Petroleums



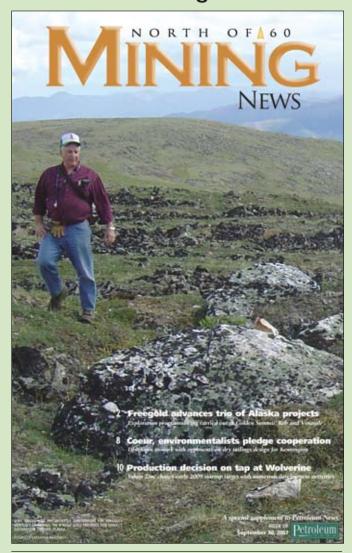
page Suttles protests Palin's proposed tax,says it makes Alaska less competitive

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This month's Mining News inside



Repsol partners with Eni, Shell off Alaska in Beaufort Sea

Repsol YPF has joined Shell and Eni in a block of 64 leases in the Beaufort Sea off Alaska's North Slope. It's the Spanish oil and gas major's first acquisition in the state.

Shell and Eni exchanged working interests in the contiguous outer continental shelf leases last November. At that time Eni had a 60 percent interest in the acreage and Shell had 40 percent.

see REPSOL page 18

Alliance elects new directors

At its Sept. 20 annual meeting in Anchorage, The Alaska Support Industry Alliance elected six directors to its board and named new officers, the association said in Sept. 26 press releases. Two of the directors, David Matthews and Dallas Rhodes, were newly elected, and four were voted back in. Matthews is vice president and Alaska area manager for H.C. Price Co. He is also a director of the Resource Development Council, and a former director of the Alliance. Rhodes has

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7 High-stakes clash looms: Former Alberta premier's chilling prediction, test of wills could undermine key U.S. oil source

9 Mobil's 20% of CIPL split: Pacific Energy will end up 50-50 owner of Cook Inlet Pipe Line with Chevron

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Agrium shutting down

Kenai Peninsula nitrogen facility being mothballed until it gets new feedstock

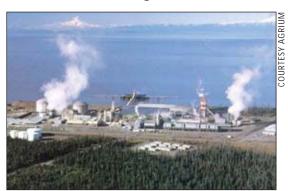
By KAY CASHMAN

Petroleum News

grium is closing its nitrogen fertilizer operations on Alaska's Kenai Peninsula by the end of September due to a shortage of natural gas supply in Alaska's Cook Inlet basin, the Calgary-based company said in a Sept. 25 statement.

Closing the Nikiski facility will result in the layoff of more than 100 of Agrium's 140 employees starting in December, Lisa Parker told Petroleum News on Sept. 27. "We'll have stopped getting gas and making product by the end of September. We still have three shiploads of product to ship out. The layoff of employees will begin in December." The company, she said, is giving employees a 60-day notice.

Agrium said it's continuing to work on the "feasibility of a coal gasification project to use coal as a



Agrium facility at Nikiski on Kenai Peninsula

feedstock" instead of natural gas for the Kenai facility. A decision on whether to proceed with the next stage of the project is anticipated later this year. The earliest a gasification facility could be operational is

see AGRIUM page 20

EXPLORATION & PRODUCTION

Hikes would hurt oil sands

Wood Mackenzie: Royalty, tax increases would undermine project values

By RAY TYSON

For Petroleum News

recent study published by respected international energy consultant Wood Mackenzie reflects industry's worst fears over government proposals to hike royalties and taxes on Alberta oil sands projects. If fully implemented, the study concludes, the increases would reduce the commercial value of current and planned oil sands projects by a hefty US\$26 billion.

The move specifically would decrease the value of 28 oil sands projects in operation and under development, if Alberta's government adopts the proposals to increase taxes and royalties from the energy sector by 20 percent, Wood Mackenzie said

Wood Mackenzie also found that Alberta's oil sands' attractiveness as an investment based on the level of government take would slide from 11th place to 44th in a ranking of 105 basins around the world.

in its study published Sept. 25.

Derek Butter, the research firm's head of corporate analysis, predicted that economically marginal projects or those with a start date furthest in the future, would be hardest hit by changes proposed by the Alberta Royalty Review Panel.

He said projects may not move forward, boost-

see HIKES page 18

ENVIRONMENT & SAFETY

Protecting Arctic waters

Joint program researches aspects of responding to oil spill in ice-infested waters

By ALAN BAILEY
Petroleum News

orldwide interest in the petroleum potential of the Arctic seas has triggered a corresponding focus on the practicalities of responding to an oil spill, were disaster to strike an offshore oil operation. As part of the ramped-up interest in how to deal with an Arctic spill, a joint industry program coordinated by Norwegian research company SIN-TEF is engaged in a series of research projects covering most aspects of offshore Arctic spill response. The program's objective is continuing development of tools and technologies for oil spill response in the Arctic and ice-infested waters.

AGIP KCO, Chevron, ConocoPhillips, Shell, Total, BP and Statoil are participating in the program

see PROGRAM page 19

Shell: proven techniques

Given the amount of research being done on Arctic oil spill response, Petroleum News asked Shell, a participant in the SINTEF Arctic oil spill response joint industry program, to comment on the viability of the techniques and technologies that the company has specified in its oil discharge prevention and contingency plan for its proposed Beaufort Sea drilling program off Alaska.

For example, Shell sees in-situ burning of spilled oil as a particularly valuable part of its arsenal of response tactics. But, has in-situ burning actually been demonstrated to work in

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FINANCE & ECONOMY

BP protests proposed tax

Suttles says Palin's plan makes Alaska less competitive when investment needed for existing fields, new developments

By KRISTEN NELSON

Petroleum News

study of government take by Wood Mackenzie released in June ranked Alaska among the least fiscally stable regimes in the world, BP Exploration (Alaska) President Doug Suttles told the Alaska Support Industry Alliance in Anchorage Sept. 27.

Alaska ranked 99th out of 103 regimes, Suttles said, ahead of only Venezuela, Russia, Argentina and Bolivia, and that, he said, was before a new tax, Alaska's Clear and Equitable Share or ACES, was proposed earlier in September by Alaska Gov. Sarah Palin.

The debate over taxes which has just begun is about more than taxes, he said: "It's about the future. It's not only about revenues — it's about jobs in Alaska. It's about jobs for today, it's about jobs for the next 20 years and it's about revenues for the next 30."

ACES would be the third tax increase in three years for the Alaska oil and gas industry, he said.

The severance tax or production tax portion of BP's annual tax bill in Alaska for last year would have been \$180 million under the old production tax, he said; under the tax passed last year, the petroleum profits tax, PPT, BP paid more than \$500 million, tripling the severance tax portion of its taxes.

"It's absolutely critical that Alaska be competitive," he said, because all investors have choices, and Alaska already has the highest tax rate in North America, 50 percent higher than Alberta.

Renewal of infrastructure

The low ranking for Alaska on fiscal stability is an issue because "Alaska oil production is on decline: It can only be slowed with one thing — the next investment," he said.

Suttles said BP is proud of 30 years of production at Prudhoe Bay, but infrastructure at the field, like infrastructure at oil fields worldwide, was built to last 25 years. BP is "talking about another 30 to 50 years."

"We should be really clear," he said: "This is not an issue of maintenance. This is about renewal. Oil fields cannot last forever and their equipment cannot last forever. Considerable new investment will be required to make these fields perform their purpose over the next 50 years."

No "single solution" will unlock the 50-year future that BP talks about in Alaska, he said. "Gas will not be enough; exploration will not be enough; it will take action on every single front."

Partnership will be required and "a tremendous amount of money, a tremendous amount of human energy and a tremendous amount of knowledge."

Investment will be required in existing fields, along with investment in infrastructure and finding and developing new oil and gas fields, "plus the development of fields we've previously found but have been unable to develop to date."

And new technologies will be required, along with developing a workforce for the future.

BP spend \$1.9 billion in '07

BP will spend almost \$1.9 billion in Alaska this year, more than \$700 million of that in capital programs, Suttles said.

The investment in existing fields is

crucial, he said.

"The largest new discovery on the North Slope every year is infill drilling activity at our existing fields, in particular at Prudhoe Bay," with almost 800 new wells drilled at A study of govern-Prudhoe in the last ment take by Wood 10 years. New Mackenzie released reserves added at Alaska among the Prudhoe since start- least fiscally stable barrels, would make (Alaska) President field in the United Alaska Support States and the sec- Anchorage Sept. 27. ond largest field in



Alaska, larger than Kuparuk, he said. Across the slope, BP drilled 73 new wells last year, wells which added more than 70,000 bpd.

Exploration is important to keeping up Alaska's production, but Suttles said an equally risky area for the industry is technology. The company is working on a plan to develop the Liberty field which will require the longest extended-reach wells ever drilled: almost 8 miles. "There's no guarantee we'll be successful. This is no different than, for instance, taking chances with exploration: this is about taking chances with technology."

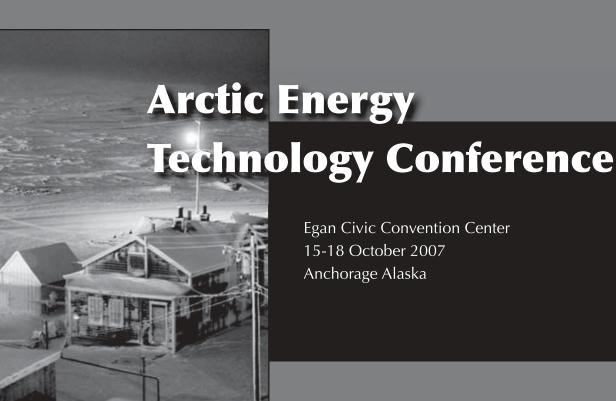
Heavy oil is another technologydependent development. BP drilled the first heavy oil well on the North Slope at Milne Point this summer, he said, the Coho No. 1 at Milne Point. The well will be put on production this summer as BP tries to prove up a technology called CHOPS, cold heavy oil production with sand, a technology being used in Alberta which BP is "trying to adapt to Alaska's conditions and our oil reservoirs."

This, he said, is just one of the programs needed to keep Alaska successful.

Wood Mackenzie study

Wood Mackenzie looks at more than just fiscal stability, the ranking Suttles used to highlight concerns about how attractive Alaska is for investment.

The study, "Government Take: Comparing the attractiveness and stability of global fiscal terms," provides information on how government take changes. Wood Mackenzie said the "study provides both investors and resource holders with a thorough analysis of the current government take, from both existing production and new investments, in over 100 countries." The report includes up-to-date summaries of fiscal terms for more than 100 countries; tables ranking attractiveness of government take from both existing assets and new investments; and an index of the volatility of terms. •



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FINANCE & ECONOMY

BP explains Hayward statements leaked from internal meeting

According to a Sept. 25 report in the Financial Times, BP has said that Tony Hayward's remark, leaked from an internal

company meeting, about "dreadful" thirdquarter revenues actually referred to the company's operational performance in the third

NEWS FLASH

quarter. (See news item on page 11 of this issue of Petroleum News.) The company did, however, say that the operational performance would have revenue implications.

The Financial Times also reported that the company said that a comment by Hayward about BP's performance being its worst since the company's crisis of 1992-93 referred to BP's share price performance relative to the company's competitors.

-ALAN BAILEY

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NATURAL GAS

New Gulf LNG port, expansion approved

Statoil starts shipping LNG from Snoehvit Arctic field as FERC approves new terminals to import gas for East Coast markets

By ALLEN BAKER

For Petroleum News

he Federal Energy Regulatory Commission has approved a new liquefied natural gas terminal on the Gulf Coast as well as an expansion of El Paso's Elba Island port near Savannah, Ga. The approvals came Sept. 20.

Meanwhile, production began Sept. 21 at Statoil's Snoehvit liquefaction plant, with first cargoes expected to depart in late September. The Snoehvit field is in the Barents Sea near the northern tip of Norway.

The \$10 billion project will produce LNG equivalent to about 200 billion cubic feet of natural gas annually for the next 30

Depending on the yield from the offshore field, a second train could be added to double shipments. Seabed wells are used to extract the gas, which is then piped to an onshore liquefaction plant.

Statoil operates the field and holds a one-third working interest. Other companies with major stakes in the project include French firms Total and Gaz de France, along with Hess. The field was discovered 24 years ago.

El Paso project

The Sept. 20 FERC approvals allow El Paso Corp. units to expand the Elba Island terminal with new berthing facilities and other improvements that will increase the sendout capacity to 2.1 billion cubic feet daily. The plan includes new storage tanks that will more than double LNG storage capacity to the equivalent of nearly 16 bcf.

FERC also approved a 190-mile pipeline with a capacity of 1.2 bcf per day that will tie the terminal into markets along the eastern seaboard and the southeast.

Texas terminal

A new LNG terminal, pipeline and related facilities proposed by Calhoun LNG at Port Lavaca in Calhoun County, Texas, were also approved by the agency. The terminal would have an initial capacity of 1 billion cubic feet of natural gas daily, which would move into existing pipelines via a new 27-mile line that will cost an estimated \$63 million.

Maine rejection

A proposal by Downeast LNG to temporarily withdraw its application for a terminal along the coast of Maine was rejected by that state's Board of Environmental Protection on Sept. 20.

The terminal has been controversial because the tankers would cross through Canadian waters at the entrance to Passamaquoddy Bay, and that has brought criticism from Canadians along the route.

The Canadian government has considered legislation banning big tankers from the Bay of Fundy, but the U.S. maintains it has treaty rights for ships to pass through those waters. A second terminal, proposed by Quoddy Bay LNG, would be located nearby at Eastport, Maine.

Downeast LNG wanted to withdraw its application and refile it later with added information, but the Maine board refused to allow the withdrawal and plans to issue its decision next year.

GOVERNMENT

MMS receives education pioneer award

The U.S. Minerals Management Service has received an education pioneer award for the agency's contributions towards educating the public on alternative ocean energy sources, technologies and environmental considerations. The Ocean Energy Council and Ocean News and Technology Magazine sponsored the award, which was presented to MMS during the EnergyOcean 2007 Conference in Oahu, Hawaii.

Pioneer awards from the EnergyOcean Conference recognize individuals and organizations that have made a significant contribution to international promotion, education in or implementation of ocean energy.

MMS says that it uses conference speaking engagements and exhibits; regional workshops; and local community events throughout the United States to share information about the agency's ocean energy responsibilities, and about issues pertaining to energy on the Outer Continental Shelf. The agency's alternative energy Web site also provides a wealth of ocean-energy information. The agency also has an information center about its OCS Alternative Energy and Alternative Use Programmatic Environmental Information Statement at http://ocsenergy.anl.gov. The agency's education resources include a booklet titled Ocean Energy that the agency originally produced for teachers and students. Available at www.mms.gov/mmskids, the booklet has been featured at education conferences and events throughout the United States, as well as being included in the National Energy Education Development Project's national K-12 education program, the agency said.

—ALAN BAILEY



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EXPLORATION & PRODUCTION

(Mushroom?) cloud over oil sands

Private company's plan for Alberta nuclear plant faces long road; industry watches from sidelines, despite need for alternative power

By GARY PARK

For Petroleum News

s the Alberta oil sands swing from mining to in-situ operations — only three of the next 14 projects will rely on mining to extract raw bitumen so does the hunger for natural gas to generate the steam which drives in-situ technolo-

And finding enough gas to drive oil sands operations, while catering to a rising domestic and North American demand, is out of the question.

There is hope that, in fact, natural gas requirements will decrease on a per-barrel basis, especially, according to Ziff Energy Group, if there are technological breakthroughs in a number of new methods being researched and tested.

The steam-assisted gravity drainage projects that will eventually account for the largest share of oil sands production are estimated to consume 850 cubic feet of natural gas per barrel of output where they are linked to upgraders.

Mining operations use about 630 cubic feet per barrel when tied to upgraders and 300 cubic feet when they aren't, according to GLJ Energy.

