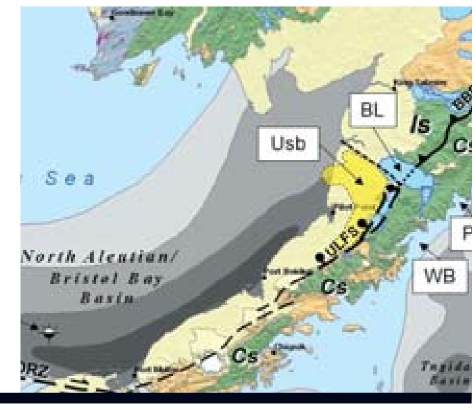
Petroleum news



page 10 State geologists report on 4 years of Alaska Peninsula O&G research

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May Mining News inside

The May issue of North of 60 Mining News is enclosed

Cold, harsh truth in numbers

It was Benjamin Disraeli, a British prime minister in the 19th century, who was credited with uttering the line: "There are three kinds of lies: lies, damned lies and statistics" and it was Mark Twain who popularized the saying in America.

But these days, in the upstream sector of Canada's petroleum industry, the statistics are every bit as grim as the truth.

With the midpoint of 2009 drawing close, the harsh reality of the global recession and the impact of Alberta's royalty changes are beyond dispute.

Government land sales across Western Canada have fallen off a precipice; well completions and permits paint a gloomy picture of drilling activity now and over the rest of the year; there is not enough confidence in the outlook for natural gas prices to cause any hope of an early rebound; and capital spending is in a deep swoon.

The land sales numbers tell the story of industry confidence in a couple of lines: Alberta has tumbled to C$80.13 million from the disposal of 1.57 million acres from C$353 million and 2.46 million acres over the same period last year,

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FINANCE & ECONOMY

BP fights state lawsuit

Says state overreaching as it seeks to collect huge damages over 2006 spills

By WESLEY LOY

For Petroleum News

Lawyers for BP say the state is "overreaching" with its lawsuit seeking to collect potentially huge fines, back taxes and other damages in connection with disruptive oil spills in the Prudhoe Bay field in 2006.

In papers filed May 26 in state Superior Court in Anchorage, BP asked the judge to toss out some of the state's claims and defer part of the case — the issue of how much oil "waste" resulted from the spill — to the judgment of the Alaska Oil and Gas Conservation Commission.

The filings stand as BP's first public comment on the legal merits of the state's lawsuit. And they leave little doubt that BP's lawyers intend to defend the case vigorously.

In papers filed May 26 in state Superior Court in Anchorage, BP asked the judge to toss out some of the state's claims and defer part of the case — the issue of how much oil "waste" resulted from the spill — to the judgment of the Alaska Oil and Gas Conservation Commission.

On the question of back taxes and royalties, which state lawyers say are due because of a partial field shutdown and other outages in the wake

see BP page 18

EXPLORATION & PRODUCTION

Oil sands: Kearl the pearl

Imperial, Exxon break sands freeze, approve first phase of development

By GARY PARK

For Petroleum News

Seldom a company to drop broad or even little hints about any of its plans, Imperial Oil did everything short of leading a waiting world to its inner sanctums over recent months even while it was pointing conclusively to corporate approval of its Kearl Lake oil sands project.

Thus, the inevitable happened May 25 when Imperial (69.6 percent owned by ExxonMobil) and ExxonMobil announced they would go ahead with the C$8 billion initial phase of Kearl. Imperial will be operator with a 71 percent stake and ExxonMobil will hold the balance.

If all goes according to plan, Kearl will come on stream with capacity of 110,000 barrels a day in 2012, grow over time to 345,000 bpd and have an operating life of almost 50 years as a 4.6 billion

Will Roach, chief executive officer of UTS Energy, which owns 20 percent of Petro-Canada's proposed Fort Hills project, sees the Kearl decision as evidence that imminent environmental regulations affecting the oil sands are seen by ExxonMobil as manageable and will not impede the company's ability to achieve its financial objectives.

see KEARL page 19

GOVERNMENT

Not free-for-all land grab

Stephen de Boer: Continental shelf claims following orderly legal process

By ALAN BAILEY

Petroleum News

Contrary to popular opinion, the current flurry of activity around offshore continental shelf claims under the international Convention on the Law of the Sea is an orderly legal process, and not some kind of free-for-all land grab, Stephen de Boer, director of the Oceans and Environmental Law Division for the Canadian Department for Foreign Affairs, told a Commonwealth North forum in Anchorage May 20.

"It's not a race to the top but an orderly process within the orderly framework of international law," de Boer said.

International treaty

The Convention on the Law of the Sea consists of an international treaty establishing rules for all aspects of ocean use. Provisions in the convention allow for the possible extension of a coastal nation's legally recognized continental shelf beyond the customary 200-mile economic exclu-

"Sovereign rights exist with respect to the continental shelf. The delineation exercise is merely a way of signaling to other countries what is already ours and what is already yours, recognizing of course that there will be overlapping claims."

—Stephen de Boer, director of the Oceans and Environmental Law Division for the Canadian Department of Foreign Affairs

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

ALTERNATIVE ENERGY

Biofuels — rethinking, reshaping, restarting; 5% ethanol considered

Canada to copy US approach, shrugging off questions about indirect GHG emissions from grain-based fuels, shake-out in US sector; renewable fuels standard yet to be established

By GARY PARK
For Petroleum News

The Canadian government is falling into line with the United States as it plans a sharp hike in the use of grain-based ethanol in transportation fuels, ignoring the growing concerns over the greenhouse gas emissions that stem from agricultural practices used to grow feedstock grains and a shakeout that is taking place in the U.S. ethanol industry.

According to government sources, Environment Minister Jim Prentice has gained cabinet backing to introduce regulations mandating that refiners include at least 5 percent ethanol in their gasoline by fall 2010.


JIM PRENTICE

Although there has been no confirmation from Prentice's office, his officials have laid out plans to invited industry representatives.

However, Prentice has left little doubt that Canada is ready to mirror whatever action President Barack Obama takes.

"We will work together to ensure we have a single dominant North American standard for carbon emissions and fuel economy," he told reporters in Calgary.

"The automotive industry in North America is deeply integrated. Therefore it doesn't profit any of us, either as consumers or manufacturers, to have competing standards."

Indirect emissions a factor

The Canadian government estimates grain-based fuels can lower GHGs by 40 percent compared with conventional gasoline, but it has not yet taken account of the indirect emissions that result from deforestation and increased land cultivation needed to meet the demand for biofuels.

Both the United States government and California have acknowledged in recent weeks that once those emissions are factored in, ethanol could be just as "dirty" as gasoline.

But the Obama administration is so committed to green energy that the Environmental Protection Agency is expected to make a far-reaching decision this year in response to a request from the ethanol industry to raise the maximum amount of ethanol that can be added to gasoline from 10 percent to as much as 15 percent (known as E15), although the expectation is that the EPA will settle for something between E10 and E15.

Growth Energy, an ethanol lobbying group, and 54 ethanol manufacturers have asked the EPA for a waiver of the Clean Air Act so that more ethanol can be added to gasoline.

Problems possible

The Center for Auto Safety has warned that adopting E15 could trigger a host of problems, notably adding US$1,600 to the cost of producing a car, the voiding of car warranties, not to mention the impact on millions of engines in everything from boats to chainsaws and lawn mowers, potentially setting off a wave of lawsuits.

However, opting for E15 would probably stop some of the bleeding among U.S. ethanol producers, who insist the increase they propose is necessary because the U.S. Energy Independence and Security Act of 2007 includes a renewable fuels standard that requires a steady increase in the use of biofuels from 11 billion gallons in 2009 to 36 billion gallons in 2022, including 21 billion gallons of advanced biofuels, comprising 16 billion gallons of cellulosic biofuel.

But, because Americans are buying far less gasoline than was anticipated when the law was passed, the American Petroleum Institute said that by 2010 or 2011 it will be impossible to meet the renewable fuels standard if the ethanol content is held at E10.

Pulling in the opposite direction is a U.S. Energy Department study last year that tested 16 late-model cars and found, on average, that mileage dropped 5 percent with E15 compared with gasoline that contained no ethanol.

Given the fact that engines vary widely in their age and technology, the EPA has indicated it might approve the use of E15 for some vehicles and not for others.

Standard not yet set

While this debate follows its meandering path, the Canadian government has been unable to deliver on legislation adopted a year ago requiring it to set a renewable fuels standard.

Trying to establish regulations has collided with arguments that ethanol demand has driven food prices higher.

Gord Quaiattini, president of the Canadian Renewable Fuels Association, said a federal mandate will boost investment in new biofuels capacity at a time when the industry has been hit hard by a drop in gasoline prices, high feedstock costs and the credit crunch.

In the U.S. the corn-based ethanol industry was broadsided when California regulators said much of the U.S. supply was little better than gasoline, when indirect emissions were included.

Among those factors, the EPA said corn-ethanol producers who fuel their production processes with natural gas generate 5 percent more GHGs per gallon of fuel than gasoline producers over a 30-year period, while ethanol producers who use coal create 34 percent more GHGs. All Canadian producers use natural gas.

Natural Resources Canada calculates biofuel GHGs using a Canadian-developed model that reflects differences in grain feedstocks, fuels and agricultural techniques, determining that on average grain-based ethanol produces 40 percent less GHGs than gasoline. But the department does not include indirect land use emissions in that calculation.

The International Energy Agency estimates that emissions gains from corn-based ethanol will double in the 1995-2015 period and estimates that corn-based ethanol will lower its emissions by 55 percent as the manufacturing methods become more efficient.

U.S. producers changing

However, critics in Canada accuse the Canadian government of overstating the environmental gains that can be achieved through its biofuels policy when it fails to estimate the emissions that result from agricultural land-use practices.

Some suggest the government is more concerned about providing markets for grain growers and incentives to build biofuels plants in struggling rural areas.

Currently, Canada has 11 ethanol producers using corn, wheat, straw and wood waste as feedstock to deliver the equivalent of about 400 million gallons per year of ethanol to the market.

To date, none have filed for bankrupt-

see BIOFUELS page 5

NATURAL GAS

FERC clarifies Kenai LNG plant order

In response to request from owners, commission acknowledges site, design, construction grandfathered; requires semiannual reports

By KRISTEN NELSON

Petroleum News

The Federal Energy Regulatory Commission has revised in part and confirmed in part its requirements for Kenai LNG facility reporting.

In a January order FERC said the liquefied natural gas terminal and storage facility at Kenai was subject to the same reporting and inspection requirements as other LNG terminal facilities under Section 3 of the Natural Gas Act.

These were new requirements and ConocoPhillips Alaska Natural Gas Corp. and Marathon Oil Co., the owners of the facility, sought a rehearing and clarification of the order.

The Kenai facility began operations in 1969, liquefying natural gas and shipping LNG to customers in the Far East. When the facility was proposed in 1967 it was the first import or export facility not at the border with Canada or Mexico and after reviewing the situation with the secretaries of State and Defense, and the Office of Legal Counsel of the Department of Justice, the Federal Power Commission, FERC's predecessor, concluded that executive permission — issued as a presidential permit — was only required for facilities at the border between the United States and a foreign country.

FERC said it has consistently followed that decision for LNG terminals relying on ships, but for the Kenai proposal, the commission did not consider the issuance of a separate authorization for siting, construction, operation and maintenance.

In 1970, however, in response to a second application for an LNG terminal, a Massachusetts import terminal, a judicial review clarified the commission's authority to regulate siting, construction, operation and maintenance of LNG terminal facilities.

The commission rejected a challenge to its authority to regulate siting, construction, operation and maintenance in 2002 and the Energy Policy Act of 2005 added section 3(e)(1) to the Natural Gas Act, clarifying that FERC "shall have the exclusive authority to approve or deny an application for the siting, construction, expansion or operation of an LNG terminal."

Clarification requested

ConocoPhillips and Marathon argued in a February request for clarification or rehearing that the Kenai LNG facility was grandfathered and not subject to reporting or safety requirements applicable to recently built facilities.

The companies argued that FERC imposed reporting requirements on the Kenai terminal for the first time "without explaining why such reporting requirements are needed now when they have not been needed for the past forty years." They also argued that the order appears to require the terminal to provide information on regulatory requirements not applicable to the terminal, and said FERC's "sole justification for the sudden imposition of these requirements, without prior notice or an opportunity to be heard, is that it imposes similar requirements on other LNG terminals."

The Kenai facility is an export terminal whose sales are subject to the U.S. Department of Energy, the companies said, unlike LNG import terminals for which FERC approved construction and operation.

The companies also objected to imposition of an annual charge by FERC, saying the commission previously ruled the annual charge does not apply to Kenai terminal.

Standards grandfathered

FERC said in its January order that it did not oversee construction of the Kenai facility and did not apply the same reporting and inspection requirements applied to other LNG terminals, but said the scope of its jurisdiction over LNG terminal and storage facilities has been clarified since the original Kenai LNG application in 1967.

In a May 21 order on rehearing and clarifying, FERC said it does "not expect Kenai's existing facilities to conform to contemporary standards" and will not subject the facility to an annual charge, but said "ConocoPhillips and Marathon must submit the same reports for Kenai that are submitted for other LNG terminals."

FERC said the companies maintain that since there has been no change in the Kenai facility's facilities or operations, there is no cause for change in the commission's over-

see FERC page 5

On the Web

See previous Petroleum News coverage:

"FERC taking on oversight at Kenai LNG plant," in Feb. 1, 2009, issue at www.petroleumnews.com/pnads/241976731.shtml

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Dee Cashman	CIRCULATION REPRESENTATIVE

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

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FERC

sight.

"We acknowledge that there has been no change to Kenai, and stress that our January 2009 Order does not indicate that Kenai is not in compliance with all applicable federal safety standards," FERC said.

But FERC said that over the last few years, "prompted in part by the Energy Policy Act of 2005," the commission has reviewed its regulation of LNG terminals, "particularly as it relates to safety and security issues." FERC said because of it the revisions of its statutory obligations it found it appropriate to bring the Kenai LNG facility "in line with the regulatory regime that we apply to every other LNG terminal."

The January 2009 order informed the companies that in the future the Kenai LNG facility would be "subject to routine reporting and inspection procedures, including a technical design review. The order does not mandate any change to Kenai's current facilities or operations," FERC said, but merely "... clarified how we intend to exercise our regulatory jurisdiction over Kenai going forward."

The companies had the opportunity to address their concerns in their request for rehearing and clarification, FERC said, and those concerns are addressed in the order on rehearing and clarification.

"Given this, we do not believe the parties have been deprived of notice and the opportunity to comment via this paper hearing procedure."

What is grandfathered?

FERC said aspects of the Kenai facility related to siting, design and construction are grandfathered, but said that "as a result of technical review or inspections," its staff may recommend changes "to ensure the continued reliability, operability, safety and security of the facility."

If the companies seek to modify or expand the facility in the future, standards then in effect would be applied to those modifications or expansions, FERC said.

On the issue of regular reports, FERC said ConocoPhillips and Marathon argued they should be exempt from Resource Reports 11 and 13, "because the reports state they are to apply to new and recommissioned facilities."

FERC said the introduction section of Resource Reports 11 and 13 specifies new and recommissioned facilities "because reports are presumably already on file for existing facilities," and said that description is not intended to exempt an existing facility from reporting requirements when it has not yet complied with the requirements.

"Thus, when an existing LNG facility that has been exempt from our jurisdiction becomes subject to our jurisdiction, we require that the information contained in Resource Reports 11 and 13 be submitted for that existing facility. Kenai is in the position of a new, recommissioned or newly jurisdictional facility in that we do not have the resource report information on file."

FERC said the information in the report is necessary for technical and cryogenic design review of facility operation and maintenance.

Not all information relevant

FERC said it agreed with ConocoPhillips and Marathon that not all of the information specified in the resource reports is relevant to the existing Kenai LNG facility, but said the companies have not presented an itemized listing of data they deem inappropriate, and urged the companies to submit such a listing along with a rationale for excluding it.

FERC said that in light of previous commission action, finding the companies exempt from annual charges, it will revise the January 2009 order and the companies "will not at this time be subject to an annual charge with respect to volumes moving through the Kenai facilities."

However, FERC said it would require the companies to submit page 520 of FERC form 2, showing total LNG volumes transported, "since the submission of this information will enable us to better monitor Kenai's operations."

Operational reports are due semiannually, but because form 2 is filed annually, the page 520 data need only be updated annually. ●

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BIOFUELS

cy, unlike the U.S. where the lineup of producers is undergoing drastic changes as a result of bankruptcies, including the arrival of U.S. petroleum refiners in the sector, seeking fire-sale prices for assets that help them meet renewables mandates.

Typical of the deal-making was the US$123.5 million paid by Green Plains Renewable Energy for two plants formerly owned by bankrupt VeraSun Energy with combined output capacity of 150 million gallons per year.

But this scramble has produced warnings from analysts who say the rock-bottom acquisitions will allow buyers to restart facilities and run them at lower margins, putting added pressure on other producers.

Petroleum refiner Valero Energy entered the ethanol picture through an auction of VeraSun plants by acquiring seven completed facilities and one under development, while Sunco bought a New York plant previously owned by bankrupt Northeast Biofuels.

Sunco pulled off its deal for an estimated price of 19 cents per gallon of capacity, compared to the normal construction cost of $1.50-$2 per gallon for a new plant. ●

GOVERNMENT

Canada wants faster approvals

A new voice delivered a familiar message May 19 when Canada's Natural Resources Minister Lisa Raitt said a drastic overhaul of the regulatory regime is needed to accelerate approvals for new oil and natural gas pipelines.

Tinkering with the existing framework will not ensure that delivery systems are built fast enough to meet growing demand for Canadian energy, domestically and in export markets, she told the Canadian Energy Pipeline Association.

She said sweeping changes are essential to make the system more transparent and efficient – echoing a line heard from Canada's politicians for years, but never acted on with enough haste to pull the Mackenzie Gas Project out of its current regulatory bog.

Not looking for shortcuts

The MGP is now past the point where a regulatory overhaul could do much to change the timetable and Pius Rolheiser, a spokesman for Imperial Oil, the MGP's lead partner, told the Calgary Herald that despite the delays the proponents are not looking for shortcuts.

"We want the permits we receive to have validity so they stand up," he said.

Raitt said the MGP is "central" to Canada's future energy security and Canada's pursuit of a place among the energy superpowers.

She said the government also supports a gas line from Alaska across Canadian territory, suggesting that project will benefit from a recently adopted "single window" entry into the Canadian regulatory system.

CEPA President Brenda Kenney said Raitt's stand was "very welcome" for her group which has been calling for sweeping changes to speed up construction of C$80 billion worth of new infrastructure projects that are critical to the competitiveness of Canada's economy and to providing consumers with fair energy prices.

She said delays don't make the projects any safer or more environmentally sound.

—GARY PARK

FINANCE & ECONOMY

Oil ministers: OPEC keeps output steady

OPEC oil ministers on May 28 kept output targets unchanged in hopes a recovering world economy will raise prices through increased demand — and thus eliminate the need for them to cut back production.

An OPEC statement said the organization "decided to maintain current production levels unchanged for the time being."

Oil producers reiterated their "firm commitment" to their existing quotas, in an effort to trim oversupply.

Most organization members are supposed to honor individual production targets, but the organization is still pumping more than 800,000 barrels a day above its overall target level of just under 25 million barrels.

While 100 percent compliance with quotas is unlikely, even an additional 10 percent compliance would take more than 400,000 barrels a day off markets, slicing into near record stocks in storage while reducing the price shock that an outright cut in production could cause.

Economic confidence

The decision not to change production targets appeared due to belief that the U.S. — the world's largest oil consumer — is gradually emerging from a severe recession and that demand there will support oil prices.

"We are seeing a light in the end of the tunnel," said OPEC Secretary General Abdalla Salem El Badri.

"We don't want to give a wrong signal to the market," he added, when asked why the Organization of the Petroleum Exporting Countries decided against cutting production despite their concerns about significant oversupply and anemic demand from the U.S. and other major consumers hobbled by the recession.

A barrel of crude already fetches more than $60 compared to levels near $30 just four months ago. And that spike has come despite continued anemic worldwide demand, plentiful supply, and gloomy future forecasts.

Market reaction appeared to support the May 28 decision. Benchmark crude for July delivery was essentially steady shortly after the end of the OPEC meeting, fetching $63.42 a barrel by early afternoon in Europe in electronic trading on the New York Mercantile Exchange.

Prices have not been at that high level since early November.

Still, despite the decision to maintain present targets, OPEC ministers have repeatedly saying they would like to see crude rise to around $80 a barrel, even while being content to let economic factors do their work for them.

—GEORGE JAHN, Associated Press Writer

● SAFETY & ENVIRONMENT

Canada seeks common ground with US

By GARY PARK

For Petroleum News

President Barack Obama's climate change strategy is forcing the Canadian government to step up its efforts to ensure that the Alberta oil sands remain viable. Prime Minister Stephen Harper told reporters May 22 he is now working closely with all provinces to "make sure we do everything to ensure the responsible environmental development (of the oil sands), but that we do develop it because it is critical to not just to our economy, but to North American energy security as well."

He said moves within the U.S. Congress to embrace Obama's plan to cut greenhouse gas emissions by 17 percent below 2005 levels by 2020 and 83 percent by 2050 are taking "a direction we are comfortable with."

"To be quite blunt, the more iterations the American plan goes through, the closer it looks like the Canadian plan because we have grappled with many of the tough decisions that are involved," Harper said.

He said the midterm priority is to develop a climate-change policy that "will not further damage the interests of our economy during a global recession."

Harper has met with Alberta Premier Ed Stelmach as part of developing a common Canadian approach to international talks on the post-Kyoto period in Denmark later this year.

Tom Huffaker, vice president of the Canadian Association of Petroleum Producers, said the industry is "positive about the idea of compatible or aligned North American approaches" on climate change.

But he noted that the current U.S. bill is only "one step on a rather long road," given that other Congressional committees and the U.S. Senate have yet to make their contributions.

North West to bid for bitumen

One thread of hope from the U.S. debate is being grasped by North West Upgrading, a private company that is still pushing ahead with its plans for a merchant upgrader in Alberta.

It plans to bid for some of the bitumen the Alberta government plans to collect as royalties-in-kind so that it can return to the market and raise more than the C$400 million it already has committed by a large group of institutional investors to start construction on the upgrader.

North West Chairman Ian MacGregor told the Financial Post that the proposed U.S. carbon dioxide limits might force a review of plans by oil sands developers to send their raw bitumen to the U.S. for upgrading and refining.

He said the U.S. is weighing the prospect of taxes in the order of $5-$10 per barrel of bitumen, which could wipe out the current advantages it enjoys over Canada as a center for processing bitumen.

MacGregor also said Alberta has an edge over the U.S. through its ability to use CO_2 feedstock for enhanced oil recovery, meaning the gas can become a source of revenue rather than a cost.

North West, through a contractually related company, Enhance Energy, is pushing in that direction, with the goal of capturing greenhouse gases from its upgrader and using them to boost oil production from fields in central Alberta.

He said that scheme could yield an additional 1.1 billion barrels from mature reservoirs and dispose of 2 million metric tons of CO_2, the equivalent of removing 2.6 million cars from the roads.

North West and Enhance have applied for some of the C$2 billion the Alberta government has earmarked to advance carbon capture and storage technology. ●

GOVERNMENT

Courts likely to see another PT appeal

Alaska Oil and Gas Conservation Commission denies ExxonMobil reconsideration request on Point Thomson compulsory unitization

By KRISTEN NELSON
Petroleum News

With the Alaska Oil and Gas Conservation Commission denying a reconsideration application from ExxonMobil, another part of the state's dispute with ExxonMobil and the other former Point Thomson unit owners has completed the administrative appeal process and appears set to go on to Alaska Superior Court.

The dispute began with the Alaska Department of Natural Resources Division of Oil and Gas, which for years has been trying to get the Point Thomson unit owners — the unit was formed in 1977 — to put the field into production. DNR terminated the unit for lack of production in late 2006 and took back the leases in 2007. The termination of the leases is still under administrative appeal in DNR; the unit termination is in superior court.

AOGCC was dragged into the fray in 2007 when ExxonMobil petitioned the commission for involuntary unitization of the Point Thomson sands.

The commission has the authority to create involuntary units when lease owners cannot agree on voluntary unitization. Unitization ensures the most efficient development of oil or gas pools by joining the owners in a unit for production, avoiding the competing drilling and production found in areas developed before conservation laws were enacted. Competing drilling and production in a field results in too rapid depletion of the reservoir, with fewer hydrocarbons produced.

ExxonMobil's attorney said at the commission's February hearing on the involuntary unitization application that if the petition was dismissed the commission would become one more case in Superior Court.

After the commission dismissed the unitization petition in April, ExxonMobil said at the beginning of its application for reconsideration that the reconsideration application was a requirement before the decision could be appealed to Superior Court.

The commission denied the reconsideration application in early May.

Exxon's arguments

ExxonMobil said in its April 29 application for reconsideration that the commission should reconsider its order dismissing the application and should either continue to stay the proceedings or consider the merits of ExxonMobil's petition.

ExxonMobil told the commission "AOGCC has a broad statutory grant of jurisdiction," which includes the duty to consider requests for involuntary unitization. It cited a case in which the court held that the commission erred by dismissing a petition for involuntary unitization "for purported lack of jurisdiction without hearing on the merits of unitization," and told the commission it has the jurisdiction and must consider the facts before concluding whether relief should be granted.

ExxonMobil also said Alaska statutes do not require ongoing production in order for the commission to unitize. "The prevention of waste, ensuring greater ultimate recovery and protection of correlative rights are far broader mandates for the AOGCC than merely providing for production," ExxonMobil said.

The company called Point Thomson "a classic case for unitization. Failure to unitize would impair the correlative rights of the parties since the entire reservoir can be produced from a few wells on a few leases."

