Petroleum news

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Week of May 9, 2004 • $1

page 6 Pioneer picks up Evergreen Resources in $2.1 billion deal

Gas sales boost Prudhoe oil output

BP EXPLORATION (ALASKA)

While total liquid hydrocarbon recovery from Prudhoe Bay is expected to decrease because of natural gas sales via the proposed pipeline to the Lower 48, it appears that overall hydrocarbon production near end of field life will be relatively insensitive to the start-up date of sales (2010-2020) and sales rates (2.9-4.3 bcfd). In fact, significant hydrocarbon reserves (oil, gas and gas liquids) may not be recovered unless there are gas sales, says a recent study done for the Alaska Oil and Gas Conservation Commission. (See story on page 12 of this issue.) Pictured above are gas injection facilities at Prudhoe.

Natural gas drilling raises Canadian targets for 2004

An unrelenting pursuit of natural gas prospects in Canada has forecasters again rethinking the drilling outlook for 2004, based on indications that gas prices are not about to drop.

In a new update, the Petroleum Services Association of Canada has boosted its well count for the year to 21,660 — a mere 142 wells short of last year's record — with gas wells expected to tally 14,771.

FirstEnergy Capital has raised the bar even higher, predicting

see **TARGETS** *page 19*

EnCana fills Talisman's empty seat

GOODBYE TALISMAN ENERGY, hello EnCana.

For years human rights activists and non-governmental organizations hounded Talisman and its Chief Executive Officer Jim Buckee over the Calgary-based company's stake in Sudan's Greater Nile oil project.

They accused Talisman of being complicit in a long, bloody civil war by participating in a 250,000 barrel per day venture that was helping finance the conflict.

see **INSIDER** *page 2*

B R E A K I N G N E W S

GULF OF MEXICO

Gulf drilling stalled

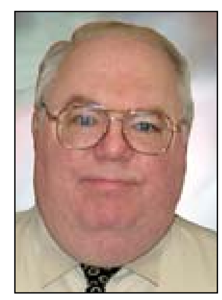
New drilling in U.S. Gulf of Mexico stalled as EPA considers rule change

By RAY TYSON

Petroleum News Houston Correspondent

Drilling on both new and existing leases in the Gulf of Mexico could be severely curtailed because the U.S. Environmental Protection Agency has been slow to issue water discharge permits to offshore operators while it considers changing the rules.

In fact, companies awarded tracts in March's Central Gulf of Mexico lease sale can't drill them at all because the EPA is not currently issuing discharge permits on new leases in the U.S. Gulf, said Chris Oynes, Gulf regional director for the U.S. Minerals Management Service.



The EPA is not currently issuing discharge permits on new leases in the U.S. Gulf of Mexico, said Chris Oynes, Gulf regional director for MMS.

"EPA is going through a dance on whether to put some additional requirements in a new discharge permit," Oynes said May 4 on the sidelines of the Offshore Technology Conference in Houston, Texas.

He said MMS is vigorously "resisting" EPA's decision to hold up permits necessary for offshore operators to discharge water produced from drilling activities, adding that "it's creating a cascading effect" and "affecting more and more leases."

The problem began last November when EPA's general discharge permit for many operators in the U.S. Gulf expired.

see **DRILLING** *page 19*

EAST COAST CANADA

Dusting off old permits

Canada unveils modern licenses for sub-basin; sets exploration in motion

By GARY PARK

Petroleum News Calgary Correspondent

Exploration plans dating back almost 40 years are stirring to life again now that the Canadian government has agreed to convert old permits to new exploration licenses in the Laurentian sub-basin, opening the door to a whole new exploration basin off the East Coast.

Natural Resources Minister John Efford said May 4 that the Canada-Newfoundland Offshore Petroleum Board will issue eight new licenses to the ConocoPhillips/Murphy oil partnership and Imperial Oil for the sub-basin, which covers about 15,000 square miles.

Efford announced at Houston's offshore technology conference that the government will lift import duties on offshore drilling rigs and reduce government red tape in a bid to attract increased exploration to a region hit by drilling failures and the withdrawal of major players.

The Geological Survey of Canada has estimated the Laurentian contains 600-700 million barrels of oil and 6 trillion cubic feet of gas, based on exploration in the 1960s. Other projections have

see **PERMITS** *page 19*

ALASKA

Alaska's $6 billion question

To meet production forecast substantial new investment required

By LARRY PERSILY

Petroleum News Government Affairs Editor

The Alaska Department of Revenue estimates North Slope producers will need to ante up $6 billion in capital spending in fiscal years 2006-2008 if the region is to reverse its declining production by 2010 and meet the state's production forecast. (Fiscal years measured by the state start in July and end in June, whereas slope producers' budgets are figured from January to December.)

At an average $2 billion per year, that much spending would be almost double the producers' capital budgets for 2002-2004 when no new major projects were under construction on the North Slope.

A significant chunk of the $6 billion would be needed to develop the Point Thomson field east of Prudhoe Bay and the National Petroleum Reserve-Alaska west of Prudhoe Bay, and to boost heavy oil production at West Sak, Revenue reported. The

JUDY PATRICK

The trans-Alaska oil pipeline

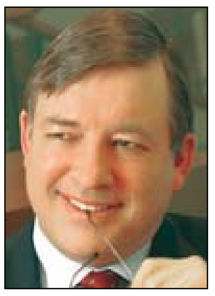
see **QUESTION** *page 18*

continued from page 1

INSIDER

That ended a year ago when Talisman completed a C$1.13 billion sale of its 25 percent holding to India's ONGC Videsh.

But the placard-wavers didn't even need to leave Calgary to find another target. They showed up in force at EnCana's annual meeting April 29 to accuse the Canadian independent of fostering human rights abuses and damaging the Amazon's ecosystem through its oil operation in Ecuador.



Talisman CEO Jim Buckee

Representatives from several organizations accused EnCana of working with the Ecuadorian military to silence opposition and failing to adequately compensate communities for the disruption caused by the oil project.

Others said EnCana should adopt more stringent environmental standards than those existing in Ecuador, which the protesters said failed to provide proper compensation for landowners and ignored the concerns of indigenous groups.

One said EnCana should "do the honorable thing and withdraw" from a venture that netted 76,000 barrels per day in the first quarter.

Chief Executive Officer Gwyn Morgan, annoyed by what he described as "drive-by innuendo" directed at the company, said EnCana has spent $250 million cleaning up environmental messes and improving operations since moving into Ecuador in 1999.

"There is no civil war going on in Ecuador ... there's no weapons being brought in by oil money," he said. Because Ecuador "doesn't have enough money to basically carry on from day to day," oil development is vital to a struggling economy, Morgan said.

Petro-Canada clams up on big share sale

DON'T EXPECT ANY LOOSE LIPS around Petro-Canada as the Canadian government decides when and how to unload its final 19 percent shareholding in the company.

Bombarded with questions from shareholders, analysts and the news media about whether Petro-Canada would buy all or some of the 49.4 million shares, Chief Executive Officer Ron Brenneman kept the lid on tight.

The problem, a spokeswoman told reporters, is that the U.S. Securities and Exchange Commission could shut down the sale if it decided Petro-Canada was intentionally "grooming the market."

She said Petro-Canada believes it is on a commission watch list pending the sale which could take place by the end of June.

Brenneman said the potential C$2.8 billion divestiture will not affect company operations. "This is a business that is very long-term oriented," he said. "Most of our shareholders take a long-term view and I don't expect that they are particularly anxious."

West Texas oilfield sinkhole at 900 feet in diameter

ACCORDING TO A RECENT ASSOCIATED PRESS story it opened up in the West Texas oil fields, is 900 feet in diameter — and growing.

"It" is the second sinkhole to develop in Winkler County. Believed to have been triggered by salt removal or some other subsidence, the collapse has destroyed crude oil flow lines in the Hendrick oil and gas field, from which 250 million barrels of oil have been produced since its discovery in 1926.

The sinkhole is about a mile south of a smaller, older one. Formed in 2002, the depression called Sinkhole Two has grown over a subsurface void from about 125 feet in diameter to 900 feet.

About 70 geologists, petroleum company officials and government representatives met April 28 to discuss the situation.

Northern Gas Project opens Inuvik office

NORTHERN GAS PROJECT SECRETARIAT Executive Director Brian Chambers said April 22 that his office has opened an office in Inuvik, Northwest Territories, to assist the public in understanding the review process of the proposed Mackenzie Gas Project.

"Part of the mandate of the Secretariat is to help the public understand the environmental assessment and regulatory review process of the proposed project," Chambers said.

The Secretariat opened an office at the Scotia Centre in Yellowknife in December. For more information call toll-free 866 372-8600 or visit www.ngps.nt.ca/

Flatulent cows to fuel Canada oil sands

A REUTERS' NEWS ARTICLE out of Toronto reported a Calgary brokerage was touting "new ways to fuel northern Alberta's massive oil sands developments" in an April 1 research report promising power from flatulent cows.

The article said the hoax report, done up to look like a genuine research document, said a company called Bovine Hydrocarbon Collection, based in Picture Butte, Alberta, would collect the methane from gassy cows in special TurboSucks tanks made of old scuba gear, vacuum cleaners and surplus airplane parts.

"FirstEnergy has examined the technology as closely as possible, and believes it has significant potential," the report said.

The report, entitled "Moo-ving the oil sands forward," is available on http://www.firstenergy.com/tempDoc/Facts-I-MoovinOilSands-2004-04-01.pdf.

State of Alaska says Ruedrich violated ethics laws

ACCORDING TO AN ASSOCIATED PRESS report out of Anchorage, the Alaska attorney general's office said May 5 it has reason to believe Alaska Republican Party Chairman Randy Ruedrich violated the state Ethics Act.

In a letter to Ruedrich's attorney, the Alaska Department of Law said it had probable cause to believe Ruedrich performed Republican Party work on the job as an appointed state oil and gas commissioner.

RANDY RUEDRICH

Ruedrich resigned in November from the Alaska Oil and Gas Conservation Commission. In April, he issued a 12-page letter to attorney general's office rebutting nearly every allegation.

"We reviewed his answer to the complaint very carefully and continued with the investigation and found there was probable cause to believe he knowingly violated the Ethics Act," said Barbara Ritchie, a chief assistant attorney general.

Ruedrich said he "hadn't had a chance to look at" the 10-page letter written May 3: "I just received it this afternoon and will respond to it next week."

The letter cites four apparent violations by Ruedrich, who took over as party chairman, an unpaid position, in June 2000. Allegations include using state facilities, equipment and resources for partisan political activity, as well as engaging in outside volunteer work for the Republican Party "in a manner that was inconsistent" with his state job.

The letter says the state will not dismiss the charges and has asked Sanders and Ruedrich to decide by May 17 whether they would like to discuss a resolution. Each violation carries a maximum $5,000 penalty. ●

—Compiled by Kay Cashman, Petroleum News publisher & managing editor

INTERNATIONAL

ConocoPhillips forms Global Gas, names Sig Cornelius president

ConocoPhillips said May 6 that it has formed a Global Gas organization within its Exploration and Production segment, and has named Sig Cornelius, currently president of U.S. Lower 48, Latin America & Midstream, as president of Global Gas. Cornelius will report to Bill Berry, executive vice president of ConocoPhillips' E&P segment, the company said.

ConocoPhillips said the organizational change reflects "the significant scale" of the company's growing natural gas business.

Global Gas will be responsible for ConocoPhillips' worldwide natural gas strategy, the company said, as well as commercialization and profitability of key natural gas assets, including liquefied natural gas projects, regasification terminals, gas-to-liquids and power businesses, and major gas pipeline efforts.

ConocoPhillips said the organizational change reflects "the significant scale" of the company's growing natural gas business.

"Gas projects worldwide have become an important part of ConocoPhillips' upstream business," Berry said in a statement. "Consolidating our global gas activities under one organization will allow us to more effectively develop our gas business, better leverage our technology and expertise worldwide, and enhance our ability to deliver product to the marketplace."

Cornelius joined Conoco in 1980 and has held several positions in the natural gas and gas projects groups, as well as in upstream business development and finance. He served as president of both Conoco Canada Ltd. and Dubai Petroleum Co. He has a bachelor's degree from Iowa State University and Master of Science degrees in Management from both Purdue and Stanford University.

GULF OF MEXICO

Tobago discovery further validates Perdido Foldbelt play; Unocal says could be part of Alaminos Canyon hub

Unocal says its oil discovery at the Tobago prospect in the Gulf of Mexico, though small by ultra-deepwater standards, would be large enough to include in a proposed hub development that would be supported by other larger discoveries in Alaminos Canyon.

Drilled in about 10,000 feet of water to a total depth of 18,510 feet, the Tobago discovery well at Alaminos Canyon block 859 found about 50 feet of net oil pay in high quality reservoir sandstones, Unocal said May 5. The discovery was further delineated by a sidetrack of the main well drilled to 18,425 feet, the company said. Tobago was considered important because of its relatively close proximity to Unocal's Trident discovery and Shell's Great White discovery, which together could hold reserves exceeding 600 million barrels of oil equivalent.

Trident contains an estimated 150-200 million barrels of oil equivalent. And though Shell has never disclosed Great White reserves, analysts believe the field holds at least 400 million barrels of equivalent. Tobago was drilled to further test the giant Perdido Foldbelt play, Unocal said.

"The discovery confirms its previous expectations that Tobago could be part of any Alaminos Canyon area development that may be built in the future," the company said.

No pipelines or other infrastructure in area

Because the discoveries are located in such a remote area of Alaminos Canyon, where pipelines and other infrastructure do not exist, the owners are considering a so-called floating production, storage and offloading facility, to transport oil ashore via marine tankers. FPSOs are typically used for isolated fields around the globe but have yet to make their debut in the Gulf.

Unocal is the operator at Tobago and holds a 40.01 percent working interest. Unocal's partners are Shell with a 30 percent interest; ChevronTexaco with a 16.66 percent interest, and Nexen with a 13.33 percent interest.

The Tobago well was temporarily plugged and abandoned, and the Discoverer Spirit drillship was moved to Walker Ridge block 678 to conduct appraisal drilling on the St. Malo discovery.

Industry analysts are keeping a close watch on St. Malo, which is said to have encountered more than 450 feet of net oil pay over a gross hydrocarbon column of 1,400 feet, indicating a major accumulation by Gulf standards.

—**RAY TYSON,** Petroleum News Houston correspondent

Issue Index

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● JUNEAU, ALASKA

More money for Alaska natural gas line

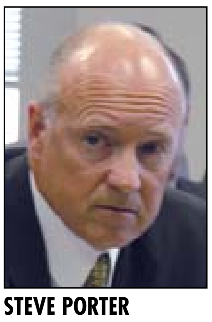
Legislature likely to OK additional $9 million for studies, right of way

By LARRY PERSILY

Petroleum News Government Affairs Editor

The Alaska Legislature is close to approving an additional $9.08 million for the state's efforts to promote construction of a North Slope natural gas pipeline, bringing the appropriations total since last spring to more than $11.3 million.

"It's very popular because a lot of Alaskans are hanging their hats on the silver bullet of an Alaska gas line," said Sen. Con Bunde, R-Anchorage.



FORREST CRANE

STEVE PORTER

The latest appropriation would go toward funding several efforts under way or soon to begin, including fiscal contract negotiations with firms that say they want to build the pipeline, processing state rights of way for the line, a risk analysis of the state signing up for a stake in a privately owned project, and continued review of a wholly state-owned pipeline.

The funding is included in a supplemental appropriations bill for several state departments, usually among the last measures to pass before adjournment. The Senate Finance Committee moved Senate Bill 313 out of committee April 29, with a vote by the full chamber and House action expected before the May 11 adjournment deadline.

In addition to the $9.08 million, legislators in early April approved $1.65 million for the state's gas line efforts. And last year legislators approved $239,000 for negotiations with private firms under Alaska's Stranded Gas Development Act and $350,000 for feasibility work by the Alaska Natural Gas Development Authority, which is advocating a state-owned project.

The Legislature in late March also committed $100,000 of its own operating funds for a contract with former state Oil and Gas Division Deputy Director Bonnie Robson to advise lawmakers on stranded gas act negotiations and other gas line issues.

Several offices to share $9.08 million

In the pending supplemental spending bill, the departments of Revenue and Natural Resources, and the state gas authority, would share the $9.08 million, as they did with the $1.65 million, which will be used to purchase price forecasts, help the state better understand downstream markets, and cover some of the state's expenses under the stranded gas act.

The act allows project applicants and the state to negotiate a long-term contract for payments in lieu of all state and municipal taxes on a gas line project. Although applicants are supposed to reimburse the state for much of its negotiating costs, the departments of Revenue, Natural Resources and Law have been covering some of the expenses out of their own budgets.

The state needs the funds quickly, said Steve Porter, deputy commissioner at Revenue and the Murkowski administration's spokesman on gas line budget issues. The administration expects to sign contracts for about $6 million of the spending by June 30, he told Finance Committee members April 28.

Funding to cover MidAmerican expenses

The state needs $200,000 of the money to cover its costs for the unsuccessful negotiations with MidAmerican Energy Holdings Co., Porter said. The Iowa-based pipeline company walked away from negotiations when the state refused MidAmerican's ultimatum for exclusive rights to the gas line project.

Bunde, who did not oppose the measure when Senate Finance approved the appropriations bill, cautioned that the state "not bet these large sums of money on wishful thinking."

The potential benefits of a multibillion-dollar pipeline to move North Slope gas to market are worth the risk, but there is no guarantee the funding will result in project, Porter said. "We may expend $9 million and not get a contract."

The committee's original version of the spending bill, offered April 28, did not include any money for gas line studies or consultants. After hearing Porter present the administration's request for $9.08 million, Committee Co-Chair Lyda Green, R-Wasilla, on April 29 offered the amendment for full funding.

Gas line spending plans

The administration's plan for spending the pending $9.08 million legislative appropriation for Alaska's natural gas pipeline efforts includes:

• $3.9 million to Natural Resources to process rights of way on state lands along the proposed pipeline corridor. The administration wants to help move the project along by approving rights of way before it has an actual developer for the pipeline, with the intent of turning over the permits to a project developer at a later date.

• $1.58 million to Natural Resources to analyze the risk — and potential benefits — of the state taking a financial stake in a private project. The intent, according to the governor, is to see if the state could help entice a developer to build the project if Alaska were willing to share in the financial risk that low market prices and/or a high tariff could jeopardize the rate of return.

• $1.1 million for stranded gas act negotiations with the three major North Slope producers that have submitted a joint application for a gas line reaching from the slope across Canada to feed upper Midwest and other North America markets. The producers already have agreed to reimburse the state for $1.5 million of the administration's negotiating expenses — the maximum reimbursement allowed under the law. The $1.1 million in state funds would be in addition to the $1.5 million.

• $700,000 to negotiate something less than a stranded gas act contract with the municipally owned Alaska Gasline Port Authority that wants to build its own project. The port authority, which already is exempt from state and municipal taxes, may seek some sort of a protocol with the state instead of a full contract for payments in lieu of taxes.

• $550,000 for studies of potential in-state gas use and benefits from a gas line project.

• $450,000 to cover the state's estimat-

see MONEY page 5

State starts to sign gas line consulting contracts

Consultants under contract to the state of Alaska as of May 3 for Stranded Gas Act negotiations and gas line project analysis are:

• The Dallas-based firm of Muse Stancil, advising the state on gas issues including the potential for a natural gas liquids industry in Alaska. Muse Stancil, which also has offices in London, Singapore and Dubai, worked for the state in its North Slope oil royalty litigation against the producers in the 1990s.

Revenue as of May 3 declined to release a copy of its contract with Muse Stancil or a copy of the presentation company representatives gave to state officials the last week of April.

• Lukens Energy Group of Houston has a $130,000 contract to assist the state in fiscal, royalty, tariff and gas valuation issues.

• The law firm of Morrison Foerster, which has a longstanding relationship with the state to assist on oil and gas legal issues, is helping with stranded gas act work.

• Pedro van Meurs of Van Meurs & Associates serves under contract as leader of the state's stranded gas act negotiating team, at $3,500 per day. Van Meurs, an international oil and gas tax and fiscal consultant, has advised the state on oil and gas issues since 1996.

• The Fairbanks-based consulting firm of Information Insights has a $250,000 contract to prepare a study of potential social and economic effects of the gas line project on municipalities statewide.

● GULF OF MEXICO

Thunder Hawk wildcat hits pay near giant Thunder Horse field

At least 100 feet of hydrocarbon-bearing sands appear to have been encountered in multiple thin sands; open-hole evaluation under way

By RAY TYSON

Petroleum News Houston Correspondent

The closely watched Thunder Hawk exploratory well appears to have encountered at least 100 feet of hydrocarbon-bearing sands, indicating a possible geologic link to the largest oil discovery in Gulf of Mexico history at nearby Thunder Horse.

Thunder Hawk partners Dominion Exploration & Production, Murphy Oil, Spinnaker Exploration and Pioneer Natural Resources jointly announced the find May 5, saying operator Dominion is currently conducting an open-hole evaluation after drilling to a measured depth of 26,520 feet, including water depth.

"The evaluation sequence now ongoing is designed to more completely assess rock and fluid properties, structural position of the well, and its proximity to salt," the partners said.

Both Thunder Horse and Thunder Hawk, in the Boarshead basin, are overlain by so-called "allocthonous" salt bodies, which tend to distort seismic readings and make imaging difficult.

Based on information gathered to date, the well appears to have encountered at least 100 feet of hydrocarbon bearing section in multiple thin sands of the middle Miocene section, the partners said, adding that the main pre-drill target was encountered.

Well could be sidetracked

Following the evaluation, the well could be temporarily abandoned or sidetracked to another bottomhole location, the partners said. The Thunder Hawk No. 1 well, on Mississippi Canyon block 734, is situated in 5,724 feet of water and was drilled from Transocean's Cajun Express deepwater rig.

> ***Thunder Hawk partners went into the drilling phase believing they had a piece of the giant Thunder Horse field … Daily production at Thunder Horse is scheduled to begin next year with 250,000 barrels of oil and 200 million cubic feet of natural gas.***

Dominion holds a 25 percent working interest in the Thunder Hawk. Murphy has a 37.5 percent stake, Spinnaker a 25 percent interest, and Pioneer Natural Resources Company a 12.5 percent interest.

Thunder Hawk partners went into the drilling phase believing they had a piece of the giant Thunder Horse field, owned 75 percent by BP and 25 percent by ExxonMobil. Daily production at Thunder Horse is scheduled to begin next year with 250,000 barrels of oil and 200 million cubic feet of natural gas.