FirstEnergy Capital rates SAGD consumption at 830 cubic feet per barrel.

Ziff, in a 2006 study, predicted gas demand will quadruple between now and 2015, while oil sands output will triple, reflecting the shift to SAGD.

It said oil sands' demand for gas was running at 600 million cubic feet per day in 2005 and headed for 1.8 billion cubic feet per day in 2012 and 2.4 bcf per day in 2015.

If the 2015 figure is accurate that is likely to be double the startup volumes if the Mackenzie Gas Project comes on stream about that time.

Given that natural gas is one of the cleanest fuel sources and the oil sands are rated as the dirtiest, the oil sands' critics can add that to their ammunition pile.

So, what's the answer? Enter nuclear power.

Decisive debate likely

For the past four years, that mushroom cloud has been building over northern Alberta and is now headed for a decisive debate in the province.

Privately owned Energy Alberta — an upstart of Wayne Henuset, a one-time cardealer and wine merchant and now an ener-

gy entrepreneur — is daring to test the nuclear option by filing an application for an atomic plant capable of generating 2,200 megawatts by

That is the equivalent of 18 percent of Greg Stringham, a Alberta's current gen- vice president with erating capacity and the Canadian more than half of the 4,000 said existing operaadditional the tions already have megawatts province is expected cogeneration plants to need over the next steam and electricity, decade to ensure as well as sending Alberta remains the driving force of the technology being Canada's economy used now in the oil over that period.

The site chosen by power sources. Energy Alberta is

Cardinal Lake, 20 miles west of the Town of Peace River, largely because of a stable population and a desire to cash in on progress, which includes development of the region's own oil sands deposits, which rank third to the Athabasca and Cold Lake areas of northeastern Alberta.

Association of

Petroleum Producers,

on site producing

Alberta grid. He said

power into the

sands does not

require outside

The town and two surrounding municipal districts have been unreserved in their support for a nuclear plant.

Peace River Mayor Lorne Mann asked: "Where better for the peaceful use of nuclear energy than Peace River?"

For now, the biggest mystery surrounds the identity of a company — widely thought to be a "large" oil sands player — Henuset said is ready to take 70 percent of the power generated by a plant conservatively estimated to cost C\$6.2 billion.

Not surprisingly, there is a confidentiality pact to keep that client's name and its business private.

Henuset said "they don't want us to" disclose their identity.

But there was no shortage of oil sands players who put distance between themselves and the tentative project.

Ever since the nuclear option became part of the risk-benefit equation — with Alberta struggling to find ways to replace its coal-fired power plants, reduce greenhouse gas emissions and keep pace with a staggering growth in power demand — the petroleum industry has tiptoed through the political minefield.

Delivery of power an issue

France's Total and Husky Energy are the only two oil sands players who indicated support for evaluating the use of nuclear power, but Total now says it is not actively considering nuclear and Husky says its interest has been "overstated."

Otherwise the major oil sands companies have shown no interest in rushing to embrace the alternative.

They have consistently pointed out that because oil sands facilities are spread over such a large area, delivery of power from a single nuclear plant would be inefficient and uneconomic.

In addition, the current planning cycle for projects is much further advanced than the 10-year timeline for the Energy Alberta

Greg Stringham, a vice president with the Canadian Association of Petroleum Producers, said existing operations already have cogeneration plants on site producing steam and electricity, as well as sending power into the Alberta grid. He said the technology being used now in the oil sands does not require outside power sources.

Royal Dutch Shell, which plans a 100,000-150,000 barrel-per-day operation in the Peace River, and Penn West Energy Trust, which hopes to exploit an in-place resource of 6.8 billion barrels, have been quick to separate themselves from Energy Alberta saying there has been no contact.

Energy Alberta has conceded the tough uphill battle it faces by setting a 10-year timetable for public debate and regulatory hearings.

The opponents are already girding for a

Citizens for the Use of Sustainable Energy, formed last year to tackle Energy Alberta, says the small company is doing a poor job of answering questions; the Sierra Club of Canada describes nuclear power as an "unnecessary risk"; and the Pembina Institute has urged the Alberta government to give priority to other options.

The government itself is taking a measured approach, suggesting this is the time for a wide-ranging debate in the province before a policy is established.

If that debate takes place is could easily overtake all of the other negative issues that are associated with the oil sands.

EXPLORATION & PRODUCTION

Fort Hills upgrader to use wastewater

Fort Hills Energy L.P. has entered into an agreement with Sturgeon County and the Alberta Capital Region Wastewater Commission to use treated wastewater from ACRWC as industrial process water at the so-called Fort Hills Sturgeon Upgrader, located about 25 miles northeast of Edmonton, Alberta, Fort Hills said Sept. 25.

The facility is being built to process bitumen from the Fort Hills oil sands mine near Fort McMurray into synthetic crude oil.

Phase one upgrader production is expected to be 140,000 barrels per day. Regulatory approval is anticipated in 2008, with upgrading operations to begin in 2012.

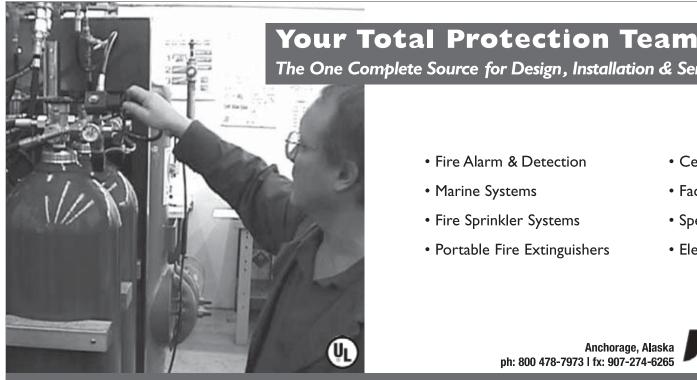
A feasibility study on the project is complete and detailed engineering has begun. When the wastewater project is fully up and running, it will be expected to meet all of the Sturgeon upgrader's industrial water needs, Fort Hills said.

"This is an environmental home run for the Fort Hills partnership," the company said. Unlike many industrial processes, the upgrader site will run fully on wastewater and send the upgrader's wastewater back to ACRWC for further treatment and redistribution. Instead of taking fresh water from the North Saskatchewan River for the Sturgeon upgrader, the Fort Hills partnership plans to use recycled water.

"This is a great example of industry and government working together to come up with a win-win solution — for the Fort Hills project, for the water commission, for the county and, especially, for the environment," said Neil Camarta, Petro-Canada's senior vice president of oil sands. "It's not just good business; it's simply the right thing to do."

This new project expands on experience and learnings gained at the Gold Bar Wastewater Treatment Facility project where Petro-Canada, the City of Edmonton and Strathcona County provide treated wastewater to Petro-Canada's Edmonton refinery, Fort Hills said.

—RAY TYSON



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Anadarko plans wells at Gubik, Chandler

Two or more wells to be drilled on ASRC-owned lands near Umiat this winter targeting gas; drilling will be from ice pads

By KRISTEN NELSON

Petroleum News

nadarko Petroleum Corp. has begun the application process to drill for gas at its Gubik and Chandler prospects on Arctic Slope Regional Corp. land near Umiat in Alaska's Brooks Range Foothills. And as Petroleum News reported earlier this year, the target is gas — these will be the first exploration wells on Alaska's North Slope to actually target natural gas, although exploration wells targeting oil have found gas.

"The wells are intended to be gas wells," Anadarko said in its plan of operations, "and will be drilled starting during the 2007-2008 winter season from ice pads."

Wells planned for the first winter include the 5,000-foot Gubik No. 3 and the 12,500-foot Chandler No. 1. Anadarko said all surface and bottom-hole locations are on ASRC-owned lands; directional drilling may be used for one or more of the wells.

"The sequence and timing of additional wells will depend on the results of previous wells," the company said

Anadarko said the planned drilling operations are along the east side of the Colville River near Umiat. Six proposed drilling locations at the Chandler prospect are southeast of Umiat. Six proposed Gubik prospect locations are northeast of Umiat.

Anadarko said access to the wells will initially be by rolligon trail from the Kuparuk River unit to the Gubik area. The rolligon trail will be used to haul the drilling rig and supplies to the site during initial mobilization in November and December.

Ice road and pad construction will begin as soon as permits and weather conditions permit, and could be in November or December. Drilling will begin once the ice pad has been constructed and the rig is set up — either in late December or early January, the company said.

One well is planned at each of the prospects in the 2007-08 winter drilling season.

Wells planned for the first winter include the 5,000-foot Gubik No. 3 and the 12,500-foot Chandler No. 1. Anadarko said all surface and bottom-hole locations are on ASRC-owned lands; directional drilling may be used for one or more of the wells.

Anadarko said the rig may be stored on an insulated ice pad over the summers between winter drilling or it may be stored on existing gravel pads at Umiat.

Two staging areas

There will be two staging areas, one at Kuparuk River unit drill site 2P and the other at Umiat.

Anadarko said an ice pad approximately 500 feet by 500 feet will be constructed next to drill site 2P and will be used for staging the rolligon operations. There is access to drill site 2P via all-season roads connecting to the Dalton Highway. There will be a small camp placed on the ice staging pad at drill site 2P and rolligons will travel over a snow trail approximately 55 miles to the Gubik prospect.

The Umiat staging area will be connected to the Gubik and Chandler drill sites by ice roads and will be "a major logistic center for the operations" during drilling. There are existing facilities and fuel storage at Umiat, and a 5,400-foot runway suitable for cargo and passenger aircraft.

Access to the drilling sites during summer will be primarily by helicopter.

Anadarko said the rolligon trail will be used to mobilize the drilling rig "and be the primary logistics support until the ice roads can be constructed between Umiat and the drilling locations." The rolligon trail will also be used to transport equipment and supplies to the site during drilling "and for backhauls of materials and wastes from the drilling locations back to existing North Slope infrastructure."

Up to 35 miles of ice roads established each year connecting the various well sites to Umiat will cross a number of streams, including the Colville and Chandler rivers. Ice road construction will begin at Umiat in late November or early December and ice road construction is expected to be completed by late December or early January.

Wells from ice pads

Anadarko and its partners BG and Petro-Canada hold oil and gas rights covering some 2.2 million acres between the Canning and Colville rivers along the southern border of the North Slope. Mark Hanley, Anadarko's top official in Alaska, told Petroleum News earlier this year that the Gubik leases are part of that partnership.

Anadarko said six potential exploratory well locations have been selected for each prospect and drilling will be from an ice pad up to 600 feet by 600 feet.

Drilling will be done with Nabors rig 105, a new light-weight drilling rig under construction in Canada and scheduled for delivery to the North Slope in December. Hanley told Petroleum News earlier in the year that rig 105 is designed to be broken down into modules for transportation by rolligon.

Production tests may be performed, as needed, after production casing is set, the company said. "Testing may include extended flow periods to determine the productivity of the well."

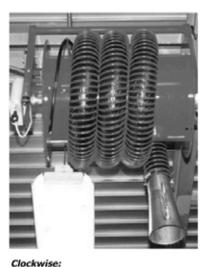
There will be camp facilities at the ice staging pad at drill site 2P, at the drilling sites and at existing facilities at Umiat, including a 50-man camp at 2P and a temporary 20- to 30-man camp at the Gubik drilling site which will be replaced by a 60- to 70-man rig camp for drilling. Additional camp facilities are available at Umiat.

The U.S. Geological Survey has estimated that the Gubik field holds some 600 billion cubic feet of recoverable gas; it was discovered by the U.S. Navy more than 50 years ago during oil exploration. ●



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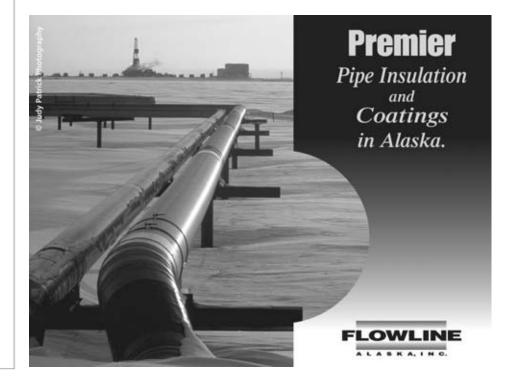
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EXPLORATION & PRODUCTION

High-stakes clash looms

Former Alberta premier's chilling prediction; test of wills could undermine key U.S. source

By GARY PARK

For Petroleum News

e doesn't always spread a welcome message these days among Canada's oil patch leaders, but ignoring him is not an option.

Peter Lougheed led the beginnings of an Alberta political dynasty as the province's premier from 1971 to 1985, laying the foundations for the Conservative party to continue its rule to this day.

In the process he set in motion the development of Alberta's oil sands by overcoming the skeptics who dismissed the resource as an over-rated, over-priced mining venture.

Peter Lougheed, by

far the most trusted

statesman in

Alberta, has

pace of oil sands

op policies to cap

the demands on

water supplies from

expansion until the

But, from the time he left office until a year ago, Lougheed kept his political thoughts to himself.

That changed with a helicopter ride over the oil sands of northeastern Alberta in summer 2006.

"When you actually see the magnitude and respected (of the development) by helicopter, it just returned to the gets you," he said. "I spotlight, calling for am appalled by what a slowdown in the is happening there."

By far the most industry and govtrusted and respected ernments can develvoice in Alberta, the greenhouse gas elder emissions and ease 79-year-old statesman has returned to the spot- the Athabasca River. light, initially calling

for a slowdown in the pace of expansion until the industry and governments could develop policies to cap greenhouse gas emissions and ease the demands on water supplies from the Athabasca River.

In his latest foray in mid-August, Lougheed served notice that a "major constitutional battle" is shaping up between the Canadian and Alberta governments over the environmental harm caused by oil sands development.

"The issue is there front and center and coming to a head, in my view," he told the Canadian Bar Association, representing all members of the legal profession.

He said the clash "will be 10 times greater" than any in the past, including those he was involved in the 1980s, including the ultimate showdown when the Canadian government enacted the National Energy Program in 1980 to promote oil self-sufficiency for Canada and promote Canadian ownership of the energy sector by pumping billions of dollars into exploration and development.

The legislation contained a revenue tax that amounted to double taxation of oil and natural gas — unlike anything that applied to other commodities — which the University of Calgary estimated sucked C\$100 billion from the Alberta economy until it was scrapped in the mid-1980s.

But, by then, the damage had been done. U.S.-based companies staged an exodus from Canada and hundreds of skilled professionals quit the industry, leaving behind a trail of wreckage that took years to clear

Lougheed countered by freezing development of the oil sands and threatened to stop oil and gas shipments to the rest of Canada — an ultimatum that was shelved once the government of Prime Minister

In his latest foray in mid-August, Lougheed served notice that a "major constitutional battle" is shaping up between the Canadian and Alberta governments over the environmental harm caused by oil sands development.

Pierre Trudeau backed down and allowed Canadian oil prices to rise to world levels.



"I think the issues

we saw before — and I was involved in many of them — were important," Lougheed said in August. "I don't minimize them. But they aren't even close to (the looming federal-provincial conflict) I have described."

Canadian public vs. Alberta

On one side is a Canadian public troubled by climate change and putting pressure on the Canadian government to introduce legislation to reduce greenhouse gas emis-

On the other side is Alberta, which owns its natural resources and claims the right to decide how they will be developed.

In the middle are the oil sands, which hold the key to Canada's oil self-sufficiency and its ability to meet the forecast export volumes, but are also fingered as the fastestgrowing source of GHGs.

"It's a very major matter that threatens Canadian unity," Lougheed said.