If the commission wishes to give DNR an opportunity to voluntarily unitize Point Thomson, then a stay would be in the public interest, the company said.

ExxonMobil said further staying the proceedings — a reference to a stay the commission had earlier placed on its proceedings — would not harm DNR.

"The only potential harm DNR has alleged is that the stay places the status of the leases in question and complicates ongoing litigation, pointing to an appeal before the superior court involving the Expansion Leases as its example of the latter claim. But it is the litigation arising from the termination of the PTU and other actions by DNR, and not the stay, that places the status of the leases in question," ExxonMobil said.

Attorneys for ExxonMobil requested that DNR's motion to dismiss the petition be denied; that the stay be continued until the outcome of the appeal of DNR's termination of the unit.

"In the alternative, the AOGCC should proceed to consider the merits of ExxonMobil's petition for compulsory unitization of the Point Thomson Sand Unit."

AOGCC rejection

AOGCC denied the reconsideration request in a May 4 order.

The commission said ExxonMobil's reference to a case in which the court found it in error for dismissing a petition for involuntary unitization without a hearing on the merits was not applicable. In that case, the commission said, the court held that a crucial element in the commission's dismissal, rejection of the potential retroactivity of a unitization order, reflected on the merits of the petition.

"In the present case, by contrast, the grounds for dismissal have nothing to do with the merits of ExxonMobil's petition, and a hearing on the merits could shed no light on the appropriateness of dismissal," the commission said.

On the issue of a requirement for ongoing production, the commission said it "did not and does not adopt that proposition," and if its order is unclear, it "takes this opportunity to clarify the issue."

The commission said that under its statutes "compulsory unitization is available only for purposes of production and not also for exploration, but that does not mean that the initiation of compulsory unitization proceedings must wait until production begins."

The commission said that in these circumstances, where DNR has terminated a nonproducing oil and gas unit, the commission should not hear a petition for compulsory unitization unless it appears production will go forward without a DNR-approved unitization, potentially affecting conservation goals in the commission's statutes.

The commission said its order did not suggest that commission action would have to wait until production begins, only that production is far enough in the future that the commission does not need to take immediate action.

"ExxonMobil obviously does not dispute this point," the commission said, "since it urges that a stay of proceedings in this matter should continue in effect."

On ExxonMobil's point that the Point Thomson sand is a classic case for unitiza-

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NATURAL GAS

Talisman spreads shale gas gospel

By GARY PARK

For Petroleum News

Its pockets bulging with the proceeds from asset sales of C$2.5 billion in the past year, sitting on C$3 billion in liquidity that it expects to grow "significantly" this quarter and unencumbered by oil sands commitments, Canadian independent Talisman Energy now estimates it is sitting on 132 trillion cubic feet of gas in its North American shale gas lands.

While not all of those in-place resources can be developed, Talisman Chief Executive Officer John Manzoni believes more than 30 tcf is recoverable from its Montney (British Columbia), Outer Foothills (Alberta) and Marcellus (Pennsylvania) plays. Its Quebec properties are still in the early evaluation stage.

He told an investor conference in New York on May 20 that the latest estimates are "more tightly defined" than last year.

"Our unconventional base is improving all the time," he said. "We've not stopped adding to our lands and our pilot activity continues into this year. In some areas, we're moving to development."

Having spent the last 20 months reshaping its asset portfolio to concentrate on longer-term opportunities, Manzoni said Talisman is confident it can currently make gas from its shale properties profitable at US$4 per thousand cubic feet and is "working to bring down the break-even price of these plays."

Haynesville could be next

The next step in Talisman's advance could be to enter the Haynesville shale play in Texas, where BMO Nesbitt Burns analyst Jim Byrne believes a number of companies may be willing to unload some assets or negotiate joint ventures.

He expects to see "quite a bit of acreage come on to the market as guys get stretched on credit lines."

Byrne said the recession and low gas prices have seen land values in Haynesville plummet to about US$4,000 an acre from peaks of about US$30,000, making some gas cheaper to buy than find.

BMO figures that Haynesville has 69 tcf of recoverable gas that should be profitable at US$5.14 per thousand cubic feet.

The emergence of shale gas and its possible role as a "green fuel" was promoted May 23 by EnCana Chief Executive Officer Randy Eresman before leaders from the Group of Eight in Rome.

That follows a meeting in April of industry leaders, including Eresman, with U.S. Energy Secretary Steven Chu, a champion of renewable energy, when the industry made its case that there are major opportunities to use shale gas to reduce greenhouse gas emissions by replacing coal to generate electricity and as a new source of fuel in vehicles. ●

LAND & LEASING

RFP out for exploration licensing PBIFs

The state is looking for a contractor to write the preliminary best interest findings for exploration license proposals it received two years ago.

The Alaska Department of Natural Resources, Division of Oil and Gas, issued a request for proposals May 19 for portions of preliminary best interest findings for exploration licenses in the Crooked Creek-Circle and Houston-Willow areas.

The RFPs are for a one-year contract; each has a maximum bid amount of $40,000; and proposals are due June 11.

The state received the two exploration license proposals in April 2007 and requested competing proposals in December of that year. The state received no competing proposals and released the two proposals for public comment in April 2008.

The exploration licensing program was initiated in the early 1990s to encourage exploration in Alaska's underexplored frontier basins; acreage in the state's areawide leasing program is off limits for exploration licensing.

There is no upfront payment for exploration licenses; instead proposals are for minimum work commitments in dollars. A license recipient must post a bond in the amount of the work commitment and pay a $1-per-acre license fee.

The state accepts applications for exploration licenses each April; the DNR commissioner may issue a notice requesting proposals to explore a designated area at any time.

BGI North America LLC is the applicant in the Crooked Creek-Circle basin, east of Central and south of Circle.

LAPP Resources Inc. is the applicant in the Houston and Willow area, north and east of the Parks Highway.

—KRISTEN NELSON

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APPEAL

tion, the commission said its order assumes that unitization may be necessary to achieve the conservation purposes of its statutes "and addresses rather how to reconcile the protection of those conservation purposes with the appropriate recognition of DNR's land management authority."

On the issue of harm arising from further staying the proceedings, the commission said ExxonMobil argued that litigation over termination of the Point Thomson unit has put the status of the leases in question, but "it appeared that the existence of this compulsory unitization petition was potentially affecting that litigation, and the stay was preventing consideration of whether or not the petition should be dismissed." The commission said if dismissal had not been appropriate, then the compulsory unitization petition's potential affect on other litigation "would merely be a fact of life and not a source of harm, and a further stay would no doubt be appropriate."

The commission said since it had determined that dismissal was appropriate, it's dismissal of the petition was appropriate. ●

● EXPLORATION & PRODUCTION

Clues for oil and gas on peninsula

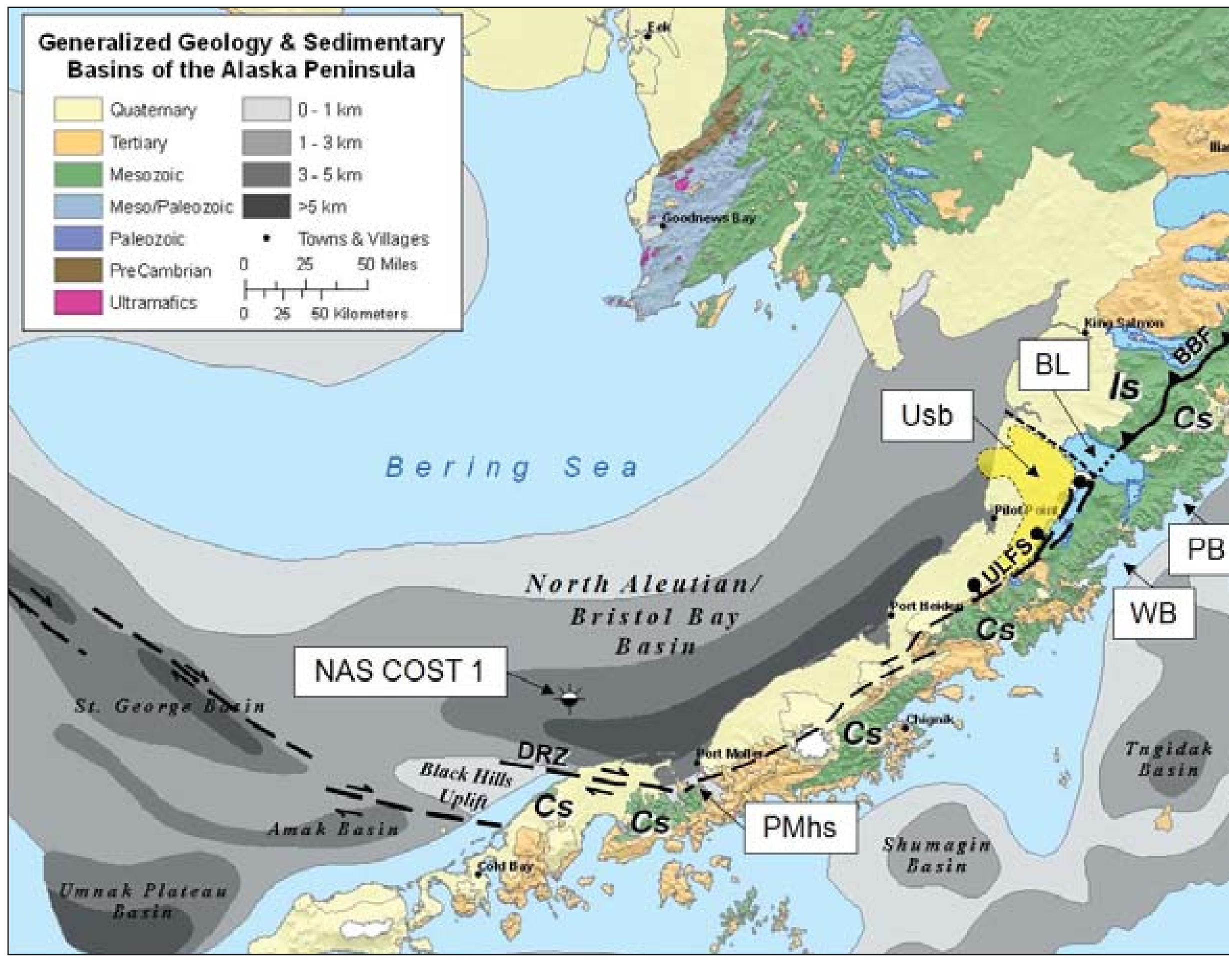
DNR and DOG geologists overview the results of four years of intense research into the petroleum geology of the Alaska Peninsula

By ALAN BAILEY
Petroleum News

Its geology seems tantalizingly similar to that of the oil and gas-endowed Cook Inlet; oil seeps attracted early Alaska oil and gas exploration to its huge geologic structures; but never a drop of commercial hydrocarbon has ever left its shores: the Alaska Peninsula, running along the southeast side of the North Aleutian basin in the southern Bering Sea, remains something of a petroleum enigma. Is there enough oil or gas for commercial development in this region, a region that is both remote and generally lacking in support infrastructure?

Following a 2003 decision by Alaska's Division of Oil and Gas to include state nearshore waters and land along the peninsula in its annual program of areawide oil and gas lease sales, a team of geologists led by Alaska's Division of Geological and Geophysical Surveys embarked on a research program, running from 2004 to 2007, to help better understand the region's petroleum potential. The team, with funding and support from the state, the U.S. Department of Energy and Bristol Bay Native Corp., included a wide variety of experts, including field geologists, paleontologists and geochemists.

And, following the recent publication of a report on the research results, geologists Rocky Reifenstuhl from DGGS and Paul Decker from Alaska's Division of Oil and Gas reviewed some of the findings from the research program at the May 21 meeting of the Alaska Geological Society.



The Alaska Peninsula and the North Aleutian basin. PB = Puale Bay, WB = Wide Bay, NAS COST 1 = COST No. 1 well, PMHs = location of Port Moller gas seep, BBF = Bruin Bay fault, Usb = Ugashik sub-basin, ULFS = Ugashik Lakes fault system, DRZ = David River zone, marking southern margin of basin, Is = Iliamna sub-terrane with metamorphic and igneous rocks, Cs = Chignik sub-terrane with Mesozoic sedimentary rocks

Petroleum potential

Reifenstuhl characterized the state lands on the Alaska Peninsula as having a complete petroleum system in an area four times the size of the 1002 area of the Alaska National Wildlife Refuge.

"All of the components of a petroleum system are present on the Alaska Peninsula," Reifenstuhl said. "We have sources there. We have high quality oil-prone rocks. … We've got proven Tertiary reservoirs."

Yet, despite this oil and gas potential, only 11 wells have been drilled in the region, he said.

The apparent similarities between the geology of the Alaska Peninsula and the nearby Cook Inlet are striking. A thick succession of strata, Tertiary in age and including sediments deposited by rivers on land, lie in down-warped basins in juxtaposition with a thick succession of older Mesozoic rocks deposited in a marine environment.

All of the Cook Inlet oil and gas fields have reservoirs in the Tertiary. And geologists have shown that the oil originated from Mesozoic rocks buried deep under the Tertiary, while much of the gas originated within the Tertiary sediments, the gas having been formed by bacterial decomposition of organic materials.

The Mesozoic succession on the Alaska Peninsula contains rocks equivalent to the main sources of Cook Inlet oil, and the Tertiary succession on the peninsula includes coal seams and other potential sources of natural gas. But do the Alaska Peninsula and the North Aleutian basin have the potential to become another Cook Inlet oil and gas province?

Source rocks

By sampling from spectacular exposures of Mesozoic strata in cliffs along the southeast side of the peninsula, around Puale Bay, almost opposite the southern end of Kodiak Island, the DGGS-led team confirmed the excellent oil or gas source rock potential of the Kamishak formation, a rock unit equivalent to the prolific Shublik source rock of the North Slope, and the Kialagvik formation, the rock unit that is equivalent to the main Cook Inlet oil source.

And the team determined for the first time that these Mesozoic source rocks have thermal maturities encroaching the low end of the oil window, a finding that seems confirmed by the presence of a well-known oil seep from Mesozoic rocks at Oil Creek, near Wide Bay, some 30 miles to the southwest of Puale Bay.

A chemical analysis of oil from that seep indicates that the oil originates from a Mesozoic source, Decker said.

There are extensive exposures of Mesozoic strata across the Alaska Peninsula near and around Herendeen Bay, southwest of Port Moller. And from an analysis of carbon isotopes in a natural gas seep in Mesozoic rocks south of Port Moller, the team determined that this gas originates from the thermal decomposition of organic material, almost certainly within the Mesozoic, Decker said.

The sequence of Tertiary rocks that forms the North Aleutian basin is exposed onshore in the southern margin of the basin, near Port Moller, and has been sampled near the

see **CLUES** *page 12*

GOVERNMENT

New report addresses changing Arctic

Commonwealth North report recommends U.S. actions to reflect increasing international interest and opportunity in the Arctic region

By ALAN BAILEY
Petroleum News

Commonwealth North, a private organization which provides information about Alaska public policy issues, has published a report called "Why the Arctic Matters," in which experts on the Arctic have put forward a series of recommended actions for the United States, in response to challenges that the nation faces in its far north.

"America doesn't understand we're an Arctic nation," said Mead Treadwell, vice president of Commonwealth North, on May 20 when telling a Commonwealth North forum in Anchorage about publication of the report. "We sent a check to Russia in 1867, bought a piece of real estate. … And yet today the questions of what is the value of the Arctic and so forth are continuing."

Oil and gas are critical to the economy of Alaska, and to Arctic nations such as Canada and Russia. At the same time, the whole world is mindful of important Arctic wildlife such as the polar bear. Alaska has become a central point for international air transportation and might in the future take on a similar role for Arctic shipping, Treadwell said.

And changes that are happening in the Arctic are bringing pressing issues that require responsible actions.

"As the Arctic becomes accessible we must both respond to the Arctic's opportunities and sustain those things in the Arctic we've always held dear as a people," Treadwell said.

The new report has focused both on the rich Arctic assets and on the need for a U.S. and Alaska Arctic agenda, he said. Those assets include food resources; support for global commerce and security; vast lands and oceans that are critical to the Earth's climate; oil, gas, coal and minerals; renewable energy sources; and indigenous cultures.

Oil and gas are critical to the economy of Alaska, and to Arctic nations such as Canada and Russia. At the same time, the whole world is mindful of important Arctic wildlife such as the polar bear. Alaska has become a central point for international air transportation and might in the future take on a similar role for Arctic shipping, Treadwell said.

The main conclusion from the study that led to the report was that Alaska's assets, managed well, will sustain the state, he said.

Recommendations

Report recommendations include continued Arctic scientific research; sustainable development of Arctic regions, with an improved standard of living for Arctic residents; helping Arctic residents adapt to climate change; considering the contribution of Alaska and the Arctic in mitigating climate change; investing in new infrastructure, including new icebreakers, to accommodate increased human activity in the Arctic; and supporting stable legal institutions in the Arctic, especially the ratification of the U.N. Convention on the Law of the Sea treaty.

And the indigenous peoples of the Arctic need to be included in government decision-making processes, the report says. ●

Murkowski calls for more polar icebreakers


SEN. LISA MURKOWSKI

U.S. Sen. Lisa Murkowski, R-Alaska, told the Senate Foreign Relations Committee May 5 that the United States needs more icebreakers to replace and augment the country's meager inventory of two elderly polar class vessels, an inventory that Murkowski characterized as a "serious shortage of pieces" in a global chess game that is playing out in the Arctic.

"At present the Russians have 18 icebreakers, and are planning on building three more. Finland has seven and Canada six," Murkowski said. "The United States has two working icebreakers and a third in caretaker status. Even China, which doesn't have any Arctic waters, has one. I would encourage the committee to strongly support increasing the U.S. icebreaker fleet and replacing the two aging polar class vessels."

Roundtable on Arctic

The committee was conducting a roundtable discussion on the global implications of a warming Arctic, a climatic trend that is reducing the Arctic sea-ice extent and thus triggering an increase in shipping, oil and gas activity, tourism and research in the Arctic Ocean.

Murkowski also encouraged the committee to support ratification of the U.N. Convention on the Law of the Sea treaty.

"While there are many issues of priority in the Arctic, the one in which I believe the committee should prioritize first is ratification of the U.N. Convention on the Law of the Sea," Murkowski said. "I suggest that the Committee expeditiously hold a hearing to frame the issue, inform new committee members and allow them to see the broad support for ratification."

Murkowski also urged attention to President Bush's revamped Arctic Region Policy, issued at the end of Bush's presidency and formally acknowledging that the United States is an Arctic nation.

—ALAN BAILEY

FINANCE & ECONOMY

Shell announces major reorganization

On May 27 Shell announced management and organizational changes that will take effect on July 1, when Peter Voser takes over from Jeroen van der Veer as chief executive officer.

The company's current three upstream business units — Exploration and Production, Gas and Power and Oil Sands — will be re-jigged as two businesses: Upstream Americas, covering North and South America, and Upstream International, covering the rest of the world, the company said. Marvin Odum, currently executive vice president of Exploration and Production Americas, will become director of Upstream Americas. Malcolm Brinded, currently executive director of Exploration and Production, will become executive director of Upstream International.

A Trading and Alternative Energy business unit will be added to Shell's downstream refining, marketing and chemicals businesses, although wind energy will be part of the company's upstream businesses. A new business, Projects and Technology, will handle all of Shell's project delivery, technical services and technology capability for the company's upstream and downstream businesses, as well as overseeing the company's safety and environmental performance. And corporate functions such as human resources will be moved directly into the individual business units, or consolidated into the portfolios of the company's chief financial officer and human resources director.

"This new structure will increase accountability in the company and improve Shell's performance on delivering new projects and developing new technologies," Voser said. "These changes will increase our focus, accelerate our plans to reduce complexity, corporate overheads and costs, and result in faster decision-making and delivery."

"We have made good progress on simplification and improving efficiency in recent years, but the competition is not standing still, and neither is Shell," said van der Veer.

—ALAN BAILEY

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CLUES

deepest part of the basin, offshore Port Moller, from the 1982-83 drilling of the COST No. 1 well. The Tertiary sequence contains potential source rocks, but analyses by the DGGS-led team indicates that the majority of possible Tertiary sources are more likely to generate natural gas than oil, thus confirming a widespread view that the North Aleutian basin is likely to be gas prone rather than oil prone.

Tertiary oil?

One possible exception is the Tolstoi formation, a rock unit relatively low in the Tertiary section. The Tolstoi exhibits characteristics intermediate between oil prone and gas prone source rocks and, although a microscopic examination of the organic material in the Tolstoi suggests a marginal potential for the generation of liquid hydrocarbons, it is likely that Tertiary oil shows found in some wells in the region originated from this rock, Decker said.

And the COST well bottomed in the Tolstoi at a depth of 17,000 feet, about 5,000 feet below the top of the zone in which temperatures would have been high enough to cause oil to form, thus giving rise to speculation about whether oil may exist in the deeper parts of the North Aleutian basin.

From the perspective of reservoir rocks that might host oil and gas migrating out of the source rocks, the DGGS-led team identified a range of candidate rock units, with the Tertiary Bear Lake formation having the most promising reservoir characteristics. At the bottom end of the reservoir-quality scale sit tight gas sands, suitable for holding gas rather than oil and mostly found in the Mesozoic.

The Alaska Peninsula region exhibits many geologic structures that could trap oil and gas, and the DGGS-led team found rocks fine grained enough to seal the hydrocarbons in a rock reservoir — tests revealed that many potential seal rocks in the Bear Lake and Tolstoi formations would be capable of capturing a commercial-sized oil or gas pool, Decker said.

Regional structure

And the team has made substantial progress in gaining an understanding of the major geologic structures in the region, an understanding that has been hampered by a lack of rock exposed at the surface in much of the peninsula and a shortage of seismic data that might shed light on the subsurface geology.

In particular, a major regional fault, the Bruin Bay fault, runs through the northeastern end of the peninsula but, because of a lack of exposed rock, cannot be traced south of Becharof Lake, near Puale Bay. The location of this fault is of crucial importance because it marks the boundary of metamorphic and igneous rocks, with no petroleum potential, to the northwest, and the Mesozoic strata with petroleum potential to the southeast.

Decker explained how, primarily using aeromagnetic data, it is possible to identify a major structural dislocation that the team has called the Becharof discontinuity, trending northwest from the known southern limit of the Bruin Bay fault. Southwest of the discontinuity lies a newly identified minor basin, termed the Ugashik sub-basin. And to the east of the Ugashik basin a system of faults known as the Ugashik Lakes fault system, runs southwest from the Bruin Bay fault down the peninsula to the southern boundary of the North Aleutian basin in the Port Moller area.

If the Ugashik Lakes fault system represents the southern continuation of the Bruin Bay fault, that might suggest that petroleum bearing Mesozoic rocks are absent under the deep part of the North Aleutian basin, thus making it unlikely that Mesozoic oil has migrated into the Tertiary, as in the Cook Inlet basin. However, there is as yet insufficient evidence to substantiate what happens to the Mesozoic at depth under the basin.

And the Tertiary rock sequence on the Alaska Peninsula and in North Aleutian basin by itself constitutes a complete petroleum system, Reifenstuhl and Decker said.

The Alaska Peninsula report is available on the DGGS Web site at www.dggs.dnr.state.ak.us/pubs/pubs?reqtype=citation&ID=17921. ●

On the Web

See previous Petroleum News coverage:

"Alaska Peninsula oil seeps investigated," in Oct. 23, 2005, issue at www.petroleumnews.com/pnads/207014842.shtml

"State posts new Alaska Peninsula findings," in Oct. 16, 2005, issue at www.petroleumnews.com/pnads/659525978.shtml

● LAND & LEASING

NSB municipal allotment proposal out

Preliminary entitlement decision, site plan for some 5,300 acres on North Slope published by Division of Mining, Land and Water

By KRISTEN NELSON

Petroleum News

The Alaska Department of Natural Resources Division of Mining, Land and Water has issued a preliminary municipal entitlement decision for North Slope Borough land selections.

The division said the preliminary decision and a draft site specific plan to reclassify and convey certain borough land selections are available at www.dnr.alaska.gov/mlw/muni/; comments are due Aug. 7.

The borough's selections are primarily in the Prudhoe Bay and Deadhorse area in the oil field beyond the security check points, with a few of the selections in Deadhorse and one selection some five miles south of Deadhorse along the Dalton Highway.

The division said the selections proposed for conveyance are intended to serve as a land base for public facilities as well as for industrial and economic development within the borough.

Some 5,300 acres are proposed for reclassification to provide for the proposed conveyance.

Municipal entitlements

In its decision the division said Alaska has passed various statutes entitling Alaska boroughs and unified municipalities to receive general land grant entitlement from vacant, unappropriated and unreserved state land within their boundaries.

In 1973 the North Slope Borough filed applications for its municipal entitlement for lands overlying the developed North Slope oil fields — at that time primarily Prudhoe Bay. Those applications were rejected by the state on the basis that it was in the best interests of the state to retain those lands and that decision was upheld by the Alaska Supreme Court in 1978.

While pursuing its appeal in the case the North Slope Borough allowed its right to select any further municipal entitlement lands under the then-current law to expire, the division said.

In 1987 the Legislature amended the Municipal Entitlement Act and granted the North Slope Borough 89,850 acres in new municipal entitlement rights, at the same time excluding from the definition of vacant, unappropriated and unreserved land all land classified as resource management land prior to Sept. 1, 1983.

"By this exclusion, the Legislature intended to prevent the NSB from receiving land within the Prudhoe Bay field, which was virtually all classified as resource management land prior to 1983, as part of its entitlement," the division said.

The North Slope Borough filed new municipal entitlement applications under the 1987 law, but despite the Legislature's exclusion of pre-1983 resource management lands, many of the borough's new selections included pre-1983 resource management lands overlying the Prudhoe Bay and surrounding oil fields.

