its fair share of future municipal government costs, if and when it is appropriate to form these local governments, it should do so by an equitable, broad-based tax such as a property tax, not an industry-specific tax such as a severance tax," the commission said. "Without the mitigating effects of a broad-based tax, the mining industry could then end up facing a very onerous tax structure. Such uncertainty serves as a strong disincentive to the very investment and economic diversification that is so vital to rural development."

Increase in geophysical surveys urged

The commission noted that in 2005 the Alaska Division of Geological and Geophysical surveys completed the ground surficial geological mapping project of the Council mining district and conducted geophysical surveys northeast of Fairbanks, in the Black Mountain area and east of Richardson in the Pogo area. A geological mapping program was conducted in the Liberty Bell area south of Healy and an airborne geophysical survey funded by the Bureau of Land Management was initiated on 1,448 square miles of the southern National Petroleum Reserve of Alaska.

The commission recommended increasing state's annual rate of investment in geophysical surveys by about $400,000 to more than $1 million a year. Another $500,000 should also be provided to complete both surficial and bedrock geology mapping of the Delta Junction-Canadian border pipeline corridor, $150,000 more than the governor has proposed, the report said. Shortly before the start of this year's legislative season in Juneau, Therriault filed a bill that would allocate $5 million to the Department of Natural Resources to map Alaska's mineral resources.

As in 2005, the commission endorsed the state's efforts to assume primacy over the National Pollutant Discharge Elimination System program, which is currently overseen by the U.S. Environmental Protection Agency, and called on the Alaska Legislature to ensure that the NPDES program is appropriately funded during the five-year transition period. Gov. Frank Murkowski signed legislation in 2005 that directs the Department of Environmental Conservation to work towards assumption of NPDES primacy.

The department should develop a general permit for small remote work camps that are used for construction and mining exploration, the commission advised. "These camps are short-term, low-impact facilities with common features," the report said. "However, the camps require several state permits to address waste, wastewater, drinking water, food service and other environmental and health regulations." The commission suggested that a general permit or a simplified permitting method would ease the burden on applicants.

Most of the mineral exploration funding in Alaska comes from Canadian-based sources, and a lesser amount from U.S. companies, the commission noted. Very little Alaska exploration funding originates outside North America. The state could make better use of its foreign trade representatives in Korea, Japan, China and Taiwan to find potential investors, the report said.

"Despite the very positive changes that have been made, it is necessary to follow through and convince mineral exploration and development managers and financiers around the world that Alaska truly is, in a global context, one of the best places in the world to explore and develop minerals deposits," the report said. ●

ALASKA

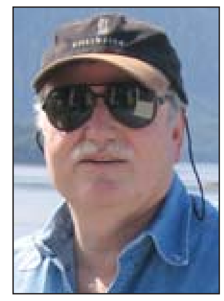
New head: Select Resources ready to deal

California-owned company setting sights on Interior Alaska minerals exploration, possible development of calcium carbonate mine

By SARAH HURST
For Mining News

The new president of Alaska-focused exploration company Select Resources is ready to talk to any potential customer or joint venture partner if there is an opportunity to develop the business. That's the message from Henry "Rick" Sandri, who was promoted from executive vice president in December after Harry Noyes resigned his officer and director positions for family reasons. Select Resources is a mining subsidiary of Bakersfield, Calif.-based Tri-Valley, an oil and gas developer.

"Every asset we have is for sale, lease, trade, expansion or development," Sandri told Mining News. These assets include copper-gold and gold properties in the Fairbanks area, a gold property in Yukon, the recently acquired Admiral Calder calcium carbonate mine on Prince of Wales Island in southeast Alaska and a 50-percent interest in the Monarch calcium carbonate mine in eastern Kern County, California.