Thunder Hawk specifically adjoins Mississippi Canyon block 778 on the northeast side of the eight-block Thunder Horse complex, due to launch first production from an estimated reserve base of 1.4 billion barrels of oil equivalent. Pre-drill estimates for Thunder Hawk ranged from 300 million to 400 million barrels.

Because of the region's complex geology and reservoir imaging challenges, no one is certain of Thunder Horse's true potential. Some analysts believe the play could hold upward of 7 billion barrels of recoverable reserves, although 3 billion barrels is often cited as the likely mean. ●

NOVA SCOTIA

Offshore Weymouth deepwater gas well adds to Nova Scotia dusters

EnCana has delivered another body blow to offshore Nova Scotia by abandoning a deepwater natural gas exploration well that took about two months longer than anticipated to complete.

The Weymouth A-45, spudded last October, encountered difficulties during winter drilling and missed its late February target by a wide margin.

EnCana, the 55 percent operator, said its share of the well cost US$42 million. The partners were Shell Canada 30 percent and Ocean Rig, whose semi-submersible Eirik Raude drilled the well, 15 percent.

EnCana spokesman Alan Boras told Petroleum News that "we have learned a lot" from Weymouth that will be incorporated in future plans for the block and the basin.

Deepwater Nova Scotia had taken an earlier setback when Balvenie B-79, drilled by Imperial Oil 70 percent and Talisman Energy, came up dry.

The deepwater spotlight now turns to the Crimson K-81 well, which is tentatively scheduled for spudding this month by 40 percent operator Marathon Oil, EnCana 35 percent and Murphy Oil 25 percent.

It is on the same exploration license as the Annapolis G-24 discovery by Marathon, EnCana, Norsk Hydro and Murphy in 2002, a find that Marathon said could be part of a block holding 5 to 15 trillion cubic feet of gas.

—**GARY PARK,** Petroleum News Calgary correspondent

continued from page 4

MONEY

ed non-reimbursable stranded gas act negotiating expenses with Calgary-based Enbridge, which submitted its application April 30.

• $300,000 for state support of congressional efforts to approve federal tax incentives, a loan guarantee and fast-track permit review for the Alaska gas line. The money also would pay for the state's involvement in tariff-setting and licensing work before the Federal Energy Regulatory Commission.

• $250,000 for the Alaska Natural Gas Development Authority to continue its feasibility studies of a state-owned gas line project. The authority would add the money to the $650,000 it received from last month's appropriation and the $350,000 it received last year.

• $250,000 for working on regulatory and political issues between the state and the provincial government of Alberta, where the new gas line would connect with existing pipe for moving Alaska gas throughout North America. ●

finance&economy

TULSA, OKLA.

ConocoPhillips chairman says world's oil will outlast demand

The world's oil supply will outlast global demand, remaining relatively inexpensive and becoming cleaner to burn, the chairman of the nation's third largest oil company predicted.

Archie Dunham, chairman of ConocoPhillips, said technological advances will replace fossil fuels — crude oil, gas and coal — long before the world depletes those primary energy sources.

Archie Dunham, chairman of ConocoPhillips

"The world can rely on fossil fuels for the bulk of its energy needs for the next 100 years," Dunham said April 28 at a Tulsa, Okla., luncheon, adding, "the oil age will end long before the world will run out of oil."

Dunham spoke as domestic gasoline prices hit record highs with crude oil prices hovering well above $30 per barrel. Those prices helped earnings at ConocoPhillips rise 32 percent to $1.6 billion in the first quarter, the Houston-based company reported April 28.

The world is using more oil annually than oil producers are finding, despite improvements in exploration technology. Meanwhile, world demand is expected to grow by 60 percent in the next 30 years.

Sierra Club spokesman Eric Antebi said Dunham overestimated world oil supplies and that reliance on fossil fuels leads to environmental problems such as global warming.

"Demand is rising much faster than supply, and that means more oil imports and a greater dependence on an unstable resource," Antebi said. "Things are only going to get worse."

Dunham said improved gathering technology and more efficient cars — such as hybrids that use a combination of gasoline and electricity — will keep supplies flowing into the next century.

—THE ASSOCIATED PRESS

ALASKA

Oil and gas employment in Alaska drops 9 percent in 2003

Oil and gas industry employment in Alaska dropped 9 percent in 2003, a loss of 800 jobs — the second year of substantial declines, the Alaska Department of Labor and Workforce Development reported in the May issue of Alaska Economic Trends.

In an employment outlook review, Dan Robinson, an economist in the department's Research and Analysis Section, said the decline was "mostly due to completion of the construction of the large Alpine and Northstar fields." Those North Slope

see **EMPLOYMENT** *page 8*

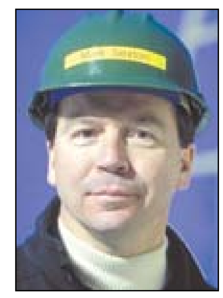
● DALLAS, TEXAS

Pioneer picks up Evergreen in $2.1 billion transaction

Deal was the third time in the past month a Denver-based firm has been snapped up

PETROLEUM NEWS

In a bid to boost its reserves and output of natural gas, Pioneer Natural Resources Co. announced a deal May 4 to buy Evergreen Resources for about $2.1 billion in cash, stock and assumed debt — the third buyout of a Denver-based petroleum producer in the past 30 days.



Evergreen Chairman and CEO Mark Sexton

Pioneer chairman and CEO Scott Sheffield

The deal would give Dallas-based Pioneer, a fast-growing independent producer, "low-risk" natural gas assets in a key development area of the Rockies, the company said, adding 2.4 trillion cubic feet of proved and probable reserves North America gas reserves to Pioneer's portfolio and enhancing the independent's Canadian asset portfolio, the smallest of its asset bases.

"We regard this as a strategic merger and believe there are a lot of synergies in both companies," Evergreen chairman and CEO Mark Sexton said

The Pioneer proposal offers no premium on Evergreen shares and investors and initially sent both companies' shares down on the news. Evergreen stock fell $1.64, or 4 percent, to close at $38.99 on the New York Stock

see **PIONEER** *page 7*

● CANADA

Shell Canada 'not involved'

Unit of Royal Dutch/Shell Group makes 'robust' annual review of every well, but CEO concedes it will take years to restore reputation after reserves scandal

By GARY PARK

Petroleum News Calgary Correspondent

Shell Canada is eager to separate itself from the reserves-reporting scandal that has hit the Royal Dutch/Shell Group, which owns 78 percent of the Canadian company.

Chief Executive Officer Linda Cook said activities in the parent company are "in most respects, quite isolated from our company.

"The reserves reclassifications (that resulted in a downgrading of more than 4 billion barrels) did not involve any Canadian reserves, so from that standpoint we are not involved," she said at Shell Canada's annual meeting April 30.

But Cook conceded the scandal "impacts all of us when there's a hit on your reputation like that. It will take years now to restore our reputation to the place we think it should be and the place where we would all want it to be."

She said "many of us know people in the Royal Dutch/Shell Group and some of us actually worked there."

The process "includes an annual review of not only every field, but every well in our portfolio." **—Linda Cook, Shell Canada**

Cook formerly reported directly to Watts

For Cook those dealings were especially close. Before being named to the top job at Shell Canada last year she reported directly to Philip Watts, the ousted chairman of Royal Dutch/Shell Group, when the company was in the thick of its aggressive reserves reporting.

Cook was a member of the group's E&P executive committee and as director of strategy and business development she had some responsibility for the reserves reporting process.

She was one of 90 witnesses interviewed by the U.S. law firm Davis Polk & Wardwell as part

see **SHELL** *page 7*

continued from page 6

SHELL

of the group's internal probe into the company's inflated reserves that concluded executives engaged in a cover-up in 1997-2000 in hopes of correcting the shortfall over time.

Cook refused to discuss her role in the company because of the ongoing investigation.

But she was emphatic that Shell Canada's "review process is quite robust," drawing on a staff of 29 engineers to assess the reserves, which are reviewed again by the board of directors and, if needed, independent evaluators.

The process "includes an annual review of not only every field, but every well in our portfolio," Cook said.

Shell Canada had profits in 2003 of C$810 million and posted a record C$368 million in the first quarter, up 73 percent from a year earlier largely due to a 60 percent stake in the Athabasca oil sands project.

Company has slashed reserves figures for Sable

Cook pointed to actions taken by Shell Canada in January when it slashed reserves figures for the third time at the Sable natural gas project offshore Nova Scotia.

For its 31.3 percent stake in Sable, the company has reduced projected sales gas volumes from 1.1 trillion cubic feet in the mid-1990s to 430 billion cubic feet.

Cook said outside engineers were consulted when it became clear that the Sable numbers would have to be downgraded and, although the external estimate of reserves was higher than Shell Canada's own figure, the company opted to stay with its more conservative numbers.

Canada's guidelines exempt companies with 80 percent of output

For all of Cook's reassurances, the Royal Dutch/Shell Group troubles have again put the spotlight on Canada's new reserves guidelines, National Instrument 51-101, which have tightened reporting for all Canadian-based companies except those that are listed on U.S. stock exchanges, or produce more than 100,000 barrels of oil equivalent per day, and are exempt from a requirement that 75 percent of reserves be evaluated by a third party.

Although only 11 companies qualify for the exemption, they account for 80 percent of Canada's oil and gas output.

It was first thought that the less-stringent U.S. Securities and Exchange Commission rules would be sufficient to ensure there was a high degree of certainty that reserves could be recovered, but the stumble by Royal Dutch/Shell Group, which follows SEC standards, has raised doubts.

On other fronts, Cook said the company is looking for ways to halt the decline in its conventional oil and gas production, a job she admitted will be difficult and not accomplished overnight.

Shell Canada is hopeful that an exploration moratorium on the British Columbia offshore will be lifted, opening the door to its 12.4 million acres of leases.

Noting that Shell Canada drilled 14 unsuccessful wells in the 1960s, Cook said she hopes technological advances will allow it to better assess the region's potential and reduce concerns about environmental impact. ●

continued from page 6

PIONEER

Exchange, where Pioneer shares fell 92 cents, or 3 percent, to close at $32.60.

Under the terms of the agreement, Evergreen shareholders have three options for swapping their shares: 1.1635 Pioneer shares in exchange for each Evergreen common share, which at May 4's closing price worked out to $37.93 per share; $39 in cash per Evergreen share; or 0.58175 of a Pioneer share and $19.50 cash per Evergreen share, which equaled $38.47 at Tuesday's prices.

Energy analyst Fadel Gheit of Oppenheimer & Co. said both companies would benefit from the merger. He was not surprised by the drop in stock prices.

"Speculation or rumor had driven the price up in the past few weeks after the earlier mergers," he said. "People loaded up on it (the stocks), now they are pulling out. They took the money and ran."

It was the third time in the past 30 days a Denver-based oil and gas company has been acquired, a development that Gheit called "the beginning of a trend."

"You have sellers that are motivated basically by fear of a potential drop in oil and gas prices," he said. "Buyers are motivated by a lack of opportunities. There aren't too many open areas left for them."

In earlier deals involving Colorado energy companies, Canadian energy giant EnCana Corp. announced plans on April 15 to buy Denver-based Tom Brown Inc. in a $2.2 billion cash deal to boost its assets in Colorado, Wyoming and Texas. Kerr-McGee Corp. said on April 7 it is buying Denver-based Westport Resources Corp. in a stock deal worth about $2.4 billion.

Evergreen's year-end proved reserves were 1.5 trillion cubic feet of natural gas equivalents concentrated in the Raton and Piceance-Uintah basins in the Rockies and southern Canada. Evergreen has agreed to sell its Kansas assets before the merger is finalized, which is expected to be by Sept. 30.

More aggressive development

Pioneer chairman and CEO Scott Sheffield briefly mentioned Alaska in an audio web cast May 4, saying both he and Sexton were enthused by their opportunities in the state where Pioneer holds North Slope properties and Evergreen has coalbed methane properties in Southcentral Alaska.

Sexton, who is out of a job but will sit on Pioneer's board, said the merger will result in "more aggressive development" of Evergreen's properties.

Pioneer officials predicted Evergreen production will double between now and 2008 and Pioneer production will grow by an average of 10 percent per year over next 10 years.

The combined company would be based in Dallas. Sheffield said he expects to retain most employees and to maintain an office in Denver.

The merger must be approved by shareholders of both companies. ●

—The Associated Press contributed to this article

OIL COMPANY EARNINGS

Earnings from Top 35 North American E&P Spenders

Earnings first quarter 2004 • Change from first quarter 2003
Liquids production first quarter 2004 • Change from first quarter 2003
Natural gas production first quarter 2004 • Change from first quarter 2003

Company	symbol	earnings	%	liquids	%	gas	%
BP	BP	$4,717	+17	2,533,000	+23	8,600	-5
RD/Shell	RD	$4,433	-16	2,342,000	–3	10,172	-4
EnCana	ECA	$290	-65	264,947	+34	2,712	+10
ExxonMobil	XOM	$5440	-23	2,635,000	+5	11,467	-5
Can. Natural	CNQ.TO	C$258	-40	261,286	+10	1,294	-1
ConocoPhillips	COP	$1,616	+32	1,040,000	+2	3,424	-5
El Paso	EP						
ChevronTexaco	CVX	$2,562	+33	1,756,000	-4	4,231	-4
Anadarko	APC	$392	+6	251,000	+17	1,723	+1
Devon	DVN						
Dominion	D	$444	-13	24,006	-3	1,073	-2
Burlington	BR	$354	+32	149,300	+45	1,953	+4
Occidental	OXY	$487	+50	441,000	+9	613	+2
Husky	HSE.TO	C$263	-35	212,100	-1	674	+14
Newfield	NFX	$78	+22	16,996	+1	528	+8
Petro-Canada	PCZ	C$513	-11	331,900	+3	869	-3
Unocal	UCL	$269	+101	158,000	-4	1,508	-18
Kerr-McGee	KMG	$152	+118	143,200	-15	763	(-)
EOG	EOG	$101	-22	25,200	+11	975	+2
Nexen	NXY.TO	C$192	-23	205,300	-4	258	-2
Imperial	IMO	C$509	-5	263,000	+9	581	+19
Talisman	TLM	C$223	-5	230,136	+18	436	+16
Pioneer	PXD						
Apache	APA	$348	+3	228,283	+37	1,212	+11
Marathon	MRO	$258	-16	183,900	-4	1,136	-15
Suncor	SU.TO	CS227	-38	219,800	+4	197	+5
Merit							
Williams	WMB						
Chesapeake	CHK	$113	+53	16,099	+38	770	+39
Pogo	PPP	$72	-19	54,245	-20	300	-2
Penn West	PWT.TO						
XTO	XTO	$94	+42	20,236	+9	771	+30
Spinnaker	SKE	$14	-10	3,600	-10	91	-29
Forest	FST						
BHP Billiton	BHP						

NOTES: Top 35 list comes from Petroleum News research for the Top 70 E&P Spenders in North America Report and is based on 2002 numbers. • Liquids production is barrels per day Gas production is millions of cubic feet daily

● WEST TEXAS/WYOMING

XTO acquisitions near $800M for year

Deal-minded independent shells out $340 million for ExxonMobil properties in Permian and Powder River basins

By RAY TYSON
Petroleum News Houston Correspondent

Exploration and production independent XTO Energy, barely four months into the year, has exceeded its initial 2004 acquisition budget with the purchase of ExxonMobil properties in the Permian Basin of West Texas and Powder River Basin of Wyoming.

Two weeks ago XTO told industry analysts that it was working on multiple deals and likely would spend more than the $650 million it had planned for the year. To that point the deal-minded company already had spent $450 million, or more than two-thirds of its budget.

In its latest transaction, announced May 3, XTO said it would shell out an additional $336-to $341 million for 38 million barrels of oil equivalent reserves, plus "upside reserve potential" of 30-to 50 billion cubic feet of natural gas equivalent through future development of Powder River coalbed methane.

That brings XTO's 2004 total expense for acquisitions to around $790 million with roughly eight months remaining in the year. The company has said it might even buy a company outright should anticipated spending run into the "couple billion" dollar range for the year.

"These transactions highlight our efforts of working with the majors to acquire exceptional properties in regions where XTO has experience and a history of success," Bob Simpson, XTO's chief executive officer, said of the ExxonMobil property acquisitions. "Both the Permian Basin and the Wyoming assets are an ideal expansion to our current operations."

In its latest transaction, announced May 3, XTO said it would shell out an additional $336-to $341 million for 38 million barrels of oil equivalent reserves, plus "upside reserve potential" of 30-to 50 billion cubic feet of natural gas equivalent through future development of Powder River coalbed methane

Initial addition of 6,600 boe per day

The acquisitions will initially add about 6,600 barrels of oil equivalent per day in production, the company said, adding that XTO will operate more than 80 percent of the value of the properties. XTO said it also will retain an overriding royalty interest in the coalbed methane reserves.

Overall, the gas-weighted company expects to produce 790-795 million cubic feet per day in the 2004 second quarter, 810-815 million cubic feet in the third quarter, and 830-835 million cubic feet in the fourth quarter. Over the three quarters, oil production is expected to average 13,000-13,500 barrels per day and natural gas liquids between 6,000 and 6,500 barrels per day.

In northeastern Wyoming, XTO said it is acquiring from ExxonMobil proved reserves in the Hartzog Draw unit of Johnson County. Net daily production from this waterflood field is about 2,300 barrels of oil.

As operator, the company said it will control a 72 percent working interest across the 35,775-acre unit and begin secondary recovery and drill additional wells.

XTO said it also is expanding its presence in the Permian basin with the purchase of proved reserves in Yoakum and Gaines counties of West Texas.

The net production currently attributed to the properties is about 4,300 barrels of oil equivalent per day, 9 percent of which is natural gas. The company also is purchasing operated interests in four producing fields, Wasson, Russell, Champmon and Bruce. Ownership in non-operated properties includes working interests in two fields, Flanagan and Wasson 72.

XTO said it plans to finance the ExxonMobil purchases through a combination of cash flow, bank debt and the sale of common stock.

"We are acquiring a stable production profile to supplement the company's overall decline-curve management," XTO President Steffen Palko said. ●

continued from page 7

EMPLOYMENT

fields began production in 2000 and 2001.

Robinson said a "slight additional decline" in oil and gas employment is forecast in 2004, and a "small increase" in 2005.

He noted that high oil prices in recent years have had "little short-term impact on exploration and development activity.

"On the positive side, the dominant share of U.S. reserves that Alaska possesses will support an oil industry in the state for the foreseeable future."

But the source of investment is likely to change, with major oil companies investing "elsewhere in the world, looking for the next Prudhoe Bay."

The shortage in Alaska exploration investment from the majors is being made up, he said, by independents, companies which "may be able to move more quickly to develop smaller prospects."

And while there is no immediate job impact from negotiations between the state and the producers and pipeline companies for fiscal certainty for a natural gas pipeline from the North Slope to market, Robinson said that "if the project moves forward it will energize the industry." Exploration would then begin in areas believed to hold additional gas reserves, "and development projects might become more urgent since pipeline construction will consume much of the available workforce once it commences."

—PETROLEUM NEWS

exploration&production

NORTH AMERICA

Rig count rebounds in U.S., Canada, up to 1,316 April 30

The number of rotary rigs operating in the United States and Canada, after several sluggish weeks, jumped by 40 for a combined 1,316 rigs during the week ending April 30, according to rig monitor Baker Hughes. The North American rig count also was up by 205 compared to the same period a year ago.

In Canada, the rig count stood at 155 during the recent week, up from the previous week and up 45 vs. the same period last year.

The number of rigs operating in the United States rose by a net 15 to 1,161 in the recent week and was up 160 compared to the year-ago week. Land rigs alone increased by 12 to 1,040, while offshore rigs increased by three to 98. Inland water rigs were unchanged at 23.

Of the total number of rigs operating in the United States during the recent week, 1,002 were drilling for natural gas and 158 for oil, while one rig was being used for miscellaneous purposes. Of the total, 767 were vertical wells, 284 directional wells, and 110 horizontal wells.

Among the leading producing states in the United States, Texas saw its rig count surge by 17 to 502 during the recent week, while Louisiana's increased by two to 174 rigs. Wyoming was unchanged at 63, as well as California at 26. Oklahoma lost five rigs for a total of 165. New Mexico lost three rigs for a total of 59. And Alaska was down by two rigs to eight.

—**RAY TYSON,** Petroleum News Houston correspondent

ALASKA

April North Slope production down 3 percent from March

April crude oil production from Alaska's North Slope averaged 976,428 barrels per day, down 3 percent from a March average of 1,006,790 bpd. All reporting areas had decreases and the Alaska Department of Revenue attributed the drop in production to the seasonal increase in North Slope temperatures, up by 10 degrees from March, which reduced gas handling, and to work at Northstar.

Northstar had the steepest month-to-month decline, averaging 63,351 bpd in April, down 12.7 percent from a March average of 72,597 bpd, a drop of an average 9,246 bpd. Revenue said work was continuing on the Northstar crude stabilizer. Production at Northstar reached a low 19,559 bpd April 13.

Crude stabilizer problem at Northstar fixed

BP Exploration (Alaska) spokesman Daren Beaudo told Petroleum News May 5 that the problem has been fixed.

He said the crude stabilizer — a metal vessel — is part of the crude separation process. "When it wasn't working," Beaudo said, "foam was carrying over into a flare knock-out drum, making it pos-

see **PRODUCTION** *page 10*

● COOK INLET, ALASKA

Unocal working with EPA on NPDES permit renewal

Company audited its work under existing permit, negotiated fines with agency

By KRISTEN NELSON

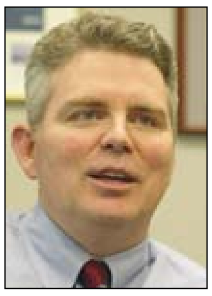
Petroleum News Editor-in-Chief

In addition to Cook Inlet natural gas exploration and development, and work at its offshore oil fields (see Part 1 if this story in the April 25 issue of Petroleum News), Unocal Alaska has been working with the Environmental Protection Agency for the past 18 months on the renewal for its National Pollutant Discharge Elimination System permit for its Cook Inlet platform operations.

1 2 SERIES

The NPDES permit is renewed every five years, Chuck Pierce, vice president of Unocal Alaska, told petroleum News April 19. Unocal has been working internally on the renewal for about two and a half years, he said, and has been working with the EPA for a year and a half in on-going project planning.