The division said that to date some 5,006 acres have been approved for conveyance to the borough, leaving an entitlement balance of some 84,844 acres. While the selections under consideration in the present decision are only a portion of the total selections made by the borough, the division said the borough has selected less than its full 89,850 acre entitlement.

The decision considers some 23,521 acres selected by the borough within the central North Slope oil fields.

The division said if DNR reclassified lands in the oil field area, "the oil and gas land classification would be applied where the present or future use is most probably related to oil and gas exploration and development. This would be an unconveyable classification and would not result in the approval of any of the NSB selections under consideration."

Numerous parcels

The division evaluated numerous parcels shown on 14 maps in the preliminary decision.

The division said only two parcels or portions of parcels selected have current land classifications within the statutory vacant, unappropriated and unreserved land category and thus could be conveyed without any further action.

Any of the other parcels would have to be reclassified before they could be conveyed, and because of that the division said it has treated the borough's selections as an implied request to review the land classification of the selected parcels.

The preliminary decision includes an analysis of land classification for the selected parcels and a determination of whether reclassification is appropriate.

"Parcels affected by this decision that are determined to be appropriate for reclassification must actually be reclassified through a site specific plan that establishes the classifications and management intent for the parcels," the division said, and that plan is included for the parcels determined to be appropriate for reclassification.

The division said its decision proposes to approve some 6,855 acres for conveyance — reclassifying those lands as necessary — "subject to valid existing rights."

The division said it is proposing to reject some 16,074 acres of borough selections "on the grounds of classification, overriding state interests, or both."

Any action on approximately 592 acres is postponed because the state does not currently have title or tentative approval for conveyance or patent to the land.

Land classification analysis

The division said that nearly all of the North Slope Borough selected land considered in the decision was either classified resource management land prior to Sept. 1, 1983, or is classified as reserved use land, and not conveyable without reclassification. DNR classifications "identify the primary use for which the land will be managed, subject to valid existing rights and to multiple use, and directly relate to the predominant resource value of an area, the current pattern of land uses, and the expected future pattern of such uses," the division said.

The public interest may warrant reclassification of lands selected by the borough where the current land classification is not appropriate; or where land use supports reclassification, reclassification potentially would allow the land to be conveyed to the borough and DNR determines that the land should be conveyed to the borough as a part of its municipal entitlement. The division said land would have to meet all of those criteria to be reclassified.

The most prevalent use of lands in the area of North Slope Borough selections is oil and gas development, the division said, "including exploration, production, storage and transportation," uses which are expected to be predominant in the future.

The division said if DNR reclassified lands in the oil field area, "the oil and gas land classification would be applied where the present or future use is most probably related to oil and gas exploration and development."

"This would be an unconveyable classification and would not result in the approval of any of the NSB selections under consideration."

Within this area, the division said, it could be appropriate under certain circumstances to classify individual parcels or portions of parcels as something other than oil and gas land, "if such use does not interfere with the on-going or expected future oil and gas use of the area. Accordingly, DNR reviewed each parcel to determine if any other classification could be applied to any parcel or portion of a parcel, without adversely affecting the predominant oil and gas use of the area."

The classifications of land available for municipal entitlement include settlement and material land. Settlement land is land suitable for commercial or industrial development; material land is suitable for extraction of sand, gravel, stone, peat, clay and similar materials.

The decision includes a parcel-by-parcel analysis of land use considerations. ●

OUR ARCTIC NEIGHBORS

Norway opens new Arctic areas for drilling

A new management plan for the Norwegian Sea bans drilling in several coastal areas but also opens some new Arctic areas for drilling, including the waters around Jan Mayen Island. The Norwegian government's announcement of the plan raised the hackles of environmental groups such as the Bellona Foundation that oppose offshore drilling in the Arctic.

"The management plan is a starting point for robust, good and balanced management of the Norwegian Sea," Environment Minister Erik Solheim said at a press conference May 8. "I expect that the measures in the plan will help clarify and reduce controversies between environmental considerations and industrial interests."

"The Norwegian Sea will be the cornerstone of the Norwegian petroleum industry in the years to come," Petroleum and Energy Minister Terje Riis-Johansen said. "We have chosen to wait in areas where we need more knowledge. Through clear and predictable terms for the activities in other areas, and by further developing activity in the Norwegian Sea, we are at the same time preparing for good business development."

One of the management plan's stated goals is to create a basis for better coexistence between the fishing and petroleum industries. It will also continue the ecosystem-based administration of fish stocks and efforts to prevent illegal fishing.

"Sustainable rich fish stocks are dependent on a clean and healthy sea," said Minister of Fisheries and Coastal Affairs Helga Pedersen. "In this respect the management plan signals a message of great importance both for marine resources and fisheries."

—SARAH HURST

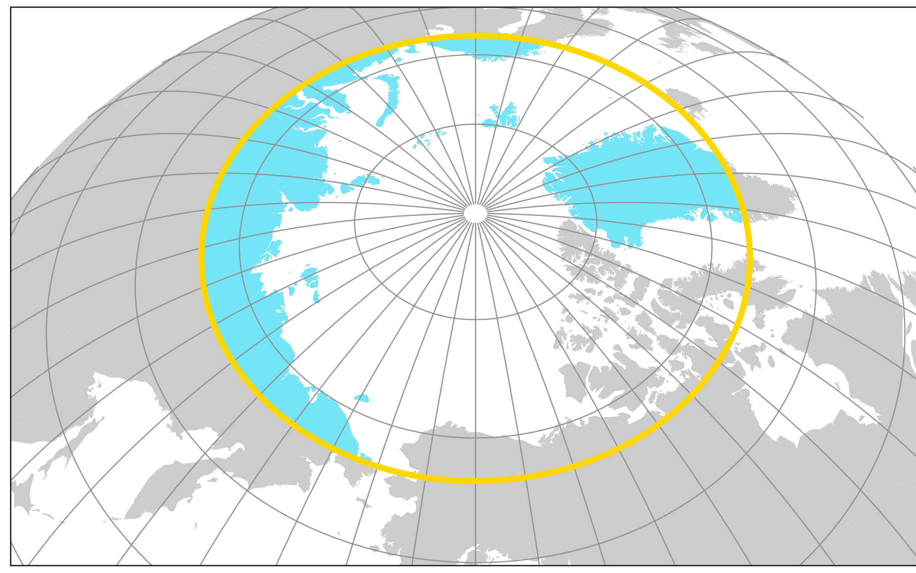
Canada produces Arctic geological atlas

The Geological Survey of Canada has published the first comprehensive atlas of the Arctic showing geological features that could indicate where petroleum and mineral resources are located. The atlas contains data compiled by all the nations in the Arctic at a cost of $1 billion. The main overview map is available electronically and breaks down into 1,222 units for greater detail.

"The atlas documents the bedrock geology for the region in a seamless and internally consistent fashion," Micheline Joanisse of the GSC told Petroleum News in an e-mail. "Any map user who knows the geological context for a given resource they are interested in (i.e. age and type of rock which could contain said resource) will be able to use the document to map out all areas of potential interest inside and outside of Canada."

"Classic Russian maps show rock age, whereas North American convention is to also show their composition such as limestone or sandstone," GSC senior scientist

see ATLAS page 15



● OUR ARCTIC NEIGHBORS

Norwegian government approves Goliat plan

Operator Eni, partner StatoilHydro must wait for outcome of debate in parliament before developing first Barents Sea oil field

By SARAH HURST
For Petroleum News

The Norwegian government has approved the plan for development and operation for the Goliat oil field, which would be the first oil field to be developed in the Barents Sea. Norway's parliament will now consider the plan, the Ministry of Petroleum and Energy announced in a release May 8. Italy's Eni is the operator of Goliat, with a 65 percent stake in the field, and Norway's StatoilHydro owns the remaining share.

"Goliat represents one of the largest industrial projects ever undertaken in the High North."
—Terje Riis-Johansen, Norway's minister of petroleum and energy

"Goliat represents one of the largest industrial projects ever undertaken in the High North," said Norway's minister of petroleum and energy, Terje Riis-Johansen. "The development of Goliat will provide revenues to Norwegian soci-

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continued from page 14

ATLAS

Marc St-Onge told AFP news agency.

The atlas may also help to resolve international boundary disputes, or perhaps inflame them further.

"Our atlas shows that the Lomonosov Ridge under the North Pole where Russia planted an undersea flag last year is actually part of the North American plate," St-Onge said. "It was once part of the Bering Sea platform which in part belongs to Russia, but it separated 61 million years ago and has since moved 900 kilometers (560 miles). More detailed surveying of that area is required, of course, but it looks like it's Canadian."

—SARAH HURST

continued from page 14

GOLIAT

ety, result in local spinoff effects, and will directly and indirectly create approximately 500 jobs in the county of Finnmark for a period of 15 years."

Eni's regional office will be based in the city of Hammerfest — which is already the base for StatoilHydro's offshore Snohvit gas field — and the helicopter terminal and supply base will be located in the area around Hammerfest. The company has agreed to adapt its contract strategy for modification and maintenance contracts so that local suppliers will be more able to compete for those contracts. Investments related to Goliat are estimated to be about NOK 28 billion ($4.3 billion).

From startup the majority of the electricity for Goliat will be provided by the onshore power grid, and the plan is to reduce the use of the gas turbine at Goliat whenever possible.

"It has been important to me that Goliat shall be able to be provided with energy from land. This is accomplished," said Riis-Johansen. "The power situation in Finnmark does not allow Goliat to be run exclusively on electricity from land from the time of production startup. However, I have started a process so that this will be feasible in 2017."

Electric cable link planned

Eni Norge has submitted an application for a permit to build an electric cable link between mainland Norway and Goliat's offshore floating production facility, with associated new electrical substation and distribution grid upgrades on land, the company said in a release May 14. The subsea cable will be 62 miles long and will be combined with a gas turbine-driven generator incorporating thermal recycling.

Eni aims to complete processing of the permit application by spring 2010, and the company has signed a letter of intent with Hammerfest Energi Nett concerning work on the mainland.

Due to the specific challenges in the area, oil spill preparedness is a high priority, the government said. Eni will take measures to reinforce oil spill preparedness in affected municipalities such as Masoy, Hasvik and Nordkapp.

The Goliat field is also subject to a greenhouse gas quota and will have to pay a CO2 tax. The Norwegian parliament is expected to debate the Goliat project during the second quarter of 2009, with production scheduled to start in the fourth quarter of 2013. ●

● GOVERNMENT

Revised annular injection regulations proposed by AOGCC

By KRISTEN NELSON

Petroleum News

The Alaska Oil and Gas Conservation Commission is proposing to revise its regulations for annular disposal of drilling waste. The agency said May 21 that the regulations will be fully revised to clarify the requirements and its authority to regulate annular disposal of drilling waste; to modify the information that must be submitted with an application for authorization; to modify the limitations on and conditions of authorization; and add to a provision for requesting variances and waivers.

The proposed regulation changes are available on the commission's Web site at www.aogcc.alaska.gov. Written comments, including potential costs of compliance, are due by June 30.

Written and oral comments may be submitted at a hearing scheduled for July 23 at 9 a.m. at the commission's Anchorage offices at 333 West 7th Ave., Suite 100.

More specific info required

Commissioner Cathy Foerster told Petroleum News in a May 22 e-mail that the commission is reorganizing the regulations for clarity and to be "more specific in the information that we require in the application."

Foerster said that under the new regulations the commission is limiting disposals to 90 days within the permit year.

The new regulations specify that "wastes may not migrate out of the disposal zone" compared to a requirement in the present regulations that wastes can't migrate to the surface.

"We're asking for plats showing nearby wells," she said. "We used to just ask for a list of nearby wells."

The new regulations also ask for a list of all operators and surface owners within a quarter mile and for an assessment of shallow seismic information within a quarter mile.

Under the new regulations the applicant would have to provide an estimated density of the disposal slurry; provide casing and cementing records; and provide the salinity of all water penetrated by the well, she said.

The new regulations require continuous monitoring of the disposal operation and include new incident and quarterly reporting requirements.

Forester also said the new regulations provide for approval of variances and waivers of the requirements administratively. ●

● PIPELINES & DOWNSTREAM

Home refining causes fires, explosions

Fire officials warn of dangers, consider new restrictions after incidents in Washington, Arizona, Colorado, Massachusetts, Oregon

By PHUONG LE
Associated Press Writer

Trying to live green and beat high gasoline prices, some enterprising Americans are turning cooking oil into biodiesel in their garages. Problem is, some of these do-it-yourselfers are burning down the house.

Fire officials around the country are warning of the dangers and considering new restrictions to make sure people don't torch the whole neighborhood.

"You won't find a rule anywhere that says you can't cook biodiesel in your garage," said Bob Benedetti, a flammable-liquids engineer for the National Fire Protection Association in Quincy, Mass.

Ferocious fires and explosions blamed on backyard refining operations have been reported in Washington state, Arizona, Colorado, Massachusetts and Oregon. No deaths or serious injuries have resulted, but some fire officials say it is only a matter of time.

In recent years, many Americans have discovered that diesel cars can run on fuel made primarily from vegetable oil, and about the only drawback is a French fry smell. Some motorists are going so far as to brew their own fuel from used frying oil obtained from restaurants, which are often glad to get rid of the gunk for little or no charge.

Biodiesel is typically made by combining the cooking oil with methanol, or wood alcohol, in a mixture heated to about 120 degrees. But methanol is highly flammable. And frying oil, as any cook knows, can catch fire if it gets too hot or comes into contact with a flame.

The results can be spectacular, particularly in cases where home refiners have stockpiled tanks and barrels of material.

Barn fire in Oregon

When a barn caught fire in 2006 outside Canby, Ore., "it was a huge column of black smoke unlike anything I'd ever seen in a typical fire," said Canby Fire Marshal Troy Buzalsky. "We had flames that scorched nearby 70-foot trees. It was so hot that it burned aluminum and sagged metal."

The blaze was caused by an electrical short, and the flames eventually ignited a 275-gallon plastic container of fuel.

"I took a lot of safety measures. It was pretty mind-blowing when I did have a fire," said Jeff Brandt, the barn's owner. He said he had even visited his local firehouse to let them know what he was doing. But the blaze hasn't discouraged Brandt from continuing to make fuel.

In Phoenix, officials may restrict residential biodiesel production to properties of one acre or more, Fire Chief Bob Kahn said.

"We're trying not to discourage people from doing it," Kahn said. But "when you're rendering in it in a garage in a family or neighborhood setting, you're exposing an awful lot of people to this potential hazard."

Biodiesel relatively easy

Setting up a home biodiesel operation is relatively easy. With hundreds of how-to guides posted online and kits for sale, enthusiasts can get started with less than $500.

"It's a fun little hobby, like making your own beer," said Lyle Rudensey, who brews about 50 gallons per month in his Seattle garage to heat his home and run his car. "It's really kind of neat to go into your garage and fill up."

But in the classes he has taught for three years, Rudensey urges people to take precautions such as storing chemicals in metal cabinets and keeping fire extinguishers on hand. Similarly, Bill Carney, who gives workshops in Louisiana, said he tries to scare his students with horror stories and pictures of fires.

In the Phoenix suburb of Surprise, fumes from chemicals used to make biodiesel caused an explosion and fire at a home in August. In Colorado in 2006, a homeowner who was processing a tank of homemade biodiesel forgot to turn off the heating element, and a fire burned the surrounding shed and equipment. Investigators found seven 55-gallon barrels of methanol and other hazardous materials.

Vapors caused explosion

In Monroe, not far from Seattle, chemical vapors caused an explosion last April in an attached garage where a homeowner was brewing biodiesel. Firefighters put out the fire before it caused serious damage. In December, a biodiesel blaze broke out in a shed in Edmonds, a Seattle suburb, and quickly destroyed the owner's house.

Edmonds Fire Chief Thomas Tomberg said he wants to see a code that tells home-

see **REFINING** *page 17*

● GOVERNMENT

Feds taking comments on Arctic fisheries

By MARY PEMBERTON

Associated Press Writer

A federal agency says it will open a public comment period on a proposal to prohibit commercial fishing in Arctic waters in the Beaufort and Chukchi seas.

The North Pacific Fishery Management Council adopted the plan in February. That plan is now open for public review. It still needs the final approval of the Secretary of Commerce.

The plan has been hailed by environmentalists and industry representatives alike, who say summertime melting of sea ice has increased interest in commercial fishing in the Arctic.

The plan would prohibit industrial fishing in nearly 200,000 square miles of U.S. waters in the Beaufort and Chukchi seas until researchers can gather sufficient information on fish and the Arctic marine environment. It identifies Arctic cod, saffron cod and snow crab as species that likely would be targeted by commercial fishermen.

"This is a precautionary approach that has the United States saying to the world we are very concerned about what is going on in the Arctic," Jim Ayers, vice president of Oceana, said May 26.

If the plan gets final approval, it could go into effect early next year.

> *"Historically, there have been no commercial fisheries in our Arctic seas. But with the Arctic sea ice receding, more human activities may likely begin there, including increased interest in commercial fishing."*
>
> **—Doug Mecum, acting administrator of the Alaska region of the National Oceanic and Atmospheric Administration**

Plan sets up framework

Doug Mecum, acting administrator of the Alaska region of the National Oceanic and Atmospheric Administration, said the plan sets up a framework for possible development of Arctic fisheries in decades to come. Until now, commercial fishing interests have mostly stayed in the North Pacific but warming of the Arctic and the melting of sea ice has opened up vast stretches of the Beaufort and Chukchi for possible development.

"Historically, there have been no commercial fisheries in our Arctic seas," Mecum said. "But with the Arctic sea ice receding, more human activities may likely begin there, including increased interest in commercial fishing."

The plan would govern all commercial fishing for all stocks of finfish and shellfish in federal Arctic waters off Alaska, except Pacific salmon and Pacific halibut. Those fish are managed under other authorities. It would not affect fisheries for salmon, whitefish and shellfish in Alaska waters near the Arctic coastline. The proposed plan would not affect Arctic subsistence fishing or hunting.

Message to other industries

Ayers said the plan sends the message that the United States is going to suspend industrial fishing activities until it understands more about the warming of the Arctic and ocean acidification. He hopes the message gets across not only to other countries but also to certain industries looking to do business in the Arctic.

"Oil and gas is foremost on our minds these days," he said. "We've been saying stop and look at what is going on in the Arctic. We are hoping the oil industry catches on to this approach."

Chris Krenz, Oceana's Arctic project manager, said the plan has broad-based support.

"This is a big opportunity for the rest of the public to weigh in and help push this forward," he said.

Comment will be taken until July 27. ●

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REFINING

brewers what they can and cannot do.

In Northborough, Mass., a biodiesel fire in 2007 destroyed a home and caused about $350,000 in damage, Fire Chief David Durgin said. The homeowner had served in Iraq and wanted to stop relying on foreign oil.

"They got out with the clothes on their backs and their lives," Durgin said. But he added: "Somebody ultimately will have a fire, burn their homes, be injured or killed by this." ●

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BP

of the spills, lawyers for BP including Anchorage attorney Jeff Feldman argued the state doesn't deserve such collections.

The company's lawyers assered that the partial field shutdown wasn't the result of the spills. Rather, BP "chose to conduct additional maintenance to ensure the integrity of critical infrastructure, reduce the risks of future spills, and extend the operating life of the field."

Amount could reach $1 billion

A state attorney has said the back tax and other collections potentially could approach $1 billion.

"The State seeks damages based on a theoretical 35,000,000 barrels of oil that it alleges were 'lost' due to the shutdown," BP's attorneys write in support of their motion to dismiss part of the state's case. "These claims are not supportable because no oil was lost as a result of the partial shutdown for maintenance and because the applicable law does not permit recovery of such damages. Oil not produced in 2006 remained in the reservoirs; its production was deferred, not lost. To allow the State to collect 'damages' based on royalties and taxes it claims it did not receive because of the partial, temporary shutdown would result in the State collecting those sums twice — both upon production of the oil and as damages in this litigation."

BP and the state's lawyers do agree on one thing: BP owes a fine of at least $1.7 million for the largest of the two pipeline spills to occur in 2006 in the Prudhoe Bay field — a release of 212,252 gallons that covered about two acres of tundra and the edge of a frozen lake.

Saying it wants to "narrow this case," BP is asking the court to dismiss three of the nine counts in the state's lawsuit.

One count accuses BP of "negligence" with respect to monitoring and controlling corrosion in Prudhoe pipelines. The second count argues BP, because of its negligence and the resulting "extensive production shut-ins," is liable for oil waste harmful to the state's interests. The third count seeks punitive damages.

BP's lawyers argue the company, through its oil leases and unit agreements, has a contract with the state, and violations of that contract subject the company to a "comprehensive system of statutes and regulations" meant to discourage oil spills, punish offenders and deter future spills.

BP says waste claims should be heard by AOGCC, not court

With its negligence and punitive damages claims, the state is improperly pursuing "tort claims," BP's lawyers argue. A tort generally is defined as a wrongful act, not including a breach of contract, that results in injury to a person or property.

The court also should dismiss any waste claims, or defer them to the AOGCC to investigate, BP's lawyers say.

"Waste of oil is a highly technical subject, better suited for initial resolution by the AOGCC than by a lay jury," BP's court filing says.

BP and the state's lawyers do agree on one thing: BP owes a fine of at least $1.7 million for the largest of the two pipeline spills to occur in 2006 in the Prudhoe Bay field — a release of 212,252 gallons that covered about two acres of tundra and the edge of a frozen lake. State statutes clearly spill out a penalty of $8 per gallon.

But state lawyers are seeking four times the base penalty, or almost $6.8 million, because the spill was "caused by gross negligence" or because BP didn't follow its oil spill prevention and cleanup plan.

Steve Mulder, the assistant attorney general leading the state's case, said May 28 he didn't have any immediate comment on BP's court filing.

Civil suits filed in March

The state and federal governments each filed civil lawsuits against BP Exploration (Alaska) Inc. on March 31, part of continuing fallout over spills from corroded oil transit pipelines in 2006. The major spill was discovered in March of that year, while the second spill in August forced a partial shutdown of the nation's largest oil field and subsequent replacement of miles of transit pipelines.

The transit lines are major trunk lines that carry processed, sales-grade crude oil out of the vast Prudhoe field and feed it into the 800-mile trans-Alaska pipeline to the tanker port at Valdez.

The spills drew intense scrutiny of BP from federal pipeline regulators as well as Congress. In late 2007, BP Exploration pleaded guilty to a federal pollution misdemeanor, and a judge put the company on probation for three years and ordered more than $20 million in penalties.

That took care of the criminal aspect of the corrosion scandal and spills. The state and federal lawsuits address the civil side.

The federal suit, which the Department of Justice filed in the district court in Anchorage on behalf of the U.S. Environmental Protection Agency and pipeline regulators, alleges violations of the Clean Water Act and the Clean Air Act. As of May 27, no activity had occurred in that case.

In an annual report filed in March with the U.S. Securities and Exchange Commission, BP disclosed that it had been "engaged in discussions" with government officials. But those talks evidently weren't enough to reach a settlement and head off the civil suits. ●

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KEARL

barrel bitumen resource is mined out.

It's the culmination of four years' preparation and an investment of C$800 million.

Imperial Chief Executive Officer Bruce March described the undertaking as "the biggest single investment the company has ever made in a pretty volatile period."

In moving against the flow, which has seen 13 oil sands projects worth about C$90 billion either cancelled or delayed over the past nine months, Imperial has jolted the oil sands back to life.

On the cusp?

Robin Mann, chief executive officer of AJM Petroleum Consultants, wasn't quite ready to declare that the oil sands have regained full health.

"But I think we're on the cusp," he told the Globe and Mail.

A spokesman for rival producer Suncor Energy was even more emphatic, declaring "It's a matter of when, not if" his company revives its own sidelined projects, some of which will go into a larger mix if the anticipated second-half merger with Petro-Canada is completed.

Will Roach, chief executive officer of UTS Energy, which owns 20 percent of Petro-Canada's proposed Fort Hills project, sees the Kearl decision as evidence that imminent environmental regulations affecting the oil sands are seen by ExxonMobil as manageable and will not impede the company's ability to achieve its financial objectives.

Andrew Potter, an analyst with UBS Securities, estimates Kearl will need oil prices of US$70 per barrel to be profitable; William lacey, of FirstEnergy Capital, puts the threshold at US$80.

Potter calculates the C$8 billion first-phase costs average out at C$73,000 per flowing barrel, more than the C$6.6 billion and C$60,000 per barrel he had anticipated.

But he said "Now is the time to build" when Imperial is in such a strong financial position, with virtually no debt.

Lacey said the company entered 2009 with C$2 billion cash in hand and is in a position to cover project costs from internal cash flow without needing help from capital markets.

Even if oil slips to US$50 per barrel, the company could likely buy back 2-3 percent of its shares and still finance the development with internal funding.

Tristone Capital analyst Chris Feltin said Imperial can "execute on a major project in an environment where costs look to be trending down" and could come in below C$8 billion "if they are able to lock in even lower rates than they are estimating now."

A billion may have been saved

March told an investor conference May 26 the partners may have saved up to C$1 billion by stalling corporate sanctioning and taking advantage of a downturn in costs since late 2008.

In the process it has determined that operating costs will be "substantially lower" than previously anticipated.

Other oil sands proponents, such as Suncor, Petro-Canada and Canadian Natural Resources, report that contractors and suppliers are now more willing to renegotiate deals, while the Alberta shortage of construction labor has eased.

Alberta Energy Minister Mel Knight said the Karl decision points to renewed interest in the oil sands.

He said companies have been able to use recent months to re-examine their costs and "determine whether or not their projects are now at the right time to move forward."

March said initial bitumen production will be upgraded at the company's two refineries in Ontario, followed by sales to upgraders in Alberta.

Production could also go to other Alberta upgraders, followed by markets in the U.S. Midwest and Gulf Coast, where diluted bitumen from Kearl would fit well with refineries designed to run heavy Mayan crudes from Mexico. ●

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NUMBERS

which, in itself, was a pretty dismal showing.