Select Resources' new president, Henry Sandri, at the Admiral Calder calcium carbonate mine

Select purchased the Admiral Calder mine from Sealaska in July last year. The mine is not currently in operation. "Sealaska is not a mining company and they didn't recognize the type of commitment it would take, the time to develop markets," Sandri said. "It takes multiple years of slow market penetration." The calcium carbonate on the property is a rare ultra-light grade that could possibly be used in the paint, paper and plastics industries as a whitening product, according to Sandri. The company has to send out samples of the commodity so that they can be tested for use in different product lines. "I hate to say it, but it will be a slow process," Sandri said.

Exploration this summer

On the other hand, if Select finds sufficient gold or copper on its properties, there will be no problem finding customers. There are two anomalies — a gold anomaly and a copper-gold anomaly — to explore on the Shorty Creek prospect this summer. High gold anomalous values have also been detected on the company's Richardson property. "We think it's one of the largest under-explored pieces of ground in central Alaska today," Sandri said. "It's a very interesting target. There are outcroppings and inferred intrusive ore bodies." Tri-Valley's Democrat mine was located in this area some years ago.

"We plan to stake a long-term relationship in Alaska," Sandri said. Noyes, the former president, had worked for Alaska Native corporation Doyon for 14 years. The company's senior geologist, David Oliver, who joined Select last October, was based in Alaska for 12 years with American Copper and Nickel, then joined Sealaska in 1999.

Tri-Valley's president and CEO, Lynn Blystone, has been involved in Alaska's mining and oil industries for more than 20 years, Sandri said. ●

FAIRBANKS

Heap leach could add value at Fort Knox

Decision to construct heap leach facility depends on results of metallurgical tests, due in April; first indications encouraging

COURTESY FAIRBANKS GOLD MINING

Alaska's Fort Knox gold mine was acquired by Kinross in 1998.

By SARAH HURST
For Mining News

Fort Knox mine near Fairbanks is considering the construction of a heap leach pad to improve its recovery rate and take advantage of soaring gold prices. The project is still in the planning stages, but if mine owner Fairbanks Gold Mining — a subsidiary of Kinross — decides it is viable, the estimated capital cost would be $22 million. Operating costs would be approximately one-third of the current mill operating costs, and the heap leach would be used in addition to the mill processes.

"Heap leaching is being evaluated to improve mine efficiency," Lorna Shaw, community affairs director at Fort Knox, told Mining News. "It would allow us to lower our cut-off grade and process ore that is not economic to mill under current commodity prices." Condemnation drilling in the proposed heap leach location, the north corner of the existing tailings facility, was completed at the end of 2005. "Results are pending to determine whether the Walter Creek drainage area is appropriate," Shaw said. "We need to ensure that the site doesn't contain any economic gold."

> *"I feel confident that we have a well-designed project. ... If a project like this can't be permitted, then heap leaching can't be permitted anywhere in Alaska."*
> **—Lorna Shaw, Fort Knox community affairs director**

Geotechnical studies were completed last summer and all results indicate the technical feasibility of the project, according to Fairbanks Gold Mining. "We need to evaluate the economics to make sure this is a good business decision," Shaw said. "It primarily hinges on the metallurgy and there is current test work being done to determine the recovery characteristics of the material." The mill's recovery rate at present is 86 percent. The metallurgical report on the heap leach project is due to be ready in April.

Ground clearing could begin this year

If the metallurgical results are encouraging, ground clearing could begin later this year and the heap leach could begin working in 2007. Knight Piesold was contracted to do the pad design and Mine and Mill Engineering put together the plant design. "I feel confident that we have a well-designed project. ... If a project like this can't be permitted, then heap leaching can't be permitted anywhere in Alaska," Shaw said. No permit applications have been filed yet.

Cyanide heap leach pads require careful maintenance and have caused problems at other sites where mining companies have gone bankrupt. In Alaska this occurred at the Illinois Creek mine, which was recently reclaimed successfully in a partnership between the state and private industry. Fairbanks Gold Mining already uses cyanide in its mill processes at Fort Knox. ●

● FAIRBANKS

GVEA seeks mediation in Healy plant dispute

AIDEA files lawsuit against Interior cooperative in hopes of getting mothballed clean-coal facility in Interior up and running

By ROSE RAGSDALE

For Mining News

Golden Valley Electric Association hopes to get help from a mediator to resolve its long-running dispute with the Alaska Industrial Development and Export Authority regarding the Healy Clean Coal Project.