His betting is that the dispute will end up before the Supreme Court of Canada, forcing the court to decide whether legislation giving the federal government the right to

see CLASH page 8

Tradewinds

Canada and the United States are closing in on the 20th anniversary of their bilateral free trade agreement that was superseded in 1994 when Mexico joined a North American pact to create the world's largest trading bloc. The economic benefits to Canada have been vast, with largely unhindered access to United States markets doubling Canada's trade exports to make up 50 percent of its gross domestic product. None have profited more than oil and natural gas producers, who have become the United States' top supplier of crude oil and gas, with oil shipments alone expected to climb from 1.6 million barrels per day to 3.1 million bpd by 2015 as pipelines from the oil sands stretch to the Gulf Coast. But not all is well. In a three-part series, Petroleum News' Canadian correspondent Gary Park examines some of the pressure points that could require some retuning of the free trade arrangements and rethinking of Canada's role as the leading external source of crude oil for the United States.



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LAND & LEASING

Potential Alaska state and federal oil and gas lease sales

Agency	Sale and Area	Proposed Date
DNR	Beaufort Sea Areawide	Oct. 24, 2007
DNR	North Slope Areawide	Oct. 24, 2007
MHT	2007 Oil & Gas Sale	Nov. 14, 2007
MMS	Sale 193 Chukchi Sea	Feb. 6, 2008
DNR	Alaska Peninsula Areawide	Feb. 27, 2008
DNR	North Slope Foothills Areawide	Feb. 27, 2008
DNR	Cook Inlet Areawide	May 21, 2008
DNR	Beaufort Sea Areawide	October 2008
DNR	North Slope Areawide	October 2008
BLM	NE NPR-A	To be determined
BLM	NW NPR-A	To be determined
DNR	Alaska Peninsula Areawide	February 2009
DNR	North Slope Foothills Areawide	February 2009
DNR	Cook Inlet Areawide	May 2009
DNR	Beaufort Sea Areawide	October 2009
DNR	North Slope Areawide	October 2009
MMS	Sale 209 Beaufort Sea	2009
MMS	Sale 211 Cook Inlet	2009
DNR	Alaska Peninsula Areawide	February 2010
DNR	North Slope Foothills Areawide	February 2010
DNR	Cook Inlet Areawide	May 2010
DNR	Beaufort Sea Areawide	October 2010
DNR	North Slope Areawide	October 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.

This week's lease sale chart sponsored by:

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Water fight could sink BP refinery plans

The environmental threats to future oil supplies in the United States are not confined to Canada's side of the 49th parallel.

BP America has served notice that its plans for a \$3.8 billion expansion of its Whiting, Ind., refinery, to handle another 245,000 barrels per day of Canadian heavy crude is in jeopardy because of public resistance to increasing ammonia and metals discharges into Lake Michigan.

Bob Malone, BP America chairman and president, said the regional opposition to higher discharge permit limits "creates an unacceptable level of business risk" for the proposed investment.

Although the company said it does not intend to make use of an increase in permitted discharge levels, the plant upgrade is under attack from environmental groups and politicians.

Malone said BP will "work hard to make this project succeed" and will continue over the next 18 months to obtain other permits, continue with project design work and seek options for operating within the lower discharge limits.

But he said the company is "not aware of any technology that will get us to those (lower) limits."

"If necessary changes to the project result in a material impact to project viability, we could be forced to cancel it," Malone warned.

BP working on technology

BP has already pledged to work with Purdue-Calume Water Institute and the Argonne National Laboratory in a bid to identify and evaluate emerging technologies with the potential to improve wastewater treatment in the Great Lakes. It will contribute \$5 million to underwrite a research effort at Purdue University.

The expansion, scheduled for completion in 2011, is one of the pivotal undertak-

see REFINERY page 9

continued from page 7

CLASH

regulate GHGs overrides Alberta's constitutional authority to determine how and when its natural resources are developed.

University of Toronto constitutional law expert Sujit Choudry argues the Canadian government has a "long-standing power to regulate environmental emissions and, in the event of a conflict between a validly enacted federal law and a validly enacted provincial law, the federal law prevails."

The best hope of averting a destructive clash rests with a political compromise, with Alberta taking an even harder line than it has against GHGs.

But time is running out,

The Conservative government of Prime Minister Stephen Harper is expected to face an election either this year or next.

To have any hope of forming a majority government — a long shot at the best of times — it will have to win over voters in Ontario and Quebec, where the Kyoto Protocol has its strongest backing.

Targets require shutdown

The three federal opposition parties have already pulled an end-run around Harper's Conservatives by forcing through legislation demanding that Ottawa meet its Kyoto objectives by cutting GHGs to 6 percent below 1990 levels by 2012, while overhaul-

ing the government's Clean Air Act to require Kyoto compliance.

There is no way Canada could meet those targets without shutting down the oil sands.

If nothing else Lougheed has forced all sides to decide whether to debate or litigate the issue.

And he has pressured his own province to choose between being "seen as the major villain in all of this in the eyes of the public across Canada," or working on solutions rather than waiting for a Supreme Court ruling that could cause "major damage to the Alberta oil sands and our economy."

Lougheed is not alone in raising concerns about the future of the oil sands.

Preston Manning, a former member of the federal opposition and a resolute defender of provincial rights, also told the Canadian Bar Association that the next political revolution in Alberta will occur when a party is able to harness the twin forces of conservatism and environmentalism.

When Canada becomes entangled in federal-provincial squabbles most Canadians tune out.

But the looming battle outlined by Lougheed is not one to be shrugged off as some esoteric constitutional matter — not for Canadian oil and gas leaders and not for Americans who might be inclined to take Canadian oil supplies for granted. •



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9

PIPELINES & DOWNSTREAM

Mobil's 20 percent share of CIPL split

Pacific Energy Resources, which is acquiring Forest Oil's Alaska assets, will end up 50-50 owner of Cook Inlet Pipe Line with Chevron

By KRISTEN NELSON

Petroleum News

s part of its purchase earlier this year of Forest Oil Corp.'s Alaska assets, Pacific Energy Resources Ltd. will become 50 percent owner of the Cook Inlet Pipe Line Co., the 44-mile onshore line that carries crude oil down the west side of Cook Inlet to the Drift River Terminal.

Forest owned 40 percent of CIPL; 40 percent was owned by Chevron (formerly Unocal); the remaining 20 percent was owned by Mobil Pipe Line Co. (part of ExxonMobil).

The Regulatory Commission of Alaska is considering an application by Forest and Mobil for approval of a sale of half of Mobil's 20 percent share in CIPL to Forest.

In a separate application, Forest and Pacific Energy have applied to the RCA to transfer Forest's interest in CIPL to Pacific Energy. Chevron is, and will remain, the CIPL operator.

CIPL transports crude oil from the Granite Point, McArthur River, West McArthur River, Trading Bay and Redoubt Shoal fields to the Drift River Terminal for transportation by tanker. In addition to the pipeline, CIPL's assets include dual 2.7-mile offshore lines, the Drift River tank farm and the offshore Christy Lee tanker loading plat-

form.

Mobil sale dates to 2002

In the application filed by Forest and Mobil for transfer of a 10 percent interest in CIPL, the companies told RCA that Mobil agreed to sell its entire 20 percent share in CIPL to Forest in January 2002, "subject to non-selling shareholders' right of first refusal." Prior to the sale, Forest and Chevron (formerly Unocal) each owned 40 percent of CIPL; Mobil owned the remaining 20 percent.

Prior to 2002, Phillips Petroleum Co. (now ConocoPhillips) owned 20 percent; that share was acquired equally by Forest and Unocal (now Chevron) following an initial offering by Forest. As in this case, Unocal exercised its right of first refusal and the Phillips' interest was split between the two companies.

Between 2002 and 2007, "Unocal and Mobil were engaged in civil litigation before the Delaware Chancery Court, resolving questions posed by the exercise by Unocal of its preferential purchase right," the companies said — litigation which was only settled early this year.

The 2002 sale agreement was amended in June of this year to reflect that Forest was

see CIPL page 10

ENVIRONMENT & SAFETY



The crew of the U.S. Coast Guard Cutter Anthony Petit deploys the vessel-of-opportunity skimming system during a three-day international oil spill drill in Ketchikan.

U.S., Canada conduct oil spill drill

On Sept. 20 in Ketchikan the U.S. and Canadian Coast Guards completed a three-day oil spill response training exercise. The training scenario involved simulating the consequences of the grounding and discharge of oil into a river from a large merchant vessel.

"The exercise was designed to refine and test the joint emergency response procedures of the United States and Canada during a major pollution incident on waterways shared by both nations," the U.S. Coast Guard said.

The exercise included deployment of the vessel-of-opportunity skimming system, or VOSS, from the Ketchikan-based U.S. Coast Guard Cutter Anthony Petit. VOSS uses a mechanical arm extended from the side of a vessel to trail a boom to gather and retrieve oil — the system can be easily deployed from a variety of vessels, the Coast Guard said.

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continued from page 8

REFINERY

ings needed to take increased volumes from the Alberta oil sands.

It is designed to add capacity for coking, hydrogen production, hydrotreating and sulfur recovery.

The replacement processing units and enhancements to existing refinery units is designed to increase the percentage of Canadian heavy crude processed at the 405,000 bpd refinery to 90 percent from the current 30 percent for total heavy crude capacity of about 365,000 bpd from the current 120,000 bpd, adding 1.7 million gallons per day to fuel output.

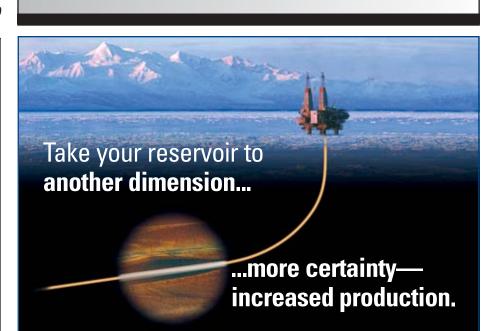
The Indiana state government granted

a permit in June allowing the plant to dump 54 percent more ammonia and 35 percent more suspended solids containing metals and other minerals into Lake Michigan.

Indiana Gov. Mitch Daniels said he hoped technology could be developed in the next year to save the project and the related economic benefits.

But unless the "magic bullet" is found BP could be just the first of the United States' major refiners — ConocoPhillips and Marathon also have ambitious plans to reconfigure plants to process more oil sands production — to find that the environmental cost of doing business outweighs what they hope will be high-return, strategic projects.

—GARY PARK



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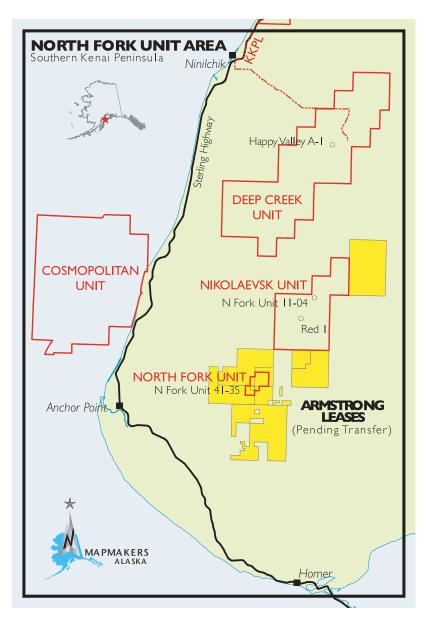
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NATURAL GAS

Armstrong boosts odds on southern Kenai

Enstar has three possible sources for gas to extend gas grid into southern Kenai; North Fork's new operator seen as first producer

By KAY CASHMAN & ALAN BAILEY

Petroleum News

he odds of extending the natural gas pipeline system on Alaska's Kenai Peninsula from its terminus at Happy Valley to the peninsula's southernmost city got a whole lot better when Armstrong Oil and Gas returned to the state earlier in September. The independent oil and gas company, which is operating in Southcentral Alaska as Armstrong Cook Inlet LLC, took over operatorship of the 640-acre North Fork gas unit and acquired both the unit's leases and nearly 18,000 acres of surrounding and nearby leases onshore the southern Kenai Peninsula. (See story in the Sept. 16 issue of Petroleum News.)

Curtis Thayer, director of corporate and external affairs for Enstar Natural Gas Co., told Petroleum News Sept. 24 that his company sees the Denver-based independent as the most likely candidate to be the first producer to offer gas for sale from the southern Kenai Peninsula. This would motivate Enstar to build 4- to 6-inch transmission lines connecting the existing Cook Inlet

basin gas grid to the southern peninsula, he said.

First north to KKPL

The Anchorage-based utility would like to first connect untapped, stranded southern gas into the Kenai Kachemak pipeline, the most southerly pipeline on the peninsula, and then build a line south to the City of Homer, which has a small market that includes about 2,500 homes, 510 commercial and institutional structures, one industrial operation and 140 assorted other buildings.

"Armstrong probably has the best handle on making something happen. ... I don't have any inside information on their plans, but I can see them partnering with other producers in the area," Thayer said.

There are three possible initial sources of southern gas, he said: "Chevron ... in the Red well area. And then Pioneer (Natural Resources), which might have some gas to sell from their Cosmopolitan oil prospect at Anchor Point, if they decide to develop; and then

see ARMSTRONG page 11



continued from page 9

CIPL

purchasing only half of the Mobil interest in CIPL.

The companies told the commission that Chevron will purchase Mobil's remaining shares in CIPL and those companies will then file an application for approval of that transfer.

ExxonMobil Alaska Production Co. has Cook Inlet crude oil production from the South Granite Point unit (the Granite Point platform) where it has a 75 percent working interest; Chevron, with a 25 percent working interest, is the operator. Unocal took over as CIPL operator from Mobil in 1995.

Forest — whose Alaska assets have been acquired by Pacific Energy — has production from a 100 percent working interest in the Redoubt unit (Osprey platform); from a partial interest in the Trading Bay unit (King

Salmon, Grayling, Steelhead and Dolly Varden platforms) operated by Chevron; and from its 100-percent owned West McArthur River unit and Kustatan field.

In the application for approval of the transfer of 10 percent ownership from Mobil to Forest the companies told the RCA this "is not a substantial change in ownership." Unocal Pipeline Co. will continue to serve as CIPL's operator and handle day-to-day operations and the pipeline's bylaws will not be changed: they require a majority vote of 51 percent for any operational changes. Because of the 51 percent voting requirement, the companies told the commission, "no one entity can unilaterally control CIPL," whether the ownership remains as it is, or whether Forest's acquisition of a portion of Mobil's interest is approved. After the Chevron acquisition of the remaining 10 percent of CIPL held by Mobil, each of the remaining partners would hold a 50 percent interest, requiring agreement under the bylaws for an operational change.

The companies said the transfer from Mobil to Forest "will not result in changes to CIPL's tariff, operating infrastructure, management, personnel or equipment or the services CIPL provides."

In the application for approval of Pacific Energy's acquisition of Forest's interest in CIPL the companies said Pacific Energy is 100 percent owner of San Pedro Bay Pipeline Co., operator of the San Pedro Bay Pipeline, which transports production from platforms and facilities in the Beta unit offshore California. Pacific Energy's onshore production includes portions of seven California oil and gas fields with 170 wells producing a total some 850 barrels of oil equivalent per day. Pacific Energy also owns and operates a platform in the Beta unit offshore California which produces 2,100 boe per day, and has recently undertaken an oil and gas exploration project in the Green River basin of Wyoming.

The companies said Pacific Energy hopes to increase production from the Forest properties in Alaska "by utilizing current engineering and production technology."

Pacific Energy reported total revenues of \$8.9 million for 2006 and approximately \$157 million in total assets. ●



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continued from page 10

ARMSTRONG

Armstrong at North Fork."

Enstar wants all three

Enstar is "looking at a way to combine all three sources into one pipeline," said Thayer. But, "we have a quandary. ... One of them has to be able to produce commercial quantities of gas. Chevron has indicated that if there was a pipeline they would be more interested in selling gas, developing the Red well area (Nikolaevsk unit north of North Fork). If you have a pipeline they will come ... but we'd really like to see gas first."