British Columbia, the only province to remain within reaching distance of last year's drilling performance, has seen its land sales returns nosedive to C$68 million for 247,000 acres from last year's C$759 million for 534,000 acres and Saskatchewan's second sale of 2009 fetched C$11.68 million from 84,397 acres, compared with the April 2008 auction that raised C$266 million on 240,882 acres.

Completions off 42 percent

Well completions in the first four months tallied 3,096, off 42 percent from last year's 5,343 wells and 62 percent below the January-April record of 8,061 wells in 2006.

Alberta drilled 2,301 wells in the four-month period, a drop of 43 percent from a year earlier; Saskatchewan experienced a 52 percent plunge to 403 wells; and British Columbia posted a 15 percent decline to 334 wells.

The balance of wells were drilled in northern Canada, Manitoba and Atlantic Canada.

The industry's mood was clearly captured in the number of new well approvals by regulators, which reached 3,883 wells in the first four months, a drop of 50 percent in a year, with the April count taking a 57 percent dive to 911.

Well completions in the first four months tallied 3,096, off 42 percent from last year's 5,343 wells and 62 percent below the January-April record of 8,061 wells in 2006.

And no sector was spared the pain, with oil-targeted licenses slumping to 1,081 from 2,111 and gas recording a 51 percent decline to 1,790.

Of the 93 Canadian producers who have released their 2009 capital budgets, spending is heading for a dramatic fall to C$35.3 billion in field activities, off C$20 billion from 2008, with oil sands projects sliding to C$12 billion from C$20 billion last year.

Combined capital and operating expenditures in the oil sands are now estimated by the Oil Sands Developers group at just under C$25 billion, less than half the original forecasts and, despite signs of some recovery, are predicted to fall short of C$30 billion in 2010, C$20 billion under the initial forecast.

—GARY PARK

Petroleum news

Business Spotlight

Northern Air Cargo

FORREST CRANE

Michael Kelley, Chief Pilot

Northern Air Cargo is a company dedicated and committed to serving freight needs throughout Alaska and the world. NAC is a vital part of the supply chain both in rural Alaska and on the North Slope. Every shipment is treated with care and professionalism and the NAC staff has the experience and commitment to take care of a variety of shipping needs.

Joining NAC in 1998, Michael Kelley's defining moment in his career was being accepted as the flight engineer on the DC-6. Michael, originally from Maine, now lives in Eagle River with his lovely wife Suzanne and three daughters. He believes that being blessed with three daughters has helped him develop his talent for patience and understanding.

—MARTI REEVE

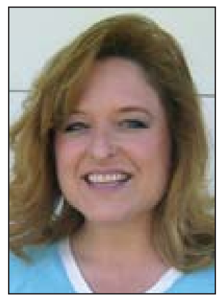
Companies involved in Alaska and northern Canada's oil and gas industry

All of the companies listed above advertise on a regular basis with Petroleum News

Petroleum news

Oil Patch Bits

Carlile has new account manager for Kenai


BECKY DRAGSETH

Carlile said May 11 that Becky Dragseth has moved into the position of account manager for the Kenai Peninsula. Becky's sales area includes Kenai, Soldotna, Homer and Seward, as well as all of the additional communities on the peninsula. Becky, a lifelong Alaskan, previously was the dispatch manager and a driver at the Kenai terminal.

Carlile was founded in 1980 by brothers John and Harry McDonald. The company has grown from two tractors to one of Alaska's largest trucking companies.

Based in Anchorage, Carlile Transportation Systems has 675 employees, including 110 at the Tacoma, Wash., location.

CH2M Hill named employer of the year

CH2M Hill said May 8 that it had been named employer of the year by the State of Alaska Department of Labor and Workforce Development. The award was presented at the annual Building Alaska's Future Apprenticeship Conference. CH2M Hill won the award in the electrical trade category for its innovative internship program.

"I think this is a tremendous award that recognizes what the people of various communities can achieve if given a chance and to the individuals at CH2M Hill who are committed to help them reach their goals of learning new skill sets in their employment efforts," said Charles O'Donnell, president and general manager of CH2M Hill Alaska.

CH2M Hill is an employee-owned firm with a 40-year history in Alaska. It is listed as one of Fortune magazine's best places to work and most admired companies in America.

EFS hosts seminar for new Chapter 12 NFPA 72

Engineered Fire and Safety said May 21 that it is hosting a seminar in cooperation with Siemens Building Technologies on the new Chapter 12 National Fire Protection Association 72 alarm code and emergency communication systems.

The seminar is June 17 at the Millennium Alaska Hotel, Redington Room. Topics will include the history behind the need for Chapter 12, an overview of the NFPA 72 Chapter 12 and UL 25672, industry response, an introduction to the engineering advantage program, and a mass notification demonstration.

EFS is an industry leader in life safety and the asset protection arena. EFS has a full complement of experienced application engineers and technical staff to provide advice and guidance to address the full spectrum of fire and safety needs.

Please RSVP to Don Maupin 907-263-7114, d.maupin@efs-fire.com.

Crowley christens and launches newest deck barge


COURTESY CROWLEY

Crowley said May 20 that its newest heavy-lift series deck barge 455-5 was christened and launched at Gunderson Marine Shipyard in Portland, Ore.

It is the latest in a bevy of new vessel deliveries for Crowley this year.

The 400-foot-long by 105-foot-wide heavy-lift barge will be used to transport the world's largest land-based drilling rig for Parker Drilling and BP.

"We are pleased to be able to continue providing services to customers doing offshore project work with the introduction of the barge 455-5," said Bruce Harland, vice president of contract services for Crowley in Alaska. "This christening and continuous construction of new vessels is evidence of our commitment to our customers who have a need for new, large-sized, high-capacity barges."

Schlumberger acquires Techsia

Schlumberger said May 20 that it has acquired the shares of Techsia SA, a supplier of petrophysical software based in Montpellier, France. Techsia, well-known in the industry for its flagship techlog product, will become Schlumberger Petrophysics Software Center for Excellence for the development of state-of-the-art solutions for the oil and gas exploration and production industry.

"Techlog will form a powerful complement to the industry-leading petrel earth model through an integrated approach to log and core petrophysical interpretation. This will be particularly valuable in enabling real-time workflows for well construction. In addition, once operating in the ocean environment, Techlog will feature the same level of open-platform capability as the rest of our new-generation products," said Tony Bowman, president of Schlumberger Information Solutions.

Schlumberger is the world's leading supplier of technology, integrated project management and information solutions to customers working in the oil and gas industry worldwide.

Editor's note: Expanded versions of these news items will appear in the next Arctic Oil & Gas Directory, which will be released in September.

LAND & LEASING

Potential Alaska state and federal oil and gas lease sales

Agency	Sale and Area	Proposed Date
DNR	Beaufort Sea Areawide	October 2009
DNR	North Slope Areawide	October 2009
DNR	North Slope Foothills Areawide	October 2009
DNR	Alaska Peninsula Areawide	May 2010
DNR	Cook Inlet Areawide	May 2010
DNR	Beaufort Sea Areawide	October 2010
DNR	North Slope Areawide	October 2010
DNR	North Slope Foothills Areawide	October 2010
MMS	Sale 209 Beaufort Sea	2010*
MMS	Sale 211 Cook Inlet	2010*
MMS	Sale 212 Chukchi Sea	2010*
MMS	Sale 217 Beaufort Sea	2011*
MMS	Sale 214 North Aleutian basin	2011*
MMS	Sale 219 Cook Inlet	2011*
MMS	Sale 221 Chukchi Sea	2012*

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

**On April 17, 2009, the U.S. Court of Appeals for the District of Columbia issued an opinion requiring Interior to withdraw and reconsider the MMS 2007-12 oil and gas lease sale program for the outer continental shelf.*

● GOVERNMENT

Sparks fly over the Northwest Passage

Canadian, U.S. perspectives clash during Commonwealth North forum; is the passage an international waterway with access for all?

By ALAN BAILEY
Petroleum News

The Northwest Passage is an international strait used for international navigation, John Norton Moore, director of the Center of Oceans Law and Policy at the University of Virginia School of Law, told a Commonwealth North forum in Anchorage May 20, at the end of a lively debate on the disagreement between the United States and Canada over Canada's sovereignty over the passage, a sea route that seems set to take on new international significance in the face of a shrinking Arctic summer sea ice extent.

"The United States is never going to agree that another nation has the right to stop its warships and its aircraft from going through a strait used for international navigation," Moore said.

Extreme views

Moore said that although the United States is fortunate to have a neighbor like Canada, there are some extreme views in both countries.

People with an extreme position in the United States want to block ratification of the international Convention on the Law of the Sea treaty; people with an extreme position in Canada are "yelling sovereignty," a sovereignty that would prevent U.S. warships having the right of passage through the Northwest Passage, and remove the right of overflight along a major navigational route, Moore said.

Earlier in the forum Stephen de Boer, director of the Oceans and Environmental Law Division for the Canadian Department of Foreign Affairs, had explained the Canadian position, a position that revolves around the question of whether the Northwest Passage falls within the legal definition of an international strait, versus lying within internal Canadian waters.

Since there are several different sea routes around northern Canada, with the question of which route might be used at any particular time depending on the prevailing ice conditions, there is no unique waterway that could be considered as a strait, de Boer said.

"No one is particularly clear where the Northwest Passage is," he said.

And difficulties in defining what is meant by ice-free waters compound the problems, he said.

Needs significant use

Moreover, under international agreements a waterway can only be considered to be an international straight, with complete freedom of access, if the waterway experiences "significant use," a situation that has not yet arisen in the case of the Northwest Passage, de Boer said.

"According to the Canadian Coast Guard there were 11 transits in 2008. Three were Canadian Coast Guard and one was a Canadian pleasure craft," he said. "In 2007 there were 12 transits."

On the other hand, Canada does permit international transit through its waters and has formed an agreement with the United States on the use of icebreakers in Arctic waters. And one of Canada's prime concerns, in maintaining sovereignty over what it views as its internal waters, is the country's ability to impose Canadian environmental laws on people using the waters, de Boer said.

And since the waters in question are entirely within Canadian jurisdiction, an international commission of the type used for the Saint Lawrence Seaway would not be an appropriate means of waterway management, nor can the waters be considered as analogous to the Panama or Suez Canals, de Boer said.

Beyond 12-mile limit

Commander James Kraska of the U.S. Naval War College told the Commonwealth North forum that the Northwest Passage involves waters that extend a long way beyond Canada's 12-mile limit, the offshore limit that determines waters over which the country maintains complete sovereignty.

"The five or seven routes that comprise the Northwest Passage are not the Suez Canal. … The McClure Strait is 100 miles wide," Kraska said. "Beyond 12 nautical miles on each side of the McClure Strait, that's essentially exclusive economic zone water, in which high-seas freedoms apply."

The Northwest Passage dispute should be resolved using international standards, through the U.N. International Maritime Organization, Kraska said, likening Canada's claim over the Northwest Passage to a disputed claim by Libya over the Gulf of Sidra in the southern Mediterranean Sea, an area that Libya considers to be its historic waters.

"The problem with this, of course, is that if you depart from the Law of the Sea Convention, then there really are no rules," Kraska said.

Bad analogy

"I don't think that drawing analogies between what Canada is doing with respect to the archipelago and what Libya is doing with respect to historic waters is necessarily a very apt comparison," was de Boer's restrained response. "My point with respect to the Northwest Passage is … that we don't know exactly what it is and … it does not meet the definition of a strait."

De Boer also referenced a long-standing disagreement between the United States and Canada regarding the boundary between the two countries in the Beaufort Sea. The dispute involves a 6,250-square-nautical-mile zone in which both countries have banned offshore work, even although the zone is thought to contain significant oil and gas resources.

These disputes are legal issues that will ultimately be resolved between two countries that enjoy friendly relations, de Boer said. ●

Canada conducts survey beyond North Pole

Canadian media are reporting that Canada has been conducting survey flights over the Arctic Ocean, beyond the North Pole, as part of the Canadian effort to gather information about the extent of its Arctic continental shelf, in anticipation of submitting a claim for extended Canadian continental shelf under the terms of Convention on the Law of the Sea. The surveys took place between mid-March and late April and involved collecting gravity data from undersea formations and ridges, according to the Globe and Mail.

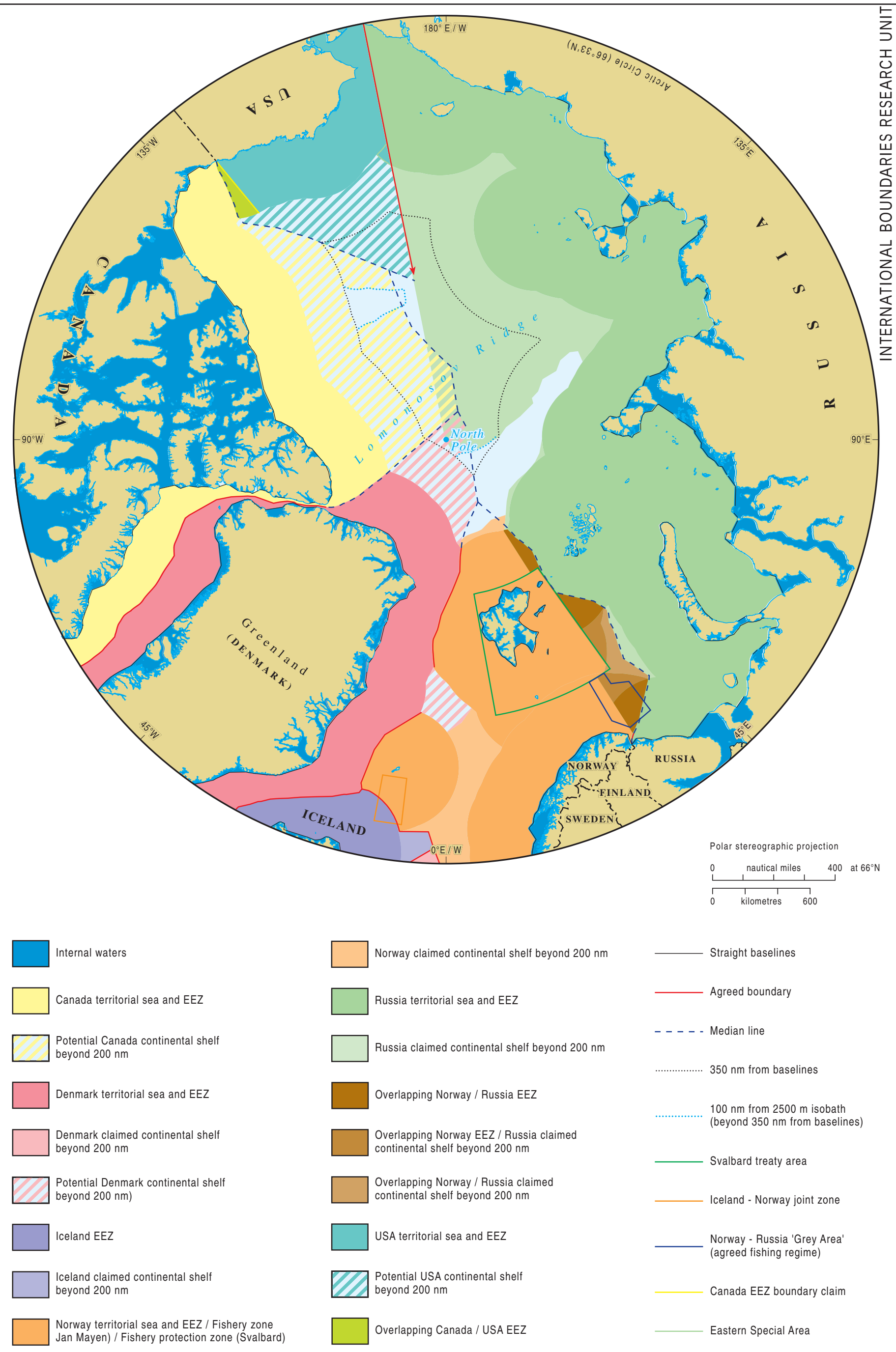
In 2001 Russia claimed territory up to the North Pole from its side of the Arctic Ocean, in a submission to the Commission on the Limits of the Continental Shelf, but the commission rejected the claim as requiring more substantiating evidence.

In 2001 Russia claimed territory up to the North Pole from its side of the Arctic Ocean in a submission to the Commission on the Limits of the Continental Shelf, but the commission rejected the claim as requiring more substantiating evidence. However, in 2007 Russia caused some political global warming in the Arctic by planting a Russian flag on the seabed at the Pole.

At the core of overlapping claims for sovereign rights at the North Pole is the Lomonosov Ridge, a narrow zone of continental crust which lies under the Pole and crosses the Arctic Ocean from the Russian outer continental shelf, north of Siberia, to continental shelf extending from northern Canada and northern Greenland: Canada, Russia and Denmark (which has sovereignty over Greenland) all have aspirations of exerting sovereign rights along the ridge.

However, despite reports of some saber rattling by Russia and matching rhetoric on the Canadian side of the Arctic, the process for piecing together extended continental shelf claims is proceeding in an orderly manner, with various countries, including Russia, sharing information, Stephen de Boer, director of the Oceans and Environmental Law Division for the Canadian Department of Foreign Affairs, told a Commonwealth North forum May 20.

—ALAN BAILEY



Areas of continental shelf claims in and around the Arctic Ocean.

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sion zone. On the extended continental shelf the nation would maintain sovereign rights over the development of resources such as oil and gas.

Nations can submit continental shelf claims to the U.N. Commission on the Limits of the Continental Shelf, the body set up to facilitate the international resolution of these claims.

Canada is working very closely with Denmark, the United States and Russia, with a deadline of making a claim on its mapped delineation of the outer limits of Canada's continental shelf by 2013, 10 years after Canada ratified the treaty for the international convention, de Boer said.

"Sovereign rights exist with respect to the continental shelf," de Boer said. "The delineation exercise is merely a way of signaling to other countries what is already ours and what is already yours, recognizing of course that there will be overlapping claims."

Ilulissat declaration

The overlapping claims are governed by the law of the sea, a principal that was confirmed by the five Arctic Ocean countries, the United States, Canada, Russia, Norway and Denmark, in the Ilulissat declaration in 2008, a declaration that runs counter to media talk of escalating international disputes regarding sovereignty over huge swathes of the Arctic offshore, de Boer said. In fact the offshore surveying that is in progress has not yet reached the point of resolving overlapping submissions, he said.

As well as conducting joint surveying exercises with the United States, Canada has a memorandum of understanding with Denmark for joint surveys and has been exchanging scientific data about Arctic Ocean ridges with Russia.

Another myth that the media have promulgated is the idea that the Commission on the Limits of the Continental Shelf is a U.N. institution that adjudicates over conflicting claims, de Boer said. The commission is in fact a scientific body that will test the veracity of the science presented in each claim: The countries that submit claims will ultimately have to settle their differences through negotiation or some form of litigation, he said.

Not ratified

Some 15 years after the Convention on the Law of the Sea treaty went into effect,

see **LAND** *page 24*

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the United States has not yet ratified the treaty, a situation resulting from a belief by some Washington politicians and others that the convention undermines U.S. sovereignty and compromises U.S. security interests. But unless the United States does ratify the treaty, the United States will not be able to submit any claims to extend its legally recognized continental shelf, extensions that could include an Arctic region about the size of California.

John Norton Moore, director of the Center of Oceans Law and Policy at the University of Virginia School of Law, and erstwhile U.S. representative in international law of the sea negotiations dating back to the Nixon era, told the Commonwealth North forum that U.S. treaty ratification is essential. The United States played a leading role in the negotiations leading to the treaty, with virtually all of the U.S. objectives for the convention being met or exceeded, Moore said.

"We doubled the area of U.S. resource jurisdiction," Moore said. In addition, the convention met all U.S. security interests, including the rights of passage through, over or under straits used for international navigation. And, among rights granted to the United States for participation in international organizations, the United States received the only guaranteed seat on the Council of the International Seabed Authority, the entity that administers mining in international waters.

"This (treaty) is not a trade-off," Moore said. "This is an absolute overwhelming victory for the United States. … And I would say an overwhelming victory for the international community."

"Ideologically driven"

But, despite widespread support for the convention from many sectors of society, the U.S. Senate has not yet approved ratification. And Moore lambasted what he said is an "ideologically driven group" that opposes treaty ratification, saying that the group's arguments are based on false or distorted messages.

Contrary to what the group says, there is not a single provision in the convention that undermines U.S. sovereignty; the convention does not place any part of any ocean under United Nations control; there is no threat to U.S. security, a point confirmed by convention support from all of the Joint Chiefs of Staff; prominent Republicans, including President Reagan, have supported the convention; and Russia is playing by the rules when it comes to implementing the terms of the convention, Moore said.

Rather than restricting U.S. use of the high seas, the Convention on the Law of the Sea operates on the basis of freedom of navigation, spelling out responsibilities within areas of national jurisdiction and following a long precedent of free access to the seas, as championed in historic times by the United States and the United Kingdom, said Commander James Kraska of the U.S. Naval War College. The U.S. Department of Defense is a strong proponent of the convention, Kraska said.

"This is not something that's a function of newly emerging 1990s globalization," Kraska said. "This is something that's a function of really the last 500 years. … It's a liberal world order. It promotes freedom of navigation and multiple uses of the oceans."

And the fact that the United States and the Soviet Union, supported by other major powers, were primary partners in negotiating the convention during the Cold War reflects the international interest in freedom of navigation, he said. ●

NORTH OF 60 MINING NEWS

Mantra geologists begin exploring the newly acquired Colorado Creek property in the Kuskokwim gold belt of Southwest Alaska, which is showing many geological similarities to the Donlin Creek deposit to the south. Page 10.

COURTESY MANTRA MINING INC.

A special supplement to Petroleum News

WEEK OF
May 31, 2009

Petroleum news

● ALASKA

NovaGold repositions itself for growth

With its financial troubles in the past, the junior wants to move forward with permitting Donlin Creek, seeking new opportunities

By SHANE LASLEY

Mining News

NovaGold Resources Inc. not only survived 2008 – a year marked by skyrocketing development costs, an unstable financial market as well as environmental and mechanical setbacks at its projects – the embattled miner rocketed into 2009 with its core assets intact and cash in its pocket.

In NovaGold's 2008 year-end report, the company described the previous 12 months as challenging for precious metals stocks, including its own. Setbacks at NovaGold's Rock Creek Mine near Nome and uncertainty over the company's ability to secure financing and repay its short-term debt last fall combined with the sell-off of securities in the general market resulted in tremendous swings in valuation for the company.

NovaGold President and CEO Rick Van Nieuwenhuyse

NOVAGOLD RESOURCES INC.

Mechanical issues at the Rock Creek Mine attributed to NovaGold's decision to suspend operations and place the gold mine near Nome, Alaska on care-and-maintenance.

NovaGold's woes actually began in late 2007 when it announced the decision to suspend construction at the Galore Creek project in northwestern British Colombia due to higher-than-expected cost estimates. NovaGold and its 50-50 joint venture partner Teck Resources Ltd. blanched at the prospect of the huge copper-gold-silver project costing upward of C$5 billion to develop.

The move fueled a stampede among investors who deserted what appeared to be a sinking ship. During the next 14 months, NovaGold's stock price plummeted to a low of US45 cents in December 2008, from a high of about US$19 per share in October 2007, when the company announced it would suspend production at Rock Creek after only two months in operation.

But 2009 has marked a change in direction for the struggling miner. Just two days into the New Year, NovaGold revealed that Electrum Strategic Resources LLC, a New York-based private investment company, had bought 46.15 million shares of its common stock at US$1.30 a share, infusing US$60 million into the Vancouver-based miner. Electrum has subsequently increased its NovaGold stock to 51.92 million shares, or a 28.5 percent stake in the company.

On the tails of Electrum, other investors jumped on board, increasing NovaGold's private placement financing to US$75 million.

With the struggles of 2008 a fading memory, the Vancouver BC-based miner is now focused on gaining the permits needed to build and operate a mine at its colossal 50-50 joint venture with Barrick Gold Corp. at Donlin Creek gold project, resuming gold production at Rock Creek and looking for opportunities to bring new gold projects into the company.

"NovaGold weathered the considerable challenges of 2008 and has emerged well-positioned to take advantage of a rising gold market and build a premier growth-focused precious metals company," NovaGold President and CEO Rick Van Nieuwenhuyse told shareholders in a recent letter. "Electrum's strategic investment substantially strengthened NovaGold's balance sheet, ensuring the ongoing advancement of our projects. With cash on hand and manageable expenditures at Donlin and Galore for the next few years, NovaGold is positioned to look at new opportunities that can provide future growth for the company."

Partners decide to permit Donlin

After reviewing the Donlin Creek feasibility study, Barrick Gold and NovaGold have decided to initiate the permitting process for the enormous gold project located in the Kuskokwim Region of Southwest Alaska.

The study, released in late April, places a

see NOVAGOLD page 16

● BRITISH COLUMBIA

Utility seeks power conservation in BC

BC Hydro, university team to launch new research project aimed at discovering more energy efficiencies in the province's mines

By ROSE RAGSDALE

For Mining News

BC Hydro Power Smart and the University of British Columbia are collaborating on a new research initiative that will explore energy conservation in the mining and minerals industry.

As the founding sponsor, BC Hydro's primary goal is to identify opportunities to introduce technologies with the potential to improve electricity efficiency in the minerals industry by at least 20 percent.

BC Hydro is the third-largest electric utility in Canada, generates between 43,000 and 54,000 gigawatt-hours of electricity annually – depending on prevailing water levels – at 30 hydroelectric facilities and three natural-gas-fueled thermal power plants, and serves 94 percent of BC's population.

"In BC, we have relatively low energy costs, but electricity consumption is still 17-20 percent of a mine's operating costs," said Mike Brandson, senior accounts manager for BC Hydro. "If we can help the existing mines or future mines, the savings can be millions and millions of dollars per year."