The electric cooperative, which serves Interior customers from Healy to Fairbanks and east to Delta Junction, filed a motion in Alaska Superior Court in Fairbanks, requesting mediation in the case, saying it has the best chance of a lasting resolution.

"Golden Valley believes mediation will allow both parties to come to the table and resolve complex issues," the co-op said Jan. 9.

The move came in response to a lawsuit AIDEA filed Nov. 7, claiming Golden Valley breached its contract with the state-owned authority and demonstrated lack of good faith and fair dealing and unjust enrichment in its actions related to the Healy plant.

"They've asked the court for an order staying the litigation and to enter an order requiring both parties to resolve the dispute in mediation," Fairbanks attorney Charlie Cole said Jan. 19. Cole, who represents AIDEA in the case, said he was talking with Golden Valley's attorneys about their proposal.

"We have not rejected the proposal, but we want to learn from them the issues they want to mediate, and we're talking toward that end," Cole said.

AIDEA wants right to re-start Healy

AIDEA is seeking more than $167 million in damages from Golden Valley in the suit and has asked the court to enforce its rights to re-start and operate the Healy plant to produce electric power for the Railbelt.

The Healy project began in 1988. Golden Valley was the plant operator and had contracted to buy power from the 50-megawatt coal-fired plant. The facility was completed in 1997 and operated for a year and a half testing new coal-burning and emissions-control technologies for the U.S. Department of Energy, which contributed $117 million toward the $297 million cost of the plant.

The authority claims Golden Valley is in breach of an agreement it entered with AIDEA in 2000 to settle 1998 litigation regarding the coal-fired power plant.

Aside from the brief test run, the mothballed clean-coal facility has never actually generated electricity. Over the years, both parties made several agreements that resulted in disputes over the plant's operation.

"In my view, tens of millions of public funds have been put into that plant, and AIDEA has a responsibility to put the plant into operation. That's the reason they filed the lawsuit. They want to get the plant up and running and generating electric power," Cole said.

Homer Electric would operate

AIDEA Executive Director Ron Miller said the authority must protect nearly $300 million of federal tax dollars and state funds invested in the Healy project. "It's unfortunate that GVEA's board and management have exposed their rate-payers to the claims in this lawsuit," he said. "Our fight is not with the GVEA members but with their board and management. AIDEA is, in fact, a member of the co-op, since we pay GVEA nearly $40,000 per month for electricity."

Having given up on Golden Valley, AIDEA spent much 2005 looking for another operator for the Healy plant. In October, Homer Electric Association expressed interest in not only managing the facility but also purchasing power it would generate. The Kenai Peninsula utility is currently studying ways to restart the plant.

Golden Valley also filed a 20-page chronological narrative "Statement of Fact" with its Jan. 9 motion. The co-op listed 122 points, defending its position. Golden Valley said it repeatedly expressed concerns about the commercial feasibility of the Healy project from its inception and received numerous assurances from AIDEA over the years.

"Had AIDEA followed GVEA's advice, operation of (the Healy plant) would have begun to generate a significant stream of payments — millions of dollars per year — to AIDEA … in 1999 or 2000," the co-op observed. ●

FAIRBANKS

GVEA hires former DNR commissioner

Tom Irwin has joined Golden Valley Electric Association as vice president of governmental and public affairs, a newly created position, GVEA said in a statement Jan. 16.

Irwin, 59, is a mining industry veteran with more than 30 years of management experience. He stepped down from his job as commissioner of the Alaska Department of Natural Resources in October after disagreeing with Gov. Frank H. Murkowski about the direction of the state's natural gas pipeline negotiations with the North Slope producers.