The company applied for a renewal of its NPDES permit in September. The old permit expired April 1.



JUDY PATRICK

Chuck Pierce, vice president of Unocal Alaska

"Once they accept your application you get an automatic extension as it's under consideration," he said.

Pierce said the EPA wants to issue a renewal by the end of the year. "We're really working on their timeframe," he said.

Unocal would like to get its permit renewed with the existing parts per million limitations, Pierce said, and is working through permit renewal issues with the EPA.

"I'm optimistic that we're going to come out with a workable permit at the end of this process that allows us to continue to produce these assets that are very important for us," as well as for the local com-

see **UNOCAL** *page 11*

● ALBERTA

Suncor ruling sets off jitters

Oil sands producer faces C$200 million hike in royalties for 2004; Suncor warns decision could force it to move future heavy oil upgraders out of Alberta

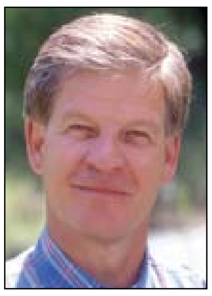
By GARY PARK

Petroleum News Calgary Correspondent

The Alberta government has drawn a line in the oil sands, refusing to waver on a decision that is likely to impose a C$200 million increase in Suncor Energy's royalties this year and could see capital spending moved out of the province.

In the process, it has opened up a wider debate on how far the province can go in squeezing revenues out of the oil sands sector without driving investors away and cutting back that flow of riches.

Energy Minister Murray Smith, adamant that the government is merely reaffirming its royalty regime, turned down Suncor's plea for a favorable royalty break on its C$625 million Firebag project.



Suncor Chief Executive Officer Rick George

Suncor Chief Executive Officer Rick George said "we are reassessing our choices," including the possibility of shipping bitumen to its Ontario and Colorado refineries for upgrading to refinery-ready oil rather than building upgraders in Alberta.

Company argued Firebag a satellite; government disagreed

Suncor argued that Firebag is a satellite expansion of its existing mining and upgrading complex and, as such, should pay royalties of only 1 percent until the capital costs had been paid off.

The government rejected that case, deeming that Firebag is a separate entity and must pay a 25 percent royalty, starting this year rather than 2008 or 2009 as

see **SUNCOR** *page 10*

continued from page 9

PRODUCTION

sible that liquid hydrocarbons could be released through the flare system."

Northstar is a zero discharge facility, so BP ran at lower rates, rather than risk a liquids release.

"A water wash of the crude stabilizer on April 13 indicated naturally occurring salts were fouling the system" and causing the problem.

"Rates returned to normal as a result of the work," Beaudo said.

Since April 18, rates have been more than 70,000 barrels per day.

"We've actually gone over 80,000 bpd twice," he said.

And, because the water wash of the tank was successful, "there's not a current need to go into the vessel to perform any other fix," although Beaudo said that BP might take a look inside if production at the field was stopped for any other reason.

Volumes down across the North Slope

Volumes through the Lisburne production center dropped 4.9 percent, averaging 56,449 bpd in April compared to 59,337 bpd in March. Lisburne processes oil from the Lisburne, Point McIntyre and Niakuk fields.

Milne Point production was down 3 percent, averaging 49,685 bpd in April vs. 51,245 bpd in March.

Alpine production was down 2.2 percent, averaging 105,454 bpd in April compared to 107,852 bpd in March.

Production from the Kuparuk River field, including Tabasco, Tarn, Meltwater and Palm, was down 2.1 percent, averaging 194,496 bpd in April vs. 198,755 bpd in March.

Prudhoe Bay production, including Midnight Sun, Aurora, Polaris, Borealis and Orion, was down 2 percent in April, averaging 478,176 bpd compared to 488,020 bpd in March.

Endicott, which includes Eider, was down only 0.6 percent, averaging 28,817 bpd in April vs. 28,984 bpd in March.

The average temperature for the month at Pump Station No. 1 on the North Slope averaged 4.6 degrees Fahrenheit, up from a March average of minus 13.9 degrees F.

Cook Inlet production averaged 24,548 bpd, up marginally from a March average of 24,530 bpd.

—**KRISTEN NELSON,** Petroleum News editor-in-chief

continued from page 9

SUNCOR

Suncor had hoped.

Based on oil prices of US$33.50 a barrel that means Suncor is faced with royalties of about C$230 million this year, compared with C$33 million in 2003.

Smith dismissed the claims of Suncor CEO George that the government had changed the rules in midstream.

"This is, in fact, a clarification of the rules. It is a reaffirmation of existing oil sands royalty regulation," he said.

Given that no other oil sands operator had raised a concern, Smith doubted the verdict would discourage investment in 52 other projects and C$45 billion of capital spending in the planning stages.

He notes that Suncor paid only C$33 million in royalties last year on profits of C$41 billion and is on track for another C$1 billion year in 2004.

Suncor produced the world's first commercial barrel of synthetic crude in 1967, is currently operating at 225,000 barrels per day and has a growth strategy targeting 500,000-550,000 bpd by 2010 to 2012.

Like its peers Syncrude Canada and Shell Canada and a host of other fast-emerging oil sands developers, Suncor holds one of the keys to oil security for Canada and the United States. But there is a concern among industry leaders and analysts that the Alberta government views the oil sands as its only hope of relying on non-renewable resources — which hit C$7.13 billion in fiscal 2002-03 — for nearly one-third of all revenues as conventional crude and natural gas go into decline.

Robert Mansell, a University of Calgary economist, told the Financial Post that replacing the revenue from natural gas and natural gas liquids (now 75 percent of all royalties accruing to the province) is "of huge concern to the government."

He said revenue from the domestic upgrading and refining of bitumen, through jobs, corporate income tax, personal income tax and other side benefits, could become as important to Alberta as royalties.

Change of policy for province

In the past Smith has rebuffed attempts to take advantage of high oil prices and record levels of production to take a bigger royalty slice from the oil sands.

"The royalty structure has been a catalyst for all this investment," he said earlier this year. "We don't want to remove the benefits for these companies before that investment is paid out." Smith also conceded on April 29 that the government might have clarified its royalty rules for Suncor and other firms earlier, but said the province will provide "compelling reasons why upgrading should be located" in Alberta, including a pending reduction in the corporate income tax rate.

Despite those assurances, oil sands decision-makers, concerned about Smith's insistence that he has "ministerial discretion" in royalty matters, hope the Suncor dispute will be an isolated case.

Greg Stringham, vice president of the Canadian Association of Petroleum Producers, told CanWest News Service that the current bonanza of oil prices and corporate profits are no justification for accelerating royalty collection.

The stakes are immense, based on reports by the Alberta Chamber of Resources and the Petroleum Human Resources Council.

They said that each 1 million bpd of growth in oil sands output requires investment of C$30 billion if the production is upgraded into refinery-ready oil; that oil sands employment could grow by 8,000 jobs to 32,000 over the next 10 years; and that each direct job in the oil sands creates an additional three spin-off jobs. ●

continued from page 9

UNOCAL

munity and for the state, he said.

Public process under way

The EPA is working through a public process for permit renewal, he said, meeting with Native organizations and environmental groups.

Cook Inlet Keeper, an environmental group, filed a petition with the EPA April 7 to have all of Unocal's facilities shut down immediately. It filed on behalf of itself, the Native Village of Port Graham, the Chickaloon Village Traditional Council, the Native Village of Nanwalek and the Native Village of Eklutna.

The petition asked the EPA to revoke Unocal's general permit for its Cook Inlet oil and gas operations, and to issue individual permits for the facilities, asserting that "Unocal's violations harm the traditional resources the tribes of Cook Inlet depend on."

Pierce said he "can only assume they're referring to somehow affecting the salmon fishing… And the bottom line is, that's just flat not true, not substantiated by any kind of science, any kind of study."

Unocal tracks discharges and studies done on inlet conditions, he said, "and the fact is these allegations are totally unsupported by any studies and unsupported in fact."

Permit regulates discharge points

The NPDES permit regulates multiple discharge points, Pierce said, ranging from sanitary waste to water from dishwashers to treated produced water discharge. "So it handles anything that we put into the water — into Cook Inlet — as part of our operations."

The permit provides for limits on a parts-per-million basis, "for how much of a certain constituent can be in the water," and then the company tests and reports the results of its tests for the discharge points.

Pierce said that Unocal has exceeded the permitted limits at times, which it reported to the EPA as those events occurred, "as per the permit requirements, but the EPA didn't fine us for them."

So as a first step in getting the permit renewed, Unocal wanted "to clean up any outstanding issues," Pierce said.

Unocal did an audit to make sure "that all of our reporting was right, and to verify that our system was in compliance.

"And we found a couple of areas where the system was out of compliance through this audit process."

Unocal told the EPA it wanted to pay the fines for the outstanding issues that it had reported, but the agency hadn't taken action on, "before we move into the renewal permit process."

And it told the EPA that in the course of doing a self audit it found that two pipes coming off the platforms which carried water from its dishwashers, and were supposed to be below the surface of the water, stopped above the water.

Unocal fixed that problem immediately, he said, as well as reporting it to the EPA.

Then the company negotiated with the EPA "a fine and penalty for those issues, under our previous permit, so we could make sure we were current."

Goal is total compliance

Unocal takes its permit seriously, he said, denying statements by Cook Inlet Keeper that the company doesn't take its permit seriously and just pays the fines and keeps polluting.

Pierce said such claims bother "a lot of the employees, because they're out there really dedicated to having a safe and environmentally friendly operation" on Unocal's platforms in Cook Inlet.

"And so that's a little disheartening to the 200 dedicated guys offshore, who report individual drops of hydraulic fluid if they happen to blow over with the wind while they're changing a pump or something."

Pierce said that while Unocal's goal is total compliance, "the reality is you're going to have one or two (exceedances)."

Unocal reports "down to the drop" … "and I believe we're in compliance with our permit — but it's a challenge to achieve a zero exceedance, I'll just tell you that: it's a challenge."

Pierce compared exceeding permit allowances to a traffic violation: "If you get a speeding ticket, you're out of compliance with the law, but they don't impound your car" but — if you have multiple violations, "well then you will lose the car."

Information for construction project

Unocal is doing some innovative information work for its Happy Valley natural gas development project, where a pipeline will be required to bring the gas to the Ninilchik unit to connect with the Kenai Kachemak Pipeline. The pipeline will run along Oilwell Road out of Ninilchik.

Pierce said Unocal is working with local residents and is assuring residents along the road and those with businesses there, that "the road will never be closed."

Unocal is "going to meet or has met with every person, one-on-one, who has property on that road to make sure they understand what the plan is. We want minimal disruption to their lives and their business there," he said.

Unocal spokeswoman Roxanne Sinz said that Unocal has had community meetings, but in addition to that has hired a person to go door to door along Oilwell Road. "There are about 40 landowners there that are truly affected by what we're doing out there and he has gone at least once to every single house in the area" and sat down with the residents to talk about the project, answer questions and address issues.

In addition, Unocal has an 800 number set up so that people in the area who have questions can call. Unocal has posters up in the Ninilchik community, giving the 800 number. The number is staffed "24/7," and callers will get answers within 24 hours. People working on the project are also armed with information, she said, and have cards with the 800 number that they can hand out.

"So people are — hopefully they're saturated with information."

Safety a focus

Safety is the number one focus for the Happy Valley development work, Pierce said.

In fact, he said, safety is the number one priority within the company.

"We've got priorities for our business posted on the wall around the building, and the number one priority is safety," he said.

In 2002 the Alaska business unit, for the first time, had zero Occupational Safety and Health Administration recordable incidents for Unocal employees. In 2003, Pierce said, the company had four recordable incidents, but they were minor.

The company started an operations management system in about 1999, "a comprehensive risk management program … designed to identify and prioritize risks in the business unit and then to verify that we have procedures in place — designed and in place … to mitigate the risks and then have an ongoing follow-up management of those risks," he said.

The operations management system is a company-wide Unocal program, and is audited by corporate every other year.

About two years ago the company started "what we call field-focused risk management," and the focus there, Pierce said, is "the guys in the field who have to do the work."

Part of that field-focus is "building on a culture of safety and risk management," and Unocal is using the DuPont STOP program — safety, training and observation program.

All of the company's offshore employees and most of its office employees have been through the seven-hour training for the first phase of STOP, which "trains everyone … to observe safe and unsafe conditions and behaviors" and to take steps to change something unsafe when they see it, and also to write it down so that the information is in a database, shared with everyone.

"It's a job requirement that we put safety as our first priority," Pierce said, and the STOP program helps implement that priority.

Then, senior management rotates through weekly safety meetings with field facilities, that "gives everyone an opportunity twice a year to talk to management" about safety issues — and to be specifically asked if they have safety issues to bring up.

"Safety's a never-ending … quest for improvement — and our goal is continuous improvement," Pierce said.

Pierce said that some of Unocal's contractors — Nabors and Kuukpik for example — already used the STOP program, and other contractors are implementing the program.

"I think it's fair to say that we are working closer than ever with our contractors to ensure that their … programs and ours work together to create the safest possible work environment." ●

natural gas

BRITISH COLUMBIA

LNG terminal for B.C. moves ahead

Backers of a proposed liquefied natural gas receiving terminal at Kitimat on the British Columbia coast have moved to the next stage of their project.

Pacific Coast Terminal said it will solicit long-term commercial contracts over the next four months to develop the privately funded C$300 million facility.

A spokesman for Calgary-based Galveston LNG told the Financial Post that provided there is support from the community of 10,000, the terminal could be operating by late 2008, handling 340 million cubic feet per day of gas.

The facility is intended to become an energy supply source for the lower mainland of British Columbia and the northwestern United States by importing LNG and feeding the gas into the Pacific Northern Gas pipeline and the Westcoast transmission system.

The proponents expect to borrow about C$200 million and cover the balance of the costs through an equity issue. A regulatory filing could be made this fall.

The Galveston spokesman said choosing the right site is "the most important issue for us," given the community opposition in February that scuttled plans by TransCanada and ConocoPhillips to build a US$400 million LNG plant in Maine.

—**GARY PARK,** Petroleum News Calgary correspondent

MONTANA

Environmental group files suit over proposed methane wells

An environmental group has filed a lawsuit, contending a state board acted illegally in approving a plan to drill more than 200 coalbed methane wells in southeastern Montana.

The Montana Board of Oil and Gas Conservation "violated its clear legal duty" by not first doing an environmental review, the Montana Environmental Information Center argues in a District Court suit filed at Hardin this week.

At issue is the Coal Creek Project, proposed near the Wyoming border by Denver-based Fidelity Exploration and Production Co. Fidelity is the only company producing coalbed methane in Montana. It has 327 production wells in the Decker area. Board administrator Tom Richmond suggested the suit was unnecessary because an environmental assessment is being conducted and no drilling will be allowed until it is completed and accepted by the board. "They're suing us for something we're doing," Richmond said.

In January, Fidelity submitted a plan of development for the Tongue River-Coal Creek Project, proposing 217 wells.

Tim Rasmussen, a spokesman for Fidelity, said, "As with the other cases that have been brought forward by those groups desiring to obstruct legitimate business development in Montana, this case focuses on the process rather than on a point of environmental significance."

—**THE ASSOCIATED PRESS**

● PRUDHOE BAY, ALASKA

Study: Gas sales would increase Prudhoe Bay hydrocarbon recovery

By KRISTEN NELSON

Petroleum News Editor-in-Chief

In the short term, natural gas sales from the Prudhoe Bay field on Alaska's North Slope would likely reduce liquids recovery.

But in the long term, a study performed for the Alaska Oil and Gas Conservation Commission found, there would be a gain in overall hydrocarbon recovery, and natural gas production is also likely to extend the life of the field.

While the report itself, done for the commission by Blaskovich Services Inc., is confidential because it

see **STUDY** *page 14*

BP EXPLORATION (ALASKA)

Pictured above is the Central Gas Facility at Prudhoe where gas is largely re-injected back into the field.

● NORTH AMERICA

Enbridge proposes smaller line for North Slope gas

By LARRY PERSILY

Petroleum News Government Affairs Editor

Enbridge says the best way to get a pipeline built for moving Alaska North Slope gas to market is for a consortium of companies to work together on a smaller line.

Spreading the financial risks between several players, and reducing the volume of gas, is the smart way to go, the company said in its April 30 application to the state of Alaska for a fiscal contract governing payments in lieu of taxes on the proposed project.

Instead of digging trench for a 48-inch-diameter pipeline carrying 4.5 billion cubic feet per day, Calgary-based Enbridge proposed in its application using 36-inch pipe to move 2.6 bcf per day to market, possibly later doubling the capacity to more than 5 bcf as exploration and market demand require more pipe.

"It's bringing capacity up as needed … rather than (building) overcapacity up front," Enbridge spokesman Ian LaCouvee said May 4. "We believe the phased approach might be more sensible and prudent."

Moving 4.5 bcf per day into North America markets could result in a temporary oversupply, pushing down prices noticeably for two or three years, according to several reports in the past year. Proponents of a 4.5 bcf line, however, said the larger pipe would provide a lower per-unit tariff.

Company says project to take nine years

Enbridge said gas could start flowing nine years after putting together the partnership to build the line, including North Slope producers and downstream buyers; winning congressional approval of tax incentives and permitting provisions for the project; and obtaining the required corporate decisions to spend billions on construction.

"It will take a lot of players to find the right mix," LaCouvee said.

see **ENBRIDGE** *page 13*

continued from page 12

ENBRIDGE

The company called nine years "a reasonable expectation," with construction to start five years after planning begins.

A nine-year design, permitting and construction timetable closely matches the North Slope producers' estimate in their own application for a fiscal contract under Alaska's Stranded Gas Development Act. The state has been negotiating with the producers since they filed their application in late January. Talks with Enbridge will start soon.

Alaska Gov. Frank Murkowski said May 4 he is "optimistic" his administration can have fiscal contracts ready for public comment and subsequent legislative approval by the end of the year. The state could approve more than one contract, which is not a commitment to build the line but rather a deal for state and municipal payments if the project is built.

Consortium for Canadian portion too

Enbridge proposed in its application to build more than 700 miles of gas line from the North Slope to the Alaska/Yukon border, where the pipe would connect to another new line for moving the gas more than 1,000 miles to existing distribution lines at Gordondale in northwest Alberta. Enbridge would likely try putting together a consortium for the Canada portion of the line too, LaCouvee said.

The company would look to North Slope producers to build the gas treatment plant needed on the slope to prepare the gas for pipeline shipment, he said.

A big difference from other project proposals is Enbridge's plan to use conventional-sized 36-inch pipe instead of 48-inch or 52-inch pipe for a larger-capacity line. A key advantage of building a smaller line is that North American steel mills could more readily supply the pipe, creating competition and possibly lower prices, Enbridge said in its application.

Enbridge estimates the Alaska portion of the line at $3.3 billion in 2004 dollars, or $6 billion if the project is later doubled to more than 5 bcf per day.

Enbridge's up-front approach to putting together a group of companies to share the project — and the risks — is different from the North Slope producers' Stranded Gas Act application that proposes the three companies themselves build the line all the way to Alberta, although the companies have said they are willing to consider partners that could "add value" to the effort. The producers propose a line carrying 4.5 bcf per day.

Enbridge, TransCanada disagree

The Enbridge proposal also puts it at odds with pipeline competitor TransCanada Corp., which last month said it, too, would submit a Stranded Gas Act application to develop the Alaska pipeline.

TransCanada, which believes it holds exclusive rights to an Alaska gas line, would be willing to take in a partner for the Alaska portion of the line but only if that company would acknowledge TransCanada's rights to the entire project, company spokeswoman Hejdi Feick said May 5.

Enbridge does not believe that TransCanada holds exclusive rights to an Alaska gas line, LaCouvee said.

TransCanada believes it holds rights to the project under Canada's Northern Pipeline Act of 1978, the U.S. Alaska Natural Gas Transportation Act of 1976, and regulatory permits in both countries. The Calgary-based company and its wholly owned subsidiary Foothills Pipe Lines Ltd. were original participants in the Alaska Northwest Natural Gas Transportation Co., selected by the two nations to build an Alaska line.That almost 30-year-old selection process applies to a specific project along a specific route from the North Slope to Alberta, and Enbridge believes the certificates do not block another company or group of companies from seeking U.S. and Canadian permits for a different project.

"We don't give much significance to the NPA (Northern Pipeline Act)," LaCouvee said. "We don't believe anybody has exclusive access to the project."

Enbridge would need own permits

By stepping around TransCanada's existing permits, Enbridge would need to apply to the U.S. Federal Energy Regulatory Commission and Canada's National Energy Board for regulatory approval of the pipeline.

"There are no simple answers to many of the legal questions," said a 2001 FERC staff report on the Alaska Natural Gas Transportation Act. "This is in great measure because applicants and the commission will be dealing with circumstances that were likely not contemplated (in 1976) … most notably the fact that … the pipeline project for which ANGTA provided expedited treatment has not been built."

"We are relatively clear that the ANGTA would not bar this commission from considering (separate applications)," FERC Chairman Pat Wood said in testimony May 5 before the U.S. House Committee on Energy and Commerce.

Enbridge and TransCanada share at least one thing in common — both look ahead to declining natural gas production from Western Canada and see the need for fresh supplies from Alaska helping to fill their lines coming out of Alberta.

TransCanada Corp. spokesman Kurt Kadatz in March said Alaska gas is key to keeping the company's lines full.

Enbridge lines could help move gas

Almost two-thirds of Enbridge's revenue last year came from natural gas sales, with most of the rest from pipeline operations. It holds a 50 percent interest in the Alliance gas pipeline that runs nonstop from Alberta to Chicago and can move 1.3 bcf per day, and a 60 percent interest in the Vector pipeline that carries about 1 bcf per day from Chicago through Indiana and Michigan and into eastern Canada.

In total, the company owns and operates more than 9,000 miles of natural gas gathering and transmission pipelines in the Midcontinent and U.S. Gulf Coast areas. It also owns a gas distribution company serving eastern Canada and upstate New York.

Enbridge also owns and operates lines carrying more than 2 million barrels per day of crude oil and other liquids.

Its 2003 annual report lists among potential growth opportunities for its natural gas business participating in the Alaska line and joining in efforts to bring new supplies of liquefied natural gas to North America.

"Enbridge intends to be at the forefront of development and planning for an Alaska gas pipeline," Patrick Daniel, chief executive officer, said in announcing the company's application to the state. "The magnitude of capital investment and risk required by this project will necessitate a partnership of producers, pipeline companies and other potential participants."