However, British Columbia is facing a projected 20-40 percent electricity consumption shortfall by 2020 created by its existing customers getting larger and growing numbers of new customers coming on line. The province developed an energy plan to meet its future electricity needs that relies on conservation and energy efficiency as much as new electricity generation.

"Our (generation) capacity is limited by our existing facilities," Brandson said. "As our load grows, we will have to acquire more capacity."

Brandson said BC Hydro found that it will be less costly to buy back wasted energy from its customers rather than build more hydropower facilities. As a result, the utility has worked with its large customers, including operating mines, to conserve energy and to find ways to use electricity more efficiently.

Power Smart conserves energy

Through its Power Smart programs, the utility's especially active customers have been able to generate significant savings over the years.

"I believe we assisted them, in some part, to continue to operate during the current economic troubles," Brandson said. "It's no small feat that all the ones operating last summer in British Columbia are operating today."

The research project is the latest initiative in the province's Power Smart objective to encourage customers to integrate energy efficiency into their ongoing business practices.

BC Hydro and University of British Columbia Mine Research Project Benefits	Sponsorship Levels GOLD	SILVER	BRONZE
Seat at project steering committee to oversee project and deliverables	x	x	x
Access to all project reports, and invitation to all sponsor review meetings	x	x	x
Industry collaboration and networking opportunities	x	x	x
Preview of emerging methods and tools for optimizing energy usage	x	x	x
Site-specific ore testing	x	x	-
Site-specific energy assessment and process optimization study	x	-	-

Source: BC Hydro

Markus Zeller, one of the project's leaders, said the new Power Smart initiative could generate 500 gigawatt-hours of savings annually.

Project leaders began meeting with the active mines in British Columbia in April in hopes of getting them to sign on as industry partners in the research project. Beginning in June, industrial sponsors will be consulted as researchers lay groundwork for the four-year project, which will include energy audits of the sponsors' operations aimed at identifying and quantifying major energy draws in the metal mining industry.

The researchers will then evaluate potential energy efficiency improvements for the operations that could reduce energy needs and lower operating costs. BC Hydro will look closely at the introduction of new, energy-efficient approaches for comminution (crushing, grinding, etc.) and extraction of ores to finished metal.

"Our research will identify technologies, but then industry partners would need to bring in expert consultants to continue with in-depth studies," says Zeller.

BC Hydro hopes to make the project a true collaboration between the researchers and the miners.

Organizations will have the chance to benefit directly from sponsoring the research, helping to oversee the project and its deliverables through each stage. They also will gain access to research outcomes, methods and tools related to energy-efficient technology for the industry.

Sponsor benefits

Power Smart's foremost mission is to promote energy conservation to ensure that British Columbians enjoy sustainable, reliable energy for generations to come. By supporting research such as this, BC Hydro aims to help the province's mining industry scale back its energy requirements by limiting waste and improving efficiency.

For BC Hydro's industry partners, the project will bring reduced costs, improved productivity and added protection against rising energy costs.

That all adds up to a significant competitive advantage, according to BC Hydro.

The research initiative, which is targeted for completion in 2013, is specifically designed to benefit those with a stake in the base metals industry, from mining to refining, especially open-pit operations with a focus on copper, gold and molybdenum.

Brandson said the research project would like to provide energy-saving benefits not only to BC's large open-pit metal mines, including Huckleberry, Kemess, Gibraltar, Highland, Mt. Polley and Endako, but also to advanced mine projects such as Red Chris and Galore Creek.

The project aims to help address efficiency challenges by establishing measures of energy use and efficiency in mining and processing and identifying opportunities and methods of improving this efficiency, including mining and processing optimization strategies.

It also will include site-specific studies to assess the application of ore pre-concentration, high-pressure grinding rolls and/or stirred mills in reducing energy intensity of mining and processing ore; methods for conserving energy through the application of more efficient extraction technologies; and methods for the reduction of energy use in base metal electrowinning operations.

Mining companies can participate at three sponsor levels – gold (C$100,000), silver (C$60,000) and bronze (C$40,000) – and obtain a proportionate number of benefits. Gold-level sponsors, for example, will have access to all project reports, research methods, tools, and deliverables. The University of British Columbia is also offering gold sponsors a site-specific energy assessment and process optimization study to a value of $40,000, as well as site specific ore testing courtesy of UBC to a value of $20,000.

Brandson said BC Hydro would prefer that mining companies seeking to develop new mines in the province contact the utility early in the development process. "We can help them in getting connected to the BC electrical system, and we also can help with their costs," he said.

Because of the long lead time required for ordering mine equipment, early involvement would enable the utility to influence mining companies to make more energy efficient equipment choices, he explained.

"Please call us, the earlier the better." ●

Contact North of 60 Mining News:

Publisher: Shane Lasley • e-mail: publisher@MiningNewsNorth.com

Phone: 907.229.6289 • Fax: 907.522.9583

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Shane Lasley	PUBLISHER & NEWS EDITOR
Rose Ragsdale	EDITOR-IN-CHIEF (contractor)
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Amy Spittler	MARKETING CONSULTANT
Dee Cashman	CIRCULATION REPRESENTATIVE

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
907.229.6289
publisher@miningnewsnorth.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

Several of the individuals listed above are independent contractors

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● GUEST COLUMN

Mining industry gears up for new season

Worldwide economic uncertainties persist, though metals prices are climbing and some investors are snapping up bargain properties

By CURT FREEMAN
For Mining News

Spring has arrived in Alaska and the mining industry is heading to the hills to do its work. Compared to last year, the state is a quiet place in the sun due to drastically reduced exploration and development budgets. Alaska's mines continue to benefit from the sharply reduced costs of power, diesel fuel, labor and other goods and services, but worldwide economic uncertainties have dried up the availability of venture capital for smaller exploration companies and have made funding larger development-scale projects doubly difficult.

As expected, there are a few contrarians out there acquiring properties for a song and a dance that were priced at stratospheric levels as recently as last September. Gold and copper prices remain strong and although most other metal prices are still depressed, virtually all of the industrial metals have enjoyed rising prices over the last few months. The jury is still out as to whether this means there is a light at the end of the tunnel or the bright light is a freight train headed our way!

The author


CURT FREEMAN

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column May 21. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his web site is www.avalonalaska.com.

Western Alaska

NOVAGOLD RESOURCES and partner Barrick Gold announced the long-awaited results of their feasibility study at their Donlin Creek gold project. The highlights of the study indicate that the project has proven and probable reserves estimated at 29.3 million ounces of contained gold at an average grade of 2.37 grams of gold per metric ton. Initial plans suggest a 21-year life of mine with milling of 53,500 metric tons of ore per day. Average stripping ratio is 5.69 metric tons of waste for every metric ton of ore. Production in the first five years is estimated at 1.6 million ounces at a total cash cost of US$394 per ounce of gold. Average annual after-tax cash flow is estimated at $779 million at a US$900 per ounce gold price. Over the first 12 years, the mine would produce an average annual gold production of 1.5 million ounces with life-of-mine average production of 1.25 million ounces of gold per year. Mining costs were pegged at US$4.60 per metric ton mined while milling costs came in at US$30.03 per metric ton milled. At current US$900 per ounce gold price, the project's net present value using a 5 percent discount rate is US$1.5 billion with an internal rate or return of 9.4 percent. It is expected that the Donlin Creek ore will be processed by crushing and milling followed by flotation, pressure oxidation and carbon in leach recovery. Total gold recovery is expected to average 89.5 percent, based on the combined life-of-mine average recovery of 92.6 percent from flotation and 96.6 percent from pressure oxidation of the concentrate. The mine is expected to draw an average of 127 MW of electrical power sourced from a combination of on-site combined cycle gas turbine generators and wind co-generation. In an effort to optimize energy costs and reduce environmental impact, an average of 7.5 percent of annual energy requirements is expected to come from 14 wind turbine generators. Infrastructure for the mine includes a port on the Kuskokwim River, a 76-mile access road connecting the port to the mine site, an airstrip, camp accommodations, the mine and plant site area, the tailings facility, and supporting turbine generator and wind power facilities. Cargo and supplies would be shipped on ocean barges to a port on the Kuskokwim River, barged up river and then transported via truck along the mine access road. Total capital costs for initial production were estimated at $4.481 billion with an additional $803 million in sustaining capital required. Revised proven and probable reserves came in at 383.8 million metric tons grading 2.37 grams of gold per metric ton for a total of 29.27 million ounces. Measured and indicated resources came in at 94.6 million metric tons grading 1.98 g/t gold for a total of 6.01 million ounces. Inferred resources came in at 54.5 million metric tons grading 2.29 g/t gold for a total of 4.02 million ounces. All-in, the deposit now sports a hefty gold resource of 39.29 million ounces.

NovaGold Resources also reported some not-so-good news from its shuttered Rock Creek mine. Under an agreement with the U.S. Justice Department and Environmental Protection Agency, the mining company will pay $883,628 in civil penalties to settle pollution charges for multiple water quality violations from April 2007 to September 2008, when sediment-laden storm water flowed into three area creeks during mine construction.

LINUX GOLD CORP. announced completion of a summary report on its Dime Creek prospect on the eastern Seward Peninsula. Dime Creek has produced an estimated 40,000 to 61,000 ounces of gold from 1915 to 1955 – most of which was produced prior to 1952. Significant conclusions in the report include an estimated 1 million cubic yards of auriferous pay remaining in several defined areas within the project. The average gold grades for these gravels were not specified. In addition, lode targets for platinum and possibly gold have been outlined by an auger soil survey carried out by past investigators. The report recommends both placer and lode exploration programs.

Eastern Interior

KINROSS GOLD announced first-quarter 2009 production results from its Fort Knox mine. The mine produced 48,626 ounces of gold at a cash cost of US$672 per ounce versus 65,394 ounces at a cash cost of US$459 per ounce in the year-previous period. The significant production decrease was attributed to lower average head grades and a breakdown of the primary crusher during the quarter. The mine reported that in April the head grades and mill throughput had returned to planned levels. The mine processed 3,048,000 metric tons of ore grading 0.58 g/t gold with a mill recovery of 80 percent. The company also announced that it has resumed construction of its valley leach production system and expects construction of the carbon-in-column circuit to be completed and commissioned during the second quarter. Startup of ore placement on the leach pads is scheduled for the third quarter of 2009, with first gold production in the fourth quarter. The company also is undertaking a 29,000-meter drilling program designed to expand reserves and extend mine life. This work is targeting additional reserve ounces in the northwest sector of the pit (Phase 8), in deep Phase 6/7 extensions on the southwest side of the pit, and in the South Wall.

TECK RESOURCES LTD. announced that it has entered into a non-binding memorandum of understanding with Sumitomo Metal Mining Co. Ltd. regarding the proposed sale of Teck's 40 percent interest in the Pogo mine for US$245 million subject to adjustment for working capital. Sumitomo holds an indirect 51 percent interest in Pogo and an affiliate of Sumitomo holds a 9 percent interest in Pogo. The arrangement follows receipt by Teck of a third-party offer to acquire Teck's interest in Pogo on comparable terms. Teck expects the transaction to close by the end of the second quarter.

INTERNATIONAL TOWER HILL MINES LTD. announced final drilling results from its winter 2009 program at its Livengood gold project. Highlights from the Southwest zone include hole MK-RC-0120, the farthest southwest hole to date, which returned 45.7 meters grading 2.11 g/t gold. Also in the southwest zone were hole MK-RC 0119 which returned 57.9 meters grading 2.2 g/t gold, including 9.2 meters grading 8.3 g/t and hole MK-RC-0123 which returned 159 meters grading 1.0 g/t gold. The company completed its 10,000-meter winter drill program and is now focusing on preparation of an updated resource estimate, which it expects to announce in June. The summer 2009 drill program will include at least 35,000 meters of reverse circulation and core drilling. The June resource estimate will

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● GUEST COLUMN

Court asks questions in Kensington case

Souter retirement could affect justices' decision in long-running EPA-Corps rules conflict with potentially far-reaching results

By J. P. TANGEN
For Mining News

Although it is somewhat unusual, the U.S. Supreme Court asked the parties and amici (friends of the court) in Coeur Alaska, Inc. v. Southeast Alaska Conservation Council (the Kensington case) to brief two supplemental questions concerning possible applications of the Clean Water Act to the Kensington project in Southeast Alaska. Essentially, the Court asked whether, if effluent from the mine was deemed a pollutant, the underlying Record of Decision by the Forest Service would need to be vacated; and second, whether the applicant could be permitted or required to obtain both a 402 and a 404 permit under the Clean Water Act.

The answers to these two questions were fairly predictable. If the effluent from the project was deemed to be governed by section 402 it would not require the Record of Decision to be changed because its findings were not contingent upon the discharge being deemed fill, and under no circumstances would it be appropriate for Kensington to obtain both a 402 permit and a 404 permit.

To set the record straight, the underlying question posed by this case is whether the slurry material proposed to be deposited into Lower Slate Lake by operations at the Kensington Mine should be regarded as a pollutant or as fill. If it is a pollutant, it is subject to Section 402 of the Clean Water Act, generally known as the National Pollution Discharge Elimination System. As the name implies, the purpose of the NPDES is to eliminate the discharge of pollutants into the nation's waterways. If, on the other hand, the discharge is fill it may be permitted under Section 404 of the Clean Water Act relating to dredge and fill activities. Section 402 is administered by the U.S. Environmental Protection Agency, and Section 404 is administered by the U.S. Army Corps of Engineers. It shouldn't take a moment's reflection to appreciate the dilemma posed by these two sections.

Mining & the law

J.P. TANGEN

The author, J.P. Tangen has been practicing mining law in Alaska since 1975. He can be reached at jpt@jptangen.com or visit his Web site at www.jptangen.com. His opinions do not necessarily reflect those of the publishers of Mining News and Petroleum News.

If effluent such as silt from the Kensington outfall is governed by the 402 standard, then discharge into Lower Slate Lake would be prohibited. If the discharged material including silt is defined as fill, then issuing the 404 permit would be within the sound discretion of the Army Corps of Engineers. Inert slurry from the mine arguably could qualify as either. Hence the dilemma posed to the Court and, through the request for supplemental briefing, back to the parties.

Historically, the division of jurisdiction between the EPA and the Corps goes back to the earliest days of the Clean Water Act, one of the three Environmental Crown Jewels of the Nixon administration. The Clean Water Act was intended to be a technology-forcing mandate. Water pollution was to be eliminated. The root of the Corps' Clean Water Act jurisdiction lies with its Rivers and Harbors Act mandate to maintain the waterways of the United States open to commerce. Without the exception to the NPDES represented by section 404, the Corps could not perform. For decades, the EPA and the Corps have conflicted over where the jurisdictional line lies. In its inimitable quest for expanded jurisdiction and Congressional dollars, the Corps has extended its reach trying to bring everything it could within its ambit. Wetlands, for instance, a far stretch from waterborne commerce, are within the purview of the Corps.

The EPA also wants to get its head into the mix as much as possible. To EPA, it matters not whether the discharge is totally inert or even cleaner than the receiving waters. If it qualifies as an effluent, they want to regulate it. Jurisdiction for the sake of jurisdiction is still jurisdiction.

The discharge of inert slurry from the proposed Kensington mine has no more to do with keeping the nation's waterways open for commerce than it has to do with water pollution. Lost in the bushes, like so much of the Ninth Circuit Court of Appeals' spawn, is the fact that the slurry from the Kensington Mine will be harmless to the environment. Ours is a nation of laws even when they are not artfully written and when they are idiotically interpreted and enforced.

There are numerous small lakes all around Southeast Alaska similar to Lower Slate Lake. The disposition of fill into Lower Slate Lake will not place any critical habitat at risk. No endangered species will fall prey to the effects of this inert material. There are no significant impacts on the environment. The outfall downstream of Lower Slate Lake is covered by a 402 permit, so no pollutants will be going out of the lake. On the other hand, there is no commerce taking place on Lower Slate Lake either.

There is one other significant aspect to the questions that have been posed. The very act of asking the questions so late in the term means that the Court may be unable to deliver its opinion before it rises for summer recess. If that were to happen, Mr. Justice Souter, who is now scheduled to resign before the Court reconvenes in October, may not participate in the decision. His successor, of course, would not vote, unless the matter was to be scheduled for a rehearing. Accordingly, there is a chance that the case could be resolved while the Court is short-handed. A four-four split would be tantamount to acquiescing in the decision below. This, in turn, would mean that the ongoing controversy over the limits of Army Corps of Engineers jurisdiction under the Clean Water Act would linger on. ●

continued from page 4

FREEMAN

be used to conduct the first preliminary economic analysis of the project, which the company expects to release in the third quarter of 2009.

Alaska newcomer **FIRE RIVER GOLD** announced that it has conducted its initial public offering and is planning to conduct field programs on its Draken gold property on the Taylor Highway. Welcome to Alaska Fire River Gold!

Alaska Range

PURE NICKEL INC. and its project partner, ITOCHU Corp., have approved an expanded US$4.4 million exploration budget for the MAN project. US$500,000 of this budget has been earmarked for a new airborne survey covering about 2,722 line kilometers. The majority of the budget will be allocated to a 5,700-meter drill program. Initial drill targets have been selected on Alpha complex with further targets identified elsewhere on the project pending initial drilling results. Other exploration planned includes ground magnetic and electromagnetic surveys along with extensive prospecting and mapping.

Northern Alaska

ANDOVER VENTURES INC. announced that it plans to complete a new resource calculation on the SUN polymetallic deposit in the Ambler District. Recent drilling will be utilized to update the current resources which stand at 12.5 million tons grading 1.8 percent copper, 5.3 percent zinc, 1.8 percent lead and 2.6 ounces/t.

Southeast Alaska

HECLA MINING INC. announced first-quarter 2009 production from the Greens Creek mine on Admiralty Island. The total cash cost per ounce of silver produced at Greens Creek for the quarter was $3.21 per ounce. The average grade of ore mined during the quarter was 14.12 ounces of silver per ton, up slightly from the average grade of 13.57 ounces/t silver mined in the first quarter of 2008. During the first quarter the mine produced 1,996,853 ounces of silver, 18,049 ounces of gold, 5,186 tons of lead and 16,121 tons of zinc. Total production costs for the quarter were $9.81 per ounce of silver produced versus negative $1.32 per ounce for the first quarter of 2008. In addition to production, exploration and definition drilling was condutced in the first quarter. Production drilling was conducted on the lowermost development level on a poorly defined deeper extension of the West Wall ore zone. This drilling encountered good mineralization and results indicate that underground development is warranted for this level, and possibly one to two additional levels below. Elsewhere, infill drilling of the Northwest-West zone from the 878 block confirmed grades and styles of mineralization for future longhole stope development in this area. ●

● BRITISH COLUMBIA

Nominees tie for top Mining Week honor

Industry, government recognize environmental manufacturer, Canadian Native band with mining sustainability awards

By ROSE RAGSDALE

For Mining News

An environmental products maker and a British Columbia Native group have jointly won the western Canadian province's 2008 Mining and Sustainability Award.

The honor is awarded annually by the Mining Association of British Columbia and the British Columbia Ministry of Energy, Mines and Petroleum Resources to organizations that show exceptional commitment to advancing and promoting sustainable development in the B.C. mining sector.

Pierre Gratton, president and CEO of the MABC, presented the awards May 4 to Absorbent Products Ltd. of Kamloops, B.C., and the Upper Similkameen Indian Band based in Keremeos, B.C., at a reception in Vancouver as part of BC Mining Week 2009 celebrations.

"We congratulate Absorbent Products Ltd. and the Similkameen people for showing leadership in, and commitment to, advancing and promoting sustainable development in our industry and the province of B.C.," said Gratton. "After considering a very competitive slate of candidates for this year's Mining and Sustainability Award, the adjudication committee decided that both of these organizations deserved to be recognized for their different but equally compelling contributions to sustainability in mining."

Manufacturer makes mark in reclamation

Absorbent Products produces more than 140 branded and private-label pet, agricultural and industrial products including a diatomaceous earth deposit approved for use in organic production and sold throughout Canada, the United States, Europe and the Middle East. The materials it mines are used in manufacturing agricultural deodorizers, consumer products such as cat litter, animal feed additives, pellet binders, pond liners, industrial absorbents, sand blasting mediums and ice melt. Many of these have been approved for use in organic production through listings with the Organic Material Review Institute.

More than 15 years ago, Western Industrial Clay Products developed a mine site close to Red Lake near Kamloops, B.C., where it produces diatomaceous earth and bentonite. Absorbent Products Ltd. purchased the assets of Western Industrial in 2005.

Absorbent's customer base includes Wal-Mart, Tractor Supply, Home Hardware and PetCetra, and it ships products to Canada, the United States, Asia and Europe.

The company employs 38 people directly and estimates its economic benefit to the community totals about $20 million annually. The company has not had a single lost-time accident at the mine sites in the last 15 years. This impressive safety record speaks for itself.

Absorbent has demonstrated a strong commitment to environmental sustainability, according to the MABC.

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COURTESY MINING ASSOCIATION OF BRITISH COLUMBIA

Greg Reimer, B.C. Ministry of Energy, Mines & Petroleum Resources, congratulates Upper Similkameen Indian Band Members Derek Lilly, Mason Squakin and Chief Rick Holmes

COURTESY MINING ASSOCIATION OF BRITISH COLUMBIA

Greg Reimer, B.C. Ministry of Energy, Mines & Petroleum Resources, presents the 2008 Mining and Sustainability Award to Len Boggio and Peter Aylen, president and CEO of Absorbent Products Ltd.

● ALASKA

Alaska's newest junior completes an IPO

Fire River Gold will spend proceeds of nearly C$500,000 to explore Interior Alaska gold property; CEO seeks other gold prospects

By SHANE LASLEY
Mining News

Fire River Gold, a junior exploration company focused on gold exploration in Alaska and Canada, has issued 2 million common shares at a per-share price of C30 cents in an initial public offering. The IPO, which closed May 22, netted nearly C$500,000.

Fire River Gold is one of two known Canadian junior miners to successfully close an IPO in 2009, according to company officials. Fire River is scheduled to begin trading on the Canadian National Stock Exchange under the symbol, "FAU" on, or close to June 4.

The Draken gold property, located in the Fortymile District of eastern Alaska, is Fire River's initial exploration target in the state. Six state quarter-section mining claims cover the discovery outcrop on the Taylor Highway and an adjacent area to the east.

Fire River President and CEO Harry Barr told Mining News that the junior will begin exploration with a modest C$50,000 phase-1 program at Draken, as recommended in an NI 43-101 technical report prepared for the property by Fairbanks-based Spectrum Resources Inc.

Barr, who is also president and CEO of Pacific North West Capital and founder of the International Metals Group, said the company will determine further exploration plans for the property, depending on the results of initial exploration and other projects being pursued by the new junior.

More than gold

The NI 43-101 report indicated that known mineralization within the Draken property consists of polymetallic sulfide-quartz vein mineralization with anomalous silver-gold-bismuth-arsenic-copper-lead-tungsten-uranium. This type of mineralization is documented at the Silver Lining prospect, located on the west portion of the property, as well as the Two Mile prospect just north of the property.

Porphyry-style copper-molybdenum-gold mineralization and potential for vein-hosted uranium and rare earth elements at the Two Mile Prospect were documented by government geologists in 1976. A sample taken by previous explorers from a ring dike zone about 200 meters east of Draken contained highly anomalous uranium, niobium, fluorine and rare earth elements.

Though Fire River's primary interest in Draken is in its gold and silver potential, Barr said the junior will follow up on other minerals found at the property.

Spectrum Resources, in its technical report for Draken, proposed a C$56,700 phase-1 program that includes staking additional mining claims, ground geophysical surveys and backhoe trenching to test veins exposed at the Silver Lining prospect and the ring dike complex near the Taylor Highway in the southwest portion of the project.

The report recommends staking 12 additional 160-acre mining claims to cover the possible northeast strike extensions of the gold-bearing veins exposed at the Silver Lining prospect as well as the south and eastern portions of the ring dike complex, where potential uranium-thorium-rare earth element mineralization may exist.

The modest plan suggests a 4,000-foot, or 1,200-meter, backhoe trenching and detailed rock sampling program.

The technical report recommended spending an additional C$154,000 on a second phase of exploration at Draken.

Depending on what the earlier trenching reveals, Spectrum recommended two drill holes to test the subsurface extent of veins at the Silver Lining prospect, and two drill holes to test for possible uranium-thorium-rare earth element mineralization associated with a ring dike complex located on the southern portion of the property.

Barr told Mining News that Fire River will also be investigating other gold projects in Alaska, Canada and Mexico. ●

continued from page 6

AWARDS

Gratton said Absorbent takes its reclamation obligations seriously and is ahead of schedule in completing its mine reclamation.

Throughout the years, the company has improved its processing efficiencies and now uses about 6 percent less natural gas per metric ton and about 10 percent less electricity in terms of kilowatt hours per metric ton than in 2002. The company also has a large percentage of First Nations employees and enjoys a close working relationship with the Tk'emlups Indian Band of Kamloops.

Group preserves mining history

The other award winner, the Upper Similkameen Indian Band, has taken its 69 members' understanding and vision and applied it to creating and expanding an economic base to allow people to pursue a balance between a traditional and contemporary lifestyle, according to the MABC.

Renowned as traditional miners and traders of ochre, the Upper Similkameen Indian Band survived the gold rush, the discovery of rich mineralization near Hedley in southern British Columbia, and the end of that wave of mine development in the late 1950s.

Today, the Upper Similkameen Indian Band is one of the largest employers in the Hedley, B.C. area.

The group's achievements include the preservation of the former Mascot Mine and Tulameen Ochre Bluffs and the development of the Snaza'ist Interpretive Center. "Snaza'ist" in the language of the Similkameen Indians means "striped rock place."