Of the three potential sources, "Armstrong seems the most aggressive about developing their gas play," Thayer said. "One possible route would be to start with North Fork, connect it north to the Red Well and then KKPL. But if Pioneer goes first ... after North Fork, then you'd across to Anchor Point and then up," he said.

"We want to work with all three of them, which means we'd land up with sort of a triangle," Thayer said.

Ready to permit

Enstar, he said, is looking at filing for permits with the Regulatory Commission of Alaska, "as soon as we can sort out which has the potential of going first."

In paperwork filed with the State of Alaska's Division of Oil and Gas in August, Armstrong Vice President Ed Kerr said Armstrong Cook Inlet was working on an "agreement in principle" with Enstar to build a 15-mile pipeline from North Fork's existing gas well to the KKPL, provided Armstrong is able to "drill and test a reasonable amount of gas out of the delineation well," Kerr told the state.

Thayer said it would take less than two years to permit and build a transmission line from North Fork to the KKPL.

Another gas prospect

In addition to North Fork and the surrounding acreage, Armstrong has at least one other gas prospect in the leases it acquired from Gas-Pro and its affiliates on the southern peninsula.

In January, Barry Foote, vice president of Gas-Pro, told Petroleum News that acreage his company acquired in the state's May 2006 Cook Inlet areawide lease sale contained a gas prospect. The acreage in question, which Armstrong has since purchased, lies in a tract at the southeast corner of township 3 south, range 13 west, about 8 miles northeast of North Fork and almost due east of Happy Valley.

In 1970 Standard Oil of California drilled the North Fork 11-4 well about 2 miles southwest of the lease in what is now the Chevron-operated Nikolaevsk unit. Although the 11-4 well was plugged and abandoned as a dry hole, Standard noted good gas shows in the well.

It is likely that Gas-Pro identified the prospect in its new lease from old seismic data, and the dominant north-northeast trend of major geologic structures in the Cook Inlet basin would place the lease on trend with the structure that was drilled in the North Fork unit. However, although there is a significant northeast trending structure at North Fork, the geologic structure of the area is complex and poorly understood, Robert Swenson, deputy director of Alaska's Division of Oil and Gas, told Petroleum News Sept. 24. The existing seismic data is not especially good and new seismic is difficult to acquire because of complex land ownership issues, Swenson

On the other hand, with the known existence of potential reservoir rocks in the

see ARMSTRONG page 12

FINANCE & ECONOMY

Hayward promises shake-up at BP after worst financial performance in 15 years

Shares in BP PLC fell Sept. 25 after a newspaper reported that the oil company's chief executive had warned staff of poor thirdquarter results.

The Financial Times said CEO Tony Hayward told a staff meeting in Houston that he planned a shake-up of the company's structure after its worst financial performance in 15 years.

The newspaper quoted Hayward as telling staff that thirdquarter revenues, due to be announced Oct. 23, would be "dreadful" and that BP needed to streamline its overly complicated structure. He said the company's fragmented structure had to be simplified and that he plans to consolidate into larger operations.

"There is massive duplication and lack of clarity of who does what," the newspaper quoted Hayward as saying. "We will reduce the number of organization units. (We) will reduce the number of layers from the workers up to the CEO from 11 to about seven."

BP needs to take more risks

The newspaper also said Hayward felt BP needed to shift



see BP page 12 BP's London headquarters

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GOVERNMENT

Utility regulators renew commitment to ministers to improve regulation

The leadership of the Canadian Association of Members of Public Utility Tribunals Sept. 24 offered Canada's Energy and Mines ministers a renewed commitment from

energy regulators to work with policymakers to improve energy regulation in Canada. The ministers accepted.

"Through collaboration, Canada, the provinces and the territories will benefit from improved efficiency and effectiveness in energy regulation," said Jean-Paul Theoret, CAMPUT's policy chairman. Theoret and CAMPUT Chairman Gaetan Caron spoke to the ministers on key utility challenges facing regulators and policymakers during the annual

The leadership of the Canadian Association of Members of Public Utility Tribunals Sept. 24 offered Canada's Energy and Mines ministers a renewed commitment from energy regulators to work with policymakers to improve energy regulation in Canada.

Energy and Mines Ministers' Conference in Whistler, British Columbia. It was the first time that the leadership of CAMPUT addressed all of Canada's federal, provincial, and territorial ministers of Energy and Mines.

"Much more needs to be done, and can be done, for Canada to remain competitive in the world," Theoret said of the future of utility regulation.

For utility regulation to remain effective, he added, policymakers and regulators need to improve the coordination of environmental assessments with regulatory reviews, consult with aboriginal peoples, and reduce the time taken to make regulatory decisions.

-RAY TYSON

GOVERNMENT

GAO agrees to look at U.S. refinery practices

The Government Accountability Office has agreed to a request by the Connecticut congressional delegation to look at how refinery practices can drive up gasoline prices.

Lawmakers said Sept. 24 they were concerned that consumers may have been victimized by gas price manipulation. They asked congressional investigators to probe the role refinery outages could have in artificially raising gas prices.

"As oil prices hit record highs and gasoline prices creep upward, due in part to refinery outages, I am determined to protect Connecticut families from gas price manipulation," said Sen. Christopher Dodd, D-Conn., in a statement.

Rep. Joseph Courtney, D-Conn., said he hoped the study would spur stricter oversight of refiners. "Our nation's refiners have operated with little oversight for decades, and have suffered little recourse for repeated outages and downtime,"

Courtney said in a statement. "Eastern Connecticut's consumers pay some of the highest prices for fuel in the country and they deserve answers."

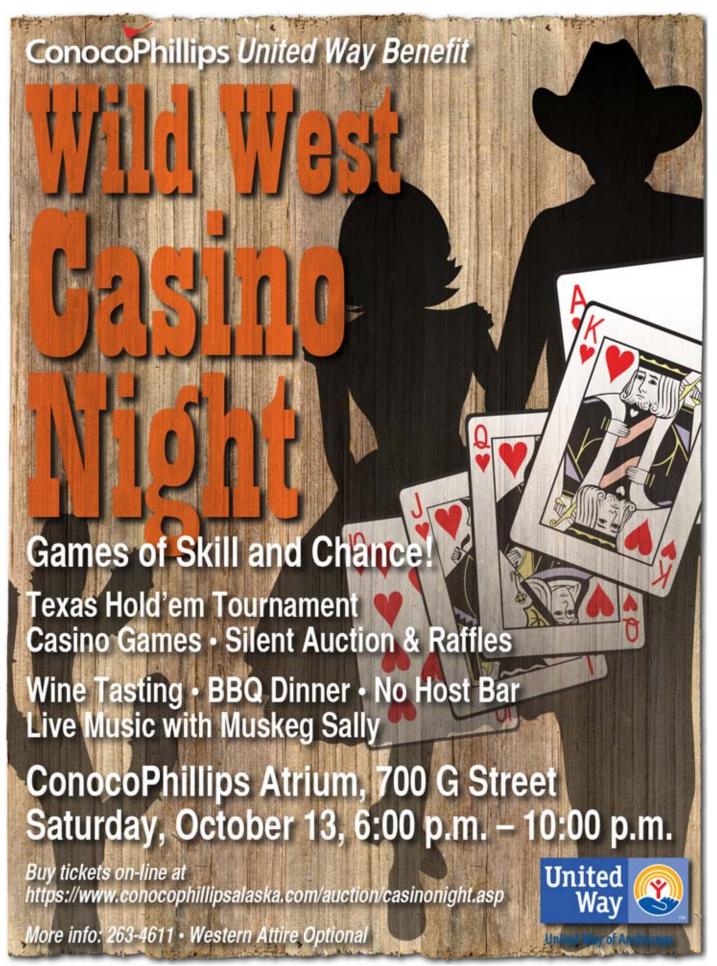
The lawmakers had asked for a GAO study in a May letter that noted that the average retail price of regular gasoline had risen to more than \$3.10 per gallon. The GAO review is expected to begin in October, officials said.

"This GAO investigation will shed some light on refining capacity and whether these skyrocketing gas prices are the result of market manipulation," said Rep. Rosa DeLauro, D-Conn., in a statement.

Sen. Joe Lieberman blamed government antitrust enforcers for failing to act amid a wave of mergers by refining firms.

"If the federal government's antitrust enforcers had not stood by as refining companies merged and merged again, then we would have a competitive market to prevent price manipulation," Lieberman, I-Conn., said in a statement.

—THE ASSOCIATED PRESS



continued from page 11

ARMSTRONG

Beluga and Tyonek formations in the subsurface, the area definitely has petroleum potential.

"The difficult thing is the (lack of seismic) data," Swenson said. "... There is some potential, for sure." ●

Editor's note: The Kenai Kachemak pipeline, or KKPL, is jointly owned by Marathon and Chevron, and started shipping gas north from the Ninilchik field, a little more than halfway down the west coast of the peninsula, in 2003. A year later KKPL was extended inland 15 miles to the southeast to connect with Unocal's new Happy Valley gas field (Chevron later acquired Unocal).

continued from page 11

BP

its culture and take well-judged risks, and that he wanted leaders who really listened to the people below them.

He also said people should be in positions long enough to see the consequences of their decisions.

BP confirmed the staff meeting had taken place but said Hayward's comments had focused on operating performance rather than a major hit to revenue.

The company would not confirm it was planning to restructure. But Hayward said in July that he was "determined to fix" BP's operational performance, simplifying the company's organization and cutting head office work force.

BP shares dropped 2.5 percent to 574.5 pence (\$11.55) on the London Stock Exchange.

Hayward succeeded John Browne as BP's chief executive on May 1. The company is still struggling to recover from a series of high-profile mishaps including a deadly Texas City refinery blast in 2005 and an oil spill in Alaska that contributed to Browne's departure.

Hayward blamed the company's underperformance on lost revenue from its Texas City and Whiting, Ind., refineries in the United States, which are not running at full capacity, and from large production projects that haven't yet started operation, the FT said.

—THE ASSOCIATED PRESS & PETROLEUM NEWS

• ENVIRONMENT & SAFTEY

Aging Icebreakers slow U.S. in Arctic

By SANDI DOUGHTON

The Associated Press

hen Coast Guard Adm. Thad W. Allen imagines a melting Arctic, it's not a pretty sight: Cruise ships collide with icebergs. Oil tankers and ore ships run aground. Foreign fishermen sneak into American waters.

Even worse, the nation's top Coast Guard officer fears he may not have the tools to respond to these future crises.

At a time when Russia, Canada, Norway and other Arctic nations are scrambling to stake out turf in the still-frozen north, the United States' two most powerful icebreakers sit at a dock in Seattle, nearing the end of their working lives.

One is manned by a skeleton crew. Both are about 30 years old, and nothing is on the drawing board to replace them.

"We have the responsibility for maritime safety, stewardship and security," Allen said. "But how do you respond up there if you have no presence?"

Allen and others are urging the U.S. government to prepare now for the changes global warming will bring to the Arctic. The nation needs to figure out how to protect American interests, handle disasters and enforce laws in a region that will still be ice-choked much of the year, he said.

"Icebreakers will have an important role to play," Allen said.

NRC wants new icebreakers

A National Research Council panel concluded last year that planning and construction should start immediately on two new icebreakers. "U.S. icebreaking capability is now at risk of being unable to support national interests," the panel warned.

Each of the new ships could cost \$750 million or more, experts estimate

The Arctic ice cap shrank to a record low this summer, opening up the Northwest Passage along Canada's fringe for the first time.

Scientists say the ice is melting much faster than global-warming models predict, with the possibility that the Arctic Ocean will be completely ice-free in summer by 2050.

But the region will remain frozen in winter. And the Arctic's notoriously variable weather also means that entrepreneurs, tourists, fishermen and explorers lured into the area by its beauty and the promise of profit are likely to encounter bad weather and ice year-round.

More people traveling in icy waters translates into more accidents, more oil spills, more security problems and more need for powerful icebreakers, says Scott Borgerson, a fellow at the Council on Foreign Relations and a former Coast Guard officer.

"Climate change is giving birth to a new region and allowing for all kinds of access," he said.

The U.S. Geological Survey estimates a quarter of the world's untapped oil and gas resources may lie beneath the Arctic Ocean. Oil and mineral companies are already building ice-strengthened tankers

Russia, Canada both active

After a Russian minisubmarine planted a flag on the ocean floor beneath the North Pole this year, the Canadian government announced plans for military bases and a \$3 billion fleet of ice-reinforced ships to patrol the Northwest Passage, which the country claims as sovereign territory.

President Bush countered by insisting the passage is an international waterway. Norway asserted its territorial rights, while Denmark, which controls Greenland, appealed for calm.

"We're seeing a global chess game play out in the Arctic as nations position and stake claims for the region's vast, untapped resources," said Coast Guard Cmdr. Brendan McPherson, Allen's press secretary.

U.S. icebreakers aging

If icebreakers are among the chess pieces, the United States is outnumbered.

The nation has three multipurpose icebreakers, all based in Seattle. The aging Polar Sea and Polar Star, both able to ram through 21 feet of ice, have primarily been used to break open a route to U.S. research stations in Antarctica.

The newest member of the fleet is the Healy, an 8-year-old ship capable of continuously breaking through 4-foot-thick ice and designed mainly for Arctic science. A fourth icebreaker is leased by the National Science Foundation exclusively for research in Antarctica.

see ICEBREAKERS page 14

GOVERNMENT

Palin to chair oil commission

Alaska Gov. Sarah Palin has been named to chair the Interstate Oil and Gas Compact Commission for 2007-08.

The commission said Palin is the only chairman in its history to have served as a past official representative to the organization. She was chairman of Alaska's Oil and Gas Conservation Commission.

Palin, the 11th governor of Alaska and the first woman, took office Dec. 4, 2006.

When making the announcement the IOGCC noted that Palin's administration had worked to overhaul Alaska's ethics laws and craft the Alaska Gasline Inducement Act to jumpstart work on a natural gas pipeline from the North Slope to outside markets.

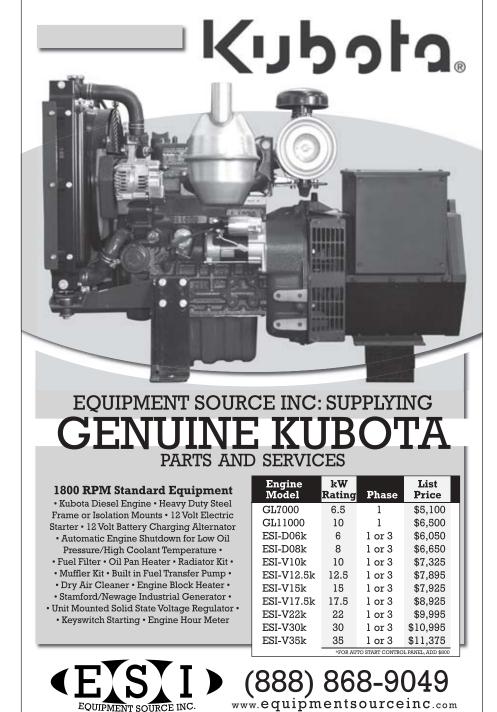
Alaska has been a member of the IOGCC since 1957. Several Alaska governors have chaired the organization, including Steve Cowper, Tony Knowles and Frank Murkowski.