Though the company doesn't operate any pipelines in Alaska, it has some arctic experience. It runs a line that moves an average 25,000 barrels a day of light crude 540 miles from Norman Wells, Northwest Territories — about as far north as Fairbanks — to northern Alberta. It also owns a 33 percent interest in Inuvik Gas Ltd., the gas pipeline and distribution system for the Mackenzie River delta community of Inuvik in the Northwest Territories. ●

● ALASKA

Alaska municipalities want natural gas, too

Cities will push for local distribution as part of North Slope gas line project

By LARRY PERSILY

Petroleum News Government Affairs Editor

Municipal officials advising the state on negotiations for a proposed North Slope natural gas pipeline to serve hungry out-of-state markets want to make sure some of that gas is available for local distribution statewide.

They also want to ask for affordable tariffs for taking gas off the main line for their communities; no reduction in municipal tax revenues from the project without "appropriate justification"; and state incentives for the project developer to hire Alaskans.

The municipalities are drafting a resolution to help guide state officials as Alaska negotiates a fiscal contract with potential private developers of a multibillion-dollar pipeline to carry North Slope gas to North America markets. The contract, under the Alaska's Stranded Gas Development Act, allows the state to negotiate a long-term deal for a schedule of more predictable payments in lieu of possibly changing state and municipal taxes over the life of the project.

Separate from contractual payments in lieu of state corporate and production taxes, the big issue for communities is what the contract might provide in lieu of municipal property and sales taxes.

The Stranded Gas Act does not give the municipal group veto power over the state-negotiated contract.

The municipal advisory group to the state's negotiating team met April 30 to review its draft resolution. Much of the discussion dealt with the provision that asks the state to ensure the project contract includes plans for making gas available to communities statewide.

In-state distribution a key concern

"The main thing to me is they think about us right up front," said Willard Dunham, a Seward city council member representing his community on the municipal advisory group. Provisions for off-take points and local distribution statewide should be explicit in the contract, Dunham said. It would be much less expensive to include the connection points and extra lines as part of the original construction rather than adding them later, he said.

"I just have a fear … if we don't tie in the supply to the Southcentral area … we won't be able to get the gas," Dunham said.

Southcentral Alaska residents — especially the Kenai Peninsula that depends on the Agrium Inc. fertilizer plant and the ConocoPhillips Alaska/Marathon liquefied natural gas plant — worry that dwindling Cook Inlet natural gas supplies could cut deeply into their economies by the end of the decade.

The municipal advisory group is scheduled to meet May 21 in Anchorage to continue working on its resolution to the state. Members include municipalities along the proposed pipeline route and communities that could serve as ports of entry for construction materials: the North Slope, Fairbanks North Star, Kenai Peninsula and Haines boroughs; and the cities of Fairbanks, North Pole, Delta, Anchorage, Seward,

see **CITIES** page 18

continued from page 12

STUDY

used data from the North Slope producers that the commission does not have the right under statute to make public, the commission did a non-confidential summary.

The Blaskovich study analyzed reservoir simulations run by the Prudhoe Bay unit working interest owners. The major Prudhoe Bay owners are BP Exploration (Alaska), the Prudhoe Bay field operator; ConocoPhillips Alaska; and ExxonMobil Production Co.

Overall hydrocarbon recovery increased

The commission said the study found that oil-only production from Prudhoe Bay would recover more than 13 billion barrels of hydrocarbon liquids — crude oil and condensate and natural gas liquids. To date, cumulative production is 11.2 billion barrels.

Gas sales, the commission said, will likely add 3-4 billion barrels of oil equivalent and will also likely extend the life of the field.

There will, however, be negative impacts on liquids recovery from gas sales, "because reservoir energy in the system will decline as a natural consequence of gas withdrawal for sales."

The worst case estimates of decreased liquids production as a result of gas sales show "a loss of as much as several hundred million" barrels of liquids. The worst case was a 2010 gas sales start date with nominal off-take of 4.3 billion cubic feet per day from Prudhoe Bay only and no mitigating measures. In this worst case, field life would not be extended.

The study found that the magnitude of decreased liquid recovery "depends upon the timing of sales, the average annual gas off-take rate, the composition of the gas sold, field depletion plan optimization and the number of years that field producing life may be extended by gas sales."

Study results estimates only

The commission called the study results "order of magnitude estimates. They are not conclusions." The study was based on preliminary work by the working interest owners, and the commission said the owner companies "have stated that they plan to continue updating existing models and methods to improve operating strategies in an effort to maximize oil recovery."

Two gas rates were evaluated: 2.9 bcf per day and 4.3 bcf per day, with the beginning of gas sales varied from 2010 to 2020. Total hydrocarbon recovery by 2031 and 2050 was then compared for the gas sales cases, compared to a no-gas sale case.

The assessment also evaluated ways to mitigate gas sales, and found the most promising method evaluated "was to increase water injection into the gas cap when gas sales are begun."

The commission said water injection into the gas cap began last year to mitigate declining reservoir pressure. The nominal water injection rate planned is 650,000 bpd.

Gas cap water injection increases liquids recovery

The working interest owners evaluated increasing gas cap water injection to 1.05 million bpd with a gas sales rate of 2.9 bcf per day and a 2010 start of gas sales. Study results indicated this option increased liquid hydrocarbon recovery by 70-100 million barrels compared to the same gas sales case without increased gas cap water injection.

"Based upon the work reviewed so far, it appears that delay of gas sales and decreased off-take rate will reduce the negative impacts upon ultimate total liquid hydrocarbon recovery," the commission said.

But it noted that the possibility of leaving North Slope gas stranded must be weighed against potential liquid losses.

The commission said that by 2030 a gas sales case of 2.9 bcf starting in 2010 results in overall hydrocarbon recovery increase of 2.5 billion barrels of oil equivalent over the result without gas sales.

"At year 2050, all gas sales cases evaluated result in nearly the same hydrocarbon recovery" with 3.5 billion boe incremental to a case with no gas sales.

"Hence, while total liquid hydrocarbon recovery is expected to decrease because of gas sales, it appears that overall hydrocarbon production near end of field life will be relatively insensitive to the start-up date of sales (2010-2020) and sales rates (2.9-4.3 bcfd).

"In fact," the commission concluded, "significant hydrocarbon reserves (oil, gas and gas liquids) may not be recovered unless there are gas sales."

Further studies needed

The commission said the studies it evaluated were done in 2001 and 2002 and were done "to scope scenarios for the pipeline evaluation effort" not "to maximize or optimize total liquid hydrocarbon or gas recoveries."

Further studies, with better predictive tools, would require much more time than the 2001 and 2002 studies.

"However," the commission said, "it is clear from this work that a critical aspect of this project will ultimately be trade-offs between oil and gas recovery." It said gas reserves are usually produced only after liquid hydrocarbons, because maintaining reservoir pressure generally improves liquids recovery, while reducing reservoir pressure improves gas recovery. "

The commission said the owner companies plan to update reservoir and facilities models to better understand the liquids-gas tradeoff, and noted that increased water injection in the gas cap is a "promising but risky" mitigation technique. The gas cap water injection now under way at Prudhoe Bay "needs to be monitored closely for several years to ensure that water injected will not adversely affect liquid hydrocarbon recovery."

The commission said that other Prudhoe Bay reservoirs and other North Slope fields need to be included in any final analysis to determine broader impacts of gas sales, and said the working interest owners have assured the commission that it will be included in more comprehensive future studies, which would avoid a "costly duplication of effort" estimated at $500,000 to more than $1 million, for independent studies by the state. ●

WYOMING

BLM plans June lease sale for Wyoming acreage

The Bureau of Land Management will hold an auction of mineral leases across much of Wyoming on June 8, the agency has announced.

Included in the sale are parcels in 16 of Wyoming's 23 counties, including more than 40,000 acres in Sweetwater County in southwestern Wyoming, nearly 23,000 acres in Niobrara County, in the far eastern part of the state, and nearly 20,000 acres in Big Horn County, in northern Wyoming. There are a total of 144,806 acres in 167 parcels in the sale.

BLM rules call for a minimum bonus bid of $2 per acre beyond the standard rental of $1.50 an acre, plus $75 per parcel in administrative charges. Leases have an initial primary term of 10 years. There are royalty provisions as well.

The complete list of parcels is available on BLM's web site at http://www.wy.blm.gov/minerals/og/leasing/oilgasleasing.html. The auction begins at 8 a.m.

—PETROLEUM NEWS

WESTERN CANADA

Chevron Canada closes bids on Western Canadian assets

Chevron Canada Resources is sitting on the answers that could close the door on its role in Western Canada's conventional oil and gas properties.

One of the pioneers in developing the Western Canada Sedimentary Basin, the unit of ChevronTexaco has received bids for assets in Alberta, British Columbia, Manitoba and the Northwest Territories that produced 44,000 barrels of oil equivalent per day in 2003.

There was heavy interest in the properties, but no date has been set for disclosing the successful bidders, Chevron Canada spokesman Dave Pommer told Petroleum News.

There was heavy interest in the properties, but no date has been set for disclosing the successful bidders, Chevron Canada spokesman Dave Pommer told Petroleum News. The company has indicated it is ready to hold on to assets that do not attract an acceptable offer.

Chevron Canada has excluded from the sale list its 20 percent stake in Shell Canada's Athabasca oil sands project, its 26.9 percent of the Hibernia oil project and its 28 percent operator role in the stalled Hebron-Ben Nevis project, both of them offshore Newfoundland, and its exploration of the Mackenzie Delta.

The company is joining Murphy Oil and El Paso as the latest U.S. subsidiaries to unload their conventional holdings in Western Canada, while EnCana plans to divest an additional 40,000-80,000 barrels of oil equivalent per day of oil and gas production for up to C$1.5 billion, to help offset the US$2.7 billion purchase of Tom Brown.

—**GARY PARK,** Petroleum News Calgary correspondent

● GULF OF MEXICO

MMS weighing options for 'ultra-deep' incentives

By RAY TYSON

Petroleum News Houston Correspondent

Government help appears on the way for "ultra-deep" explorers on the Gulf of Mexico's continental shelf, where wildcatting expenses are sure to be astronomical in this new and financially risky gas play situated more than 25,000 feet below the ocean floor.

The U.S. Minerals Management Service, in a continuing effort to reverse the rapid decline in natural gas production on the shelf, is now seriously working on drilling incentives especially designed for ultra-deep exploration, including extension of lease terms and possibly additional royalty relief for commercial discoveries.

"We are intent on doing something in that area. Frankly, I'm surprised we haven't done something already," Chris Oynes, MMS regional director for the Gulf, told Petroleum News May 4 at the Offshore Technology Conference in Houston, Texas.

Extending the current five-year term on shelf leases, to give deep drillers more time to prepare, is something industry has advocated the past few years.

"Clearly industry is pushing into those (deeper) intervals and that's where most of the gas is being found," Elliot Pew, vice president of exploration for Newfield Exploration, said at a conference press briefing.

However, drilling below a geologic depth of 25,000 in the relatively shallow waters of the Gulf is its own ball game. Only one company, Shell, has actually drilled into the ultra-deep zone in what turned out to be a dry hole at the company's Shark prospect in South Timbalier.

Newfield, a Houston-based independent that concedes it does not have the bucks to drill half way to China, recently managed to pull together an impressive group of partners — ExxonMobil, BP and Brazil's Petrobras — to pick up the tab on a couple of

see **INCENTIVES** *page 16*

● GULF OF MEXICO

GOM oil and gas leases to swarm market in 2006

Deepwater leases from large 1996-98 sales will soon start to expire; only 6.5 percent of 3,200 leases issued 1996-2000 have been drilled so far

By RAY TYSON

Petroleum News Houston Correspondent

Several thousand oil and gas leases in the deepwater Gulf of Mexico, scooped up by industry during some of the largest sales in the region's history, will begin expiring over the next few years without being explored, no doubt altering the dynamics of future sales as new leases pour on to the market.

In fact, the U.S. Minerals Management Service said in a report released at the Offshore Technology Conference in Houston, Texas, the first week in May that only 6.5 percent of the roughly 3,200 deepwater leases issued from 1996 through 2000 have been drilled to date.

Generally, only a few hundred of these type leases are available in any given sale. However, they can account for up to 25 percent of all leases receiving bids, according to MMS calculations.

Because deepwater leases carry 10-year terms, those awarded in the latter half of the 1990s will expire beginning as soon as next year. MMS anticipates 741 leases would expire through 2005 and then jump to 2,527 leases in 2006-2007, dropping off to 1,077 leases in 2008-2009, 558 leases in 2010-2011 and 525 leases in 2012-2013.

Record-setting sales from 1996-1998

Driven by the lure of mammoth oil prospects and supported financially by the Deepwater Royalty Relief Act, offshore lease sales in the U.S. Gulf from

see **LEASES** *page 16*

● FLORIDA

Feds renew talks to buy Everglades drilling rights

By CORALIE CARLSON
Associated Press Writer

The federal government has renewed negotiations to buy mineral rights from a pioneering southwest Florida family to prevent future oil and gas drilling on some of the nation's most sensitive land, officials said April 28.

The government previously offered $120 million to the Collier family for drilling rights in about 400,000 acres, including land in the Big Cypress National Preserve, Florida Panther National Wildlife Refuge and the Ten Thousand Islands National Wildlife Refuge, areas abutting or near Everglades National Park.

But an inquiry into whether the government was offering too much money to a politically powerful family stalled the deal and it expired in November.

Negotiations to come up with a new offer began in earnest April 27 when Bennett Raley, the Interior Department's assistant secretary for water and science, surveyed the area and met with the Colliers, for whom Collier County is named, in Naples.

"The president and Secretary Norton are committed to acquiring the Collier mineral estates," Raley said at a Big Cypress visitor center. "Our task now is to pick up and move on to the end goal of acquiring the resources."

He said the government and the Colliers must first agree on a method to assess the value of the rights. Previous assessments have ranged from $5 million to $482.5 million.

New deal talks under way

"We're in the process of talking about a new agreement," said Robert Duncan, general manager of Collier Resources Co. "We have presented the Interior with a new draft that is similar to the last agreement. We look forward to future conversations."

After the buyout offer expired in November, the Colliers applied for 26 exploration permits. As part of the hunt, explosives would be set off in thousands of shallow holes to take seismic measurements, Raley said.

"If the Colliers were to proceed on exploration of those potential sites, you'd have a very, very dramatic impact on the reserve," Raley said.

The Big Cypress preserve was created in 1974 with land bought from the Colliers, but the family retained the mineral rights.

After about seven years of negotiations, President Bush offered to buy the land in May 2002 for $120 million. As part of the deal, the Colliers would keep pumping from two existing Big Cypress sites that produce 2,200 barrels of oil a day, until they run dry.

The Colliers, who believe the rights are worth much more than $120 million, also planned to write off the difference in their taxes as a donation. ●

continued from page 15

INCENTIVES

ultra-deep wells on its Treasure Island and Treasure Bay acreage on the shelf.

Newfield and partners plan to drill deepest wells yet on Gulf shelf

Newfield's Pew agreed the wildcats its partners plan to drill, which at 30,000 feet plus would be the deepest wells drilled on the Gulf continental shelf, could run $50-to $60 million each, assuming everything went smoothly. Temperatures and pressures at those depths are intense and could raise havoc with drilling equipment.

Pew said that while the ultra-deep contains prospects that could hold trillions of cubic feet of gas reserves, "this is truly a frontier play."

Nonetheless, with those types of mega-prospects looming below and facing declining gas production on the shelf, MMS appears more than willing to help out in the ultra-deep, just as the agency did earlier this year when it vastly expanded royalty relief incentives in general for deep drilling on the shelf.

Question of how to provide incentives

The real question is how to go about providing ultra-deep incentives now that President George Bush's energy bill appears to be on the outs. The legislation simply could have mandated such things as lease extensions and additional royalty relief without having to justify the move with time-consuming studies required in the rule-making process.

"We just started sort of giving up on the energy bill; it doesn't look like it's going to make it," MMS' Oynes said. "So we have to shift gears and that's going to take a lot more work. We are still looking at a transition stage."

He said MMS concluded it couldn't make the change administratively through a policy change, which would have been a relatively quick way to resolve the issue.

"The way I think the way we are fashioning it now is that it would be through a proposed rule and a final rule, so it takes awhile," Oynes said.

He said another option would be to include the ultra-deep incentives in specific lease sales, something MMS did several years ago before adopting broad based rules for deep drilling on the shelf. However, that approach would apply only to leases acquired in a sale, he added.

"But you presumably could have this in a year or a year and a half, maybe sooner," Oynes said. "So we're assessing whether we want to have a rule at all, or go with a lease provision." ●

continued from page 15

LEASES

1996 to 1998 drew total bids approaching $1 billion in some cases while setting records on the number of leases awarded.

For the most part, industry's investment in financially risky leases ranging in water depths up to 10,000 feet proved successful, resulting in the discovery of billions of barrels of oil equivalent reserves and a surge in offshore production in the Gulf of Mexico.

But there also have been disturbing signs over the past few years, most notably decreases in the average bid amount per block, average number of drilling rigs operating, the number of wells drilled, and the number of deepwater plans submitted to MMS.

Perhaps the most disturbing sign relates to overall drilling activity, particularly on the exploration front. The number of deepwater rigs operating in the Gulf plummeted from an average high of 41 during the 2001 peak to a current average of 25, while the number of exploratory wells dropped from 114 in 2001 to 68 in 2003.

Huge inventories, limited rig fleet equal untested leases

"The combination of huge deepwater lease inventories and a limited rig fleet dedicated to the Gulf of Mexico means that the vast majority of today's leases will remain untested when their terms expire," MMS concluded.

The question is whether industry finds expired leases sufficiently attractive to bid on them in a big way in future lease sales.

"How many will depend a lot on where those locations are vis-à-vis other discoveries that have occurred along the way," Chris Oynes, MMS regional director for the Gulf, told Petroleum News. "But it's always driven by the geology. You've got to go back to the fundamentals."

He said the level of interest on specific blocks could depend on whether "it was (a) very reluctant turn back to the government," meaning the explorer liked the prospect but simply couldn't fit it into the company's drilling schedule before the lease expired.

"There's no possible way they could have drilled all of these, so they probably would (attempt) to re-acquire some of them," Oynes said. "Whether they will be as frantic as the first time, I suspect they won't. I think they will be more judicious."

Some explorers will have new ideas

Explorers with new ideas also could emerge and go after expired blocks in which others saw little or no value. "That's going to happen," Oynes said.

With new technologies and a growing infrastructure in deepwater Gulf, including pipelines and production platforms, expired leases containing marginal prospects also could become economic. For example, analysts speculate that introduction of the cell spar platform this year could lower the minimum economic field size in deepwater Gulf to around 30 million barrels of oil equivalent.

"Presumably, there's going to be some of these blocks that have that kind of potential," Oynes said, "and there's no reason that these blocks are going to be left alone. It's just a question of how many and which sale, and what the prospect looks like."

Despite the fact that many of the large prospects were taken in the last leasing round, there's still "a lot of dynamics" at work in the Gulf, Oynes said.

"Certainly the potential is there," he added. "The Gulf is still a very big engine. There's a lot of stuff that's still out there." ●

Companies involved in North America's oil and gas industry

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Petroleum news

Business Spotlight

By PAULA EASLEY

FORREST CRANE

Glenn Ruckhaus, vice president/senior scientist

Lynx Enterprises

Lynx Enterprises, with offices in Anchorage and Denver, was recently acquired by ASRC Energy Services and now provides full-service turnkey operations for resource exploration and development projects. Lynx President Mark Schindler was awarded the DOI Mineral Management Service's corporate leadership award for exemplary leadership of the Beaufort Sea McCovey exploration project in 2003.

Glenn Ruckhaus has been a mineral exploration geologist in Nevada, Montana and Alaska, and his experience evolved into resource permitting and planning services. He joined Lynx in 1999. Glenn is a member of the Alaska Miners Association, Alaska Geologic Society, Alaska Mineral and Energy Resource Education Fund, and Kidzrunning, a skills-based distance running program for kids and their parents.

FORREST CRANE

Jim M. Senn, business support manager

Agrium US Inc. Kenai Nitrogen Operations

Agrium US Inc.'s Kenai, Alaska, plant sits on the east side of Cook Inlet on the Kenai Peninsula and boasts a tidewater terminal. Product is shipped from the facility in ocean-going vessels to many parts of the world including Australia, Chile, China, Korea, Mexico, Philippines, Thailand and South Vietnam. Access is by water, although some product is shipped by truck to mainland agricultural and industrial markets.

Jim Senn, a 1980 graduate of Bartlett High in Anchorage, obtained his chemical engineering degree from the University of Arizona in 1986. He has been with Unocal/Agrium since then, starting as process engineer and moving up the ladder to become Agrium's business support manager. Jim, his wife Kim and 11-year old daughter Mackenzie enjoy the peninsula's great array of summer outdoor activities.

continued from page 1

QUESTION

department's spring forecast shows those three fields supplying almost 20 percent of the slope's entire production by 2010, Dan Dickinson, Tax Division director at Revenue, said in a recent presentation to the Alaska House Ways and Means Committee. His testimony came during consideration of legislation to amend the state's production tax, raising the rate when oil prices are high.

The spring forecast shows North Slope production falling from a fiscal 2004 average of 985,000 barrels a day to 928,000 barrels in fiscal 2009, then rebounding to 978,000 barrels in fiscal 2010 with more than 170,000 barrels expected from Point Thomson, NPR-A and West Sak.

That's why the department sees the need for a timely jump in capital spending. "It's got to happen over the next four years or so," said Chuck Logsdon, chief petroleum economist for the Department of Revenue.

State counts on Point Thomson, NPR-A in fiscal 2009

The department's spring forecast, released April 15, shows West Sak starting its upward climb next year, with Point Thomson and NPR-A going online in fiscal 2009. West Sak produced an average of 7,000 barrels per day last year, with the state predicting a jump to 29,000 barrels a day in fiscal 2005.

The state's capital spending estimates are based on several assumptions, Dickinson said:

- $2.35 per barrel in ongoing capital spending to maintain producing fields.
- $2.50 per barrel for new onshore field development.
- $4 per barrel for offshore field development.
- And a three-year development schedule for new production.

The department's $6 billion spending estimate "is driven by those rules of thumb," Dickinson said, not by budget plans provided by the companies.