"Their accomplishments have become a model of success for sustainability in mining in the Province of British Columbia," Gratton added. ●

● NUNAVUT TERRITORY

Junior regroups to tackle Hackett River

New managers at Sabina Silver conclude that bigger would be better for developing the giant Arctic silver-zinc-copper property

By ROSE RAGSDALE
For Mining News

Sabina Silver Corp. is striving to grow into its role as developer of the giant Hackett River silver-zinc property in Nunavut, which it calls "Canada's last mining frontier." New management took charge of the Vancouver, BC company in 2008 and set about crafting a new strategy to bring the property, one of the three largest silver deposits of its type in the world, into commercial production.

Fueled with a fresh perspective developed in a rigorous review last fall, Sabina told investors this spring that the Hackett River Project was pushed to development studies too soon, and the company was unable to spark interest for the venture in the market because of delays in the studies, which affected its stock price.

"Although Hackett River has reached a critical mass sufficient to support infrastructure on a standalone basis, Sabina as a company needs to build the critical mass to be able to obtain the resources to finance, build and operate the project," said Sabina President and CEO Tony Walsh in an update April 27.

Walsh has said Sabina believes the key to developing a large base-precious metals project in the Arctic that can provide robust returns despite volatile metal markets is to maximize tonnage and to increase the component of higher value mineralization that goes through the mill, for example copper, silver or gold.

Hackett River, also one of the largest undeveloped massive sulphide deposits in Canada, is located 104 kilometers, or 63 miles, south-southwest of Bathurst Inlet in Nunavut.

Silver-zinc rich property

The property hosts at least eight known massive sulphide occurrences scattered over 12,250 hectares, or about 29,523 acres. Of these, the most significant silver-zinc-rich deposits are the East Cleaver Lake, Boot Lake and Main zone (also called "A" zone), which includes the Main West, Main East, and Main Keel zones. Other significant occurrences include Knob Hill zone, Downie, Finger Lake and Jo zone, with the Patricia Lake zone as a regional exploration target.


NUNAVUT GEOSCIENCE
Sabina Silver drilled 43 holes covering 5,325 meters on its Hackett River property in Nunavut in 2008 from this exploration camp.

Indicated open-pit and underground mineable resources at Hackett River total 40.1 million metric tons grading 4.72 percent zinc, 147.9 grams per metric ton silver, 0.34 percent copper, 0.58 percent lead and 0.33 g/t gold. An additional inferred open-pit and underground mineable resource totals 8.8 million metric tons grading 3.89 percent zinc, 153.1 g/t silver, 0.28 percent copper, 0.55 percent lead and 0.31 g/t gold. These resources do not include Jo zone mineralization.

Sabina completed 43 holes covering 5,325 meters in 2008, with 26 of them drilled for geotechnical purposes. Drilling at the Jo zone deposit, located 250 meters to the southeast of the Main zone, intersected 284.3 g/t silver, 5.4 percent zinc and 2.6 percent copper over 30.0 meters, including 756.8 g/t silver and 13.88 percent copper over 4.55 meters. The Jo zone is still open to depth and along strike to the southeast.

Sabina undertook a pre-feasibility study in 2008 at Hackett River as a result of a positive preliminary economic assessment by Wardrop Engineering the previous year. The study concluded that the property could annually produce 324.7 million pounds of zinc, 12.4 million ounces silver, 20.7 million pounds copper, 37.0 million pounds lead, and 17,200 ounces of gold, over a mine life of 13.6 years.

More resource potential

The junior's new managers conducted a review of the project last fall that suggested there are opportunities not only to increase the size of the project but also to discover higher value mineralization such as more copper, gold and silver.

"Maximizing throughput through the mill allows significant offsetting against the large fixed costs required, especially with a large project like Hackett that requires a road and port. Lowering the incremental costs provides opportunity to enhance project economics. The time to find that tonnage is prior to completion of the pre-feasibility study," Walsh said. "Significant new opportunities at Hackett River have presented themselves over the last few months. Management's recent review of Hackett River Project has resulted in some very positive impressions about the potential for increased resources. In particular, we are intrigued by the high copper values being encountered near surface in the Jo Zone. The work program for 2009 will focus on some of these targets."

Sabina reported a new resource estimate for Hackett River March 11 that indicated increases of 3 percent more silver, 10 percent more zinc and 34 percent more copper. In particular, the open-pit portion of the resource increased by 40 percent with no significant change in grade, the company said.

New modeling completed during the review not only indicated that the existing resource at Hackett River is more robust than originally interpreted, but also confirmed Sabina's assessment that there is significant potential to add higher-value mineralization to the resource base. Detailed modeling of all the deposits also clarified metal zoning and "hot spots" leading to high potential exploration targets, the junior said in an update April 27.

"From a project economics perspective, the opportunity to open pit mine the higher grade mineralization first could have substantial impacts on the project, reducing mining costs as well as the initial capital payback period," the company said. "Also, the bulk of the existing resource is within the first 400 meters of surface, providing the opportunity to open pit (mine) all deposits and perhaps allowing the project to defer or eliminate any underground capital required."

Sabina also said it is in the process of reviewing results of the new mineral resource estimate, metallurgical recoveries and other ongoing development-related studies to determine the appropriate path going forward, taking into consideration the improved geological model and the significant positive changes and opportunities identified in the resource estimate.

New exploration a priority

Last fall, Sabina identified several high priority targets with potential to find extensions to existing deposits and perhaps make discoveries of new near-surface deposits.

The company said it will continue work this season to identify opportunities for optimizing project economics at Hackett River for the pre-feasibility study as well as to look for opportunities to build a mine.

To pursue this opportunity, Sabina planned a 6,700-meter drill program for 2009 to test 11 target areas. Eight of the targets will test for significant extensions to known mineralized deposits occurring along the main horizon and the remaining three targets will evaluate parallel horizons to test for stacked mineralization. Target selection will be focused on previously untested geophysical anomalies in favorable geological settings generally along the prospective mineral horizon, the company said.

The junior planned a two-phase – 4,300-meter spring and 2,400-meter summer – drilling program, with the spring phase beginning in April and continuing through May. The summer drilling is planned for August.

Sabina also undertook detailed ground electromagnetic and magnetic geophysical surveys this spring in order to refine drill targets.

Geological work is planned for June and July. Certain historic drill holes will be re-logged and whole rock samples collected for geochemical characterization. Infill 1:1000 scale geological mapping is planned for the deposit areas.

The 2009 field season is scheduled to be completed by mid-September and will cost about $4.5 million, according to Sabina.

As large as possible

Sabina said any development undertaken at Hackett River will need to be as high-grade and as large as possible to cover projected high fixed capital costs. The project will require construction of both a dedicated road and a deepwater port, infrastructure that Sabina says it will likely have to fund, though various groups have long advocated building the proposed Bathhurst Inlet Port and Road Project.

Rather than an obstacle, Sabina views this requirement as an opportunity to control or benefit from development on a regional scale.

With this in mind, Sabina agreed March

see SABINA page 13

● YUKON TERRITORY

Underworld gets back into Golden Saddle

Junior with ties to Full Metal kicks off second season of drilling at its White Gold property near Dawson City with new discovery

By SHANE LASLEY

Mining News

Underworld Resources Inc. struck a much thicker band of gold-rich mineralization in early drilling this season, the company reported May 26.

Initial assay results from the Vancouver BC-based junior's second season of drilling into the Golden Saddle zone at the White Gold property in Yukon Territory revealed a new 100-meter-thick band of gold mineralization much deeper than the original near-surface discovery. The new zone, roughly 100 to 200 meters deep, averaged more than 3 grams per metric ton gold in two of the three holes that returned significant mineralization.

Gold majors are said to be keeping an eye on Golden Saddle and the team of veteran geologists exploring it. The discovery is located about 95 kilometers, or 59 miles, south of the historic mining town of Dawson City, Yukon.

Two executives from Full Metal Minerals have teamed up with the former South Pacific exploration manager for Placer Dome, Adrian Fleming, to form Underworld. Fleming serves as Underworld president and CEO, while Full Metal Vice President of Exploration Robert McLeod also serves as Underworld's vice president of exploration and Full Metal President and CEO Michael Williams is Underworld's chairman.

This seasoned team of geologists is exploring a gold discovery, located at the confluence of the White and mighty Yukon rivers with roots that can be traced back to the days of the Klondike Gold Rush.

While the 169-square-kilometer, or 41,760-acre, White Gold property has several vein-hosted gold occurrences, Underworld Chairman Michael Williams said the junior is focusing more on the Golden Saddle-style mineralization.

Clearly intrusive

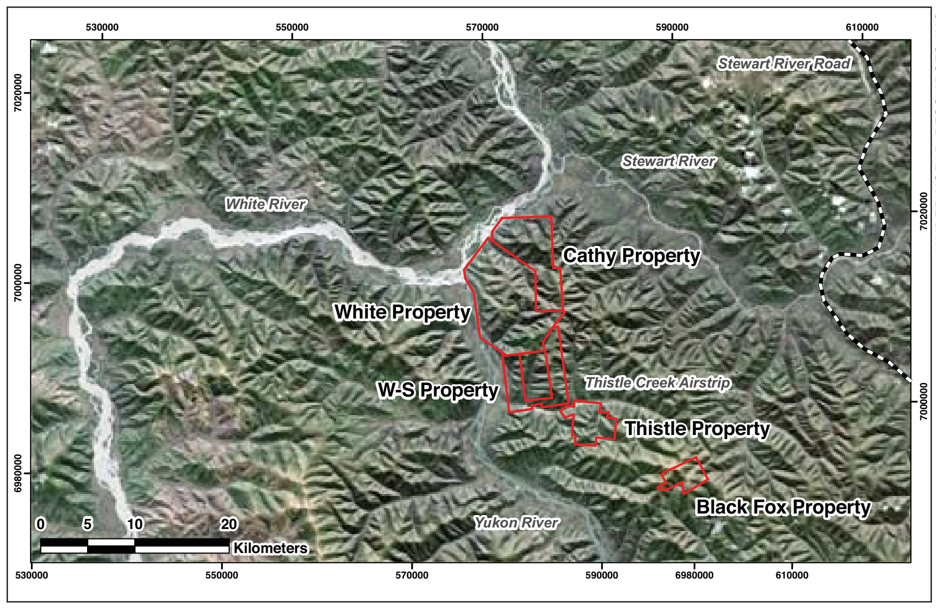
Underworld President Adrian Fleming told Mining News May 26 that the Golden Saddle mineralization "is clearly intrusive-related," which means igneous rock with gold was forced while molten into cracks or between other layers of rock at the prospect millions of years ago .

Williams said geologists are finding similar soil geochemistry at some of the other showings along a 7.5 kilometer-, or 4.6 mile-, long-trend at the White Gold property. He said the company will trench these prospects and follow up with drilling in the areas that show promise.

The junior is also excited about indications of intrusive-style mineralization at its newly acquired Thistle property, which lies adjacent to White Gold to the south.

Underworld, which recently raised C$3 million, started its 2009 drill campaign at White Gold in early May with 4,000 meters of first-phase drilling planned with two rigs turning to follow up on discoveries made at the Golden Saddle and Arc mineralized zones in 2008.

Fleming said the drill crews at White Gold, which are drilling about 80 meters per rig a day, are on pace to complete phase-1 drilling in early June. Drilling is planned to resume in late June or early July.



UNDERWORLD RESOURCES INC.

UNDERWORLD RESOURCES INC.

This sample, which contains quartz, albite, ankerite and sericite, plus fine disseminated and veinlet pyrite, averages 6.2 grams of gold per ton and is typical of the highly-altered mineralization found at Golden Saddle.

Fleming said Underworld is considering two additional 4,000 meter programs this year.

Golden Saddle tops priorities

The higher-grade Golden Saddle is the first target of the phase-1 2009 drill program that kicked off May 7. Two weeks into the program drill crews have completed nine holes at Golden Saddle.

Underworld, which was hoping assays from this year's drilling at Golden Saddle would duplicate the 4-grams-per-metric-ton average gold encountered during 2008 drilling, was not disappointed when it received the first results of the 2009 program.

WD09-28, the first hole of the 2009 drill program intersected 102.5 meters with an average grade of 1.84 g/t gold starting at a depth of 105 meters, and includes 22 meters grading 3.99 g/t gold. WD09-31 revealed the best results with 104 meters at 3.39 g/t gold, including 43.3 meters averaging 4.37 g/t gold. The junior is still waiting on additional assay results from this hole.

The holes were drilled in a fence of four this spring to test for the continuity and depth of mineralization discovered last year in hole WD08-21, which cut 50.7 meters grading 3.1 g/t gold and bottomed in alteration and in mineralization. The holes were drilled west of hole 21.

Drilling performed last year at Golden Saddle outlined a 450-meter-by-170-meter zone of mineralization that is shallow-dipping from the surface to the northwest.

Hole WD08-04, the first successful hole into Golden Saddle, cut 18.1 meters grading 4.35 g/t gold. This hole was typical of the consistent width and grades of the zone. Subsequent drilling at Golden Saddle outlined a 450-meter-by-170-meter zone of mineralization that shallowly dips from the surface to the northwest.

Fleming said the early drilling results clearly indicate that hole 21 was stopped while still in mineralization.

Underworld geologists believe the mineralization discovered in hole 21, and delineated further by the initial assay results of the program this year, may be a separate zone than the mineralization traced from surface in 2008.

WD08-20, drilled about 150 meters south of hole 21, intersected 27.7 meters grading 1.87 g/t gold starting at two meters below the surface.

"The (2009) mineralization looks similar to what was encountered last year; but hole 20 may be in a separate zone entirely from (hole) 21 and (holes)28-31," McLeod told Mining News May 26.

The exploration vice president said the junior will drill deeper in all directions to better define the geology of this richer mineralized zone.

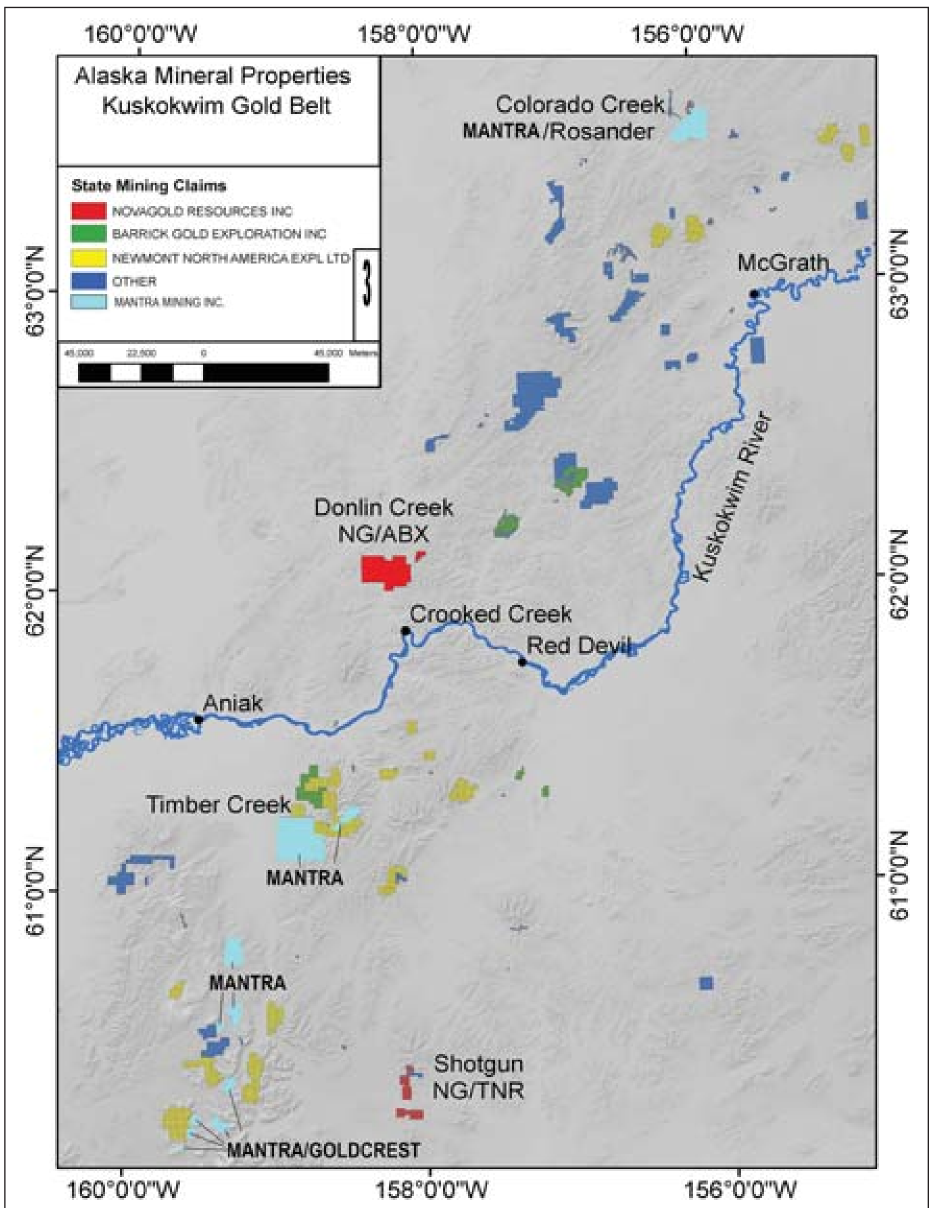
Underworld plans to complete an NI 43-101 resource estimate for Golden Saddle by year's end.

see UNDERWORLD page 16

● ALASKA

Mantra seeks next gold find like Donlin

Junior assembles top-notch geologists, builds strategic alliances and raises C$5 million to explore claims with many similarities



MANTRA MINING INC.

By SHANE LASLEY

Mining News

Since Mantra Mining Inc. emerged in September as the vehicle in which NovaGold Resources Inc. would spinoff its non-core assets, the Vancouver B.C.-based junior has positioned itself to become a major player on the Alaska mining scene.

Over the past eight months, Mantra has acquired whole or part interest in more than 417,000 acres of mining properties in western Alaska, assembled an impressive management team and board of directors (including two Thayer Lindsley award winners) and raised C$5 million to begin investigating its gold and base metal properties.

RAJ CHOWDHRY

"The transformation of Mantra into a leading mining and exploration company seems to now have been completed. Mantra today has effective leadership; Rick Van Nieuwenhuyse and other recipients of the Thayer Lindsley award, world-class projects such as Colorado Creek, and the right strategic partners, NovaGold and Electrum Group of Companies," said Mantra Mining President and CEO Raj Chowdhry.

With a little luck, the junior explorer believes it will make another major gold discovery in one of its recently acquired 11 claim blocks scattered along the Kuskokwim Gold Belt, the same north-south-running mineralized trend that hosts the enormous Donlin Creek gold deposit.

"Life is all about 1 percent inspiration, 98 percent perspiration and finally you still need 1 percent luck. We are through the first two phases, so all we need now is the 1 percent luck," Chowdhry told Mining News May 21.

Mantra's president said he anticipates the exploration budget for 2009 will be around C$2 million with a focus on the Colorado Creek property, but a definitive budget and work plan will be worked out after the Mantra CEO meets with the company's geological team.

Strategic alliances

Mantra has raised C$5 million and gained a powerful ally in two deals that closed in May. The money was raised through a private placement that closed May 20.

Electrum Strategic Minerals bought 7.71 million units of the 14.47 million units offered by Mantra. The Mantra units, which sold for C35 cents each, are comprised of one Mantra share and a warrant to buy an additional share for C50 cents per share for a period of three years.

In addition, Cougar Gold, an Electrum affiliate, acquired 4.2 million Mantra shares in exchange for Cougar's interest in the Golden Lynx properties. Combined, Electrum and Cougar Gold own a 17.4 percent stake in Mantra. If Electrum exercises its warrants, the combined stake in Mantra would climb to about 25.7 percent.

"Having Electrum as a strategic partner will assist Mantra to become a serious entrant in the mining sector," Chowdhry said

Electrum also invested heavily in NovaGold Resources Inc. The New York-based private investment firm, poured more than C$60 million into NovaGold, and now owns 51.92 million shares, or nearly 30 percent, of that junior.

Electrum President Larry Buchanan also gained a seat on Mantra's board of directors. Buchanan is the 2006 recipient of the Thayer Lindsley award for the discovery of the San Cristobal Mine located in the Potosi Mining district of Bolivia.

"The company will be very fortunate to have two Thayer Lindsley award winners on the board of the company. Mr. Rick Van Nieuwenhuyse, the Chairman of the Board of Directors of Mantra, won the award in 2009," Chowdhry said.

In addition to tapping NovaGold's president to chair its board of directors, Mantra has recruited former NovaGold geologist Jerry Zieg to become vice president of exploration. Zieg joined NovaGold in 2005 as its senior geologist for the Ambler copper-zinc project in Northwest Alaska. Prior to working for NovaGold, the geologist spent 24 years as a geologist for Cominco American Inc. and later Teck Cominco American Inc.

"Jerry Zieg brings a wealth of experience and knowledge of the precious and base metal projects recently acquired by Mantra from NovaGold," Chowdhry said. "Jerry will enable Mantra to plan and conduct exploration work; especially on the Colorado Creek project … a property which has many geologic similarities to the 40 million-ounce Donlin Creek gold deposit located in the upper Kuskokwim region of the Tintina Gold belt of Alaska and the Yukon."

NovaGold early-stage properties

In early March, Mantra closed a deal it has been working on since September to acquire all of NovaGold's interest in 397,680 acres of Alaska State mining claims. The acquisition includes two gold exploration claim groups in the Kuskokwim region (Tintina gold properties and the Colorado Creek gold project) and three western Alaska base metal properties (Kugruk, Baird and Omilak).

In exchange for the properties, Mantra issued NovaGold 3.125 million shares of its common stock, which, at the time, represented about 7 of Mantra's issued and outstanding shares.

Mantra is particularly excited about the 26,880-acre, or 11,154-hectare, Colorado Creek property, which is showing many geological similarities to the Donlin Creek deposit to the south.

"We feel that there is excellent potential to advance the properties and add value for our shareholders," said Mantra's Chowdhry. "We are especially excited about the Tintina properties, in the potential of the Kuskokwim gold belt and the Colorado Creek gold project, in particular – this will no doubt be the focus of our exploration efforts this summer. Meanwhile, we will evaluate strategic alternatives for the base metal assets."

NovaGold Vice President of Strategic Development Greg Johnson told Mining News the intrusive-related mineralization at Colorado Creek has many of the key markers that led to the Donlin Creek discovery. When one looks at mature districts around the globe, these gold deposits are usually found in groups along a certain trend," Johnson said.

see MANTRA page 15

● NORTH OF 60

Miner eyes Yukon, northern B.C. projects

Despite tough times, Copper Ridge Exploration clings to decade-long dream of beating the odds to generate a major metal discovery

By ROSE RAGSDALE
For Mining News

Crystals of stibnite (antimony sulphide – Sb2S3) with quartz in drill core taken in 2007 from the Scheelite Dome Project in Yukon Territory.

Copper Ridge Exploration Inc. workers drill a hole in 2007 at the Scheelite Dome Project in Yukon Territory.

If it were entirely up to Copper Ridge Explorations Inc., the project generator would explore most of its mineral properties in Yukon Territory, northern British Columbia and Alaska this summer. But tough economic times have forced the Vancouver, B.C.-based junior to pick and choose among its 12 key projects, betting precious dollars on a handful of ideas that could pay off with additional exploration by catching the eye of future partners or investors.

Fortunately, some of Copper Ridge's projects have already hit that magic turning point when potential partners become eager to follow up on resources that the junior has already brought to light. This gives Copper Ridge the ability to stretch the impact of its exploration program far beyond the company's modest budget.

Copper Ridge President and CEO Gerald Carlson told Mining News May 13 that his company is gearing up for a relatively "quiet" 2009 exploration season with a budget of about $500,000.

"I'm afraid it's not going to be as exciting as it was last year," Carlson said. "We're kind of lucky because we have cash in the treasury. We're planning a modest program spread over three projects.

"We raised money from investors to explore, and it's not right to just sit on our hands," Carlson said. "But we're not being as aggressive as we would if we had a larger treasury."

Work already earmarked by Copper Ridge includes further exploration of volcanic massive sulphide mineralization at Clear Lake in the Yukon and copper-gold deposits at Yukon's Lucky Joe and northern B.C.'s Babine projects.

Priority target at Clear Lake

The Clear Lake zinc-lead-silver deposit is located 70 kilometers, or 42 miles, east of Pelly Crossing and 225 kilometers, or 135 miles, north of Whitehorse, in the Whitehorse Mining District.

Copper Ridge acquired 100 percent interest in the project in January 2008, but the vendor retained a 2 percent net smelter royalty, 75 percent of which can be purchased for $1.5 million.

Copper Ridge has expanded Clear Lake's initial seven claims to a total of 55 claims covering about 1,200 hectares, or 2,892 acres. A barite-associated, shale-hosted sedimentary exhalative massive sulphide deposit that occurs in Devonian-aged Earn Group sediments within the Selwyn Basin, the Clear Lake mineralization is a pyritic massive sulphide body that is S-shaped, about 1,000 meters long and up to 120 meters wide. Zinc-lead-rich lenses are 5-30 meters thick, 450 meters long and extend at least 300 meters down dip.

Copper Ridge has said it believes the property has excellent potential for the discovery of additional zinc-lead-silver mineralization.

Exploration in the 1970s and 1990s resulted in a total of 18,219 meters in 71 drill holes in the property.

The Yukon Geological Survey Minfile database has reported a "geological reserve" of about 5.57 million metric tons with an average grade of 11.4 percent zinc, 2.0 percent lead and 38.01 grams per metric ton silver.

In 2008, Copper Ridge flew a VTEM airborne electromagnetic and magnetic survey over the Clear Lake deposit and adjacent ground. Subsequent analysis of the geophysical data by Condor Consulting of Lakewood, Colo., noted that the electromagnetic survey outlines the Clear Lake deposit as a weak but clearly defined conductive body. Condor also identified three other targets on the property that have similar geophysical characteristics to the Clear Lake anomaly, that appear to lie within the favorable Clear Lake stratigraphy and are recommended for drill testing.