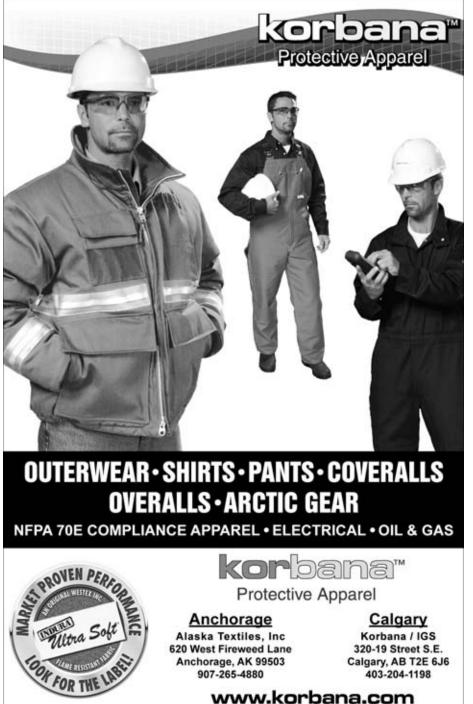
The IOGCC, established by the governors of charter member states in 1935, represents the governors of 30 member and seven associate states, promoting the conservation and efficient recovery of the nation's oil and natural gas resources while protecting health, safety, and the environment.

Palin succeeds North Dakota Governor John Hoeven.

The IOGCC made the announcement at its annual meeting in New Orleans.

—PETROLEUM NEWS





ENVIRONMENT & SAFETY

Exploratorium to feature Barrow live

By TAMAR BEN-YOSEF

The Arctic Sounder

virtual visit to Barrow is going to be made easy for residents of the San Francisco area. In fact, a whole world of ice, culture and art will be as close as the

And the only cost will be the price of a ticket to the Exploratorium Museum or free if you visit the Web site.

In celebration of the 2007-08 Polar Year, the museum is further developing its already rich and interactive Web site and exhibit to include a live feed of photos, webcasts, videos and live feeds with scientists conducting research at the Poles. For this purpose, a crew made up of a videographer, sound engineer, still photographer and producer spent nine days in Barrow, preparing for the project, which is scheduled to open the day after Thanksgiving.

Displayed between the walls of the Exploratorium Museum of Science, Art and Human Perception are numerous exhibits, each describing the world in unique and imaginative ways that require the patrons to actively participate in the learning.

"Our philosophy is that science is one way of describing the world, art is another and human perception yet another," said Robyn Higdon, director of moving images at the Exploratorium and the producer from the Barrow crew.

Crew traveled to Barrow

This project for which the crew traveled to Barrow, titled "Science From the Poles," is made possible thanks to a National Science Foundation Informal Education Grant intended for projects that expose the public to how and where science is being done.

The project will highlight the science being conducted in Arctic, in Barrow and northern Greenland, as well as science from Antarctica at the South Pole. Through the live feeds, scientists will tell their own stories about their research and its importance to the world.

While in Barrow, the crew spent every waking moment scouting for ideas on projects they will complete when they return to Barrow next summer for a longer period of six to eight weeks. During that time the crew will spend all its time gathering media footage of the scientists in the field doing their research. The crew will also spend time speaking with

and recording members of the community in Barrow.

The latter is what sets Barrow apart from other remote science locations, said Glenn Sheehan, director of the Barrow Arctic Science Consortium, which is working closely with the Exploratorium crew.

"There are scientists in Barrow, but also local people living there, and the Inupiat offer so much to the scientists there," Higdon said.

Footage to be on database

All footage gathered throughout the preparation for the project will eventually be made accessible in the form of a database to other media groups and schools across the coun-

Once opened, the museum exhibit will display the various science projects, and visitors will be able to walk through and learn more about each project by pushing buttons to read blogs, see webcasts and even participate in live feeds directly to the museum where they will have an opportunity to ask questions and receive immediate answers from both Arctic scientists and from resident scientists that will be available at the museum.

continued from page 13

ICEBREAKERS

With a much more extensive Arctic coastline, Russia has 18 icebreakers, seven of them nuclear-powered. Finland has a fleet of seven. Canada has six.

But it's not really a numbers game, says

Lawson Brigham, deputy director of the U.S. Arctic Research Commission and former captain of the Polar Sea.

The United States needs to be able to patrol Alaska's 2,500 miles of Arctic coastline, conduct research in both the Arctic and Antarctic and respond to emergencies. The National Research Council panel concluded

that a fleet of three modern icebreakers can

Arctic research includes underwater mapping, which is key to territorial claims under the 1982 United Nations Convention on the Law of the Sea. Every Arctic nation except the United States has signed the treaty, which gives countries rights to underwater terrain extending from their continental shelves.

The 420-foot Healy is heading back to Seattle now after a two-month mapping voyage in the Chukchi Sea off Alaska's northwest coast.

The lead scientists on the project say their work has already shown that American territory extends at least 350 miles from land well beyond the traditional 200-mile limit. In the Chukchi Sea, the U.S. may be able to stake claims even farther out.

But first the United States has to ratify the

"We have to join the treaty if we want to

U.S. icebreakers trace their origins to the

treaty, something the Coast Guard and many

participate in carving up the Arctic,"

Borgerson said. "At the moment, we don't

revenue cutters that policed the new territo-

ry of Alaska. During the Cold War, a large

maritime experts have been calling for.

U.S. hasn't ratified treaty

even have a seat at the table."

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fleet serviced military outposts and early warning radar stations in the Arctic, ground zero for the nuclear faceoff between the U.S. and the Soviet Union.

The 399-foot-long Polar Sea and Polar Star were built in Seattle in the 1970s. The 60,000-horsepower cutters use their contoured bows to ride up on the ice, crush it with their bulk, then push the chunks aside, Brigham said.

"The noise, the vibration — it's really something."

The ships take a pounding, and maintenance budgets have not kept pace, the National Research Council found. Replacement parts often have to be built from scratch.

The Coast Guard calls the old icebreakers "operationally challenged." Borgerson puts it more bluntly. "They're geriatric. Moribund," he said. "It's just like a car. You can't drive a car for 300,000 miles ... and expect it's going to be in great condition."

The National Science Foundation, the icebreakers' main "client," took control of their budgets a few years ago. In 2006, the foundation temporarily hired a Russian icebreaker to open the route to McMurdo Station in Antarctica.

The ship broke a propeller, and the Polar Star was dispatched from Seattle to assist. Since that mission, the Polar Star has been in "caretaker status," essentially docked to save money. The Polar Sea remains fully staffed and operational.

Even if work started tomorrow on new icebreakers, it would be 10 years before they're ready to launch, said Jacqueline Grebmeier, a University of Tennessee polar researcher who served on the National Research Council panel.

"If people think it's important to have these ships," she said, "some decisions need to be made now." ●

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LAND & LEASING

BLM on aggressive schedule for NE NPR-A

Supplemental integrated activity plan/EIS to be final next summer; lease sale could occur in late summer or early fall 2008

By KRISTEN NELSON

Petroleum News

he Bureau of Land Management has "been on a very aggressive timeline" for the National Petroleum Reserve-Alaska northeast planning area, BLM Alaska Associate State Director Julia Dougan told the Resource Development Council Sept. 20.

Dougan said BLM plans to finalize the supplemental integrated activity plan and environmental impact statement for northeast NPR-A "early in the summer of 2008. And we could hold a lease sale in the late summer or early fall of 2008."

BLM completed an amendment to its northeast integrated activity plan in 2006, and planned to hold a lease sale based on the amended plan which included acreage north of Teshekpuk Lake, but the federal district court in Alaska said in September 2006 that the EIS "had not adequately addressed cumulative impacts."

BLM put proposed lease sales in both the northeast and northwest planning areas on hold — although the courts had upheld the northwest plan — and "immediately began to prepare a supplemental plan and EIS" for the northeast planning area, Dougan said. The draft was released

The public comment period on the draft closes Oct. 23. Dougan said what BLM wants is for "the public to identify substantive issues such as gaps in our analysis, corrections to the data we've used or feedback on the proposed mitigation measures. We really want to know whether or not the mitigation measures we have developed make it operationally feasible to develop oil and gas resources."

1998 plan — 4 million acres

The initial integrated activity plan for NPR-A northeast, finalized in 1998, "made 4 million acres, generally south and west of Teshekpuk Lake, available for leasing," Dougan said. BLM held lease sales in 1999 and 2002, leasing about 1.25 million acres of which some 800,000 acres are still under lease.

The president's national energy policy, released in 2001, called on BLM to do two things in Alaska: consider further lease sales in NPR-A and "consider leasing lands that were not leased previously in the northeast part of NPR-A," Dougan

said. BLM completed planning for northwest NPR-A in 2004 and completed an amendment to the northeast plan in 2006.

"Both of these plans made additional lands avail- Julia Dougan, BLM able for leasing in



the petroleum reserve," she said.

The courts upheld the northwest plan, but not the amended northeast plan, "finding that our environmental impact statement had not adequately addressed cumulative impacts."

BLM immediately began work on a supplemental plan and EIS, released in August. "The supplemental plan addresses the issues raised by the court and updates analysis that was done in the amendment," she said.

The issues are the same, Dougan said, and include "concern about the compatibility of oil and gas development with sensitive habitat for waterfowl and caribou and also concern about the impact of energy development on the subsistence lifestyle of the North Slope Natives."

\$30 oil replaced with \$50

The alternatives proposed "are essentially the same" as in 2006, she said, although this time BLM has not indicated a preferred alternative.

Analysis, however, has been expanded to include "cumulative impact analyses of oil and gas leasing in both northeast and northwest" planning areas. Also new is analysis of North Slope gas development and the Chukchi Sea oil and gas development being undertaken by the U.S. Minerals Management Service "as well as further expanding an outlook on climate change."

The 2006 amended plan used a \$30 oil price to determine what oil and gas might be developed, but prices have been well above that level, Dougan said.

The 2007 supplement discusses oil prices and uses a number around \$50 a barrel. At prices around \$30 per barrels, the supplement says, some 5.6 billion barrels would be economically recoverable from the combined northeast and

northwest planning areas; at \$50 per barrel, however, 8 billion barrels would be economically recoverable, some 4.3 billion barrels of which are estimated to be in the northeast planning area.

"While it is possible that actual development would not be greater than that analyzed" in the amended plan at \$30 per barrel, BLM said in its introduction to changes between the plans that it wanted to reduce the chance that the amount of development might be understated.

Impact assessments in the supplemental also consider the proposed listing of the polar bear as a threatened species, Dougan said.

Public health impacts are addressed as a separate topic in the supplement.

"We did that working with the North Slope Borough," she said.

"Another thing that's changed — the North Slope Borough is now a formal cooperating agency in the process. And that relationship really gave BLM access to some special technical expertise and we also hope that it will avoid some

see BLM page 17





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Business Spotlight



Avonly Lokan, founder

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FINANCE & ECONOMY

EIA chief: oil price spike will subside

Herrera: Decreasing output from OPEC member Syria another example of failure of technology, exploration to stem worldwide decline

By KAY CASHMAN

Petroleum News

urrent crude oil prices above \$80 a barrel can't be attributable solely to market fundamentals and, unless there is a major supply disruption, are unsustainable over the next few weeks and months, the head of the Energy Information Administration said Sept. 21.

EIA chief Guy Caruso said that oil market fundamentals continue to remain "very strong," and the price rise in past months was "largely because of a need for more crude to be put on the market."

But, he told Dow Jones Newswires, "We're using a price assumption for fourth and first quarters of around \$70, so clearly some of this additional price upside is not directly attributable to fundamentals."

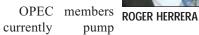
West Texas Intermediate traded at record highs Sept. 20 above \$84 a barrel on the New York Mercantile Exchange, falling to \$81.42 a barrel Sept. 21 in the midst of fears that tropical storms in the Gulf of Mexico could curtail output.

Prices not sustainable

"I think that current prices are unsustainable," Caruso said. The EIA chief said, however, the sustainability of \$80-a-barrel prices depends on global economic growth, whether the Organization of Petroleum Exporting Countries delivers on promised production increases, and if there are no major supply disruptions in major producing regions, including in the Gulf of Mexico.

Caruso noted that his agency's price forecast included OPEC increasing output by 300,000 barrels per day in the fourth quarter, 400,000 bpd in the first quarter of next year, and significant inventory draws.

He said the crude contract price rise following OPEC's decision earlier in September to boost production by 500,000 bpd was likely based on the market's perception that the increase was either too small, or that the cartel might not be disciplined in follow through with an increase.





around 2.5 million bpd, after hiking output to 2.6 million bpd earlier this year.

Ability of OPEC to boost output in doubt

That's a perception that was fueled in part by two announcements. On Sept. 23, the state-run Abu Dhabi National Oil Co. said the United Arab Emirates, an OPEC member, will cut oil output by around 600,000 bpd in November, for scheduled maintenance work at three offshore oil

Abu Dhabi did not say how long the work would take, but said it had taken measures to meet its production commit-

On Sept. 23 more bad news came from another OPEC member. According to Syria Oil Minister Sufian Al-Allaw, oil production in Syria was expected to drop to 360,000 bpd next year.

Syria's oil production has traditionally been in the range of 500,000 bpd; more recently, Allaw said it has been at 385,000

Allaw said production of his country's crude peaked in 1995 and 1996, and that wide-scale exploration was under way for new sources of oil in Syria.

Herrera issues warning against complacency

Petroleum News asked oil and gas con-

sultant Roger Herrera to comment on the news from the UAE and Syria. Herrera said:

"First, 600,000 barrels of oil withdrawn from the world market is a significant chunk and will put considerable short-term pressure on world pricing.

"Second, there remains some doubt at the ability of Saudi Arabia — i.e. OPEC to increase supply by 500,000 barrels of oil a day.

"Third, UAE is probably the most transparent of the Arab producers and the one with the most to gain from efficient operations and proper maintenance. The expenditures that it is incurring in the amazing development of its desert kingdom are immense by western standards and are not yet self supporting. Consequently, oil income and a positive open attitude to western investors are critical to its long-term future. In other words the shut-in maintenance of major oil production in UAE is an economic act, not a political one.

"Fourth, it is interesting that such a routine operation can translate into a profound worry about adequate world oil supplies. So many of the apparently unrelated hiccups in world production, which were once ignored, have now become events of concern. And yet many governments and major oil companies do not acknowledge the approach of the peaking of world oil. All the factors are sure indicators of its approach."

In regard to Syria's reduced oil output, Herrera said, "Once again it's an example of the failure of new oilfield technology and exploration advances to affect positively the decline of production after a country's oil output peaks. The idea that such declines can be reversed or significantly slowed down by the wonders of modern science are sadly lacking in real examples."

Hopefully, Herrera said, the world has "a few more years of energy innocence when it can continue to ignore the warning signs coming from the most significant oil-producing sector of the world — the Middle East. But, it would be reassuring if the United States, as the world's major consumer, made a more objective assessment of the world's oil future."

—The Associated Press contributed to

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BLM

duplication where we have overlapping responsibilities."

Gas line not speculative

In the 2006 amended plan, BLM did not look at the impact of commercial gas development based on a gas pipeline. "Previously we had said that was too speculative, but we've now included that," she said.

The supplemental plan notes that even if a natural gas pipeline is "built to take North Slope gas to market within the next decade, gas production for sale from NPR-A may still only occur decades hence" because the known and expected natural gas in the central North Slope would be taken to market first.

Gas sales from NPR-A would most likely occur using a buried pipeline to the Prudhoe Bay terminus of a gas sale pipeline to market. That buried gas line would parallel the sales oil pipeline.

BLM said in the supplemental that while there is no guarantee that current state and federal efforts "to encourage commercial gas development on the North Slope will bring gas to market," important decisions on gas development will be made during preparation of the supplement or shortly thereafter, so the

supplement does analyze "impacts of commercial gas development both within the planning area as a result of decisions in this plan and the cumulative impacts associated with gas development." •



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PETROLEUM NEWS • WEEK OF **SEPTEMBER 30, 2007**

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ALLIANCE

18

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Returning directors are Caroline Higgins, marketing manager for Totem Ocean Trailer Express; John Lewis, president of ASRC Energy Services; Denette Justus Romano, vice president of Wachovia Securities; and Maynard Tapp, founder and managing member of Hawk Consultants.