Point Thomson at 70,000 barrels in 2010

The largest boost in production for fiscal 2010 would come from Point Thomson, which is included in the department's prediction at 70,000 barrels per day that year. However, that will depend on the field operator, ExxonMobil, and its partners deciding to proceed with development. The company faces a June 2006 state deadline to start development drilling or pay a $20 million penalty to the Alaska treasury.

Any development decision on Point Thomson, a high-pressure gas condensate field on the Beaufort Sea, just off the western edge of the Arctic National Wildlife Refuge, is likely tied to plans for a pipeline to carry North Slope natural gas to market. The Revenue Department capital spending assumption does not include the costs of the proposed gas line.

"Based upon a combination of cost and resource estimates, a project to recover condensate (at Point Thomson) prior to gas sales is not viable under the current fiscal system," ExxonMobil Houston spokesman Bob Davis said April 28.

The field owners — with BP and ChevronTexaco holding significant shares along with Exxon — have spent more than $800 million over the years, including drilling 19 exploration and appraisal wells, Davis said.

Meanwhile, ExxonMobil continues looking at how it could develop the field, Davis said.

ConocoPhillips says NPR-A flow could start in 2008

ConocoPhillips reported in its application to the U.S. Army Corps of Engineers that NPR-A gravel pad and road work could begin in winter 2007, with the first production in summer 2008. The company is looking at three drill pads in NPR-A, from six to 20 miles west and southwest of its Alpine production facilities.

ConocoPhillips has interests in 1.1 million acres in NPR-A.

The Revenue Department forecast shows the first oil from NPR-A in fiscal 2009, starting at 3,000 barrels a day, then building to almost 100,000 barrels a day by 2015.

ConocoPhillips is also the operator at West Sak, a shallow, viscous oil reservoir above the Kuparuk field. West Sak started production in 1997 at 250 barrels per day. This year's flow is running about 9,000 bpd, with the department projecting that heavy capital spending and new technology will boost that total to 29,000 bpd in fiscal 2005 and then 80,000 bpd by 2010.

Horizontal, multi-lateral wells and regulatory approval of new wells from a drill pad on the west side of the field will help increase production, the state reported. The new drill site by itself could produce more than 30,000 bpd, ConocoPhillips reported in January.

The federal environmental impact statement for the company's proposed NPR-A development is expected later this year. ●

How probable is a $6B capital investment?

"I don't know how Revenue calculated the 'needed' new investment, but it is a lot of new spend relative to where spending is today. I haven't heard the companies say yet that they plan to spend all this new money, but that doesn't mean that they won't," Bill Van Dyke told Petroleum News in early May when asked if he thought Alaska's North Slope producers would make the $6 billion investment needed between fiscal years 2006-2008 to reverse Alaska's oil production decline and meet the state's production forecast. Van Dyke is petroleum manager at the Alaska Division of Oil and Gas.

In fiscal year 2010, 170,000 barrels per day of the 978,000 barrels projected are expected to come from new North Slope developments at Point Thomson, NPR-A and West Sak.

Van Dyke pointed out that the last three green-field developments were all prior to 2002 — Badami, Northstar and Alpine.

"So yes, the investment in fiscal years 2002 to 2005 is down in relative terms to some of the even earlier years. (There has been) lots of drilling but not a lot in the way of new facilities in the last few years," Van Dyke said.

And the last few years represent North Slope "facility sharing at its best," which he said is probably not allowed for in Revenue's spending estimates. "Needed new investment may be lower relative to past spend due to facility sharing," Van Dyke said.

"NPR-A and the heavy oil (West Sak, Schrader Bluff and Orion) look solid so I think that extra money will be spent. Point Thomson is the wild card. Who knows what Exxon/BP/Chevron will do? If they don't go forward at Point Thomson then the production forecast will be off by that amount. On the other hand maybe Pioneer and Kerr McGee will get some new oil on line by then to fill that void," he said, referring to successful exploratory drilling in the last two winter drilling seasons by two new North Slope players.

"There is no absolute answer looking five or 10 years out, and yes there is some uncertainty in the forecast. That's why it's called a forecast. There is some chance that the actual production numbers will be lower, but likewise there is some chance that they will be higher," Van Dyke said.

—**KAY CASHMAN,** Petroleum News publisher and managing editor

continued from page 14

CITIES

Kenai, Valdez and Skagway. The Tanana Chiefs Conference, representing 42 Interior Alaska villages, also is listed among the members.

Consultant helping municipalities

The Alaska Department of Revenue last month signed a $250,000-contract with Fairbanks-based Information Insights Inc. to prepare a study of the pipeline project's potential social and economic effects on the communities. The contractor also is leading the municipal advisory group in drafting its resolution of positions and a final report to state negotiators, expected in August, said Brian Rogers, company president.

The report will include municipal recommendations for the Stranded Gas Act contract, Rogers said.

State officials hope to reach a contract before the end of the year with at least one of the project applicants, if not all of the applicants.

Applicants include a single submission by the three major North Slope producers, ConocoPhillips Alaska Inc., BP Exploration (Alaska) Inc. and ExxonMobil Alaska Production Inc.; and the Alaska Gasline Port Authority, comprised of the Fairbanks North Star Borough and city of Valdez that want to build a municipally owned project. The state also expects applications soon from two Calgary-based pipeline operators: TransCanada Corp. and Enbridge Inc.

Any one of the applicants could build the pipeline by itself, or any combination could join together to develop the project. A Stranded Gas Contract is not a commitment to proceed with construction but simply a fiscal contract governing the project if it goes ahead.

In-state tariff also a concern

In addition to a provision ensuring in-state gas distribution, the municipal advisory board's draft resolution calls for a fair tariff structure for delivery to in-state points. Members discussed their belief that gas withdrawn from the pipe in Alaska should pay a lower tariff than would be charged for gas carried the entire length of the line to Canada.

In addition to ensuring an affordable tariff, Rick Ross of the city of Kenai asked if the state could exert any influence on the price of gas sold in-state, especially for industrial use. Kenai would lose a major chunk of its economic base if either the fertilizer or LNG plant closed due to lack of gas supply.

Members discussed whether the state could direct the sale of its royalty gas at a discount for in-state industrial uses, prompting Deputy Revenue Commissioner Steve Porter to explain that would be the equivalent of taking money out of the general fund for one area of the state.

The advisory group did not include an in-state natural gas pricing provision in its draft resolution.

Boroughs protective of property tax revenues

In their concern to protect property tax revenues, the municipalities state in the draft resolution:

- They will not accept any negotiated reduction or deferral in municipal property taxes unless the state and project sponsor can show such a tax break is justified.
- They want to ensure that some level of property tax revenues would continue after the end of the contract, even if it is beyond the original expected life of the pipeline.
- And they want the state to ensure that the municipalities' combined (present value) share of project revenues negotiated under the Stranded Gas Act contract would not be less than the cities and boroughs could have collected under their existing tax laws.

A 2002 report from the Department of Revenue estimated that a gas line carrying 4.5 billion cubic feet per day from the North Slope to Midwest markets could generate, under existing property tax laws and rates, more than $1.3 billion each for the North Slope Borough and the state over 35 years, with about $170 million for the Fairbanks North Star Borough. ●

continued from page 1

TARGETS

2004 could see 15,800 gas completions, easily beating last year's 14,898, which shattered the previous high of 11,181 in 2001.

The investment dealer said gas field receipts in Western Canada for the first four months were 16.18 billion cubic feet per day, compared with 15.97 bcf for all of 2003 and 16.4 bcf in 2002.

FirstEnergy analyst Martin King said favorable winter drilling conditions allowed drilling programs to "run hard" for four months and produce "real tangible" production gains.

Having earlier forecast that supply would remain flat or decline slightly, FirstEnergy is now estimating that volumes could grow this year by 200 million cubic feet per day.

Significant growth is being posted in the coalbed methane sector, which will contribute 80 million cubic feet per day this year from 1,000 wells and could grow to 150 million cubic feet per day in 2005 from 2,000 wells.

North American gas price forecast up

FirstEnergy has raised its North American gas price forecast for this year and next by 50 cents per million British thermal units to $5.50 and $5.25 and added 25 cents to the 2006 target which is now $5.

It says combined North American gas demand should grow by 1.4 billion cubic feet per day this year and 1 billion cubic feet per day in 2005, based on a "solid" U.S. economy.

Petroleum Services Association of Canada President Roger Soucy said the first quarter was the busiest for the period in Canadian drilling history, up 15 percent from a year earlier and "with continued strong commodity prices, we anticipate this high level of activity to be maintained throughout the year."

He said summer and fall drilling are not expected to beat last year's activity, but also admitted he tends to be "conservative in my well-count numbers."

Precision Drilling, Canada's largest drilling contractor, confirmed the drilling effort in the first quarter, which Chief Executive Officer Hank Swartout said was the best in company history.

The Calgary-based company logged profits of C$101 million, compared with C$83 million a year earlier and "as long as gas stays where it's at today ... we expect it to be a record year," he said.

—GARY PARK, Petroleum News Calgary correspondent

continued from page 1

DRILLING

Leases from the late Central Gulf sale remain in limbo simply because they were acquired after EPA's November deadline. "All the new leases, as they are being awarded, cannot be drilled," Oynes said.

Moreover, companies that failed to place existing leases they wanted to drill on an EPA "protection list" prior to the Gulf-wide expiration of water discharge permits also are being hurt, Oynes said.

"If they are on the list, they are okay," he said. "But that word apparently was not transmitted (by EPA) with great fervor to industry, and therefore a lot of companies got caught flat footed. They didn't send in their lists."

Oynes said that because many companies are not getting their water discharge permits from EPA, they see no reason to apply to MMS for drilling permits, another requirement.

Legal cloud also surrounds lease transfers

"I don't know how many permits this is holding up," he said. "But the number of shallow water wells being drilled has been declining the last several weeks."

He said a legal cloud also surrounds the transfer of leases from one owner to another. "Some of those are being processed and others are being held up," he said. "All these things are starting to bubble."

In effect, only companies with current drilling operations from offshore platforms are covered by discharge permits, or those that happened to submit their list before the EPA deadline, Oynes said.

Oynes said the discharge of produced water from drilling operations in the U.S. Gulf contributes "a very small percentage" to the so-called dead zone, or area of the discharge where oxygen is depleted in the water. He said runoff of discharge from farms along the Mississippi River accounts for most of the problem in the Gulf.

He noted that EPA has considerable control over the oil and gas industry, but little or none over farmers.

"So they are turning their attention to what they can regulate," Oynes said. "We're trying to work with EPA to get this resolved in some way, scope or form." ●

continued from page 1

PERMITS

gone as high as 1 billion barrels of oil and 10 tcf of gas.

The new exploration licenses, covering about 6.2 million acres, required ConocoPhillips to spend about C$40 million on exploration, including C$23 million spent under the old permits. Imperial has a C$1.5 million commitment on the remaining license.

Pending final approval from Newfoundland's Natural Resources Minister Ed Byrne, the two permit-holders will get five-year licenses, with options for an additional four years depending on drilling commitments.

ConocoPhillips will do seismic first

Bob Spring, vice president of exploration for ConocoPhillips, told Petroleum News that his company will be moving "fairly slowly," completing two phases of seismic before deciding whether to drill.

"It's a rank wildcat basin, so there will be no snap decisions," he said.

Spring said applications have been submitted to conduct several hundred miles of 2-D seismic that will help ConocoPhillips focus on where to conduct its 3-D work.

New federal environmental regulations introduced last year also present an obstacle to be cleared.

Because the schedule is "awful tight there is not a high likelihood" of any work starting this summer, Spring said.

ConocoPhillips holds an average 70 percent of the licenses it has in partnership with Murphy, but Spring expects that if the exploration stage proceeds his company will be on the lookout for other participants.

He said ConocoPhillips hopes the Laurentian is an extension of the gas play offshore Nova Scotia. On the basis of the early data, there is optimism that the "gas kitchen" could hold in the range of 6 to 10 tcf.

But Spring said there is no evidence on the oil side to support the Geological Survey of Canada's estimate of 600-700 million barrels.

Spring said the ConocoPhillips licenses are in water depths of about 4,900-8,200 feet, with the gas prospects about 10,000 feet below mud line.

Imperial has no immediate plans to explore

Imperial, while welcoming the new licenses, has no immediate plans to explore its single license in the Laurentian.

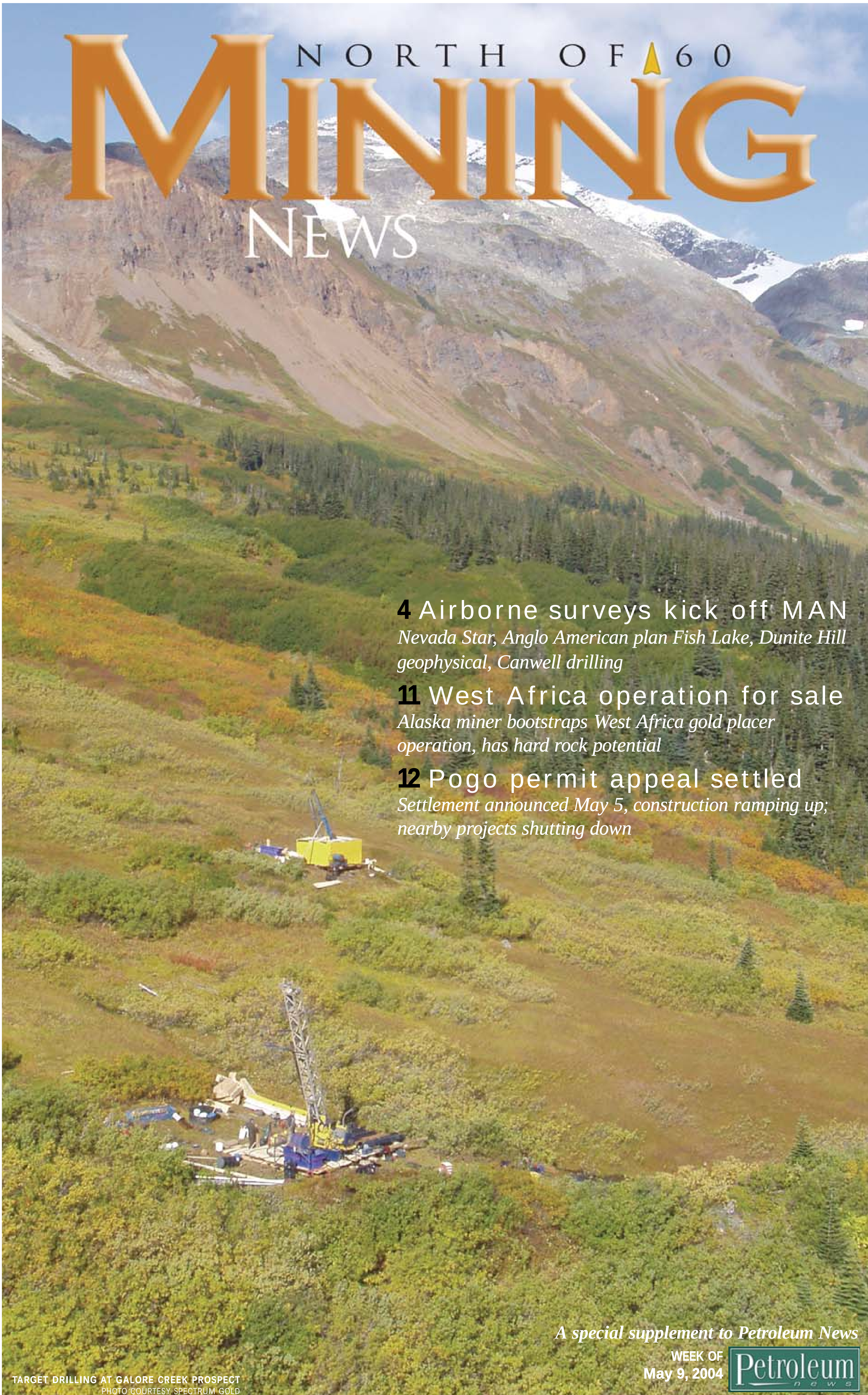
The sub-basin was stirred back to life two years ago when a 14-year offshore boundary dispute between Newfoundland and Nova Scotia was settled by arbitrators who awarded 78.5 percent to Newfoundland, 12 percent to Nova Scotia and 19.5 percent to the Saint Pierre and Miquelon islands, owned by France.

From 1969 to 1971, the Canadian government issued permits covering almost 8 million acres. With ExxonMobil as operator, ConocoPhillips participated in the Bandol exploratory well in French waters in 2001, which was deemed a dry hole.

Meanwhile, Efford announced at Houston's offshore technology conference that the government will lift import duties on offshore drilling rigs and reduce government red tape in a bid to attract increased exploration to a region hit by drilling failures and the withdrawal of major players.

He said removing the duties, which average about C$50,000 a day, will "increase the competitiveness" of the Canadian offshore and also encourage rig owners to have repairs and maintenance done in Nova Scotia and Newfoundland. ●

NORTH OF 60 MINING NEWS



TARGET DRILLING AT GALORE CREEK PROSPECT
PHOTO COURTESY SPECTRUM GOLD

A special supplement to Petroleum News

WEEK OF May 9, 2004

Petroleum news

● SOUTHWEST ALASKA

Calista Corp. chooses Canadian coal

Alaska Native corporation subsidiary says study shows burning Canadian coal at Bethel plant produces lowest cost electricity

By PATRICIA LILES
Petroleum News Contributing Writer

A draft feasibility study completed this spring by Nuvista Light & Power Co. recommends construction of a coal-fired electric generation plant at Bethel, Alaska, plus construction of a 191-mile transmission line to the Donlin Creek gold project as the lowest wholesale power cost for the remote southwest Alaska region. Nuvista, a non-profit formed by Calista Corp., the Native corporation in southwest Alaska, is seeking comments through May 7 on the study, which recommends that initial design and permitting work begin on the coal-fired power plant project.

"Assuming the coal plant and the transmission line are financed using $150 million in grant funds with the balance of the $370 million project financed at 5 percent, wholesale power cost would be in the range of 8.1 cents per kilowatt hour using Luscar Coal Valley coal from British Columbia," the executive summary said. The study, completed March 20, outlines plans to construct a 100-plus megawatt coal-fired plant at Bethel, either on two barge structures or on land one mile south of town. A connecting 138-kV transmission line from Bethel to Donlin Creek would supply the 70 megawatts of peak power needed if the 28 million ounce gold deposit is to be produced by its developers, Placer Dome and NovaGold Resources.

"This study assumes the Donlin Creek gold mine will begin full scale mining operations in mid-year 2010," the executive summary of the study said. "Placer Dome Inc., has, however, indicated that it may want power at the mine prior to 2010. Realistically it will be difficult to construct (the coal-fired plant and transmission line) prior to 2010."

A draft feasibility study completed this spring by Nuvista Light & Power Co. recommends construction of a coal-fired electric generation plant at Bethel, Alaska, plus construction of a 191-mile transmission line to the Donlin Creek gold project (pictured above) as the lowest wholesale power cost for the remote southwest Alaska region.

Other power supplies more costly

Another electric supply alternative considered by Nuvista is construction of a combined cycle power plant, either oil-fired or natural-gas fired, at Bethel or at Crooked Creek, a village in the upper Kuskokwim River valley 14 miles from Donlin Creek. Oil would be barged in, according to the study. Natural gas would be supplied via a pipeline built from Cook Inlet to Crooked Creek, or from a proposed shallow gas development in the Holitna Basin, about 50 miles southeast of Donlin Creek.

Other power supply alternatives considered by Nuvista but rejected as more costly were two types of transmission lines that would be built between the mine site and Nenana, Alaska, on the state's existing Railbelt power grid.

Canadian coal produces lowest cost power

Other power supply alternatives considered by Nuvista but rejected as more costly were two types of transmission lines that would be built between the mine site and Nenana, Alaska, on the state's existing Railbelt power grid. Nuvista previously evaluated those alternatives and found them to produce more expensive power than the Bethel coal-fired generation option. "Coal is by far the cheapest source of fuel per million Btu delivered to Bethel, averaging less than one-third the cost of petroleum based products," the study said.

Nuvista's study evaluated coal from eight different sources, including coal produced by the Usibelli Coal Mine Inc., in Healy, Alaska. Five of the eight coals considered are mined in Western British Columbia.

Two coals, produced by Kennecott Energy from mines along the Wyoming/Colorado border were also considered. Coal would be shipped by bulk freighters to Bethel's nearest coastal port facility, either Goodnews Bay or Security Cove, then loaded onto barges and lightered the 135 to 160 miles along Alaska's coast and up the Kuskokwim River to Bethel. The study recommends that Nuvista operate its own lighter service, purchasing three barges and a tugboat, cheaper than contracting with an independent barging firm.

Luscar coal shipped to Goodnews Bay or Security Cove would cost $43.25 per ton, or $1.99 per million Btu. A higher grade of Canadian coal, Fording Coal from the Black Bear Mine, would cost $55 per ton, or $2.25 per million Btu. Usibelli coal would cost $28.70 per ton, or $2 per million Btu, prices effective in January 2004, according to the study. Usibelli coal's heating value is 7,128 Btu per pound, versus 10,843 Btu per pound for Luscar coal and 12,284 Btu per pound for the Black Bear/Fording coal.

The study estimates that a power plant requiring 300,000 tons of Fording coal would require 500,000 tons of Usibelli coal to produce the same amount of power. Larger coal storage facilities, power plant equipment and increased expenses to move more coal, air and combustion gases would increase the project's capital costs by $35 million, and add $500,000 to annual operating costs. Additional lightering for Usibelli coal would also mean an increase of $1.1 million per year, increasing the per kilowatt hour costs for using Usibelli coal, the study said. ●

Try a little trust

The first miners arriving in Alaska 100 years ago focused on enduring the challenging environment, building some basic infrastructure and finding enough gold to survive. Long term environmental consequences were not a high priority.

Mining techniques have since changed with awareness, technology and with guidance from evolving regulations designed to ensure adequate protection of the nation's lands while allowing development of natural resources.

Patricia Liles (formerly Patricia Jones), Mining News editor

Since August 2000, developers of the Pogo gold project have been working with regulators to determine whether it is environmentally permissible to build an underground gold mine and mill complex in the upper Goodpaster River valley, northeast of Delta Junction, Alaska. Pogo's public approval process involved a total of 55 permits or authorizations from five different state agencies and eight federal agencies.

In September 2003, regulators released the 1,000-plus page final environmental impact statement, outlining their preferred plan of development. Pogo's developers began to receive authorizations, concluding with a water discharge permit approved by EPA in mid-March. Apparently, that's not enough regulatory scrutiny for a Fairbanks-based environmental group, which filed an appeal of EPA's water permit in April.