TOM IRWIN

At GVEA, Irwin will serve as the cooperative's liaison to government, at both local and state levels. He also will oversee GVEA's public relations staff, the co-op said.

Position already in structure

"This position mirrors contemporary cooperative organizational models. We've had this position in our structure for the past year and the timing of Tom being available made us decide to fill the position now," said GVEA President & CEO Steven Haagenson, who also praised Irwin's track record of hard work and ethical standards.

Since Murkowski dismissed him in October, Irwin has continued to speak out against the state's strategy in the ongoing gas line talks. He had served as DNR commissioner since January 2003.

Irwin holds a bachelor's degree in mineral engineering from the Colorado School of Mines. He has 33 years experience in the mining industry, evaluating, designing, permitting and operating mining and milling properties. Past positions include a stint as general manager of Amax Gold's Sleeper mine in Nevada before moving to Alaska in 1992. From 1992-96, Irwin was vice president of operations for Fairbanks Gold Mining Inc., and was directly involved with design, permitting, and start-up of the Fort Knox mine. Between 1996 and 2001, he served as operations manager and general manager of Fort Knox and True North mines. From 2001-2003, he was vice president of business development for Fairbanks Gold.

GVEA, with its growing customer base of mining operations, is a good fit with Irwin, Haagenson added.

—MINING NEWS

YUKON

Second ball mill ready for Yukon's Minto

Vancouver-based Sherwood Copper has acquired a second ball mill for its Minto copper-gold project in the Yukon, the company announced Jan. 5. The 10.5-foot by 12-foot Allis Chalmers ball mill was purchased from ASARCO for US$75,000, including a 900 horsepower motor, drive assembly, lubrication system and scoop feeder. This ball mill is a twin to the one that is already at the Minto site.

Preliminary grinding studies indicated that the current plant design was capable of processing an average of 1,564 metric tons of ore per day, while the addition of the second ball mill could increase throughput to approximately 2,000 to 2,200 metric tons per day. The second ball mill will remain in storage in Arizona for the present.

Sherwood also announced that it has been granted an amendment to its Quartz Mining License from the Yukon government that extends the expiry date to June 30, 2016. Construction of a mine at Minto by previous owners was suspended in the late 1990s due to low copper prices. Infrastructure such as accommodation and an 18-mile access road already exist at the site. Independent consultants Hatch are updating the historic feasibility study for Minto that was completed by ASARCO in 1995 and reviewed by Hatch in 2000.

The Minto project contains measured and indicated resources of 9.2 million tons at a grade of 1.8 percent copper, 0.016 ounces per ton gold and 0.2 ounces per ton silver, and an additional inferred resource of 0.8 million tons grading 1.4 percent copper, 0.013 ounces per ton gold and 0.2 ounces per ton silver.

—SARAH HURST

Companies involved in Alaska and northern Canada's mining industry

Ace Transport
Anchorage, AK 99502
Contact: Henry Minich, owner
Phone: (907) 243-2852 • Phone: (907) 229-9647 (cell)
Fax: (907) 245-8930 • Email: henryminich@aol.com
Specializing in heavy hauling. Equipment includes 85-ton lowboy.

Aeromed International
Anchorage, AK 99503
Contact: Brooks Wall, director
Phone: (907) 677-7501 • Fax: (907) 677-7502
Email: brooks_wall@ykhc.org
Web site: www.ykhc.org
Aeromed International is an all jet critical care air ambulance fleet based in Anchorage. Medical crews are certified Flight Nurses and certified Flight Paramedics.

Air Liquide
Anchorage, AK 99518
Contact: Brian Benson
Phone: (907) 273-9762 • Fax: (907) 561-8364
Email: brian.benson@airliquide.com
Air Liquide sells, rents, and is the warranty station for Lincoln, Miller, Milwaukee, Victor and most other welding equipment and tool manufacturers.

Alaska Airlines Cargo
Seattle, WA 98168
Contact: Keola Pang-Ching, director, cargo sales
Phone: (206) 433-3122 • Fax: (206) 433-3225
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Award winning cargo services to more places, more often, with more lift to, from, and within the state of Alaska.