Eric Dompeling of Baker Oil Tools was named president; Jeanine St. John of Lynden Logistics, vice president of government relations; Joe Hegna of MWH, vice president of public relations; David Lawer of First National Bank Alaska, treasurer; Maynard Tapp of Hawk Consultants, secretary; Tom Walsh of PRA, at-large member; and Jim Palmer of the Palmer Group, immediate past president.

The Alliance is a nonprofit trade association representing "more than 400 member companies comprising more than 35,000 Alaskans," the press release said. More information can be found at www.alaskaalliance.com.

continued from page 1

REPSOL

Repsol picked up its 20 percent interest from Eni.

The exploration block is operated by Shell in the federal waters north of the Oooguruk, Nikaitchuq, Northstar and Kuparuk units, extending east to midway above the Prudhoe Bay unit.

Shell's spokesman in Alaska, Curtis Smith, told Petroleum News Sept. 21 that the leases are in water depths ranging from 3 to 24 meters.

"The objective of the partnership is to acquire 3-D seismic with a view toward identifying future drill sites," Smith said.

In its press release Repsol said "exploration activities" could start in 2009-10.

When asked by Petroleum News if Repsol was looking at additional investments in Alaska, Jorge S. O. Milanese referred the question to Repsol's headquarters in Madrid. Milanese is in upstream business development and is based in The Woodlands, Texas.

Madrid officials had not replied by the time Petroleum News went to press late Sept. 27.

At the Alaska Natural Gas Development Authority board meeting on May 9, ANGDA CEO Harold Heinze said that Repsol had recently established an "upstream position" in Alaska.

In April, Heinze met with Repsol as part of a series of meetings with companies that might have an interest in building a gas pipeline from the North Slope to Lower 48 markets. He was told Repsol had already entered Alaska, but was not given particulars.

In early September, Drue Pearce, the federal coordinator for Alaska gas pipeline projects, said she had heard Repsol was one of several companies that had expressed interest in building a gas pipeline from the North Slope. But Pearce also said she didn't have any inside information that suggested Repsol was still interested.

An integrated oil and gas company engaged in all aspects of the petroleum business, Repsol has 30,000 employees and is one of the 10 largest private (not government-owned) petroleum companies in the world. It was founded in 1986 and last year had a net income of approximately \$1.7 billion.

Although it operates in 30 countries, the bulk of Repsol's assets are in Spain and Argentina

According to Dow Jones, in mid-September Repsol signed a \$15 billion contract to supply natural gas to Mexico from its Peruvian operations.

—KAY CASHMAN

continued from page 1

HIKES

ing the loss to industry even more. The firm said proposed projects such as Husky Energy Inc.'s Sunrise, Imperial Oil Ltd.'s Kearl Lake and Petro-Canada's Fort Hills would take the biggest blow.

More economic rent the goal

Alberta is following in the footsteps of many other oil producing regions in its desire to extract a greater share of the economic rent from its natural resources during the current period of high commodity prices, Butter noted, adding that changes under consideration in Alberta are comparable in terms of industry loss to the nationalization of oil assets under way in Venezuela and the taxation increases implemented recently by the UK government.

Wood Mackenzie also found that Alberta's oil sands' attractiveness as an investment based on the level of government take would slide from 11th place to 44th in a ranking of 105 basins around the world.

"The higher than expected level of new taxation will cause concern among oil sands industry players already struggling to cope with spiraling costs," Butter said. "This will further raise the already high, economic break-even price of these projects, significantly raising the level of risk on what are huge initial capital outlays."

The report outlines the main recommendations: the implementation of a new Oil Sands Severance Tax, effectively a new super-royalty, at a sliding scale rate of 1 percent to 9 percent between a WTI price of C\$40 and C\$120 per barrel; increasing the net royalty rate after payout from the current level of 25 percent to 33 percent; and introducing a new royalty credit, based on 5 percent of the cost of upgrading facilities constructed in Alberta. The report also suggests alterations to conventional oil and gas royalties.

Impact tested on projects

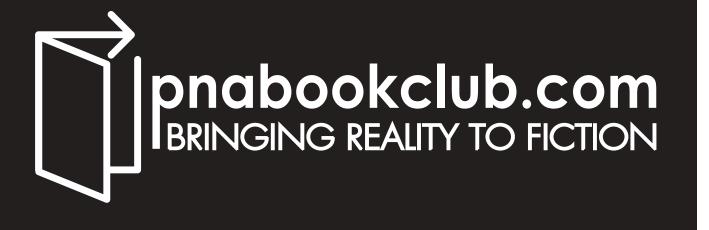
Wood Mackenzie said it tested the impact of the proposed changes, which would increase the government's take by \$2 billion a year, on 15 projects already in operation, six under development and seven under potential future development.

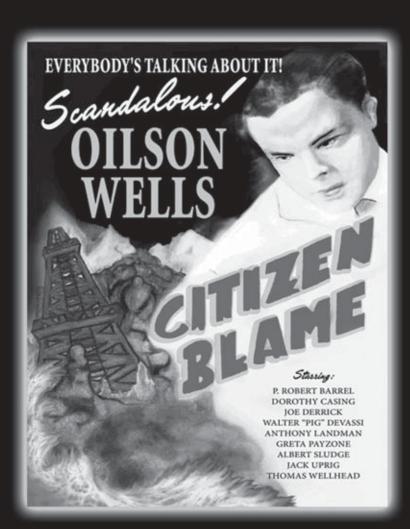
Butter said that once recovered from the shock, industry would lobby hard "to mitigate the effects of the proposals." In particular, he added, the imposition of the OSST, applied to revenue before the project costs have been recovered "is particularly damaging to more marginal projects."

However, Wood Mackenzie said the proposed changes are at present only recommendations, with the provincial government indicating that a final decision would be made in the near future.

The Wood Mackenzie report is the latest study critical of a recent controversial provincial-panel report that concluded Albertans are not getting a fair share from its dominant energy industry. In a news report published by the National Post, Alberta Energy Minister Mel Knight made it clear the government has not made up its mind on what a new energy royalty regime would look like. He said he expects to hear from a half-dozen research firms as they complete their own analyses on the proposed changes.

"This process is not finished," he said in an interview with the Post. "We are going to continue to consult in an open manner, both with industry and with Albertans. This piece of business that is going on happens to be inside Alberta, but has enormous consequences for Canada."





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PROGRAM

with the expectation that its outcome will improve industry's ability to protect Arctic environments from oil spills resulting from petroleum exploration, development, production and transportation.

Research results should also help decision making by responsible authorities, SIN-TEF program documents said.

The program consists of eight project areas, being carried out over a four-year period ending in 2009. They are designed to address key oil spill response issues and scenarios that program participants might have to deal with:

- The fate and behavior of oil spilled in Arctic conditions;
- The in-situ burning of oil in Arctic and ice-infested waters;
- · The mechanical recovery of oil in Arctic and ice-infested waters;
- · The use of chemical dispersants in Arctic and ice-infested waters;
- Monitoring and remote sensing of oil in or under ice; • The preparation of a generic oil spill
- contingency plan; • Field experiments at Svalbard, Norway,
- and in offshore ice-infested waters; and · Program coordination, management, communication and publishing.

Initiated in Halifax

"The program was initiated after a meeting in Halifax (Nova Scotia) where SINTEF and the oil companies agreed to initiate a state-of-the-art study," program coordinator Stein Sørstrøm told Petroleum News Sept. 13. "This resulted in a request from the companies to work out a plan for how to develop oil spill technology, strategies and knowledge for Arctic and ice covered waters."

A plan for the program was presented at a workshop in Oslo in April 2006 and the program got under way in September 2006, Sørstrøm said. In addition to industry participants, there are a large number of potential collaborators, including the U.S. Minerals Management Service, Alaska Clean Seas and the Oil Spill Recovery Institute in Cordova. About five people from relevant organizations will ensure that the results of each project include the most up-to-date knowledge, Sørstrøm said.

A major part of the joint industry pro-

Mechanical recovery



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Testing done in 1993 of the mechanical recovery of oil from icy water.

gram consists of adapting existing systems for icy conditions. Equipment vendors have also been developing new concepts for recovering oil from ice-laden water and these concepts will be further tested, Sørstrøm said. In addition to research into the mechanical recovery of oil, the program includes testing of in-situ burning and the use of dispersants, Sørstrøm said.

"The first year has focused on laboratory tests of skimmers, dispersants and burning tests," Sørstrøm said. "We have also carried out a long-term field experiment at Svalbard studying the weathering properties (of crude oil) as well as a window of opportunity for in-situ burning. Further we have carried out preliminary tests of some remote sensing and oil detecting systems."

Sørstrøm said that most skimmers have been designed for open-water conditions, rather than for use in ice-laden water.

"Our tests so far have, however, proved that some of these systems may be developed further for operations in ice," Sørstrøm

Adapting and developing systems

Because an oil spill response typically requires a combination of different techniques, the joint industry program is also investigating strategies and tactics for the Arctic, Sørstrøm said. A generic oil spill contingency plan developed in the program will accommodate a range of ice regimes encountered in the circum-polar area of interest.

The program holds two workshops per year, alternating between venues on the European and American continents. These workshops provide program participants with progress updates and also provide an

The first of these workshops was held in Svalbard in April 2007 and the second will be held in Anchorage on Oct. 15, following the Oct. 10 to 11 International Oil and Ice Workshop (some talks about the joint industry program have been scheduled as part of the international workshop).

opportunity to discuss oil spill response challenges in the regions where the workshops are held.

The first of these workshops was held in Svalbard in April 2007 and the second will be held in Anchorage on Oct. 15, following the Oct. 10 to 11 International Oil and Ice Workshop (some talks about the joint industry program have been scheduled as part of the international workshop).

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SHELL

Arctic waters or in sea ice?

Absolutely, said Al Allen, Shell's oil spill response consultant. Allen has amassed 40 years of experience in oil spill response and was at one time the manager of Absorb, the organization that later became Alaska Clean Seas, the North Slope oil spill response cooperative.

There have been dozens of situations where people have burned spilled oil in cold climates, and with ice and snow, Allen said. Some current research focuses on expanding knowledge of the limitations of burning, but the technique has been proven to work, he said.

"I've done it several times myself," Allen said. "... When you see the results at high (recovery) efficiencies, you just come away knowing that this is fact. ... I know it works. It can be a very effective tool, especially in cold climates.'

Allen was also involved in some tests of in-situ burning, done in sea ice at the West Dock at Prudhoe Bay, in the late 1970s and early 1980s.

"We did a series of tests over about a three-year period," Allen said. "The spill sizes would vary from just a few gallons to five to 10 drums at a time."

Skimmers

And what about recovering oil from iceladen water using skimmers?

Sea ice tends to trap the oil on water surface, so that the oil becomes concentrated in a limited area, rather than spreading out to form an extremely thin layer over a wide expanse of open water, Allen said. Skimmers work best when the oil is concentrated rather than spread out. But brush skimmers and rope mop skimmers have been thoroughly tested in the recovery of limited pockets of oil.

"Rope mops (for example) — I've used them in a lot of actual spills in cold climates and you can get 95 percent (recovery) efficiencies," Allen said. "... There are many situation where skimming in ice, handled properly, can be very efficient."

In fact, the effectiveness of a particular skimming operation depends primarily on the knowledge and experience of the skimmer operators, Allen said.

Allen also emphasized that determining a spill response strategy in a particular situation involves evaluating tradeoffs between the likely recovery effectiveness and potential disadvantages in the use of different techniques such as burning or skimming in that situation.

—ALAN BAILEY

continued from page 1

AGRIUM

2012, Agrium said.

The number of employees that will be kept on to keep the nitrogen fertilizer facility warm and to work on the coal gasification project is yet to be decided, Parker said.

In its press release the company said it has "diligently attempted to encourage development of natural gas supply and to negotiate contracts for 2008 and beyond," but "despite these efforts, and after offering what it believed to be competitive prices and incentives, Agrium was unable to secure gas supply."

Agrium purchased 53 billion cubic feet of natural gas in 2001, but this year could only purchase 10 billion cubic feet.

The company estimates the facility will account for \$6 million, or less than 1 percent, of its 2007 earnings before interest, taxes, depreciation and amortization. The plant produced 325,000 metric tons of urea and ammonia this year during its five months of operations. (The plant was closed down during the winter of 2006-07 for lack of a gas supply.)

When asked if there was a chance the Nikiski facility could be reopened between now and 2012 if a producer comes forward with a new supply of natural gas, Parker said yes. The company, she said, had been prepared to continue to operate the plant for half the year again in 2008 on a short-term gas supply contract, but no gas was available for the coming year. To bring the workforce back after laying off more than 100 employees would require a longer-term gas contract, she said.

Agrium expects incremental costs of the closure to be less than 5 cents per share this year. It will not face impairment charges since it wrote down the book value of Kenai operations in 2003 and accrued shutdown



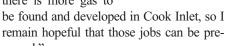
costs then, the company said.

"It is a sad day for us to have to close this facility which has added much value to the Alaskan economy for the past 40 years. It has been a major supplier to international markets in the Pacific region and was Alaska's third largest exporter in 2006, despite running at 50 percent of capacity," said Mike Wilson, president and CEO of Agrium. "Our employees at Kenai have been the key to the success of the operation. Had it not been for the natural gas supply situation in the Cook Inlet, we would not have had to make this difficult decision which will impact our employees, customers and the community."

State offers assistance

The day after news of the shutdown was announced, Alaska Gov. Sarah Palin directed the Department of Labor and Workforce Development to continue assisting workers who will soon lose their jobs at the Agrium fertilizer plant in Nikiski. "It's unfortunate

to see the closure of a facility that has provided so many jobs that support families on the Peninsula," said Palin. "I am heartened to hear that Agrium is willing to keep its options open if sufficient long-term Kenai Peninsula supplies of gas can be Borough Mayor John found. We know there is more gas to



Williams

The Department of Labor had been working with Agrium and the local community prior to the announcement, assisting employees with information and referrals. A transition center will be set up to act as a central point for Agrium employees to receive help as they transition from one career to another.

Palin said she plans to "meet with the Tri-Borough mayors to identify solutions to the natural gas supply crunch in Cook

Borough mayor calls for jack-up, more exploration

In a Sept. 25 press release, the Kenai Peninsula Borough said it had offered "to assist Agrium in any way that it can."

Borough Mayor John Williams said he was "extremely concerned about the employees and will be doing everything in my power to help in transitioning to new employment, whether that is with existing industrial facilities on the Kenai Peninsula or the North Slope."

He said Agrium's facility closure "illustrates the dire need for exploration in the Cook Inlet as well as the need for a natural gas line from the North Slope. There have been a lot of discussions about exploration and bringing jack-up rigs to Cook Inlet but so far they have not materialized." •

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NORTH OF 60 NEWS Exploration programs being carried out at Golden Summit, Rob and Vinasale 8 Coeur, environmentalists pledge cooperation Developer to work with opponents on dry tailings design for Kensington 10 Production decision on tap at Wolverine Yukon Zinc chases early 2009 startup target with numerous development activities A special supplement to Petroleum News MIKE GROSS, VICE PRESIDENT OF EXPLORATION FOR FREEGOLD VENTURES EXAMINING THE O'REELY GOLD PROSPECT, ROB PROJECT, GOODPASTER DISTRICT, ALASKA. September 30, 2007 COURTESY FREEGOLD VENTURES

Freegold advances trio of Alaska projects

Exploration programs being carried out at Golden Summit, Rob and Vinasale; bulk sampling at Golden Summit will generate capital

By SHANE LASLEY
Mining News

ancouver-based Freegold Ventures is exploring claims in three Alaska locations this season - Golden Summit near Fairbanks, Rob in the Goodpaster Mining District, and Vinasale near McGrath, the company's latest venture in the state.

At Golden Summit, Freegold has finished setting up a gravity-based processing plant, which will process 28,000 tons or more of material before winter sets in, Freegold President and CEO Steve Manz told Mining News in a recent interview.