Construction crews are being sent home and work is stopping at Pogo. Estimates to complete the appeal cycle range from four months to a year. Already, this post-approval appeal has cost money and time, already a precious commodity in a tight construction schedule. And for what?

"We decide to trade a certain level of environmental impact for the project and now we're getting all the impact without any of the plus side-the jobs and economic impact to the community," said Ed Fogels, the Alaska Department of Natural Resources' project manager for Pogo. "Unfortunately there's a huge amount of disturbance that's already been done."

Pendulum has swung too far

The pendulum of environmental review has swung too far.

Environmental groups should raise issues early in the public review process, when constructive criticism can be helpful to regulators and developers. Waiting until after permission is granted gives the appearance of a desire to simply stop development, rather than an effort to resolve environmental concerns. Finally, environmental groups should trust the regulatory agencies and the public review process they helped create, rather than punish developers with paperwork maneuvers and abuses of the public's regulatory rights.

—**PATRICIA LILES,** Mining News editor

CANADA

Nickel shortage raises rationing specter

China's hunger for nickel could force producers to develop a rationing system, an analyst told the Prospectors and Developers Association of Canada.

Raymond Goldie, with Salman Partners, said supplies are about 6 percent behind demand, pushing the spot price for nickel above US$6 a pound on the London Metal Exchange — the highest level in many years.

He said the next 10 years "should be exciting ones" for the nickel explorers and producers, but the "next two or three years could be scary as we are forced to deal with rationing." While reluctant to forecast the extent of rationing, he said only that producers might be forced to hold orders at current levels.

Other than rationing, he said manufacturers could develop new materials to serve as alternatives to nickel or prospectors can discover new nickel mines.

Driven by a recovering global economy and soaring demand in China, the rapid rise in nickel prices will result in higher costs for major users of stainless steel.

New production due in 2006

The only relief in sight is the promise of new sources coming on stream in the second half of 2006, when Inco — which currently meets one-fifth of world demand — is scheduled to start production, about eight years behind its original target, at its Voisey's Bay project in Labrador.

Voisey's Bay was once designed to yield 122,000 tonnes of nickel a year, or 14 percent of global supply, but a series of delays has seen the project scaled down to 50,000 tonnes a year.

Beyond Voisey's Bay, 63 junior miners in Canada have raised C$156 million over the past couple of years to explore for base metals, including nickel, according to statistics compiled by Noranda and Falconbridge.

Goldie said the world outlook was compounded by setbacks for Australian laterite nickel ventures, which were seen as a threat to saturate the market with cheap nickel and deterred companies from investing in new projects.

In the interim, Russian nickel stockpiles have evaporated and "we are still haunted by the effects," he said.

The investment shortfall over the last decade has left the supply-demand picture in worse shape than for any other metal, although there is a squeeze on copper and aluminum, Goldie said.

The economic boom in China has seen that country increase its consumption of nickel from 200,000 tonnes in 1990 to 4.5 million tonnes, although China's industrial growth has slowed this year, with export gains moderating and the outlook raising some questions about the growth prospects.

—**GARY PARK,** Mining News Calgary correspondent

CORRECTION

Alaska Earth Resources Inc., a land-holding subsidiary of the Anchorage-based geological consulting firm Alaska Earth Science, is the staker of mining claims surrounding the Pebble deposit. A story in the April issue of Mining News incorrectly identified Alaska Earth Science as the claim staker.

Petroleum news

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NORTHWEST TERRITORIES

NWT aboriginal leaders oppose Canada's third diamond mine

Northwest Territories Native leaders have thrown a roadblock in the path of plans for Canada's third diamond mine — the Snap Lake project by De Beers Canada that was expected to open in 2008.

Akaitcho and Deh Cho chiefs in the lower Northwest Territories have ruled out another diamond mine until the settlement of their self-government claims is in sight.

Chief Peter Liske said the communities are more focused on treaty deals than mine development.

Akaitcho and Deh Cho chiefs in the lower Northwest Territories have ruled out another diamond mine until the settlement of their self-government claims is in sight.

Although the First Nations have supported the existing Ekati and Diavik mines, those operations are affecting the caribou.

"We have to do something and that's what the elders are saying, two mines are good enough for now," Liske said.

Other delegates to the Circle of Northern Leaders meeting in Hay River on April 7 say the wealth generated by Ekati and Diavik and the proposed Mackenzie Valley natural gas pipelines can also bring social problems to the region.

They argued the Northwest Territories and Canadian governments have a responsibility to resolve those concerns before they support mega-projects.

Meanwhile, Aber Diamond, which owns 40 percent of the Diavik mine, has appointed Thomas O'Neill as president as well as chief executive officer of Aber's Harry Winston jewelry retailing division.

O'Neill, who brings extensive experience in British retailing and marketing operations and served a stint as executive vice president with Tiffany & Co., is expected to help establish markets in Eastern Europe, Israel and Asia as Aber builds its retail business.

Since Diavik started production in 2002, Aber's share of diamonds has been sold through Tiffany's in the United States and its Antwerp office in Belgium.

But analysts believe Aber's best long-term future lies with high-end customers who can be accessed through Harry Winston.

—**GARY PARK,** Petroleum News Calgary correspondent

NORTHWEST ALASKA

Pipes cleaned at Red Dog mine

Despite lower production from some partially clogged pipes in its mill, Red Dog posted a $38 million profit for the first quarter, a dramatic turnaround from the $8 million loss reported for the same period in 2003.

Zinc production rates for Red Dog, the world's largest producer of zinc and Alaska's largest mine, dropped about 10 percent in the first three months of 2004, General Manager Rob Scott said in a telephone interview on April 29.

Lead production, more of a secondary mineral, declined about 6 percent, during the same period.

"We take three days to do general maintenance within the mill, to work on critical areas in the mill that can't be worked on during operation. It's a planned event, two times a year."
—Rob Scott, Red Dog

"We had a slowdown because pipes were restricted, caused by scaling in the pipes," Scott said. "We have quite high dissolved solids in our process water — it's hard water, no different from scaling in your own home's pipes — but it caught us off-guard, because it was a gradual build up."

Employees fixed the problem using a pig that was run through pipes connected to pumping devices. Gravity-fed pipes will be cleaned out using a high-pressure washing technique at the beginning of May, part of work that will be completed during a pre-scheduled twice-yearly plant shutdown.

"We take three days to do general maintenance within the mill, to work on critical areas in the mill that can't be worked on during operation," Scott said. "It's a planned event, two times a year."

Profitable first quarter reported

Red Dog's operator, Teck Cominco, reported a profitable first quarter at the remote mine and mill in Alaska's far northwestern region, part of its company-wide financial report discussed during an investor conference call on April 27. Revenues reported for the first three months were $109 million, a substantial increase over the $83 million in 2003. Teck Cominco reported a $38 million operating profit at Red Dog this quarter, compared to an $8 million operating loss posted in the first three months of 2003.

The first quarter revenue reported for Red Dog actually comes from sales of zinc and lead produced and shipped in late 2003. Red Dog's shipping season is roughly 100 days, starting in July and concluding in early October for the ocean-going barges carrying concentrate.

"With the slipping of production now, it doesn't affect sales for our first quarter," Scott said. "We still have an opportunity to make it up." Zinc concentrate production slipped to 130,000 tons for the first quarter, compared to 144,000 tons in 2003. Lead concentrate production also dropped to 27,000 tons, from the 29,000 tons reported in 2003. The total amount of ore milled at Red Dog during the first quarter was 670,000 tons, versus 804,000 tons in 2003.

—**PATRICIA LILES,** Mining News editor

● PAXSON, ALASKA

Airborne surveys kick off MAN work

Nevada Star, partner Anglo American plan geophysical work this summer for Fish Lake and Dunite Hill, drilling planned for Canwell

By PATRICIA LILES
Mining News Editor

A large portion of the 269-square mile MAN nickel, copper and PGE property on the south flank of the Alaska Range near Paxson, Alaska, will soon be assessed by proprietary geophysical technology used by Anglo American Exploration (Canada), a subsidiary of global mining giant Anglo American.

Anglo signed a joint venture agreement in mid-March with the property's claim staker, Nevada Star Resource Corp., a Vancouver, British Columbia-based junior that has put together a substantial land position in the south Interior Alaska mineral belt that stretches along the Denali and the Richardson highways. Anglo's agreement covers two areas of Nevada Star's MAN project — the Fish Lake and the Dunite Hill prospects, which make up 55 percent, or the southern portion, of the 269-square mile property.

Terms of the agreement allow Anglo to earn a 51 percent interest in Fish Lake and Dunite Hill by spending $12 million over a five-year period. If Anglo completes a feasibility study at its expense, the company is entitled to an additional 19 percent, putting ownership of the property at a 70/30 split. Anglo can earn an additional 5 percent by arranging production financing for both properties.

The remaining northern MAN property is divided into four project areas, Canwell, Rainy, Boxson and the Eureka Block. One area is known for past gold production, hosting five placer operations from the late 1800s through the early 1990s, said Nevada Star president, Robert Angrisano. The other three areas have significant showings of nickel and PGEs.

"It's our intention to find partners that will develop these four areas and eventually put the properties into production," Angrisano said. "Although Anglo has a 'first right of refusal' option on these other areas, we are actively talking to other companies about joint ventures on these projects. Anglo will have to choose to expand its program and financial commitment, or allow others to joint venture these projects."

Now the operator of the southern prospects, Anglo plans to survey the area with its proprietary airborne geophysical technology and equipment, Angrisano said. "The area was flown before by BLM (Bureau of Land Management-funded airborne geophysical surveys) but this is the next generation of technology," he said. Additional ground sampling will follow the new airborne survey work. The company may drill later this year.

"A few more things need to be determined or identified before drilling," Angrisano said. "There's a lot of work to be done in the analysis of data to determine drill targets." Drilling is easier on this property when snow is on the ground, he added. Anglo's budget for its portion of the MAN property is $500,000 this year, Angrisano said. "It looks like at this point they will spend at least that much, possibly more."

Environmental opposition for exploration

The joint venture announcement came on March 15, despite a letter-writing campaign to Anglo's board of directors mounted early in the year by environmental groups hoping to scuttle the major company's involvement. Angrisano said he was surprised by that opposition, which came mostly from letters written by people living outside of Alaska.

Platinum and palladium, elements contained in PGE mineralization, are "key building blocks" for fuel cell technology and a possible decrease in future use of

see **MAN** page 5

CANADA

Trial of Bre-X geologist set to resume

The attempt to pin blame in the massive Bre-X Minerals gold fraud drags on, with no hint of compensation for investors who lost an estimated C$3 billion.

A long-delayed trial of former Bre-X geologist John Felderhof is now scheduled to resume sometime between late October and early January, but the hearings are not expected to be completed until May 2005.

But Felderhof has reportedly been living in Indonesia, the Cayman Islands and Central America. He faces a maximum of two years in jail and C$150 million in fines, but is unlikely to ever appear at his own trial.

Meanwhile, various civil suits in the United States and Canada are hanging on the outcome of the trial.

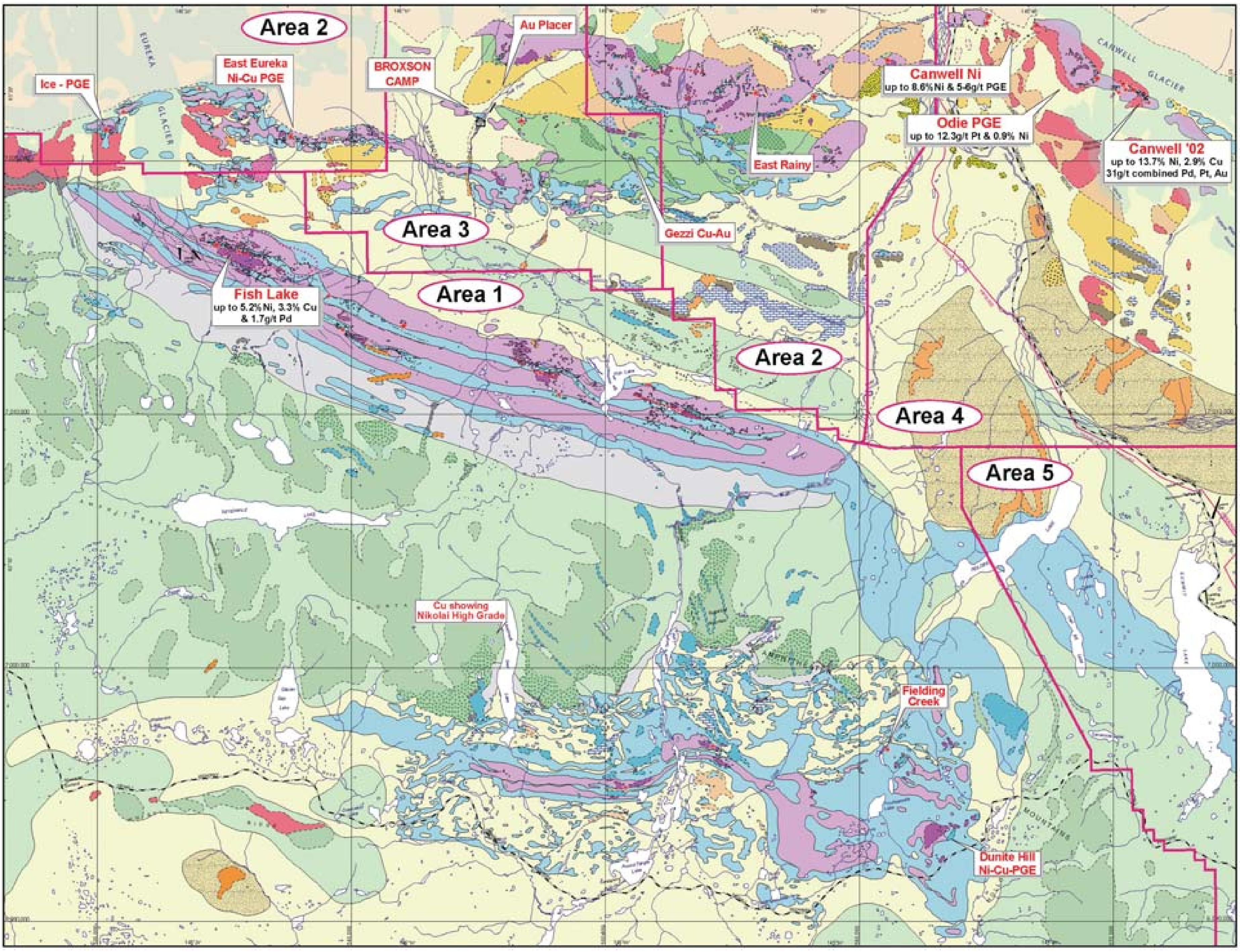
Even though Felderhof cannot be extradited, attorney Frank Marrocco, who is heading an Ontario Securities Commission prosecution team, said that abandoning the case "would not be good public policy ... otherwise we would be saying to people that if you flee the jurisdiction we won't proceed."

Felderhof is charged with eight counts of selling C$84 million worth of Bre-X shares in 1996 while aware that core drillings backing Bre-X's claims to a massive gold find in Indonesia had been "salted" with gold.

He is also accused of authorizing Calgary-based Bre-X to issue misleading press releases about the gold property.

The insider trading trial began in Ontario in 2000, but has been on hold for three years after Justice Peter Hyrn was accused by the Ontario Securities Commission of showing bias against the prosecution.

—**GARY PARK,** Petroleum News Calgary correspondent



COURTESY OF NEVADA STAR

continued from page 4

MAN

petroleum products. Demand for these metals has increased in recent months, driving up their per ounce prices, in particular for platinum, to near record highs.

"If we are ever to get rid of the internal combustion engine, we need to find new sources of platinum," Angrisano said. "That's the whole reason I've been involved in this company — fuel cells are designed to leave the planet a better place."

Attention to detail and concern for the environment drove his company to select Anglo over other companies for a partnership on the property, he added. "That's why we chose Anglo — they go the extra mile from a permitting and environmental standpoint, to do what's right," he said.

"We didn't choose smaller companies. We discussed it with two other companies wanting to work with us but they did not have as good of a track record as Anglo does." Anglo, the world's largest platinum producer, has a reputation for using the most advanced technology and techniques in the industry for discovery of new ore bodies, Angrisano said.

"This partnership is important to Nevada Star for two reasons. First, we wanted a partner that has the ability and resources to quickly identify an economic mineral deposit," he said. "Second, we wanted a partner that will be responsible and accountable to the community we operate in." Angrisano noted that Anglo contributed more than $38 million to community and social causes last year, out of annual revenues of more than $25 billion.

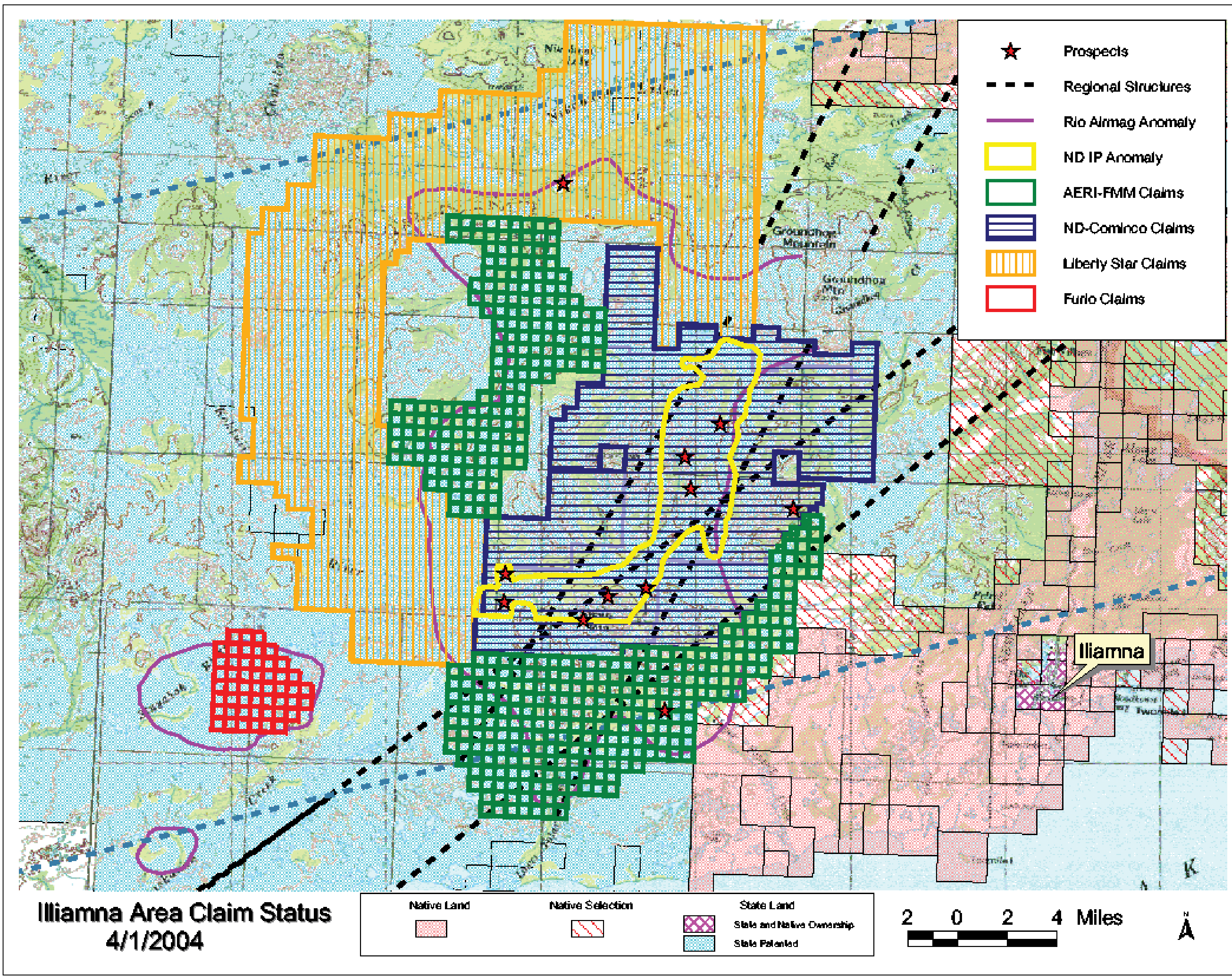
Canwell work continues

Independent of its joint venture with Anglo, Nevada Star plans to continue exploration work at its other prospects on the MAN property. The company is in the final planning stages with an approximate budget of $450,000, focusing on the Canwell, Rainy and Broxson areas.

"Some of the things we plan to do this summer include mag-inversion 3D modeling of the northern areas, rock and soils sampling, min/max survey of the Canwell area and drilling on the Canwell area," Angrisano said. "The min/max work will be done in July prior to drilling in August. Min/max helps further identify drill targets."

In order to reach the Canwell property, located east of the Richardson Highway, Nevada Star extended an old mining road by 3.5 miles in 2003, according to the company's annual reclamation report. Two core holes were drilled last year, and the company plans to drill an additional eight to 10 holes this year, according to its exploration permit filed with the Alaska Department of Natural Resources. Nevada Star will also refocus attention on the property's gold potential.

"A program of mapping, prospecting, and colluvium (soil) sampling will be carried out over the gold exploration target between Specimen Creek and Broxson," Angrisano said. ●



● ILIAMNA, ALASKA

Activity kicks up another notch at Pebble

Major claim stakers take to the ground, exploration programs start, Northern Dynasty bumps 2004 spending to $20 million

By PATRICIA LILES

Mining News Editor

The land has been staked — now the major players have taken to the ground to complete geological and geophysical work surrounding the Pebble gold-copper-molybdenum resource near Iliamna, Alaska.

Leading the way in terms of spending is Northern Dynasty, which is earning a 100 percent interest in the Pebble resource lands claim block — a 1,440 acre parcel that contains the estimated 26 million ounce gold resource and the 16.5 billion pound copper resource. Northern Dynasty, which conducted extensive drilling at Pebble in 2002 and in 2003, is also earning up to a 50 percent interest from Teck Cominco in the surrounding 72,600 acres of exploration lands.

Past exploration work by Teck Cominco identified a mineral-rich, 89 square kilometer induced potential anomaly, measuring 21 kilometers in length and up to nine kilometers in width, according to a Northern Dynasty press release.