"Clear Lake has high zinc grades of 13-14 percent and a resource of 5 million tonnes," Carlson said. "If we're able to increase that, we will have an economic project on our hands."

Lucky Joe: Another Minto?

Copper Ridge also plans to return to the Lucky Joe Project, located 50 kilometers south of Dawson City in the Dawson Mining District, Yukon, for more exploration this year. Lucky Joe hosts a unique style of copper-gold mineralization with similarities to Capstone Mining Corp.'s Minto Mine. Possibly a gold-rich copper porphyry or an iron oxide-copper-gold deposit type, Lucky Joe covers 548 claims totaling 9,000 hectares, or 21,690 acres.

Drilling on the original Lucky Joe deposit in the 1970s gave values of 0.3 percent copper to 0.6 percent copper over thicknesses of 20-30 meters, with values up to 0.95 percent copper over 5.2 meters. Gold was shown to have close to a 1:1 correlation with copper. Soil sampling to the north of Lucky Joe has defined a strongly anomalous target: The Papa Bear or Lucky Joe trend is 11.3 kilometers long and is defined by copper and gold with soil values for copper up to 3,060 parts per million and for gold of up 235 parts per billion, with associated silver and molybdenum. The copper-gold zone extends outward into a lead and zinc halo that together outline a hydrothermal system over 21 kilometers long and up to 3 kilometers wide. The Ryan's Creek trend parallels the Bear Cub trend, about 4 kilometers to the southwest. It has a strike length of 7.2 kilometers and is more strongly enriched in gold relative to the Lucky Joe trend, with high soil values for copper and gold of 4,400 ppm and 611 ppb, respectively.

Copper Ridge completed a mapping and soil sampling program at Lucky Joe in 2008 over a portion of the Ryan's Creek trend, where drilling in 2006 and 2007 encountered copper values up to 0.75 percent over 3.0 meters and gold values up to 3.0 g/t over 2.4 meters, including 7.3 meters at 0.905 percent copper and 0.5 g/t gold in hole LJ07-19 and, 1,700 meters farther south, 12.05 meters at 0.37 percent copper and 0.8 g/t gold in hole LJ06-09.

Geophysical and soil geochemical surveys completed over the past three years have shown that mineralization is likely continuous between these two drill holes. Previous drilling has shown that gold and copper values and the gold-copper ratios are increasing toward this portion of the Ryan's Creek zone.

Copper Ridge believes there is a good chance of defining a gold-copper resource in this area and is proposing a five- or six-hole drill test. The company is also seeking to farm out an interest in this property.

"We started out as a gold exploration company but expanded into other metals. We're looking at copper-gold properties now. We believe base metals will continue to be important and hold value," Carlson said. "There have been cases where proj-

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COPPER RIDGE

ects have started as a copper mine but turned into a gold mine. By looking for good base metal projects with good precious metal credits, you cover both sides of the street."

Copper-gold target in B.C.

Babine is another copper-gold project that Copper Ridge plans to explore this year. Located 80 kilometers, or 50 miles, northeast of Smithers, B.C. in the Omenica Mining Division, Babine covers 6,080 hectares, or 14,653 acres. The Babine project includes the Nak and Dorothy porphyry deposits, located in the Babine copper-gold porphyry belt that includes the Bell and Granisle mines, the Morrison deposit and numerous undeveloped prospects. The Bell and Granisle mines together produced 130 million metric tons of ore grading 0.4 percent copper, 0.15 g/t gold and 0.75 g/t silver. The Nak property hosts a copper-gold porphyry deposit related to the Tertiary age Babine intrusive suite of rocks. The primary host rock for copper-gold mineralization in the region has distinctive "crowded" biotite feldspar porphyry of granodiorite composition. The main zone of mineralization on the Nak property is in an area of low relief situated between two northerly trending ridges and is open to the southeast and east. This area has extensive glacial till overburden cut by intermittent streams flowing in roughly east-west and northeast-southwest directions.

The Dorothy property is host to porphyry copper mineralization also associated with a biotitic-feldspar porphyry intrusion. Geophysical surveys suggest that the porphyry has been bisected and offset by a fault. If this interpretation is correct, the entire western half of the deposit has yet to

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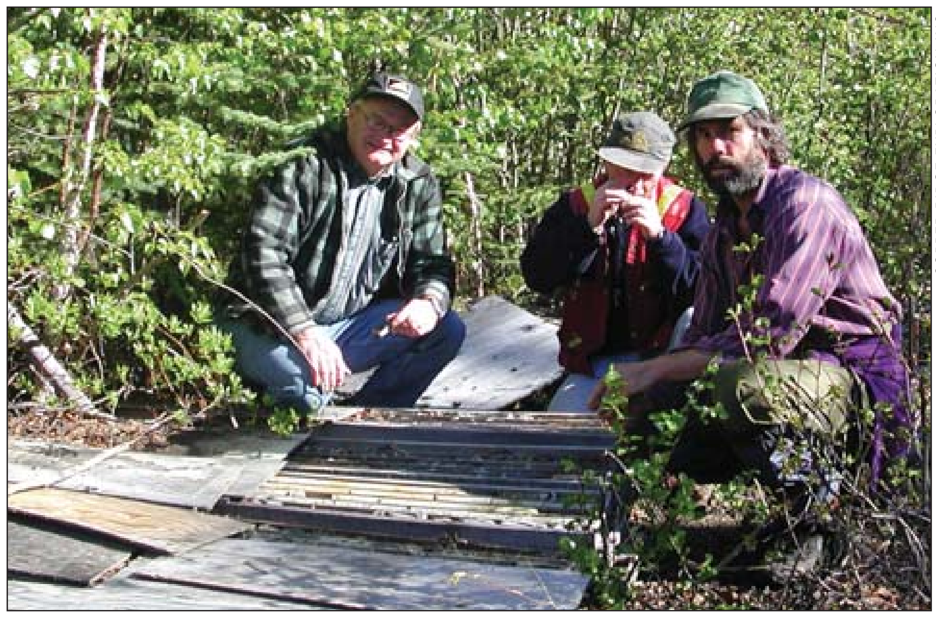

COPPER RIDGE EXPLORATION INC.

Gerald Carlson, president and CEO of Copper Ridge Exploration Inc., examine core with geologist Al Doherty and prospector Shawn Ryan at the Lucky Joe project in Yukon Territory.

Junior diversifies to improve odds for exploration

Copper Ridge Exploration Inc. got its start 10 years ago when Gerald Carlson and Mark Fields organized the company.

Prior to forming Copper Ridge in 1999, Carlson was president and CEO of La Teko Resources Ltd., which held gold claims near the Fort Knox Mine in Interior Alaska.

Fields also worked for La Teko until Fort Knox owner Kinross Gold Corp. acquired that junior. The geologist also was involved in the acquisition and development of the Diavik diamond mine for Rio Tinto Ltd., and has since moved on to other ventures. However, he still is a member of Copper Ridge's board of directors.

Copper Ridge is considered a project generator, sort of a middleman between prospectors and well-capitalized companies that can develop mines on their own or in partnership with others.

"We like to retain 30-50 percent interest in our projects, but sometimes we sell a larger interest," Carlson said. "But we obtain shares in the acquiring company or a net smelter interest to get some value for shareholders if there is a discovery."

The company operates in four jurisdictions: Yukon Territory, British Columbia, Alaska and Mexico.

A publicly held junior with Canadians holding up to 90 percent of its stock and Americans and Europeans owning its remaining shares, Copper Ridge's focus has evolved over the years with the opportunities that have come its way.

Today, it is focused on acquiring, exploring and developing diversified mineral resource properties including base metals, precious metals, uranium and tungsten. By exploring a broad array of projects and focusing on the right commodities, in areas of high mineral potential, in mining-friendly jurisdictions, the junior believes it has a greater chance for discovery to maximize shareholder value.

Part of the Vancouver, B.C.-based junior's attraction to Yukon Territory is the mining-friendly jurisdiction's low political risk and high mineral potential, Carlson said.

For Copper Ridge, the Yukon government's mining incentive programs are very important.

"They have been very effective in keeping exploration going in Yukon by supporting the prospectors. A number of them have brought us some good projects," Carlson said.

"We find Alaska a little more expensive to explore, but it also has great mineral potential," he observed.

Carlson said British Columbia, the other jurisdiction where it operates, has its challenges with First Nations disputes.

Persistence can pay off

Ogopogo, Copper Ridge's key Alaska asset, is another property where plans are still up in the air this year.

The Ogopogo property is located in the Goodpaster mining district, 90 air miles east of Fairbanks and about 4 kilometers, or 2.5 miles east of the 5.5 million-ounce Pogo gold mine, which

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SABINA

30 to purchase the nearby Back River gold properties from Dundee Precious Metals for C$7 million in cash, 17 million common shares totaling about 19 percent of Sabina outstanding common stock, and 10 million warrants worth 1.5 common shares each and exercisable for five years.

Sabina said the acquisition culminated work done in 2008 to fulfill its corporate strategy to acquire accretive, synergistic precious metals assets in Canada. The Back River Assets consist of two main components, the original Back River property hosting the George and Goose Lake iron-formation-hosted gold deposits and a recent new project area, the Wishbone Project. George Lake is located about 40 kilometers, or 25 miles, southeast of Hackett River. The Wishbone property covers a large portion of the Hackett River Greenstone Belt and hosts Sabina's Hackett River Project as well as other smaller base- and precious-metal deposits. The combined properties total about 3,000 square kilometers, or roughly 1,158 square miles.

The assets that add immediate tangible value in the transaction are the George and Goose Lake banded iron formation gold deposits which host 3.4 million metric tons grading 10.9 g/t for a total of 1.2 million indicated ounces of gold and 3.5 million metric tons grading 10.2 g/t for a total of 1.1 million inferred ounces of gold.

Sabina said the acquisition of the Back River Assets could allow it to spread the large fixed costs estimated for developing Hackett River over a larger and higher-value resource base.

"Further, the established infrastructure at Hackett River could become an economic driver for the region and the territory," the company said.

Early stage exploration assets

Sabina said it also obtained a large early stage exploration play in the deal with Dundee in the Wishbone Project, a combination of staked claims and prospecting permits covering the known extents of the Hackett River Greenstone Belt. The claims and permits extend for nearly 150 kilometers, or 90 miles, north to south and up to 50 kilometers, or 30 miles, east to west.

"We have not fully exploited the exploration potential that Hackett can provide and have new exploration opportunities at Back River and Wishbone," Walsh said in April. "We believe the systematic growth of our company's value can be driven by exploration success at Hackett and Back River."

Sabina plans to seek shareholder approval for the Back River purchase at its annual general and special meeting to be held in Vancouver June 4. ●

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COPPER RIDGE

be tested by drilling. Previous work also indicates the possibility for discovery of associated breccias-style copper-gold mineralization.

Copper Ridge agreed in 2007 to earn 100 percent interest in both the Nak and Dorothy properties over 6.5 and four years, respectively, through a combination of cash payments, stock issues and exploration spending. The vendor retained 3 percent NSR royalties on both properties, with provisions for Copper Ridge to purchase most of them for cash.

Historical drilling at Babine has included 98 core holes for a total of 15,629 meters. The Dorothy deposit was tested by a 29-hole, 2,973-meter drill program in the early 1970s.

In 2008, Copper Ridge completed a five-hole, 1,265-meter drill program. Best results are from hole BB08-04, drilled in the Southern Zone of the Nak deposit. The hole was drilled to 324 meters and averaged 0.12 percent copper and 0.329 g/t gold throughout its length, including 98.04 meters averaging 0.20 percent copper and 0.51 g/t gold and 16 meters averaging 0.23 percent copper and 0.76 g/t gold.

Exploration potential within the Babine project remains high and Copper Ridge believes additional drilling could expand both the Southern Zone of the Nak deposit and the Dorothy deposit.

Key role for exploration partners

Copper Ridge may yet do some work at the Scheelite Dome, Kalzas and Yukon Olympic projects.

"Scheelite Dome is a gold project, and we've had a lot of interest in it. We're in discussions to farm it out. If so, we'll see a fairly strong exploration program this season," Carlson said.

COPPER RIDGE EXPLORATION INC.

A Copper Ridge Exploration Inc. team prepares to drill a hole at the Babine project in northern British Columbia.

Scheelite Dome previously was under option to Riverside Resources Inc., but it was returned to Copper Ridge.

The property hosts bulk tonnage and high-grade skarn and vein gold targets. The gold-arsenic-bismuth-antimony soil geochemical anomaly at Scheelite Dome is one of the largest and strongest in the Tintina Gold Belt, according to Copper Ridge.

At the Aorta Structure, a large zone of low-grade gold mineralization has been defined. The zone is open along strike and at depth. At the Tom Zone, drilling in 2003 encountered high-grade gold mineralization of 7.09 g/t gold over 6.4 meters, including 24.42 g/t gold over 1.7 meters. The zone is open for expansion. At the Toby Creek Zone, in 2006, Copper Ridge defined a 2-kilometer-by-1-kilometer area of anomalous gold in soils with the strongest bismuth-arsenic-antimony soil anomaly on the property. A trenching program exposed large areas of intense alteration in the metasediments surrounding discrete 1- to 3-meter-wide zones of quartz-arsenopyrite-bismuthinite veining. Assay highlights from chip samples include 4.2 g/t gold over 2 meters and 8.1 g/t gold over 1 meter in continuous chip samples.

Copper Ridge also farmed out its Willoughby gold-silver property in 2007 to Bonterra Resources Inc. Bonterra, which reported plans to merge with Symphony Resources Inc. in April, has the right to earn up to 100 percent interest in Willoughby, which is located 26 kilometers, or 17 miles, east of Stewart, B.C. within a well-mineralized trend of the Hazelton Group volcanic rocks in the Stewart-Iskut-Eskay Creek gold district.

If a new junior, Richmond Capital, can get listed as a public company, it will explore Copper Ridge's Yukon Olympic IOCG property north of Dawson City this summer, Carlson said.

Copper Ridge also farmed out the Kalzas tungsten project to Prospector Consolidated Resources Inc. The property consists of 8 claims in the Mayo Mining District located 290 kilometers, or 180 miles, north of Whitehorse.

Kalzas is a large, low-grade tungsten deposit with bulk tonnage potential. Within the roughly 1.5-square-kilometer zone of disseminated tungsten mineralization, higher grade zones occur in competent quartzite and siliceous conglomerate beds that are steeply dipping and strike northwesterly across the property.

Drilling and trenching at Kalzas was completed by Union Carbide in the 1970s and by Copper Ridge in 2002 to 2005. In 2008, Prospector Consolidated completed a drill program of 500 meters in four holes.

Prospector Consolidated had said it intended to complete a resource calculation in anticipation of continued drilling in 2009, but Carlson said he wasn't certain that the junior would explore the property this year. ●

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DIVERSIFICATION

is owned by Sumitomo Corp. Copper Ridge holds a 100 percent interest in seven mining claims and various prospecting sites in east central Alaska, including the Ogopogo project, which consists of 114 State of Alaska mining claims covering 8,040 acres.

No significant mineralization has been identified within the Ogopogo claim block. The target is gold within quartz veins as identified in the Pogo deposit or similar to the gold occurrences demonstrated by a number of deposits within the Tintina Gold Province, associated with auriferous Cretaceous intrusions, such as Fort Knox, True North or Ryan Lode. Copper Ridge recently completed a NI 43-101 report on the property, which concludes that potential exists on the Ogopogo property for significant grade-tonnage accumulations of intrusive and/or gneiss-hosted gold mineralization similar to that currently being mined in the Fairbanks District and at the Pogo Mine. The report recommended an IP geophysical survey and soil sampling followed by a 1,000-meter drill program.

Carlson said Copper Ridge is considering the possibility of another company coming in and doing exploration work at Ogopogo this year.

In addition, the junior will scout the state for other opportunities.

"We always have our eyes open and we probably will look at potential acquisitions this summer in Alaska," he said.

"It's interesting that it often takes 10s of years for a project to come together," observed Carlson. "A good example is the Pebble deposit in Southwest Alaska. Cominco Ltd. drilled it and identified 1 billion (metric) tons of resource. Then it was farmed out to Hunter Dickinson and now it has 9 billion tons of resource.

"Sometimes it just takes persistence and knowing where to drill the next hole," he added.

—ROSE RAGSDALE

ALASKA

Alaska supports Southeast gold mine

The State of Alaska, Tlingits stand by Coeur Alaska as it fights to legitimize tailings permits for its Kensington gold mine

By SHANE LASLEY
Mining News

Coeur Alaska, developer of the Kensington Project near Juneau, is drawing the ongoing support of Alaska and Alaskans as it continues its legal battle to gain regulatory permission to begin gold production.

The case involves a challenge to a permit issued by the U.S. Army Corps of Engineers that allows the proposed mine to dispose of waste rock created during production in a nearby lake. Coeur hopes the permit will be upheld by the U.S. Supreme Court, which is currently reviewing the case.


JUDY PATRICK
GOV. SARAH PALIN

Coeur, which has spent more than $300 million to develop the proposed Kensington Mine, hopes the land's highest court will rule favorably on the permit dispute before the court recesses at the end of June. It is unclear how much longer the court will need to deliberate, but as of the beginning of May, the justices still had unanswered questions.

Southeast Alaska Conservation Council and other environmental groups opposed the miner's plan for wet disposal of the tailings and sued the federal agency, claiming the permits were invalid.

Coeur Alaska's parent, Coeur d'Alene Mines Corp., took the case to the nation's highest court after the Ninth Circuit Court of Appeals overturned a lower court ruling that upheld the permit issued by the Corps.

Much of the oral arguments before the Supreme Court Jan. 12 centered on whether the mine tailings to be deposited in Lower Slate Lake – a small, inland body of water with little aquatic life – should be classified as "fill material" or as "slurry" because water is mixed into them. Under federal law, the classification distinction determines which federal agency would have oversight of the mine's tailings disposal plan.

The State of Alaska, Coeur Alaska and federal regulators argued that the tailings are properly classified as fill and current 404 permits issued by the Corps are valid.

But opponents argued that the water added to the mine waste so it can be transported via a pipeline to the lake transforms the tailings into an effluent that by law should be supervised by the U.S. Environmental Protection Agency and required to meet guidelines of a 402 permit.

More than three months after those arguments, the high court asked for additional briefs that address the following questions:

- Would a future violation of the Clean Water Act authorize a court to set aside the permits issued by the Corps?
- If a discharge comes within the scope of the U.S. Environmental Protection Agency's effluent limitations and satisfies the definition of fill material, may the discharger obtain permits under both Section 402 (EPA) and Section 404 (Corps) of the Clean Water Act?
- Must the discharger do so?

The Supreme Court gave participants in the lawsuit 11 days, until May 15, to submit supplemental briefs answering the questions posed by the justices. They also received another week, until May 22, to respond to the briefs submitted by opposing parties in the case.

Alaska files a brief

At the direction of Gov. Sarah Palin, the Alaska Department of Law filed a supplemental brief with the high court in the Kensington case.

"The state's legal efforts, including the supplemental brief filed today, show support for developing our resources responsibly, growing Alaska's economy and creating well-paying jobs," Palin said in a statement May 15. "The brief should assist the Supreme Court with rendering a decision that finally allows the Kensington Mine to move ahead."

The state attorneys answered "no" to all of the questions posed by the justices. The attorneys said they worry that the high court would uphold the permit but leave open the door for future litigation concerning Coeur's future discharges.

"One of the issues raised by the justices implies that they are considering narrow procedural grounds for deciding the case, without actually determining whether the mine discharge is legal," said Deputy Attorney General Craig Tillery. "We, and Coeur, want the court to make a definitive ruling on the central issue, so that everyone knows what the rules are."

The State of Alaska has stood alongside Coeur throughout its legal battle to retain the Corps permit for tailings disposal in the lake. The state's lawyers are believed to have played an instrumental role in con-

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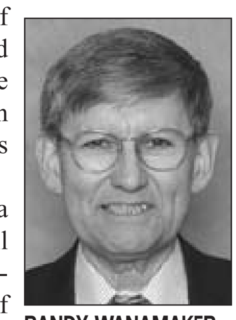
Juneau Assembly addresses future threats to Kensington permits

Although the Supreme Court is still deliberating the fate of the Kensington project's tailings permits the Juneau assembly is proactively opposing proposed federal legislation that could override a ruling in favor of Coeur.

The Juneau Assembly passed a resolution April 6 opposing the U.S. House bill H.R. 1310, the "Clean Water Protection Act," by a margin of 5-4. The assembly's opposition to H.R. 1310 – which would amend the Federal Water Pollution Control Act to redefine fill material – is a result of the effect the bill could have on the proposed Kensington gold mine located about 45 miles northwest of Juneau.


RANDY WANAMAKER

The resolution, drafted by Assembly members Sara Chambers and Randy Wanamaker, says the definition of fill as proposed in H.R. 1310 "would override a favorable decision of the Supreme Court of the United States in favor of the Coeur Alaska Kensington Gold Mine, as currently permitted by the U.S. Environmental Protection Agency and the Army Corps of Engineers."

"Now, at a time of great financial difficulties and enormous job losses, we find that radical oppositionists, fearful that Coeur Alaska will prevail before the Supreme Court, are in league with East Coast congressmen to introduce legislation that would make it nearly impossible to open the Kensington mine. While targeted at a gold mine in Southeast Alaska, the consequences would be national, as thousands of mining jobs are exported to other countries," Wanamaker said.

The authors of the assembly resolution said they are confident that the Kensington Project has been properly permitted, and "H.R. 1310 will overturn 35 years of well-established nationwide procedures used by the Army Corps of Engineers and the Environmental Protection Agency."

The assembly members said a mine at Kensington is of vital economic importance to Juneau and to Southeast Alaska.

Wanamaker wrote in the Fairbanks Daily News Miner, "As an assemblyman, I now struggle with Juneau's budget problems. In each of the last past two years, the city has lost about $25 million in payroll, $3 million in sales and property taxes and $9 million in local goods and service purchases. Juneau is struggling with projected annual budget shortfalls estimated at $5.5 million.

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MANTRA

"It's the logical next step for explorationists to go out and say, 'We know there are these other placer occurrences.' There has been about 4 million ounces of placer gold produced in the (Kuskokwim) district; from the south end to the north end, all of them have these intrusive (qualities) that are associated with them," Johnson explained. "Colorado Creek is certainly one of the ones that you would look at because of the level of gold that was produced historically, and it has these intrusives that are associated at Donlin."

Mantra said Colorado Creek needs a total rework of the existing data and interpretation in light of NovaGold's advanced understanding of ore controls at Donlin Creek. The work performed by NovaGold in 2008 demonstrates that the mineralization is open beyond its previously known limits. The junior said expansion of the mapping and soil database is needed as well as an additional 2,000 meters or more of exploratory drilling to test the mostly hidden, flat-lying mineralized sills.

More Kuskokwim Gold Belt properties

Chowdhry said the junior is also considering doing some exploration work on the Tintina properties this year. The 93,280 acres of State of Alaska mining claims is divided into 5 claim blocks scattered along about a 100-kilometer, or 60-mile, stretch of the Kuskokwim Gold Belt south-southwest of Donlin Creek. NovaGold has conducted limited reconnaissance mapping and sampling on these early-stage, intrusive-related exploration targets which also show similar general characteristics to Donlin Creek-type mineralization.

> *"The transformation of Mantra into a leading mining and exploration company seems to now have been completed. Mantra today has effective leadership; Rick Van Nieuwenhuyse and other recipients of the Thayer Lindsley award, world-class projects such as Colorado Creek and the right strategic partners, NovaGold and Electrum Group of Companies."*
>
> **—Mantra Mining President and CEO Raj Chowdhry**

Mantra's most recent acquisition is 55 percent interest in the Golden Lynx properties, a group of five properties that lie along the same trend as Colorado Creek, Donlin Creek and the Tintina properties. In early May, the junior agreed to issue 4.2 million Mantra shares to Cougar Gold LLC, a Denver-based subsidiary of privately-held global mining group Electrum Ltd., in exchange for Cougar Gold's 55 percent joint venture interest in the 20,040 acres of gold properties situated about 240 kilometers, or 150 miles south-southwest of Donlin.

Cougar Gold acquired its stake in the Golden Lynx properties – Kisa, Gold Lake, Gossan Valley, Little Swift and Gold Creek claim groups – by entering into a joint venture with the Idaho-based Gold Crest Mines Inc. in April 2008. The Electrum subsidiary also has acquired 5.67 million shares of Gold Crest stock, giving it a 6.68 percent stake in the junior.

Gold Crest, 45 percent partner in Golden Lynx, drilled 945 meters that targeted an outcropping at the 4,250-acre Kisa claims in 2007. All six drill holes are reported to have encountered broad zones of gold mineralization. According to the Idaho-based junior, assay intervals containing up to 8.6 grams of gold per metric ton suggest the possibility of higher-grade zones within the intrusive breccia complex.

The 9,720-acre Gold Lake claim block is located 8 miles, or 13 kilometers, south of Kisa, and covers areas of hydrothermally altered and gold mineralized igneous dikes and sills similar to the Kisa showings. The Little Swift, Gold Creek, and Gossan Valley prospects, lie a short distance southwest of the Gold Lake claims.

Electrum, in 2008, followed up on the junior's discoveries. The privately held company, not obligated to reveal its activities to its shareholders, prefers to maintain a competitive edge by not revealing its exploration plans and discoveries to the competition. Sources tell Mining News that Electrum spent about US$1.5 million in 2008 with a primary focus on the Kisa property.

Chowdhry said Mantra has about a US$220,000 work commitment by April of next year.

In order to maintain its 55 percent interest in Golden Lynx, Mantra must contribute US$321,000 to Golden Lynx by April 18, 2010 and US$1.5 million by April 18, 2013, which will be used to fund exploration on the Golden Lynx properties. Mantra can increase its stake in Golden Lynx to 80 percent by paying another US$2.5 million by April 18, 2015.