At Rob, the junior exploration company has completed its first drill program and expects to receive assay results soon, Manz said.

At Vinasale, Freegold is evaluating acreage surrounding the deposit and ordered a high resolution aerial survey over the project. The company is also planning to return in 2008 to follow up on targets identified this year and to drill near historic holes in Vinasale's central zone, Manz said.

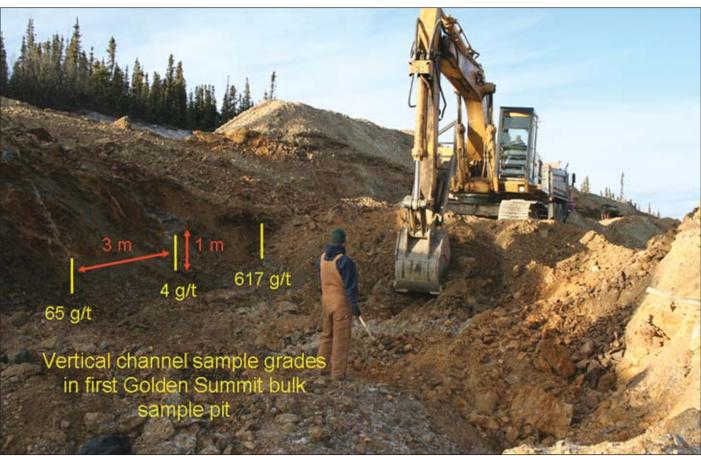
Exploring Golden Summit

The Golden Summit project is in the Cleary Hill area, about 20 miles northeast of Fairbanks. The 18,000-acre gold project includes the historic Cleary Hill Mine, once the largest lode gold producer in the Fairbanks Mining District.

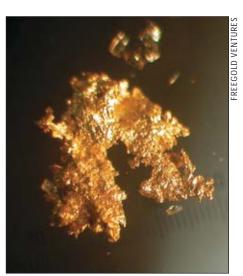
Cleary Hill Mine was shut down in 1942 by the War Powers Act, and has not been worked since.

Freegold acquired an interest in the Golden Summit project in 1991. Between 1991 and 2004 it spent \$7.3 million in extensive mapping, soil sampling trenching, rock sampling, drilling, and geophysical surveys on the project, involving nearly 64,000 man hours. During this time the company completed more than 78,177 feet of drilling, over 18,000 feet of trenching, and took 7,729 soil samples. The major focus of the exploration during this period was bulk tonnage targets.

In October 2005, Freegold began a 1,270-foot trenching program to the south of the Cleary Mine. This marked a shift



A geologist oversees Beistline area bulk sampling in the fall of 2006.



Gold freed from the quartz after crushing.

from bulk tonnage targets to defining highgrade surface targets, which had the potential for initial small-scale mining – to provide bulk samples and generate cash for the company. In July 2006, after analyzing the results of the earlier trenching program, an additional 2,200 feet of trenching was completed to the east and west of the previous work to further delineate the high-grade veins Freegold had discovered. This was the first phase of a three-phase program.

During phase two more trenching helped expand on structures found in phase one. Meanwhile, Freegold launched phase three of the program, stockpiling 10,000 tons of the highest-grade materials identified during the earliest trenching work.

The materials, separated into eight different piles based on their origin, are to be processed separately to further define the gold mineralization of each area being tested.

Bulk sampling was completed in November 2006.

Freegold started a new drill program in January 2007 - the first systematic drill program on the property for bulk tonnage of gold mineralization. Most of the drilling was done in the area that Freegold focused on in its 2006 exploration program.

Three rows were drilled, 15 feet apart, each with 31 holes limited to 51 feet in depth and placed at 20-foot increments. A total of 4,700 feet was drilled in this phase.

Next, Freegold began a 20,000-foot drilling program that also consisted of closely spaced shallow holes with fences crossing the width of the mineralization

On Sep. 13, the company announced that 674 holes had been drilled at Golden Summit for a total of 40,093 feet. Drilling is currently suspended to allow the company to catch up on assay results. Manz said that it is likely that drilling will resume and continue through the winter, and that the stockpiling of bulk sample material, to be run beginning next spring, may continue into November.

Bulk sample processing has begun at Golden Summit

In July of this year Freegold received its permits from the state to process about 130,000 tons of material a year until May 2012

The processing of bulk samples will not only provide a better idea of material grades at Golden Summit, but also will provide the company with capital from the gold recovered, Manz said.

Freegold has completed construction of a 1,200-ton per day gravity-based processing plant at the property. The self-contained, mobile processing plant boasts a recovery rate of more than 70 percent and consists of a portable crusher and a threestage gravity circuit.

Prior to processing a 10,000-ton bulk sample, the plant was tested and optimized by processing 3,000 tons of mineralized dump material from historic mining on the property. If the dump material proves economic to process, then Freegold will run Golden Summit's remaining mineralized dump material through the plant.

In addition to material used to test the plant, Freegold hopes to process at least 25,000 tons of rock during the next two









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NUNAVUT

More kimberlites discovered in Nunavut

MINING NEWS

tornoway Diamond Corp. and Teck Cominco Ltd. have uncovered promising kimberlites in separate exploration programs in Nunavut Territory this summer.

Stornoway, one of Canada's leading diamond hunters, announced discovery Aug. 23 of a new kimberlite pipe at the Aviat Project, the company's northernmost venture in eastern Nunavut.

Teck Cominco discovered four new kimberlites during its first drilling campaign on the Darby Project, bringing to nine the total number of kimberlites uncovered so far on the 685,000-acre property, its partner Indicator Minerals Inc announced Sept. 25.

Promising find excites explorers

Stornoway, a mid-tier exploration company, owns a 70 percent interest in Aviat, with BHP Billiton holding 20 percent and Hunter Exploration Group the remaining 10 percent. The prospect is one of Stornoway's six joint ventures on the Melville Peninsula. Since it began exploring Aviat in 2002, Stornoway has made 11 kimberlite discoveries there, and the property was its principal exploration focus in 2006.

The latest pipe, known as AV9, represents the third pipe-like body identified within Aviat's Tremblay Corridor where a total of 12 significantly diamondiferous kimberlites have been discovered, according to the Vancouver, B.C.-based junior. AV9 lies about 2.4 miles east-southeast of the AV1 kimberlite pipe, which previously returned a diamond content of 0.83 carats per metric ton

ALASKA

"The AV9 kimberlite pipe was discovered as a result of a concerted effort to identify the source of a high priority indicator mineral and diamondiferous boulder train within Aviat's 'Eastern Sheet Complex'." said Stornoway CEO Eira Thomas. "Drilling to date, including two separate 87 meter intersections, has not constrained the size of this prospective body which contains abundant indicator minerals and mantle nodules. The discovery of a new kimberlite pipe within four kilometers of the AV1 and AV4 pipes demonstrates the continuing exploration potential of the Tremblay Corridor and adds exciting kimberlite tonnage potential to the project."

Teck completes first season of exploration

Teck drilled 32 targets, conducted an aerial survey and collected nearly 1,000 samples at Darby, which is located about 120 miles southwest of Kugaaruk in Nunavut. The major plans to spend \$14 million by 2010 to earn a 51 percent interest in the

Indicator Minerals can retain a 29 percent stake in the project, while Hunter Exploration holds the remaining 20 percent.

Indicator President and CEO Bruce Counts the 2007 program expanded the Franklin kimberlite field, which is believed to be centered on the Darby property. "We have identified numerous compelling targets in the new airborne data that will be tested in 2008, and we completed a comprehensive sampling program on the prospective ground that was acquired last year," he

Test results from the samples are expected in October, the company said. •

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controls at the facility. Railroad officials say improvements have been made since the notice of violation and their upcoming response will outline more clearly the measures taken.

Railroad pressed to control coal dust

emissions during a prolonged spell of dry, windy weather last winter.

State environmental regulators say the Alaska Railroad is proposing insufficient

The Alaska Department of Environmental Conservation cited the state-owned rail-

The agency has given the railroad a Sept. 19 deadline to submit more details of dust

measures to prevent black dust from spreading from its coal loading facility in Seward.

road for two emissions violations in April after scores of residents complained of heavy

Railroad spokeswoman Wendy Lindskoog said officials also want to meet with regulators in Seward, "so they can see for themselves the improvements made."

—THE ASSOCIATED PRESS

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Several of the individuals listed above are independent contractors

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'Termination dust' prods explorers to wrap up busy exploration season

By CURT FREEMAN For Petroleum News

ven though the concept of global warming is a welcome idea to many companies working in Alaska, its effects are not being felt fast enough to allow companies to complete all of the work they had hoped to finish in 2007. Drills are still turning all over the state, but the first signs of "termination dust" are showing on the higher peaks and the smell of fermenting berries fills the air, giving us all a not-so gentle prod to get ready for winter.

Western Alaska

TECK COMINCO LTD.'S Red Dog mine saw continued strong operating profits in the second half of 2007. Operating profits rose to \$265 million versus \$240 million during the same period of 2006. For the first half of 2007, the mine generated 287,000 metric tons of zinc and 64,000 metric tons of lead in concentrate. The first concentrate shipment left the Red Dog mine on July 5, 19 days earlier than in 2006. Total shipments for the 2007 shipping season are expected to be about 1 million metric tons of zinc concentrate and 260,000 metric tons of lead concentrate. Average zinc grade mined was 20.6 percent versus 22.2 percent a year ago. Mill throughput of 1,687,000 metric tons in the first half of 2007 was significantly up from the 1,539,000 metric tons milled in the first half of 2006.

TNR GOLD CORP. said it has begun exploration at its Shotgun Hills project north of Dillingham. Mapping and sampling efforts will focus on a 6.5-kilometerlong ridgeline on the Winchester prospect where previous drilling intersected sillhosted gold mineralization.

ANDOVER VENTURES INC. said an induced polarization geophysical survey was completed at its Kamishak coppergold prospect on the Alaska Peninsula. The survey consisted of 6.3 kilometers

The author

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column CURT FREEMAN



Sept. 24. 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.

(3.9 miles) in three reconnaissance lines across the known mineralized area and in adjacent areas where previous geochemical anomalies were detected. Response over the known mineralized area was only modest; however, strong, relatively shallow chargeability and resistivity anomalies were detected along the hillside north of the area previously drilled. Additional work is planned for this area.

Andover Ventures Inc. reported drilling results from its Bulk Gold project near Nome. The 2007 drill consisted of 650 meters of core drilling in 7 holes. Hole BG-07-05, drilled in the Dorothy Creek soil anomaly, intersected 14.6 meters grading 1.02 grams of gold per metric ton while hole BG-07-07 on the same prospect returned 10.5 meters grading 0.59 grams of gold per metric ton. Additional drilling results are pending.

NPN INVESTMENT GROUP and JV partner Andover Ventures Inc. Also announced initial results from exploration at the Alaska Peninsula project on lands leased from Bristol Bay Native Corp. At the KUY prospect, four core holes totaling 793 meters were drilled with holes KUY-08-07 and KUY-09-07 encountering significant clay alteration with up to 15 percent sulfides. Silica flooding and quartz

stockwork veining were common in both drill holes. Mineralization was primarily pyrite but included zones of chalcopyrite in both disseminated and veinlet form within altered dacitic volcanic rocks. Assay results are pending. The company also reported on re-logging and re-analysis of old drill core from the Kemuk platinum group metal prospect. Kemuk was initially explored as an iron deposit, but analyses of mafic intrusives hosting the iron-oxide mineralization returned significant platinum group metal anomalies. The 2007 work included re-assay of 344 samples totaling 2,920 meters of core. While additional anomalies were found, no significant platinum group metal mineralized zones were detected.

LIBERTY STAR URANIUM & METALS CORP. said it has entered into a letter of intent with MILLROCK **RESOURCES INC.** on the former's Bonanza Hills project on the Alaska Peninsula. Under terms of the deal, Millrock will have an option to earn up to 60 percent interest in the project by spending \$3.5 million dollars on exploration work and issuing 1 million shares of their stock over four years. Previous efforts on this property returned gold values exceeding three ounces of gold per ton from surface samples of quartz vein material. Immediate exploration plans were not announced.

Eastern Interior

FREEGOLD VENTURES LTD. said it has completed the commissioning of its 1,200 ton per day gravity recovery plant at its Golden Summit project. The plant is designed to generate gold recoveries in excess of 70 percent from a circuit that contains a crushing plant and a three-stage gravity circuit using variable-sized concentrators. After completion of the plant optimization, Freegold plans to begin processing a 10,000 ton bulk sample collected last fall and another 8,000 tons of bulk sample from mineralized material recently

TNR Gold Corp. said it has begun exploration at its Shotgun Hills project north of Dillingham. Mapping and sampling efforts will focus on a 6.5-kilometer-long ridgeline on the Winchester prospect where previous drilling intersected sill-hosted gold mineralization.

excavated and stockpiled from the Beistline shaft and eastern Cleary Hill mine areas. The company also reported completion of initial rotary air blast drilling, which included 674 holes totaling 40,093 feet. Additional drilling will be conducted this winter.

TECK COMINCO LTD. and partners SUMITOMO METAL MINING CO. LTD. and SUMITOMO CORP.'S Pogo gold mine reached commercial production in the second quarter of 2007 and produced 121,300 ounces of gold during the first half of 2007. Mill throughput was 297,000 metric tons with a recovery of 84 percent. First half production costs were not reported but second quarter 2007 production costs were \$460 per ounce. Gold production of 76,900 ounces in the second quarter was lower than full capacity as mill operations are still being optimized. Ore grades were also below plan due to stope sequencing and higher than expected dilution. Efforts to improve mine production and optimize mill recoveries are ongoing and gold production is expected to improve in the third and fourth quar-

FULL METAL MINERALS announced initial drilling on the Fish polymetallic prospect at its Fortymile project under option from DOYON LTD. Significant drilling results include hole Fish 07-09 which returned 8.01 meters averaging 12.3 percent zinc 6.9 grams of silver per metric ton and hole Fish 07-10 which returned 5.62 meters averaging 4.2 percent zinc 19.4 grams of silver per metric ton Ten drill holes have been completed at the Fish prospect, testing a 1500 meter long gossan that is interpreted to have been derived from intensely weathered massive to semi-massive sulfides replacing carbonate rocks. To date, drilling has tested approximately 600 meters of strike length and 375 meters down dip. The deepest hole drilled (hole Fish 07-09) was targeted at mineralization below the oxide zone however the mineralized interval in this hole was still in the oxide zone at 250 feet below surface. Mineralization is also strongly anomalous in bismuth, arsenic and antimony, suggesting potential for intrusive-related gold mineralization that is unrelated to the sulfide replacement mineralization targeted by drilling. .

INTERNATIONAL TOWER HILL MINEs announced initial drilling results from its West Tanana gold project under option from Doyon Ltd. Highlights include a 10 centimeter quartz vein with visible gold in quartz within a 0.3 meter interval assaying 15.6 grams of gold per metric ton and a broader breccia zone returning 2.5 grams of gold per metric ton over 4.3 meters. The initial phase of diamond drilling encountered both high-



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FREEMAN

grade quartz veins and broad zones of potentially stratabound mineralization. Difficult drilling conditions within major fault zones resulted in poor recoveries in a number of the holes, all but one being lost prior to testing the proposed target zones. The mineralized zones appear related to a series of stacked low angle shear zones. High angle quartz vein/breccia zones were identified in one drill hole and may have acted as feeders to the low angle shear zones.