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● GUEST COLUMN

Barrick's acquisition of Placer Dome bodes well for Alaska

When I heard that Barrick Gold Corp. had made an unsolicited offer on Oct. 31, 2005, to purchase Placer Dome Inc. my first move was to purchase 100 Barrick shares. Although the acquisition was initially rejected, on Dec. 22 a follow-up offer was greeted more favorably.

This appears to be a fortuitous marriage. In the 60 days I have held the stock it has gone from $25.05 per share to $29.48, an increase in value of 17.68 percent (106 percent annualized). I like that kind of investment.

Why has the market treated Barrick so well? Perhaps it is because the price of gold is also going nuts having moved from $464.90 on Oct. 31 to over $565.00 (briefly). But the exciting nature of the gold market and the sharp increase in Barrick's price is not the sole reason for being pleased with the acquisition. Barrick will now become the largest gold producer in the world and one of its new properties, Donlin Creek, is right here in the Great Land. While it is unknown whether Barrick will elect to develop Donlin Creek, this target is thought to contain at least 23 million ounces of gold.

Alaska on edge of great leap

In context, Alaska is on the edge of a great leap forward, not just with regard to increased oil production, if ANWR ever makes the cut, or the gas pipeline, if there ever is an agreement on that proposal, but also in the production of precious minerals.

Already, Fort Knox is in production (approximately 324,000 ounces of gold produced in 2005); the Pogo mine is finishing construction (projected production may be as much as 400,000 ounces per year); the Kensington mine is also in construction (anticipated production is approximately 100,000 ounces annually when the permitting process is final); the Pebble project, though still in exploration, when it commences production, could produce more than 700,000 ounces per year; Greens Creek's yearly production is approximately 80,000 ounces of gold; placer mining operations across the state produce over 28,000 ounces of gold each year; and the mines at Nixon Fork and Rock Creek may also soon be weighing in.

Mining & the law

J.P. TANGEN

The author, J.P. Tangen has been practicing mining law in Alaska since 1975. He can be reached at jpt@jptangen.com or visit his Web site at www.jptangen.com. His opinions do not necessarily reflect those of the publishers of Mining News and Petroleum News, but they frequently do reflect the opinions of pro-industry groups such as the Alaska Miners Association and the Resource Development Council of Alaska.

With Donlin, mining industry could hit $4 billion

With Donlin Creek added to the mix, it is projected that the mining industry will be a $4 billion industry within five years. Although mining does not generate the big dollars that are associated with oil and gas, it is a labor intensive industry that creates a cash economy with attractive local multipliers near the property.

Mining in general and gold mining in particular will serve to open up the country by making access feasible and infrastructure possible. Good jobs mean enhanced opportunities of every description for rural Alaskans. From education to health care to essential services, those who live near the mines will benefit.

Mines are unlikely to adversely impact the local environment or traditional activities such as commercial fishing or subsistence hunting and gathering. They will, however, make cash more available in the towns and villages that support the projects. They will create a tax base that will facilitate enhanced law enforcement and sanitation. Miners are traditionally good neighbors, as our existing association with Placer Dome over the years has clearly shown.

Should the merger with Barrick go through as everyone expects, we will welcome the company to Alaska. As the Donlin Creek project advances through the permitting process, Alaska can look forward to a golden future. ●

ANCHORAGE

Loeffler joins consulting firm Jade North

Bob Loeffler, who resigned recently as director of the Alaska Department of Natural Resources' Division of Mining, Land and Water, has joined Jade North LLC. Founded in 2000, the Anchorage-based company provides consulting services in a broad range of natural resource, Alaska Native and government sectors. In his new job Loeffler will represent clients with natural resource extraction and transport interests, as well as assist clients with land management projects and issues with government, Native and private land owners, according to Jade North.