Base metal assets in B.C.

In addition to the three Alaska base metal properties, Mantra acquired the 13,081-acre Gnome zinc-lead-silver property in northern British Columbia.

The Gnome claims are located in the Kechika Trough, the same belt where the better-known Cirque and Akie Sedex zinc-lead-silver properties are situated. The project is located immediately adjacent to the south of the Elf mineral claims held by Teck Resources and Korea Zinc.

Van Nieuwenhuyse told Mining News in January that Mantra may spin off the junior's base metal assets from its precious metals assets and fund the two different entities, separately. NovaGold is considering a similar move with its Ambler copper property in Northwest Alaska.

"(The asset split) is still being considered at a very advanced level," Chowdhry told Mining News. "Based on a few other things that are happening I would expect the probability that we will end up in that direction is very high." ●

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SUPPORT

vincing the high court to take up the case. They argued alongside Coeur's attorneys in both the Ninth Circuit and Supreme courts.

Reps resolve to protect permits

Alaska's legislative branch also has voiced strong support for the Kensington Project. The Alaska House of Representatives gave unanimous approval April 16 to House Resolution 12, which reaffirmed the lawmakers' long-term commitment to the gold mine project and urged state and federal regulators to promptly evaluate Kensington permits that may be in danger due to the long delays caused by the judicial process.


REP. CATHY MUÑOZ

"The Kensington mine project is vital to my community," said resolution sponsor Rep. Cathy Muñoz, R-Juneau. "Coeur Alaska has committed to responsible, environmentally-sound development of the prospect. They've already spent more than $30 million on (1,000) studies, and more than $33 million on preliminary construction.

Muñoz also urged state and federal regulatory agencies with jurisdiction over the project to promptly allow permitting extensions, re-instatements, and re-activations that were in effect when the 9th U.S. Circuit Court of Appeals issued an injunction halting the project.

"Due to the August 2006 injunction imposed by the 9th Circuit, some 70-plus permits authorizing the mine that were in place are now in jeopardy," Muñoz added. "Coeur's appeal to the U.S. Supreme Court is imminent, and should the Court rule in favor of the mine, the necessary state and federal agencies should be ready to assist the company in seeking continuations on the permits. The mine and the 300-plus well-paying jobs for Juneau are too important to risk losing due to bureaucratic issues."

Tlingits take practical approach

The Tlingit Indians from the Juneau region of Southeast Alaska are also active in their support of Coeur and its development of Kensington. The Natives of Southeast Alaska took a practical approach in their decision to support the proposed gold mine.

Goldbelt Inc., an Alaska Native village corporation representing Juneau shareholders, filed a brief with the U.S. Supreme Court in support of Coeur and upholding the tailings permits issued by the Corps.

"Throughout the Kensington permitting process the views of area Tlingit Indians were heard and respected by the federal agencies and by the permittee, Coeur, in particular," Goldbelt wrote in its brief. "The end result of the Kensington permitting process is a project that fully protects the subsistence uses and resources of Berners Bay."

"In the case of Coeur Alaska's Kensington Gold Mine north of Juneau, the expressed environmental fears are for an isolated 23-acre muskeg lake in a state that has more than 3 million lakes," wrote Randy Wanamaker, council member of the Tlingit and Haida Central Council, in an article printed in the Fairbanks Daily News Miner. "This lake contains an insignificant number of non-endangered fish common to the region. The mine is in a historic mining district and has been permitted by the Environmental Protection Agency, the Army Corps of Engineers and all state and local agencies. This mining district — where similar mines operated for more than 40 years with no environmental regulation — is an area described as pristine by contemporary mining opponents."

In its brief, Goldbelt explained that the 404 tailings permit issued by the Corps is not a standalone permit, but is complemented by EPA's National Pollution Discharge Elimination System permit.

"While SEACC and the other respondents question the decision to permit the Kensington Mine under Section 404 as a matter of law, they have not challenged the adequacy of any of the countless environmental reviews, or any of the specific findings made by the Corps, the Forest Service, the EPA, or the myriad other federal, state and local agencies that exhaustively evaluated the Kensington project and concluded that it would not result in substantial harm to the environment, including waters of the United States," Goldbelt wrote in its brief. ●

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JUNEAU

Citing a 62 percent unemployment rate among Alaska Natives in Southeast Alaska, the resolution says the Kensington project has and will continue to recruit, train and employ Alaska Natives.

The assembly members also expressed concern about how the proposed definition change would affect other construction projects and municipal landfills, not only in Juneau, but across the nation. The proposed Kensington gold mine, and other projects that would require disposal of excess rock and soil in areas designated as wetlands, would be affected by the bill.

Implications of H.R. 1310 are especially profound in Alaska, where about 174.7 million acres, or 43.3 percent of the state's surface area, is considered wetlands. That compares with an average of 5.2 percent of the surface area of the lower 48 states.

—SHANE LASLEY

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UNDERWORLD

Further drilling at Arc

Drill crews also have completed one hole this year at the Arc Zone, which lies about 1,000 meters southeast of Golden Saddle.

Fleming said he has four holes of phase-1 drilling scheduled to further test the 2,000-meter Arc soil anomaly that led to the discovery of this gold prospect.

The two holes drilled at Arc in 2008 intersected a lower grade of gold mineralization than that encountered at Golden Saddle.

The first encouraging intercept in the Arc Zone occurred in drill hole 14, which cut through 28.5 meters averaging 1.18 g/t gold. Hole 17, located 600 meters northwest of hole 14, intersected 29 meters with an average grade of 1.47 g/t gold.

Though the grades are lower at Arc than Golden Saddle, Fleming said Arc has the potential to add large amounts of gold to the property due to the enormous size of the soil anomaly.

Junior expands White Gold

Two property deals announced in mid-May increased Underworld's land position at White Gold by 62.5 percent.

The junior has secured the rights to parts of the Cathy claims and all of the Cath and WS claims. These properties expand the White Gold properties to the east and south.

The Underworld team is particularly interested in the Thistle property immediately south of the recently expanded White Gold property. Thistle consists of 86 claims that lie on the southern side of Thistle Creek, which historically produced about 63,000 ounces of placer gold.

UNDERWORLD RESOURCES INC.

A helicopter flies into the exploration camp at Underworld's White Gold property. The property, which lies adjacent to the Yukon River, also can be accessed via commercial river barges for five months in the summer and fall.

Williams told Mining News that geologists are currently mapping the Thistle property and see indications of intrusive style mineralization. He said Underworld plans to begin drilling the highly prospective property later this year.

Klondike reference leads to discovery

Underworld holds an option to earn a 100 percent interest in the Yukon projects from prospector Shawn Ryan, who identified and staked the claims several years ago.

Ryan's discovery of the White Gold prospect began when he encountered an enigmatic reference, recorded in government records in the late 1800s that one William Ogilvie sold a rock for C$20,000 that was found near the confluence of the White and Yukon rivers.

Early prospectors recorded further indications of gold showings in the area in 1914, but no one had been able to pinpoint a substantial deposit, Ryan said.

In 2003, with the help of modern exploration tools, the prospector believes he found the source of the historic rock on the White Gold property. Following his initial discovery Ryan and Yukon Geological Survey geologist, Michael Burke, returned to inspect the discovery. The duo uncovered two significant gold veins, Mike Vein and Ryan's showing, on the property now being explored by Underworld.

Ryan followed up his discovery with an extensive soil sampling of the White Gold property.

Exploring other prospects

Underworld trenched at Ryan's Showing in 2008, but drilling did not reveal the encouraging results found at the surface.

"We drilled some veins last year at Ryan's. We trenched it the year before and got some really good results but when we went to test it at depth with a drill we didn't duplicate the results we saw at surface," Williams said.

The junior plans to explore several other prospects on the property. The Teacher's showing, which lies on the north end of the property, is one target for exploration this year.

Teck located and explored Teacher's in 1998 but released the claims two years later. Williams said the junior will start off trenching areas with geochemical signatures similar to Golden Saddle, and, if the results are encouraging, the company will follow-up with drilling. Underworld plans a similar program at the Donahue zone at the south end of the property.

Williams said the property has attracted the attention of the majors. Kinross, which has the right to maintain its 9.9 percent interest in Underworld, opted to hold on to its share of the junior's equity during financing completed this spring. ●

continued from page 2

NOVAGOLD

staggering US$4.48 billion price tag on the construction of a world-class mine capable of producing an average of 1.25 million ounces of gold per year for more than two decades.

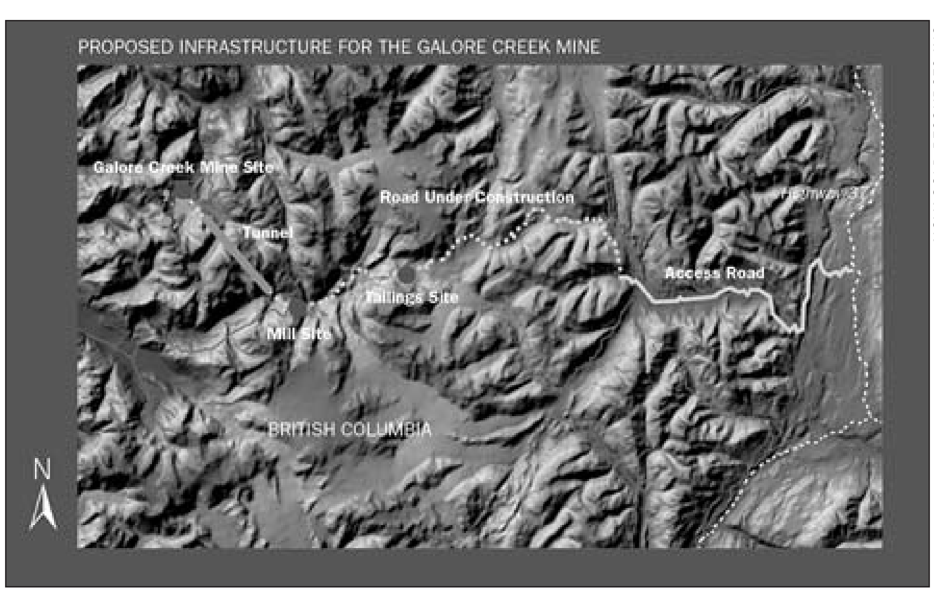
NovaGold said the construction costs were estimated in 2008, when global capital costs were at their peak, and managers expect a reduction in the actual building costs due to recent price decreases construction materials such as steel, concrete, diesel and labor.

While the feasibility study provides a framework for the upcoming permitting process, the true cost for building the mine will probably not be known until the partners have permits in-hand. The permitting process is expected to begin later this year and be complete in 2012.

"We have several years of permitting work before we know what the final project we are going to build is," Greg Johnson, NovaGold vice president of strategic development, told Mining News. "Who knows, in two or three years, what the costs of labor, concrete, steel and things are going to be, but they are certainly less today than they were in 2008 when we priced these things in the study."

The proposed 53,500-metric-ton-per-day mine outlined in the feasibility study is expected to produce about 1.6 million ounces of gold per year over its first five years of operation. Based on current reserves, the mine should produce about 26.2 million ounces of gold, or an average of about 1.25 million ounces per year, over a 21-year mine life.

NovaGold's share of the 2009 budget at the Donlin Creek project is about US$14 million, part of which was used to complete the feasibility study, and the remainder is planned to be used for permitting activities at the project.



NOVAGOLD RESOURCES INC.

An optimization study completed by Teck Resources, NovaGold's partner at the Galore Creek copper-gold project, moves the concentrator and tailings storage outside of the Galore Creek Valley. The mine-site will be linked to the new concentrator location by a realigned 11-kilometer, or seven-mile, tunnel. The new plan will shorten the route between the mine and Highway 37 by 31 kilometers, or about 15 miles.

Teck foots bill at Galore

At Galore Creek, Teck will fund the entire C$15.7 million budget for the copper-gold-silver project in 2009. The funds will primarily go toward maintaining the existing infrastructure and continuing to build a 90-kilometer-, or 55-mile-, long access road west from Highway 37 to the mine-site.

"We are going to continue (road construction); we have a couple of key bridge segments that would need to be purchased and installed to complete the road to kilometer 90, which is our new plan," Johnson said.

The first 40 kilometers, or 25 miles, of the road is complete, and as the partners reach camps and construction equipment staged along the remaining route, the surplus equipment will be trucked out on the new road where it can be sold.

Due to a deal struck with Teck, NovaGold is not expected to make any significant cash contributions at Galore Creek through 2012. Under the agreement, Teck will fund 100 percent of Galore Creek costs until the amount contributed by Teck after Nov. 1, 2008, together with funds spent on optimization studies equals C$60 million. Teck's remaining funding obligation – taking into account the C$8.5 million spent during the last two months of 2008 and C$15.8 million previously spent on optimization – is about C$35.7 million, due to be contributed by Dec. 31, 2012.

Teck completed the optimization study for the Galore Creek project during the fourth quarter of 2008. The final configuration resulted in moving the permanent facilities associated with the concentrator and tailings disposal located outside the Galore Valley.

The mine-site will be linked to the new concentrator location by a realigned 11-kilometer, or seven-mile, tunnel. The new plan will shorten the route between the mine and Highway 37 by 31 kilometers, or about 15 miles.

The concentrate will be transported via pipeline the entire 150 kilometers, or 93 miles, to the Port of Stewart, rather than to a location near Highway 37 and trucked the remaining distance. The new plan will require the relocation of the filter plant to the port in Stewart.

Due to current economic conditions, the partners have decided not to proceed with updating a final feasibility study based upon the results of the optimization study. Instead, they will place the Galore Creek site on care-and-maintenance indefinitely.

Decisions ahead at Rock Creek

About three months after beginning testing of the 7,000 metric-ton-per-day plant at the Rock Creek gold project NovaGold decided to place the operation on care-and-maintenance. The company attributes the decision to financial issues and mechanical problems with the crusher.

"It was a difficult decision, but unanticipated mechanical issues with the crusher and financial constraints, combined with market conditions at the time, meant the company could not proceed with the project," according to Van Nieuwenhuyse.

NovaGold also had to deal with environmental issues at Rock Creek. The U.S. Environmental Protection Agency asserted that between April 2007 and September 2008 stormwater discharges at Rock Creek mine exceeded turbidity standards on several occasions. During this period the company was delayed from completing stormwater facilities at Rock Creek mine due to litigation with environmental groups over the mine's construction permits that led into a severe winter with record snowfalls in Nome. NovaGold agreed to pay US$883,628 as part of a settlement to resolve alleged violations of the Clean Water Act at Rock Creek.

see **NOVAGOLD** *page 19*

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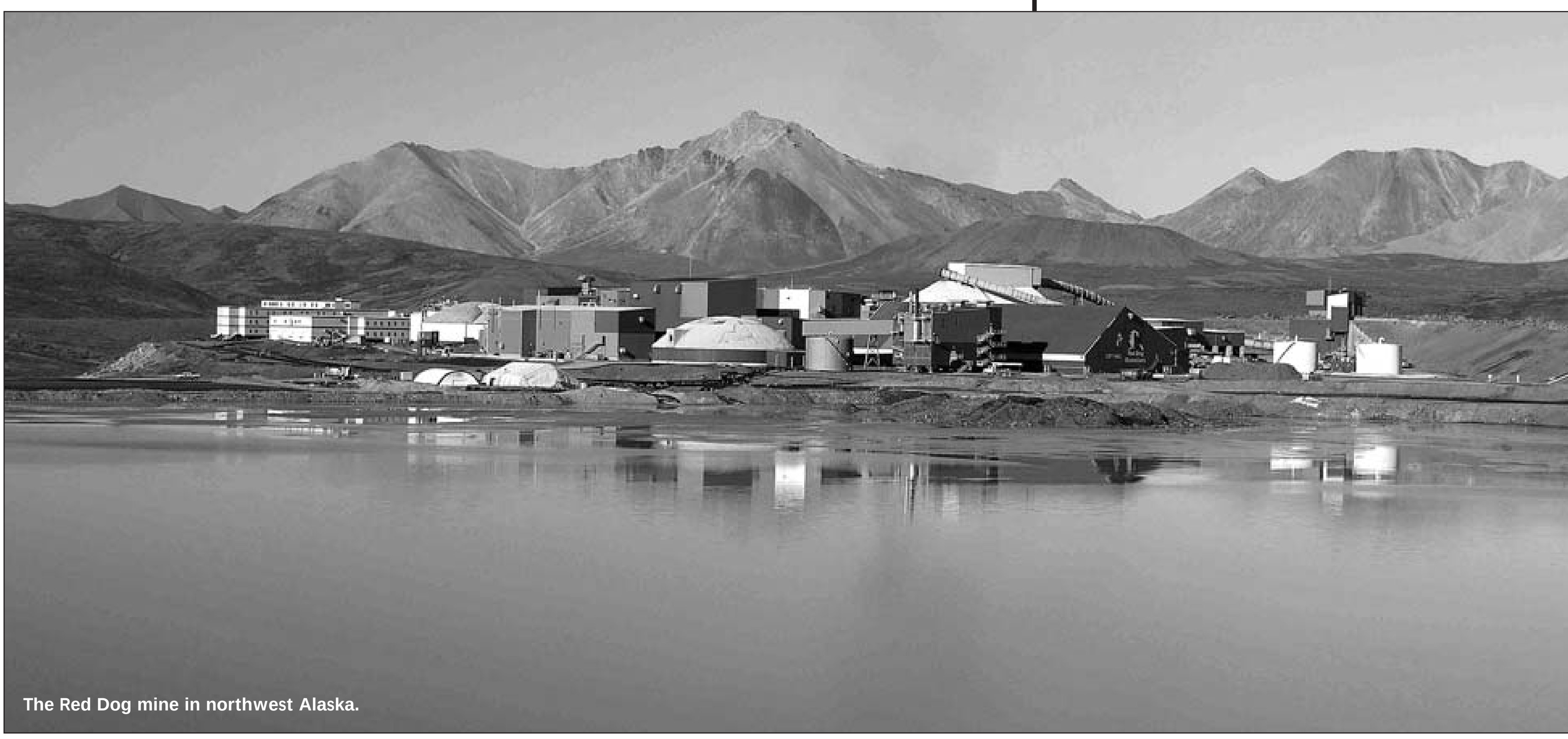
DIRECTORY

Companies involved in Alaska and northwestern Canada's mining industry



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NOVAGOLD

The miner said it is continuing to work with state and federal regulators to meet its environmental requirements and is completing a detailed project assessment to determine the cost, timing and requirements to successfully restart the commissioning process.

One of the key environmental requirements is to complete a water treatment facility that can process water building up behind the tailings impoundment dam at the mine. Johnson said the water treatment plan is complete and the company expects it to get approval from state regulators.

GREG JOHNSON

NovaGold said it will make a restart decision later this year on its operations at Rock Creek. The company has said it is exploring resuming operations on its own, bringing in an operating partner or selling the mine. Whichever route the miner decides to take, operations are not expected to resume until at least 2010.

"A key part of (the restart plan) is assembling a team to be successful, that could be done through a partnership, or by us rebuilding the team there. That is part of the evaluation that we are undertaking right now," Johnson said.

He also said an outright sale of the mine is doubtful.

The current care and maintenance budget at Rock Creek for 2009 is about US$7 million, excluding settlement of payables from 2008.

NovaGold is also putting together a drill program to follow up on deeper mineralization discovered last year below the Rock Creek pit.

"We got some deeper drill holes put in last year at Rock Creek that are indicating we may have a bigger mineral system than was previously identified, and we are putting together a program to go in and test that," Johnston said.

Drilling last year intersected 118 meters with an average grade of 1.4 grams per ton gold below the reserve pit outline at Rock Creek.

Another hole to the east of the pit intersected 52 meters of deeper mineralization, averaging 2.3 g/t gold. Both holes bottomed out in mineralization.

What to do with Ambler?

The 35,000-acre Ambler volcanic massive sulfide property in Northwest Alaska is NovaGold's one remaining early-stage exploration property.

Ambler, which hosts the precious-metal-rich Arctic copper-zinc deposit, was originally going to be lumped in with five other early-stage properties that NovaGold traded to Mantra Mining Inc.

Instead, NovaGold has extended its agreement with Rio Tinto to earn a 51 percent interest in Ambler and continues to view the property as a valuable copper-zinc- precious metals asset, Johnson said.

"We are evaluating whether it makes sense to continue to do the work on that project within NovaGold or if it might make sense to have that go into a company that is more focused on the base metals," he explained.

Johnson said the decision not to include Ambler in the deal with Mantra resulted from market conditions and Mantra's inability to raise capital at the time. The Vancouver-based junior is currently raising C$5 million in private placement financing, of which Electrum has indicated it will purchase about C$2.7 million worth of the available shares.

"Mantra is now completing the financing, and we will look at it if it makes sense for Ambler to go into Mantra, or some other vehicle. Depending on how we structure things, NovaGold may do the work on it," Johnson said.

Mantra also has indicated it may split off the three base metal properties that it acquired from NovaGold.

"One of the things we are looking at right now is how we are going to organize (Mantra) going forward. We may well split the precious metal assets and the base metal assets into two separate entities," Van Nieuwenhuyse, who is Mantra's chairman, told Mining News in January.

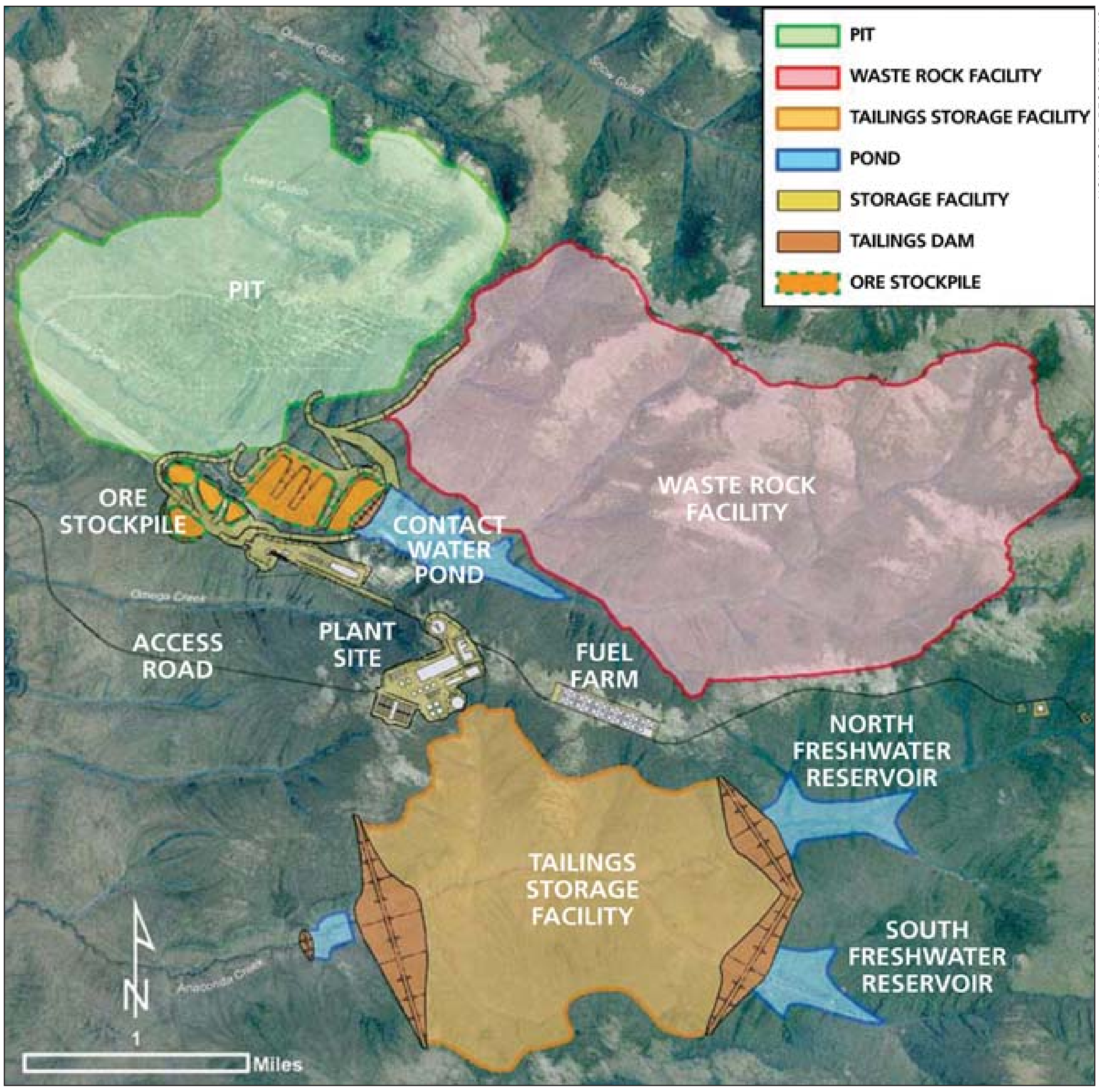
Searching for new opportunities

With the challenges of 2008 behind it, NovaGold is looking for new opportunities to expand the company's gold assets.

"A lot of the companies that are significantly smaller than NovaGold are struggling to get financed. With us being in a stronger financial position we feel there may be opportunity," Johnson explained.

Johnson said NovaGold is taking a Pan-Pacific approach to its search for new opportunities. The restructured company is looking at projects that are in production and near production that would benefit from NovaGold's resource expansion and permitting skills.

"A key for us is to take a resource that has already been defined to some stage; maybe it's a million ounces or so, where we see significant upside exploration opportunity," he said. ●



NOVAGOLD RESOURCES INC.

Donlin Creek LLC partners NovaGold Resources Inc. and Barrick Gold Corp. have decided to move forward with permitting the Donlin Creek gold mine as proposed in the feasibility study released in April.