That past work, combined with recent exploration by Northern Dynasty, has sparked a claim staking rush in the area. Geologists believe that Pebble is only one resource in a much larger porphyry system. Subsequently, more than 500 square miles of land has been staked neighboring Pebble in the last six months.

"It's cheek to jowl with lots of other folks — quite a rush area," said James Briscoe, president of Liberty Star Gold Corp., which holds the largest claim block in the Pebble area. "We think we have the position that makes the most logical sense." Pebble is about 17 miles northwest of Iliamna, on the north side of Iliamna Lake in southwest Alaska.

"We welcome all the new neighbors and we're sure we could share some infrastructure," said Bruce Jenkins, director of corporate affairs at Northern Dynasty. "We don't view it as competition. There's plenty for everyone."

2004 spending jumps to $20 million

Northern Dynasty plans to spend a minimum of $20 million on Pebble this year, up from earlier estimates of $15 million, Jenkins said in a telephone interview on April 30.

The increased budget is "mostly related to additional drilling, to delineate a pit and get a measured and indicated resource," he said. "We also have planned some additional geotechnical drilling." Total drilling footage scheduled for this year is 40,000 to 50,000 feet, he said. Closer-spaced drill holes are designed to move the Pebble mineralization estimate to a more defined category from its current inferred resource calculation.

Drill crews are already on site, completing some trenching. Some aquatic surveys have also started, Jenkins said. Camp and office facilities set up at the Iliamna airport will accommodate exploration, engineering and environmental consulting crews filtering in and out of the property this summer. Drill crews will stay in a temporary camp being set up at the project site.

Jenkins expects Northern Dynasty's summer workforce at Pebble will range from 30 to 50 people, he said. All are working towards a common goal — to gather enough information for a bankable feasibility study, scheduled for completion in May 2005, Jenkins said. Official permit applications to begin development will also be filed with state and federal regulators in early 2005, he added.

Environmental, engineering work begins

Northern Dynasty plans to spend a "major portion" of this year's budget on environmental consultants gathering baseline data needed for permit applications. Roughly $6 million to $7 million of the company's $20 million budget will go to environmental consultants, said Jenkins, who was in Anchorage on April 30, meeting with 44 representatives of those consultants.

Primary environmental consultants include CH2M Hill, ABR, Three Perimeters, HDR Alaska, RDI and Bristol Environmental & Engineering Services Corp.

Northern Dynasty has also initiated contact with regulatory agencies that will oversee development at Pebble.

see PEBBLE page 7

● CENTRAL ALASKA

New life for Nixon Fork mine near McGrath

Mystery Creek Resources drilling at shuttered underground gold-copper mine; permits submitted to restart production late this year

By PATRICIA LILES
Mining News Editor

Gold and copper production at the shuttered underground Nixon Fork mine, about 30 miles northeast of McGrath in central Alaska, may restart at the end of 2004.

Mystery Creek Resources Inc., a wholly owned subsidiary of publicly traded St. Andrew Goldfields Ltd., submitted a new five-year plan of operations for Nixon Fork to regulators in March. The mine has been closed for five years.

Mystery Creek plans to refurbish the existing mill, change the extraction process to allow for gold and silver dory production on-site, drive new tunnels connecting two drifts and start production by the end of the year.

Capital costs to start production at Nixon Fork are estimated at $10 million, said Mystery Creek President Paul Jones, in a telephone interview April 30. Once producing, cash operating costs have been estimated at $265 per ounce of gold.

"There is certainty, subject to permitting," Jones said, about the project's future. "It's been a good process. We've been pushing pretty hard on the permits — we tell them we need them in August, but we realize they've got other things they're working on."

MYSTERY CREEK RESOURCES

Gold and copper production at the shuttered underground Nixon Fork mine, about 30 miles northeast of McGrath in central Alaska, may restart at the end of 2004.

Consolidated Nevada Goldfields Inc. started production at Nixon Fork in 1995, building a 165-ton per day ball mill, a 50-person camp and a tailings dam and water containment system. A crew of 60 workers produced gold and copper concentrate flown out of the remote mine site to Palmer, Alaska, then shipped to Japan for final processing.

Real del Monte Mining Corp. took over operations in 1998. The mine finally shut down in mid-1999.

"The last year they operated, the grade ran 42 grams per ton (1.3 ounces per ton)," said Jones.

Unmined mineralization identified by past exploration work includes an indicated resource of 71,900 ounces, and an inferred resource of 64,400 ounces. Average grade is about one ounce of gold per ton of rock, Jones said. At the mill's planned production rate of 50,000 ounces per year that would be about a three-year mine life, Jones said. But he is optimistic that additional mineralization will be found, extending operations. "We submitted permits for the next five years," he said.

Drilling work in progress

While permit applications are being reviewed by regulators, Mystery Creek is conducting exploration drilling from underground workings to identify additional ore for future mining, and to delineate mineralization in order to establish a new mine plan.

"There are several places we know that there is more ore," Jones said. "We may connect the Crystal and the Mystery declines, because there are areas (of mineralization) in between."

In addition, there is another known mineralized area about two miles south of the existing mine workings.

"That would be a different decline," Jones said. "We have not had even a chance to touch that area."

Crews started drilling early in the winter, and will continue with the underground drill work into the summer, Jones said. A crew of eight to 12 people has been on-site this winter for the drilling work. "That will increase as we start working on the mill-double that," Jones said.

According to a Feb. 2 St. Andrew press release, Mystery Creek plans to complete two phases of exploration core drilling this year, for a total of 31,500 meters, more than 100,000 feet. Spending for the first phase was budgeted at $945,000.

The second phase of drilling, scheduled to be complete by June, is estimated at $2.3 million, according to a St. Andrew press release. Data from the drilling will be used to determine a new resource for Nixon Fork, a number which should be calculated and released later this year, Jones said. A definitive feasibility study is also scheduled to be released this summer.

Maintenance work started, sorely needed

Mystery Creek plans to conduct some needed maintenance to the existing facilities this spring and summer. Some work has already started, including drilling water wells in a nearby drainage called Ruby Creek to check for possible water injection sites.

Some of the old mine workings, which extend to 1,000 feet below the ground's surface, have water that needs to be pumped out, Jones said. "When the mine shut down, they were down to the water table, so we're looking at how to get rid of the water," he said. "It's not as bad as it first looked. It's really resolvable."

Mystery Creek also plans to clear out some diversion ditches surrounding the tailings pond, which have filled in with no maintenance for the last five years.

In addition, holes in the pond liner need to be repaired. Jones said that local wildlife, probably caribou, walked out on the pond liner to get to water that pooled on the surface, punching holes with their hooves. "There's about a dozen of those hoof holes we need to patch," he said.

Additional water monitoring wells will be drilled below the tailings pond, he said, and the company plans next year, with regulatory approval, to raise the height of the tailings dam by 20 to 25 feet, adding capacity for future mine operations. "There's been absolutely no maintenance since it closed down in 1999," he said.

Process change proposed

Mystery Creek has also submitted as part of its new plan of operations a proposal to change the mineral extraction

see NIXON FORK page 8

Uncle Sam property near Delta Junction gets new look

Another subsidiary of St. Andrew Goldfields Ltd. has taken an option on an Interior Alaska property called Uncle Sam, formerly held by Kennecott Exploration.

Perth, Australia-based Geoinformatics Exploration Ltd. acquired an interest last year in the Uncle Sam property east of the Richardson Highway and north of Delta Junction. St. Andrew holds a 41 percent interest in Geoinformatics, which is a geoscience and technology based exploration company.

"They've developed some very sophisticated geological computer software. They do three dimensional modeling of properties," said Paul Jones, executive vice president of St. Andrew Goldfields and president

see UNCLE SAM page 8

continued from page 6

PEBBLE

"The environmental permitting officially kicked off March 17 and we're officially engaged with DNR, EPA and the Corps," Jenkins said. "It was an informational meeting to plan our official, formal application for next year."

Knight Piesold has also been retained as the company's primary engineering consultant, he said.

Northern Dynasty, which is a Hunter Dickinson-managed company, has also opened an office in Anchorage, in the midtown Calais Building. Employees will move in during early May. "We physically need to be there sometime next week, and it will be officially open before the end of the month," Jenkins said, also on April 30. Initially four to five workers will work out of the Anchorage office, he said. It could go up to six or eight.

AES and Full Metal hit the ground

Anchorage-based Alaska Earth Sciences is already working this month in the Pebble area, on a portion of the 115.5 square mile claim block that its sister company staked last December and optioned to Full Metal Minerals.

"We're getting ready to fire up a geophysical program," Bill Ellis, part owner of AES, said on April 29. A crew of five traveled to Iliamna and began work the first week of May on a small induced potential program, conducting the ground geophysical work on about 10 kilometers of ground.

"It's really reconnaissance work, wide spaced lines," Ellis said. "We'll get some rough background in an area that's totally covered by glacial moraine. It's within the magnetic anomaly (previously outlined), so we'll see if any sulfides are associated with it."

Ellis and his partners in Alaska Earth Resources Inc., staked an initial 28 square miles neighboring Pebble last December, then went back in early 2004 to stake more ground.

The land package was optioned to a new Vancouver, B.C.-based junior, Full Metal, which is in the process of being listed for public trading. The induced potential work this month should be completed in a week to 10 days, Ellis said. Then crews will pull out, wait for spring breakup, and return for additional ground geophysical work beginning in June.

Liberty Star completes airborne program

In addition to staking the largest-ever one-time acquisition of state mining claims, Liberty Star has completed its large airborne geophysical mapping program.

"We're still essentially massaging the data. The flying is complete and everything is in the computer," said Briscoe, on April 29. "It looks very, very good."

Crews spent much of March and part of April completing the airborne geophysical surveys on a 1,402 square mile block of land in the Pebble area. Briscoe's company plans to dispatch crews to the area in mid to late May, to begin the follow-up ground work, taking geochemical samples and looking for any exposed rock. Up to 15 people will work on the project during the four month summer season, he said.

His crew will stay in Iliamna, and helicopter out to the claim site each day. "It's close enough that it doesn't justify the expense of a permanent field camp." Fairbanks-based Avalon Development will work as the company's geological consulting firm, he said. Liberty Star Vice President Phil St. George, a long-time geologist in Alaska credited with discovering Pebble in 1987, will also be on site.

"Everyone is working the same old properties," St. George said. "It's bold to go look in some new spot that hasn't been hammered." Liberty Star's $3 million budget for its Pebble area project, called the Big Chunk, will include drilling later in the summer. ●

VANCOUVER, BRITISH COLUMBIA

Ivanhoe executives reap rewards of hot share price, cashing in on stock options

Executives of Ivanhoe Mines have cashed in on stock options to fatten their modest salaries.

When shares of the Vancouver-based company took flight last summer, several of the top managers seized the chance to exercise their options.

Deputy Chairman Gordon Toll, who made C$261,000 in salary and benefits, unloaded more than 1.2 million stock options for a gain of C$11.35 million.

Daniel Kunz, who resigned as president a year ago, collected C$38,000 in salary and benefits before he quit, but cashed in 362,400 options for total compensation of C$3.3 million.

Edward Roberts, senior vice president of legal and administration, took home C$2.1 million, with C$1.9 million coming from stock options and Senior Vice President of Exploration Douglas Kirwin boosted his total package for the year to C$1.1 million by cashing in C$825,000 in options.

But company founder, Robert Friedland, who serves as chairman and chief executive officer, received no salary or bonus and did not touch his 1.5 million options.

At current trading values, Friedland's direct and indirect holdings in the company are valued at about C$800 million.

Ivanhoe had a blazing run last year, with shares starting at C$3.27 and climbing to C$15.30 before closing 2003 at C$10.30. They are now trading at close to C$8.

The share gains last year were propelled by encouraging drilling results at the Oyu Tolgoi copper-gold deposit in Mongolia that set off speculation the find is one of the largest undeveloped projects in the world.

There has been speculation that the Oyu Tolgoi stake could be sold to a joint venture partner, with Phelps Dodge named as the likely bidder. Vancouver-based Teck Cominco could also be interested in acquiring a stake, said company Chairman Norman Keevil.

—**GARY PARK,** Petroleum News Calgary correspondent

DELTA JUNCTION, ALASKA

Mine training center leases state rock quarry

The Delta Mine Training Center, a non-profit organization based in Delta Junction, Alaska, has finalized a lease with the state for its training property.

The 40-acre site about 30 miles east of Delta Junction near the Alaska Highway has been used by the training center under a land use permit, according to Executive Director Whit Hicks.

The former rock quarry, first used by the Alaska Department of Transportation for an industrial minerals site, was closed by the state when an archeological site was discovered nearby.

Mine training classes from Delta have been working on a portal being dug into the rock face, providing hands-on experience in working with specialized underground mining equipment, Hicks said.

The recent announcement transfers the property into a lease, with no charge for the training center, he said.

Delta Mine Training Center first began offering basic geological instruction in the late 1990s when developers of the Pogo deposit kicked off large exploration programs, including construction of an underground tunnel to access mineralized material.

Now the training center offers instruction required by the Mining Safety Health Administration, 40 hours for underground mining and 24 hours for surface mining. The center also offers a four-hour course, mandatory for vendors delivering items to the project.

Pogo, being developed as an underground mine, will require a substantial number of workers with those skills and training.

"Alaska does not have a heritage of underground mining here, where you have the second or third generation of family working in the mines," Hicks said. "A majority of the folks around here have not seen a large scale underground mine. They have skills of operating equipment, but it's a unique, very different environment working in an underground mine."

Once complete, Pogo will employ about 300 workers, mill operators as well as underground miners. "We want Alaskans to have a chance to get a shot at those jobs," Hicks said.

Since July 1, 2003, 523 people have completed either the underground or the surface mining classes at the center, said Al Carr, program coordinator at the training center.

In addition, contractors working to build the Pogo mine site are required to employ people who have completed the 24-hour surface mine training, as well as a first aid and CPR training.

Hicks and his staff of 12 have been busy in recent weeks, providing that training, he said. "It's been non-stop since Christmas," he said. "We keep getting promises of a lull … but it hasn't come yet."

He expects a continued need for the surface and underground mining training, even after Pogo construction is complete and mine operations begin.

Expansion of the Pogo mill throughput could generate a need for more miners, Hicks said, and the center plans to offer refresher and advanced training courses.

In addition, plans to restart the Nixon Fork underground gold mine in the Interior and development of the Kensington gold project near Juneau could provide an additional stream of workers needing underground mine training.

Construction of a mine at the Donlin Creek gold deposit in southwest Alaska could also provide another large source of mining-related jobs. "We're here to support all of that," Hicks said.

—**PATRICIA LILES,** Mining News editor

● NORTHWESTERN BRITISH COLUMBIA

Galore Creek land package increased

SpectrumGold stakes claims, signs multiple land agreements to add to company's in northwestern B.C. land package

By PATRICIA LILES
Mining News Editor

SpectrumGold signed four property agreements this spring and staked claims surrounding the company's Galore Creek gold-silver-copper deposit in northwestern British Columbia. A 56 percent owned subsidiary of NovaGold Resources, SpectrumGold's tally for new land acquisitions surrounding Galore Creek is 52,450 acres of land.

Total acreage in the district now controlled by SpectrumGold is 74,000 acres, according to a company press release issued on April 8. In that release, SpectrumGold announced its agreement to purchase a 100 percent share in the Paydirt property, consisting of 2,700 acres, and the Copper Canyon property, covering 700 acres. SpectrumGold is acquiring those two properties from Silver Standard Resources Inc. and Teck Cominco Ltd., the press release said.

In a March 29 release, SpectrumGold announced two other land deals and a large claim staking effort designed to increase the Galore Creek land package. A deal with Pioneer Metals Corp. will give SpectrumGold a 60 percent interest in the Grace property, 6,200 acres of land that directly adjoins Galore Creek on its northern border. That agreement requires SpectrumGold to spend C$5 million on exploration over five years.

SpectrumGold must also subscribe for C$1 million in units of Pioneer Metals, at C25.5 cents per unit, a private placement subject to regulatory approval.

SpectrumGold also signed another agreement with Silver Standard to acquire a 100 percent interest in the Jack and Spaler Creek claims, for a total of 850 acres. SpectrumGold is issuing 50,000 shares to Silver Standard for the Jack claims and 46,177 shares to Silver Standard and $96,845 to Doublestar Resources Ltd. for the Spahler claims.

SpectrumGold also acquired additional ground, 42,000 acres, by claim staking in the area surrounding Galore Creek.

"Management believes that the consolidation of these properties in the Galore Creek district will provide significant potential synergies for development of the Galore Creek deposit," the company said in a press release. "SpectrumGold plans to advance these projects as part of its overall Galore Creek program."

A historic resource estimate of Galore Creek, completed in 1992 by Kennecott Exploration, estimated a measured and indicated resource containing 3.6 million ounces of gold, 47 million ounces of silver and 4 billion pounds of copper. The company reported additional mineralization in an inferred resource including 1.4 million ounces of gold, 14 million ounces of silver and 920 million pounds of copper. Those estimates were based on nearly 500 drill holes totaling more than 100,000 meters of core samples, according to a SpectrumGold press release.

Share exchange to be completed in mid-June

In late March, NovaGold and SpectrumGold announced plans to combine their businesses in a share exchange plan, in which NovaGold will acquire the remaining 44 percent of the common shares of SpectrumGold not currently held by the company. According to the April 8 release, that transaction is anticipated to be finalized in mid-June.

NovaGold is currently advancing its 1

see **GALORE CREEK** page 9

continued from page 7

NIXON FORK

process, in order to reduce shipping costs. Previously, Nixon Fork ore was ground up, producing a bulk sulfide concentrate containing copper, gold and silver. That material was shipped in one ton super sacks via air from Nixon Fork to Palmer, then on to Japan for refining.

Mystery Creek plans to split the process circuit, adding a gravity circuit and leaching out the copper mineralization, leaving gold and silver to be poured into bars for shipping. The remaining copper material would be stored for future removal, Jones said. "We'll look at how to get that out of there," he said. "We might take it out on a winter trail." ●

continued from page 7

UNCLE SAM

of Mystery Creek Resources, a wholly owned subsidiary of St. Andrew.

A Geoinformatics company spokesman declined to comment on the Uncle Sam acquisition, due to a pending business deal.

Geoinformatics plans to seek a listing on the TSX Venture Exchange by a reverse takeover transaction with MinRes Resources Inc., announced in a St. Andrew press release on Feb. 5. The transaction will constitute a reverse takeover of MinRes by Geoinformatics and it is planned to change the name of MinRes to Geoinformatics Explorations Inc., the company release said.

According to a summary in the state of Alaska's Mineral Industry 2003 report, the St. Andrew subsidiary taking over Uncle Sam must spend $250,000 on the project over the next five years. Kennecott retains a 2.5 percent net smelter return for a production royalty.

"Gold mineralization previously identified by Kennecott is predominantly shear hosted in the metamorphic country rock with additional local zones of hydrothermal breccia and sulfide veining," the state report said. "Geoinformatics reinterpreted existing data at the Uncle Sam property, made a first pass three-dimensional model of structures intersected by previous drilling, and completed a geochemical and structural comparison of mineralized zones at the Uncle Sam property with published work on the Pogo deposit," the report said.

—**PATRICIA LILES,** Mining News editor

● COLUMN

Prices remain strong as Alaska prepares for this summer's exploration season

Interior, central Alaska Range, Alaska Peninsula and Southeast are exploration hot spots; plus several Brooks Range projects in the works; strong cash flow from mines results in mine and mill plant upgrades, mine-site exploration

By CURT FREEMAN

For North of 60 Mining News

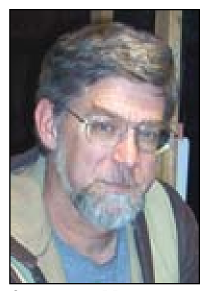
Metals prices remain strong and funding for projects large and small is already in place or nearly so as Alaska prepares for the annual summer exploration dance. Exploration drilling on several winter drilling targets has been completed and summer drilling projects are beginning on several others.

Mine permitting issues at Pogo have cast a shadow over the otherwise bright picture of Alaska's mining industry but resolution of this problem is expected sooner rather than later (see story on page 12).

Exploration hot spots for the coming months will be Interior Alaska, the central Alaska Range, the Alaska Peninsula and Southeast Alaska. Several Brooks Range projects are expected to take place in this long-ignored part of Alaska. Commodities of interest in these areas include gold, silver, copper, lead, zinc, molybdenum, nickel, diamonds, platinum and palladium.

With sustained strong metals prices, Alaska's operating mines are enjoying a long-overdue period of strong cash flow, much of which will be ploughed back into mine and mill plant upgrades and mine-site exploration efforts.

The author



PATRICIA LILES

CURT FREEMAN

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Western Alaska

TECK-COMINCO'S Red Dog mine saw dramatically improved operating profits in the first quarter of 2004 as a result of increased zinc and lead prices which averaged 50 cents and 40 cents per pound, respectively. These prices represent a 39 percent increase in zinc prices and a 90 percent increase in lead prices over the first quarter of 2003. Operating profit rose to $38 million versus an operating loss of $8 million in the same period in 2003. For the quarter, the mine generated 130,400 tonnes of zinc and 26,500 tonnes of lead in concentrate versus 144,000 and 29,000 tonnes of zinc and lead, respectively, in the first quarter of 2003. The mine sold 147,000 tonnes of zinc during the first quarter. Average zinc and lead grade mined was 22.8 percent and 6.2 percent versus 21.2 percent and 5.8 percent, respectively, in the first quarter of 2003. Mill throughput of 670,000 tonnes in the first quarter was 17 percent below first quarter 2003 output due to constrictions in the mill processing and tailings lines.

Teck-Cominco's Red Dog mine saw dramatically improved operating profits in the first quarter of 2004 as a result of increased zinc and lead prices which averaged 50 cents and 40 cents per pound, respectively. These prices represent a 39 percent increase in zinc prices and a 90 percent increase in lead prices over the first quarter of 2003.

FULL METAL MINERALS recently announced that it has acquired the Kamishak copper-gold porphyry prospect on the Alaska Peninsula near Cook Inlet. Previous work on the property by **AMERICAN COPPER AND NICKEL** in the early 1990s included 17 shallow drill holes which returned values of greater than 0.35 percent copper and greater than 1 gram gold per tonne over 75 meters with narrow higher grade zones reaching greater than 1 percent copper and 12 grams gold per tonne. Mineralization is hosted in two breccia zones cutting Jurassic age biotite-hornblende diorite intrusive rocks. The breccia zones sit within a larger magnetic high measuring 2.5 by 3.3 kilometers in size. The company has recommended regional scale mapping and sampling within the magnetic high followed by more detailed geochemical sampling and induced polarization geophysical surveys in prospective drill target areas.