—SARAH HURST

SOUTHWEST ALASKA

Toronto-based giant Barrick Gold takes over Placer Dome, Donlin Creek

Barrick Gold's takeover of Placer Dome could light a fire under the Donlin Creek project in southwest Alaska. Toronto-based Barrick, the world's No. 3 gold producer, mounted an initially hostile bid to purchase Vancouver-based Placer Dome late last year, but the two companies subsequently agreed on an offer of $10.4 billion that they believe will benefit them both.

"One of the significant rationales behind the takeover bid was to build up the project pipeline," Vincent Borg, Barrick's vice president for communications, told Mining News. "Donlin Creek is a key project in the new combined pipeline. Barrick has been known to aggressively develop projects, and if there is any leeway for us to aggressively develop Donlin Creek, we'll review what we can do." In this region Barrick owns the Eskay Creek gold-silver mine in British Columbia, which produced 289,568 ounces of gold and 15,751 million ounces of silver in 2004.

Placer Dome is the manager and operator of the Donlin Creek project, with a 30 percent stake. Vancouver-based NovaGold Resources owns 70 percent of the project in a joint venture agreement. The planned open pit mine is currently in the pre-feasibility stage. On Jan. 20, the day after Barrick's takeover of Placer Dome, NovaGold announced that based on an updated 3D geologic and mineralization model, a new resource estimate had increased Donlin Creek's measured and indicated resource category by 3.7 million ounces or 33 percent to 14.8 million ounces of gold grading an average of 2.76 grams per metric ton. The inferred resource decreased by 0.7 million ounces to 13.6 million ounces of gold grading 2.72 grams per ton through conversion to the measured and indicated category. This is the first new resource estimate for the project since April 2003.

"Right now our plans for 2006 have not changed. It's business as usual as we start the year," Stan Foo, Placer Dome's project manager for Alaska, told Mining News. "We're looking at starting the Donlin Creek feasibility study in mid-2006 and doing some pretty active drilling. We're trying to keep it moving forward at a good speed." Foo hasn't discussed Donlin Creek with anyone from Barrick yet, he added.

—SARAH HURST

FAIRBANKS

State releases 4 aerial mineral surveys

Aerial surveys released by the Alaska Division of Geological & Geophysical Surveys could help identify areas worth exploring for minerals.

Four surveys released Jan. 23 fall short of offering a bull's eye for exploration companies, but help pinpoint promising sites, according to state geologist Melanie Werdon. Werdon said a "pretty hot mineral target area" borders a previously studied section that includes the Pogo gold mine northeast of Delta Junction.

The Black Mountain area contains rock formations and gold-related features similar to those at the Pogo deposit, which contains an estimated 3.6 million ounces of gold, according to mine operator Teck-Pogo Inc.

"I'm sure people are going to be really interested," Werdon said. There was already active prospecting there, she added.

Areas in northeast Fairbanks and southeast of Delta Junction also were studied. So was a section of the National Petroleum Reserve-Alaska considered likely to contain a large zinc-lead deposit.

By studying areas that have been surveyed and explored, geologists can determine which geologic features are likely to contain gold or other minerals in the same locale. The technology also is used by mining companies for preliminary exploration.

Geophysical surveys done in 2000 helped companies exploring the large Pogo gold deposit, Werdon said. After maps were released, mineral exploration companies rushed in.

"They wanted to run right out with a helicopter and stake claims," Werdon said. "Everybody wanted a piece of the ground." The geophysical mapping program began in the early 1990s with the goal of attracting mineral investment.

"Essentially we're competing for worldwide exploration dollars," Werdon said. She added that Alaska's surveying lags behind that of many other countries.

Over 14 years, approximately 9,600 square miles have been surveyed at a cost of more than $5 million. This year's surveys cover 918 square miles.

The Senate Resources Committee is considering a bill introduced by Sen. Gene Therriault, R-North Pole, that would increase funding of the project to $5 million over five years. The Alaska Minerals Commission, an industry-comprised board created to advise the Legislature and governor, supports the legislation.

—THE ASSOCIATED PRESS