Eastern Interior

TERYL RESOURCES said project operator **KINROSS GOLD** has delivered the 2003 final report on its Gil project in the Fairbanks district. The report indicated that the 2003 exploration program consisted of 127 reverse circulation drill holes totaling 28,000 feet, 31 core holes totaling 8,917 feet, four trenches totaling 1,150 feet, and 358 rock samples collected from surface exposures. Additional work included geologic mapping, reclamation, surveying, and environmental baseline studies. The focus of the exploration program was increasing the level of confidence in the grade and continuity of mineralization at both the Main and North Gil deposits. This work succeeded in increased confidence of grade and continuity between holes and in expanding mineralized limits of both zones. Exploration work also took place along Sourdough Ridge, the intersection of the Main and North Gil trends, and in the western portion of the joint venture claim block near the Fort Knox mine.

Bravo Venture Group and partner Olympic Resource Group said work has begun on the companies' Woewodski Island massive sulfide project near Petersburg.

Sourdough Ridge fieldwork outlined two significant calc-silicate units that crop out on surface for approximately 300 feet in a northeast-southwest trend and remain open to the northeast. In the Intersection Area drilling confirmed strong gold values in trenching and outlined an east-west trend to the mineralization. One drill hole was collared in the western portion of the joint venture claim block but did not intersect significant mineralization.

TERYL RESOURCES also reported results from phase one reverse circulation drilling on its West Ridge gold project in the Fairbanks district. The company reported 2,650 feet of drilling was completed in six reverse circulation drill holes in the Old Glory prospect area where previous soil, rock and trench results had revealed the presence of significant gold mineralization. All of the holes encountered anomalous gold mineralization with hole WR04-04 returning 35 feet grading 1.68 grams of gold per tonne including a 20 foot section that returned 2.2 grams of gold per tonne. Gold mineralization is preferentially hosted in quartzite and quartz mica schist and consists of brecciated zones containing sulfides and polyphase quartz veining. Mineralization is open to expansion in all directions. Additional drilling is planned for the project.

The worst news of the year came on April 13 when Fairbanks-based **NORTHERN ALASKA ENVIRONMENTAL CENTER** filed an appeal challenging the U.S. Environmental Protection Agency's wastewater discharge permit for **TECK-COMINCO** and **SUMITOMO METAL MINING'S** Pogo gold project in the Goodpaster District. The challenge came three days before the end of the appeal period and forced Teck-Cominco and Sumitomo Metal Mining to halt construction and lay off more than 300 construction workers active on the project. The action produced a storm of protests from state and local governments, civic organizations, labor unions, corporations and individuals around the state who saw the challenge as having no merit due to the exhaustive four-year permitting process recently completed by the mine's owners, the EPA and the Alaska Department of Natural Resources. A local mediator has been hired and talks aimed at resolving the appeal are due to begin in early May. (See story on page 12 and previous stories every week in Petroleum News since the appeal was filed.)

see FREEMAN page 10

continued from page 8

GALORE CREEK

million ounce gold deposit called Rock Creek, just outside Nome, Alaska, and plans to start work later this summer on its recently acquired Ambler property, a large gold-silver, copper and base metals target in the remote northwestern part of Alaska. An agreement with Kennecott will give NovaGold a 51 percent interest in the Ambler property, contingent on NovaGold's spending $20 million on the property by 2016. As operator, NovaGold must spend $5 million in the first five years of the agreement.

Previous exploration on Arctic, the most advanced target on the Ambler property, identified an inferred resource containing 817,000 ounces of gold, 62.1 million ounces of silver, 3.2 billion pounds of copper, 4.2 billion pounds of zinc and 640 million pounds of lead.

NovaGold also holds an interest in the Donlin Creek project, which Placer Dome is currently working to develop. Located in the upper Kuskokwim River of southwest Alaska, Donlin Creek is estimated to contain almost 28 million ounces of gold. ●

FAIRBANKS, ALASKA

Work planned for Gil, no budgets submitted yet

Kinross Gold and its partner in the Gil project, Teryl Resources, plan exploration this year at the prospect some seven miles east of the Fort Knox gold mine and mill complex.

But exploration budget plans have not yet been finalized, according to Teryl's president, John Robertson. He's waiting to hear from planners in Kinross' corporate office to find out what his company's share of exploration spending at Gil will be this year. Kinross holds an 80 percent interest in Gil, and serves as the project's operator. Teryl holds the remaining 20 percent.

"We just raised a million dollars, so we have the money for our part," Robertson said, on April 30. "We're anxious for them to give us a budget." He was pleased to hear that Kinross, through its mine operating subsidiary Fairbanks Gold Mining Inc., plans to work at Gil and at other surrounding prospects this year.

In a letter submitted to the Alaska Department of Natural Resources outlining its reclamation work and bond pool, Fairbanks Gold said 2004 exploration activities will include soil sampling, trenching, core and reverse circulation drilling.

"The majority of work at the Gil Project will take place at the North and Main Gil areas. Sourdough Ridge and other prospects will garner less attention," Clyde Gillespie said in the April 14 letter. "Exploration activities will also be conducted at Dark Hollow, Last Chance Creek and Fourth of July Hill."

Details about 2004 exploration plans were not included in the letter. Gillespie wrote that the areas were included in original exploration applications and did not require an amendment to permit this year's activity.

Last year, the joint venture spent about $1.6 million on Gil, Robertson said. That included 127 reverse circulation holes totaling 28,000 feet, 31 core holes totaling 8,917 feet, four trenches totaling 1,150 feet and 358 rock samples collected for assaying, according to an April 21 press release from Teryl.

—PATRICIA LILES, Mining News editor

Teryl hits gold at West Ridge

All of the first six drill holes punched this spring on Teryl Resources' West Ridge property near Fairbanks, Alaska, encountered anomalous gold mineralization, according to a company press release issued April 28.

Drilling work completed between March 16 and April 1 included 2,650 feet of reverse circulation drilling at the Old Glory prospect at West Ridge. Teryl's 100 percent owned West Ridge property is just south of the True North Mine, a Fort Knox satellite mine operated by Kinross Gold from 2001 through early this year.

A budget for additional exploration, to include more auger drilling, ground geophysics and reverse circulation drilling, will soon be announced, company president John Robertson said.

Kinross announced plans in March to temporarily stop mining at True North this spring and summer for three to seven months. Earth-moving equipment will be used for a tailings dam lift at Fort Knox, the company said.

Teryl's drilling at the neighboring Old Glory prospect produced a 35-foot section grading 0.049 ounces of gold per ton of rock, including a 20-foot section that graded 0.064 ounces.

"Based on encountering a 35-foot intersection of potentially economic grade gold mineralization, additional reverse circulation drilling is warranted within the area previously covered by soil auger drilling," the company said in its press release.

A budget for additional exploration, to include more auger drilling, ground geophysics and reverse circulation drilling, will soon be announced, company president John Robertson said.

"There's some targets we want to keep pursuing," he said in a telephone interview on April 30. "One economic zone — we want to trace where it goes using more detective work, more geophysical work at where it comes to the surface."

Geochemical results were released from one drill hole, ranging from the 395 to 430 foot level. Elevated levels of arsenic are associated with the gold mineralization, according to the lab results.

"Gold mineralization is preferentially hosted in quartzites and quartz mica schists and consists of brecciated zones containing sulfides and polyphase quartz veining," the press release said. "Mineralization is open to expansion in all directions."

—PATRICIA LILES, Mining News editor

● JUNEAU, ALASKA

Exploration activity up at Greens Creek

Largest surface exploration program at polymetallic mine since production started in 1989, tailings expansion project begins

By PATRICIA LILES
Mining News Editor

Operators of the Greens Creek polymetallic mine started surface core drilling in late April, the beginning of a summer long program designed to complete 40,000 feet of drilling at several targets surrounding the underground mine near Juneau, Alaska.

The $1.9 million budgeted for surface drilling work this year is the largest surface exploration program at the mine since production began in 1989 at Greens Creek, said Bill Oelklaus, environmental manager. "There are eight different areas around the mine" that will be explored this summer, he said in a telephone interview on April 30.

Greens Creek, one of the world's largest silver producers, also extracts gold, zinc, lead and copper from its ore mined from underground workings on the northern end of Admiralty Island, 18 miles from Juneau. Most of the surface exploration activity will be to the west of the existing mine workings, but there are targets in all different directions, Oelklaus said.

"We have high expectations to find more of this kind of (mineralized) material."

The increased surface exploration will be completed in addition to an underground exploration program, Oelklaus said. Another 40,000 feet of core drilling will be completed in the underground workings, work expected to cost $2 million, which is the company's typical annual investment for the underground work, he said.

"We've been active a lot of years (on the surface) but not near at this level. We're putting a lot more effort towards it," Oelklaus said.

Extending mine life

Oelklaus credits an increase in metal prices for the boost in the surface exploration program.

"A lot of it is metal prices. We're making good money and are interested in recycling it back into extending the mine life," he said.

Existing mineral reserves at Greens Creek provide an estimated mine life of 10 to 12 years. "We're hoping to extend that some more," he said.

Last year's exploration found significant polymetallic mineralization across a fault thought to truncate the large ore body, according to a summary of the Alaska's Mineral Industry 2003 report.

"Drilling of exploration targets on the west side of the Gallagher fault produced interesting results," the state report said. "The most significant find was a 10.3 foot drill interval that assayed more than 45 ounces of silver per ton. The intercept is across the Gallagher fault, an area that has never been mined or explored before. "This intercept increases the probability of finding a continuation of the ore body on the other side of the fault, which could add significant mine life to this already long-lived resource," the state report said.

Tailings expansion work begins

In conjunction with the additional exploration work, Greens Creek has also started a construction project needed to accommodate tailings created by future production. The mine's operator, Kennecott Greens Creek Mining Co., received final regulatory approval in early February to begin construction of a tailings disposal expansion project. Ground clearing and rock quarry work began in late April, Oelklaus said.

Construction costs for the tailings expansion project are estimated at $2 million to $3 million. The tailings storage footprint will expand from 29 acres allowed under old permits to 62.2 acres. Total land leased to the company after the expansion is 123 acres, up from 56 acres under the existing permit.

Kennecott will also be required to add carbon to tailings to enhance sulfate reduction, following a 30-month study to determine how much carbon should be added, what form will be most effective and how to incorporate the material in tailings.

The expansion will allow for another 20 years of production at Greens Creek. At its current production rate and with no expanded tailings disposal, Greens Creek would have run out of space in February 2005.

Greens Creek currently employs 260 workers and in 2003, milled a record 782,100 tons of material, according to the state report. Greens Creek metal production in 2003 includes 11.7 million ounces of silver, 99,500 ounces of gold, 76,700 tons of zinc, 27,900 tons of lead and an estimated 1,500 tons of copper. ●

continued from page 9

FREEMAN

Alaska Range

GOLCONDA RESOURCES and **SHEAR MINERALS** said follow-up drilling was planned for its Shulin Lake diamond project west of Talkeetna. Two holes completed on the project last fall intersected a volcanic sequence of sandy tuffs and fine ash suggestive of a volcanic center. Diamond indicator minerals selected from these two holes show a chemical composition similar to eclogitic minerals found in lamproitic environments where diamond deposition is favorable. The joint venture plans to drill 10 holes for a total of 3,000 feet to test different areas of this circular structure in an effort to intersect volcanics with higher olivine content where diamond potential is most favorable.

Southeast Alaska

BRAVO VENTURE GROUP and partner **OLYMPIC RESOURCE GROUP** said work has begun on the companies' Woewodski Island massive sulfide project near Petersburg. They are planning an initial eight hole, 1,500 meter diamond drill program scheduled to commence in early May. Three distinct targets will be tested with a focus on the Mad Dog zone where previously reported high-grade mineralization included up to 44 ounces of silver per ton, 27.6 percent zinc and 16.3 percent lead from chip samples and 17.4 ounces of silver per ton, 21.3 percent zinc and 6.78 percent lead from a 1.5 meter channel sample.

Other

COEUR D'ALENE MINES announced appointment of Troy Fierro to the position of senior vice president of **COEUR ALASKA**, the corporate entity that will manage the advanced stage Kensington gold project near Juneau. The company also announced that Tim Arnold will become vice president and general manager of the Kensington project with primary duties being permitting and construction of the planned Kensington mine. Welcome to Alaska Troy and Tim! ●

● BENIN, WEST AFRICA

West Africa mining operation for sale

Alaska miner moves to West Africa, bootstraps successful operation, now owns full rights to gold property with hard rock prospects

By PATRICIA JONES
Mining News Editor

Looking for a placer gold mine opportunity? Not afraid to travel abroad? Ross Novak of Fairbanks, Alaska, has the perfect opportunity to take over his working placer gold mine with hard rock mineralization outcrops also on site, in West Africa.

Four years ago, Novak took the plunge and started up a placer gold mine in the northern part of Benin, a small but politically stable country in West Africa nestled between Nigeria and Togo. Just as gold prices hit their two-decade lows, he made his move to Africa from mining in Eureka, Alaska, about 125 road miles northwest of Fairbanks on the Elliott Highway. While Novak was negotiating freight rates for a 40-foot shipping container that transported a self-designed wash plant and an excavator from Alaska to West Africa, gold was selling for $260 an ounce.

"Some people predicted it would be a dismal failure," Novak said, during a trip back to Fairbanks in early March.

"We just bootstrapped the operation. That's probably the worst part of the experience. If I had it to do over again, I would be better capitalized." The gamble paid off, despite struggles and a "pretty steep learning curve" Novak encountered during his first year in northern Benin, an operation with about 400 square miles of ground about 20 miles from Natitingou. He was able to first work on some virgin ground, a side creek of the Perma River, which had a "good grade" of about 0.76 grams of gold per cubic meter of ground.

"There's no stripping, so the expenses are low," he said. He has since moved into the main creek, which had previously been mined. But gold remains on the sides of the creek, and the quality is high. His bright yellow gold assays at 93 percent, he said, while the grade of gold he mined in Eureka assayed much lower, about 78 percent.

"In Africa, there's no permafrost, no frozen ground to deal with," he said. "We could work as long as we want on this ground. It's a pretty large block with a lot of creeks to work on."

Sailboat savings account building

Novak's operation is more than meeting its monthly expenses of $10,000 to $12,000, and the initial investment has been paid back. Now, his sailboat savings account is starting to build and Novak is ready for a change of pace.

"I'd like to sell or quit. It's been a long project," Novak said. "Four years of mining in Africa is equal to a lot of mining seasons in Alaska."

He has considered looking for a mine manager, but it's hard to find the right combination of experience, travel savvy and availability. Most people with the mining experience don't want to live abroad, especially in West Africa, he said. As a result, Novak recently listed the operation for sale with a Fairbanks realtor, while continuing to work at the mine. One of his concerns about shutting down the mine is the effect on his staff of 10. "I treat my guys good, and they treat me good," he said.

COURTESY OF ROSS NOVAK

Four years ago, Fairbanks, Alaska, resident Ross Novak took the plunge and started up a placer gold mine in the northern part of Benin, a small but politically stable country in West Africa nestled between Nigeria and Togo.

Labor force includes 'sleepers'

Statistics about Benin report an average wage of $300 to $400 a year. Novak pays his equipment operators $200 per month, his welders $125 per month and laborers $100 per month. Crews work seven days a week, 12 hours a day, during the mining season. He provides one month of paid vacation a year, and also health coverage.

Work typically slows June through August, the rainy season. "We shut down to restock, and resupply," Novak said.

He also employs older men called guardians to sleep near the mining equipment at night. "It's a long way from the house, so it's cheap insurance," he said. One such guardian, after receiving a $5 a month raise, took a new wife, his fourth. Locals in Benin were initially amazed that Novak didn't have multiple wives. It took time, he said, to convince them that he did have one wife back in Alaska, and that he did not desire another in Africa.

In fact, he can thank his wife Dana Novak, a chemical engineer and an active member of the Alaska Miners Association, for the opportunity to mine in West Africa. Dana heard a presentation by a geologist who worked in South Africa and put her husband in touch with him. That ultimately led to the Benin opportunity and to Novak's formation of his own operating company, Goldstar Mining.

Traffic, travel dangerous part

While Benin's neighboring countries in West Africa are dangerous and full of unrest and violence, that's not a concern for Novak: "It's a democratically elected government. The three elections during the last 15 years have been peaceful. Benin is just not a place you go for vacation."

Wildlife viewing opportunities are "zero," he added. "We might see a rabbit once a month. If it's not behind a wire, it's dead."

The danger in his operation is driving in the coastal city of Cotonou, some 300 miles south of his mine. Driving laws from the West are not followed and fatal accidents are not uncommon, he said. His interpreter doubles as a chauffeur during those trips. Novak said he is also somewhat secretive about his departures from the mine, as he sometimes travels with gold to sell.

Packed in zip-lock bags, the gold shows up as "solid black" on the X-ray machines at airport security. Typically, security screeners will open the bag and ask what he's carrying. One U.S. screener thought it was birdseed.

Mineralization in quartz

During the interview with Mining News in March, Novak showed the remnants of such a zip-lock bag. The gold did resemble birdseed in its size and coloration. He also showed rock samples from his property in Benin, one a beautiful crystallized quartz and gold specimen. Another quartz rock, taken from a hard rock resource on the property, also contained visible gold, apparent even in subdued restaurant lighting.

Locals dig out such rock from his property and, pounding them by hand, free the gold. Novak then buys it from them, paying a set price of $290 per ounce. The independent "hard rock miners" have formed their own group, complete with a president.

"I've been buying about one ounce a day from them," he said. In the past, locals dug a tunnel into the ground about 200 feet deep. Novak was asked by local governmental authorities to close the tunnel with a blast for security reasons. Shortly afterwards, locals had re-opened the hole to access the rich rock. "The quartz vein is at surface, and has assayed as high as two to seven and one-half ounces per ton, but a lot of it is half-ounce," Novak said. "To me, it's just yellow rocks." ●

● DELTA JUNCTION, ALASKA

Pogo permit appeal withdrawn

Settlement announced May 5, construction ramping up; two other exploration projects planned in Pogo area cancelled

By PATRICIA LILES

Mining News Editor

A Fairbanks-based environmental group that appealed a federal water discharge permit issued to developers of the Pogo gold project in mid-March has agreed to withdraw its permit challenge, following meetings with regulators on May 4 and 5. The announcement of the appeal withdrawal came May 5 during a press conference at the governor's office in Fairbanks.

Initial meetings between the Northern Alaska Environmental Center and the Environmental Protection Agency May 4 spurred a late night meeting with others involved in the Pogo gold project permitting process. During the meetings, an agreement was hammered out for the environmental group to withdraw its appeal filed in mid-April of a water discharge permit issued by EPA in mid-March for developers of the Pogo gold project, 40 miles northeast of Delta Junction, Alaska.

In exchange, Teck-Pogo Inc., the company which secured permits and started pre-construction work at the Pogo gold deposit this spring, agreed to add two water monitoring wells at the off-river treatment works and to fund a $20,000 annual fish study of the Goodpaster River for the next 10 years.

Teck also agreed to support a stakeholder group that will review the project. Seven members, representing fishing, mining, neighboring residents, hunting, subsistence and the environment, will make up the advisory board. In addition, Teck-Pogo "codified" an agreement to monitor changing trends in water quality measurements and to evaluate those trends and potential causes before water quality standards are exceeded, said Karl Hanneman, the developer's manager of public and environmental affairs and special projects manager.

Teck-Pogo plans to meet "immediately" with its contractors and put together a plan for construction, he added. The number of workers dropped from its peak of 340 down to 183 workers, Hanneman said on May 5. The company will wait for the EPA water discharge permit to be finalized, which should happen within a week, he said. "We're very pleased to be going back to work," he said.

The Northern Center must submit a letter to EPA's Environmental Appeals Board, requesting their appeal be withdrawn, said Ed Fogels, DNR's project manager for the Pogo gold project. He was uncertain on May 5 how long the appeal withdrawal will take.

Water discharge permit needed during construction

Without a water discharge permit, Teck-Pogo could not service its water and sewage treatment plants used for its temporary camp facilities to house construction workers.

Without a water discharge permit, Teck-Pogo could not service its water and sewage treatment plants used for its temporary camp facilities to house construction workers.

Since the appeal was filed in mid-April, the company has been laying off construction workers already on the project, a move that angered local labor unions. Dozens of union members protested the environmental group's actions outside the Northern Center's office in Fairbanks on April 30.

Withdrawing part or all of the permit would require another round of regulatory review, including public comment periods, which require mandated periods of time, noted David Thompson, deputy chair and CEO of Teck Cominco, during an April 27 investor conference call about the company's first quarter results. "Any amendments to the permit would cause significant delay," he said. "If it is amended, it must go back through the EIS process. We have to have that permit."

List of conditions

During the last week of April, the environmental group requested a third-party moderator for its talks with regulators and the developer. Brian Rogers, a Fairbanks-based businessman, served as that moderator.

On April 30, the environmental group submitted to the developer a list of conditions for its appeal withdrawal.

"The company spent Saturday (May 1) trying to figure out if the things on the list are doable," Fogels said, on May 3. "We have not seen the list." Such an action is not typical of a permit appeal process, he said. "This is an effort to short circuit the appeal process and ultimately have them withdraw their appeal. The appeal process could take from six months to a year to complete."

Other companies respond

Unfortunately for Alaska's mining industry, damage from the environmental appeal has already hit. Two exploration projects planned in the Pogo area were cancelled, said Curt Freeman, a Fairbanks-area consulting geologist. "Two projects just evaporated overnight — they put everything on hold until further notice," said Freeman, owner of Avalon Development. That exploration work was in excess of $500,000, he said.

"That money is going elsewhere, where those companies feel a little more comfortable about where their investment is going." Pogo's successful permitting process this spring had sparked additional interest in Alaska's mineral industry, Freeman said. "Everyone was fired up, and it looked like the district would pick up."

Northern Dynasty, which plans to spend $20 million this year to develop the Pebble deposit near Iliamna, Alaska, said the appeal does not "affect our commitment of resources to advancing our project," said Bruce Jenkins, director of corporate affairs. "But it is a cause for concern to receive all the permits and then have an 11th hour appeal is problematic. We realize it is always possible and we will factor that into our planning." ●