Freegold Ventures Ltd. also announced completion of 3,514 feet of drilling in 17 holes at its Rob gold project in the Goodpaster District. Drilling was conducted on the Gray Lead and O'Reely, prospects, both of which returned quartz vein intervals averaging true widths of 4 to 10 feet. A total of 8 holes (1,529 feet) were drilled at Gray Lead from two separate drill pads and 10 holes (1,985 feet) were drilled at O'Reely from four separate drill pads. Drilling at both targets encountered sugary textured quartz veins containing fine-grained bismuthinite and arsenopyrite. Veins were hosted in altered biotite granodiorite at O'Reely and biotite augen paragneiss at Grey Lead. Analytical results on this drilling are pending. The company also reported on surface rock sampling conducted on the project in 2006 and 2007. Results included gold values up to 46.7 grams of gold per metric ton from the Blue Lead prospect, 11.5 grams of gold per metric ton from the Michigan prospect, 6.61 grams of gold per metric ton from the O'Reely prospect, 49.88grams of gold per metric ton from the Grey Lead prospect and 37.78 grams of gold per metric ton from the Grizzly mine prospect.

Usibelli Coal Mine Inc. said it has applied for permits to expand operations at its current Two Bull Ridge open pit coal mine to allow access to reserves capable of extending the mine life out an additional 25 years at an anticipated average production rate of 2 million tons of coal per year.

Alaska Range

USIBELLI COAL MINE INC. said it has applied for permits to expand operations at its current Two Bull Ridge open pit coal mine to allow access to reserves capable of extending the mine life out an additional 25 years at an anticipated average production rate of 2 million tons of coal per year.

MAX RESOURCE CORP. announced initial drilling results from its Gold Hill molybdenum project in the Valdez Creek District. Hole DH07-1 returned 540 feet grading 0.054 percent molybdenum disulfide starting at surface. This interval represents only the upper half of the drill hole with assays from bottom half still outstanding. Assays are pending for the bottom of hole 1 and an additional 4 holes drilled at the prospect in 2007.

International Tower Hill Mines announced discovery of a porphyry copper-gold system at its Chisna prospect. Preliminarily sampling has returned highly anomalous gold and copper values from surface soil and rock chip sampling over an area of approximately 1 square kilometer presently centered on a partially exposed mineralized porphyry system. Mineralization is open in all directions. Initial rock samples from this area average

2.9 grams of gold per metric ton and 0.68 percent copper. The new zone of mineralization is related to a porphyry system with a gold-rich upper zone transitioning into a copper-gold zone at depth.

Northern Alaska

ANDOVER VENTURES INC.

announced initial results from its Sun project on the Ambler Mining District. Over 760 soil and rock chip samples were collected in June and July and revealed anomalies ranged up to 400-plus parts per million copper, 300-plus ppm lead and 450plus ppm zinc. The anomalies extend the mineralized trend another 3 miles southwest of the Main Sun deposit where past drilling has outlined resources. The company also reported that ten drill holes (6,837 feet) have been completed on the project in 2007. Of the ten drill holes, seven intersected 9.8 to 41 foot thicknesses of massive sulfide. Assays are pending and drilling continues.

LITTLE SQUAW GOLD MINING reported on placer and lode exploration results from its Little Squaw gold project in the Brooks Range. The company reported placer results from 14,500 feet of drilling in 90 holes completed in 2007. Drilling has so far outlined potentially economic mineralization over approximately 500 linear feet along the creek between drill lines 3 and 4. Mineralization occurs over an average width of 800 to 1,000 feet. The pay horizon on Line 3 averages 90 feet thick with a weighted average recoverable gold value of \$14.51 per cubic yard, versus a thickness of 82 feet with a weighted average recoverable gold value of \$15.80 per cubic yard for Line 4. Glacial overburden on Line 3 averages 71 feet thick compared to a thickness of 74 feet on Line 4. The highest grade interval was one five-foot intercept of \$1,917.74 per cubic

yard in Hole 7 East (based on a gold price of \$600 per ounce). In addition, the company announced that lode gold exploration on the Pallasgreen prospect intersected a 30-foot-wide structure that assays 11.43 grams of gold per metric ton. The structure is composed of a strong fault zone in schist containing clay fault gouge, several sulfide-bearing quartz veins and breccia composed of iron-stained quartz fragments. Additional trenching is in progress.

SILVERADO GOLD MINES said it has so far recovered 2,811 ounces of gold from its placer gold operation at its Nolan Creek project in the Brooks Range. The largest nugget recovered to date weighed 18.32 troy ounces.

Southeast Alaska

LANDMARK MINERALS INC. and partner Ucore Uranium Inc. announced that five holes have now been completed at their Bokan Mountain uranium-rare earth property near Ketchikan. Drill results are pending and drilling is continuing on the project.

Other

Alaska State Rep. Jay Ramras stepped into hot water earlier this month by sending a letter to the State Attorney General indicating that he had heard rumors while on a fishing trip that residents of the Iliamna area were being improperly paid to support development of Northern Dynasty's Pebble copper gold project. (See full article on this elsewhere in this publication.) Alaska Native corporations in the region responded quickly and angrily over the allegations that they had been bribed to support the project. Northern Dynasty officials did the same. News articles and press conferences were coming fast and furious, so stay tuned, there will be more on this issue in the press!



Ramras suspects payoffs at Pebble

State legislator calls for AG to investigate rumors that Northern Dynasty bribed officials; Native leaders protest allegations

By SHANE LASLEY Mining News

illage corporation leaders in the Bristol Bay region reacted angrily the week of Sept. 16 to remarks made by Rep. Jay Ramras, a Fairbanks Republican, suggesting that Northern Dynasty Mines paid area Native leaders, business owners and elected officials to support the Pebble Mine project.

Ramras recently visited the Pebble project as a guest of Northern Dynasty. He said he arranged a trip to some of the local villages in an effort "to see the other side of the story." What he observed compelled him to write the U.S. Attorney's office in Anchorage and the Alaska Attorney General's office about his concerns that the developer may be bribing Southwest Alaska Native leaders to support the Pebble Mine project.

The Pebble Project, which is located about 200 miles southwest of Anchorage in the Bristol Bay region of Alaska, was acquired by Northern Dynasty in 2001. Since then, extensive drilling has shown that Pebble could be developed into a world-class mine, capable of producing 67.3 billion pounds of copper, 81.7 billion ounces of gold, and 4 billion pounds of molybdenum. The project also lies in the Bristol Bay watershed, home to one of the world's largest salmon fisheries.

Ramras implies improprieties

In one letter, Ramras asked the Attorney General's office to send a representative to a public hearing being held in the area concerning House Bill 134, a bill

co-sponsored by Ramras. The measure relates to the protection of wild salmon in the Bristol Bay area, and would seriously impede, if not prohibit, any mineral or oil and gas development in REP. JAY RAMRAS the area.



But Ramras fell short of accusing Northern Dynasty of involving itself in illegal activities. "There appears to be a lack of transparency, and at the very least a lack of decency," in the way this debate is being waged," he wrote.

Sean Magee, Northern Dynasty's vice president of public affairs, said that the allegations were "baseless," and it was irresponsible for Ramras to make them without evidence.

Ramras went on to compare what he observed in southwestern Alaska to the corruption accusations in the Alaska State Legislature, now under investigation.

"I am deeply troubled as the sitting chair of the House Judiciary Committee to learn of such impropriety," he wrote.

"Villagers from around the Pebble project were invited and flown to Anchorage, were hosted with overnight accommodations at the Sheraton (Anchorage Hotel), and were provided with \$600 in cash.'

Magee admitted that village leaders had been transported to Anchorage to attend educational meetings, but they were generally compensated \$200 per day for their time away from work.

"All this is fully disclosed," he said. "This is not money that is passing under the table."

Ramras further alleged that local business owners, some of whom hold public office, are receiving payments of "up to \$25,000 per month.'

"I heard stories of elected officials of governing municipalities. Sometimes these elected officials were, and sometimes these officials were not, simultaneously directors of regional corporations and/or village corporations," he wrote.

These elected officials included owners of aviation companies and bed & breakfasts or boarding houses "who are enjoying payments of up to \$25,000 per month. Sometimes these facilities are far from the mine site. And I believe some of these owners/elected officials testified before the House Resources committee on Pebble Mine related issues in this dual capacity without disclosing this important conflict of interest during the 24th Alaska State Legislature, of which I was the House Resources co-chairman, Ramras wrote.

In a Sept. 20 letter to Ramras, Magee said Northern Dynasty was disappointed by his unwillingness to discuss his concerns with the company when they first came to his attention. "Instead, you chose to politicize this non-issue in a public forum," he wrote

Magee also invited Ramras to discuss any concerns he has on the matter with the company.

Village leaders angry

Leaders of area village corporations, Bristol Bay villages, and Native corporations reacted angrily to Ramras' allega-

In a Sept. 17 statement, Bristol Bayarea Native corporation and village leaders denounced Ramras' suggestions that their activities were similar to those of state lawmakers and other Alaskans currently caught up in "corruption scandals and trials taking place on a daily basis in

Ralph Angasan, Sr., president of

Alaska Peninsula Corp., demanded that Ramras retract his statements.

Northern Dynasty is providing jobs and employment opportunities for their shareholders, Angasan said.

"We have people employed as technicians, drillers, helpers, cooks, cleaning people, bus drivers, mechanics, carpenters, observers and scientists. These are real, honest-to-goodness jobs that are helping our people, and maybe that is something that Rep. Ramras cannot understand," Angasan said.

"Ramras is pimping for the rich and powerful who want to use our lands for summer playgrounds and leave our people with no economy," said Raymond Apokedak, president of Levelock Natives

Lisa Reimers of Iliamna Development Corp. also denied the allegations of bribery. "We have not taken a position in support of the project - we have taken a position in support of due process," she said. "Any funds that have been provided to Iliamna Natives Ltd. and Iliamna Development Corp. by Northern Dynasty were as a result of work performed by our corporations and individuals who have a documented track record with respect to work on this project."

"Not one of us has ever taken a bribe, and that is a huge difference between us and the Alaska Legislature," Angasan

The group said the comments were defamatory and they are exploring their legal options.

Ramras' motives in question

Ramras, who is on record opposing the Pebble project, warned a group of miners at a breakfast in mid-December of last year that Bob Gillam, owner of McKinley Capital and one of Pebble's staunchest adversaries, plans to bring a mining tax initiative before voters. Ramras urged the crowd to make peace with Gillam.

When asked, Ramras said, he thought that the miners did not take his warning seriously, and they were underestimating their adversary.

Later that month Ramras invited Gillam to a holiday celebration in Fairbanks. At the event, Gillam presented a \$10,000 check to Santa's Clearing House, and gave a matching donation to some local education programs, according to the Fairbanks Daily News-Miner.

Gillam also reportedly made a \$1,000 contribution to Ramras' election campaign as did McKinley Capital's general manager, Diane Wilke.

Also, members of anti-Pebble group, The Renewable Resource Coalition -Richard Jameson, Art Hackney, and Brian Kraft - each contributed \$100 to Ramras' campaign.

"We believe that Rep. Ramras should not be swayed by political contributions or personal relationships," Iliamna Development's Reimers said Sept. 20.

But Ramras maintains that his position on Pebble is not influenced by his friendship with Gillam.

APC files restraining order

On behalf of the Alaska Peninsula Corp., Anchorage attorney Sam Fortier filed a lawsuit and sought a restraining

Pacific Rim Geological Consulting, Inc.

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see RAMRAS page 7



University of Alaska Southeast Chancellor John Pugh, left, and Department of Labor Commissioner Clark "Click" Bishop joined a ribbon-cutting ceremony at the Mining and Petroleum Training Service Mine Training Center, located in the UAS Technical Education Center.

Mining training center opens in Southeast

Combined effort prepares miners to meet demand for skilled workers as industry projects multiply; Kensington nears startup

By SHANE LASLEY
Mining News

he University of Alaska Mining and Petroleum Training Services is launching a new program at the University of Alaska Southeast this fall aimed at training a new generation of miners.

The MAPTS Training Center is a direct result of growing demand for trained mining personnel in Southeast.

A ribbon-cutting ceremony was held on Aug. 28 and classes are scheduled to begin Oct. 15.

The center is offering a five-week, entry-level mine training course. Three courses formerly taught separately will be combined in the course. They are: Entry Level Mine Labor Training, Mining Safety and Health Administration, and Entry Level Underground Miner.

"This (program) is the first of its kind in Alaska, combining three different programs into one," said Mary Rodman-Lopez, community development specialist with the Alaska Department of Labor and Workforce Development.

Working together to train locals

But the MAPTS training center actually evolved from earlier efforts.

The Labor Department, local Native corporations, University of Alaska and Coeur Alaska Inc., owner of the Kensington gold mine project, started working together in the spring of 2005 to bring a training program to UAS and by September of that year, the first classes were under way.

"It was incredible," said Marquam George, a UAS assistant professor who had been discussing a mine training program with Coeur. "All the players came together. It was a great meeting of needs."

Coeur dedicated to local hire

In a recent interview with Mining News, Meg Day, human resources manager at Coeur Alaska, said hiring locals from training programs has already proven to be successful for the company during the past 2 years.

"Coeur Alaska is committed to hiring a local work force. This type of training allows locals the opportunity to learn a new type of trade not available before," she said.

Coeur Alaska signed an agreement in 1996 with three area Native corporations, Goldbelt Inc., Kake Tribal Corp., and Klukwan Inc. in which the company committed to fill 13.5 percent of its construction jobs and 25 percent of is operations work force with Natives. The agreement gives preference in hiring to shareholders from the three Native corporations."

Day said the agreement also extends to shareholders of other Southeast Alaska Native corporations and Southeast Alaska Natives, as well as their spouses and dependents.

High wages spark interest in mining careers

"There has been quite a bit of interest for jobs in the mining industry because of the high pay," Rodman-Lopez said.

According to state Labor officials, the average annual wage for workers in the mining industry increased by 26 percent in 2006, with yearly average earnings climbing to nearly \$80,000. This is due primarily to increased demand for skilled workers resulting from more mining and exploration activity spurred by higher ore prices.

Current employment figures for Alaska's mining industry are not available, but when asked, Labor representatives said as long as mineral prices are up, Alaska can expect to see a growing number of mining jobs throughout the state.

ALASKA

Seawall fails, but Kivalina battles back

Kivalina residents chased away by flood warnings began trickling back home early Sept. 14 after the season's first storm died down, ending its assault on a frail seawall guarding the northwest coastal village.

Wave action from the storm began eroding the shoreline, threatening to wash away parts of the village, which is located about 80 miles north of Kotzebue near the Red Dog Mine and creating the potential for an oil spill from the Alaska Village Electrical Cooperative fuel tank farm.

About 85 percent of Kivalina's 330 residents fled the village late Sept. 12 and early Sept. 13 as high winds whipped the Chukchi Sea and sent waves crashing onto the narrow barrier reef island where Kivalina is located. They sought refuge at Red Dog or in Kotzebue. Only 46 people remained in town late Sept. 13.

The seawall was breached that evening, according to Kivalina officials, and the storm ate about 10 feet of beach in a place that's been hit hard by erosion in recent years. About 100-110 feet of the town's 600-foot beachfront have disappeared into the ocean in the past four or five years, making Kivalina one of coastal Alaska's most imperiled villages due to erosion.

The U.S. Coast Guard monitored the fuel facilities in the village, while the U.S. Army Corps of Engineers stepped up its ongoing assistance to the village, which is working to maintain a seawall along the shore.

The Corps had 600 super sacks either already in Kotzebue or on the way to Kivalina when the storm hit, Corps spokeswoman Patricia L. Richardson said Sept. 19. The Corps also ordered another 400 super sacks from Alaska Interstate Construction to help Kivalina in restoring the seawall. Each sack holds about 3,200 pounds of sand or gravel.

-MINING NEWS

The Anchorage Daily News contributed to this report



Waves batter the seawall protecting the Northwest Alaska village of Kivalina from the ravaging waves of the Chukchi Sea during a series of storms in mid-September.



An aerial view of the Northwest Alaska village of Kivalina three days after the first of a series of fall storms passed over the area.

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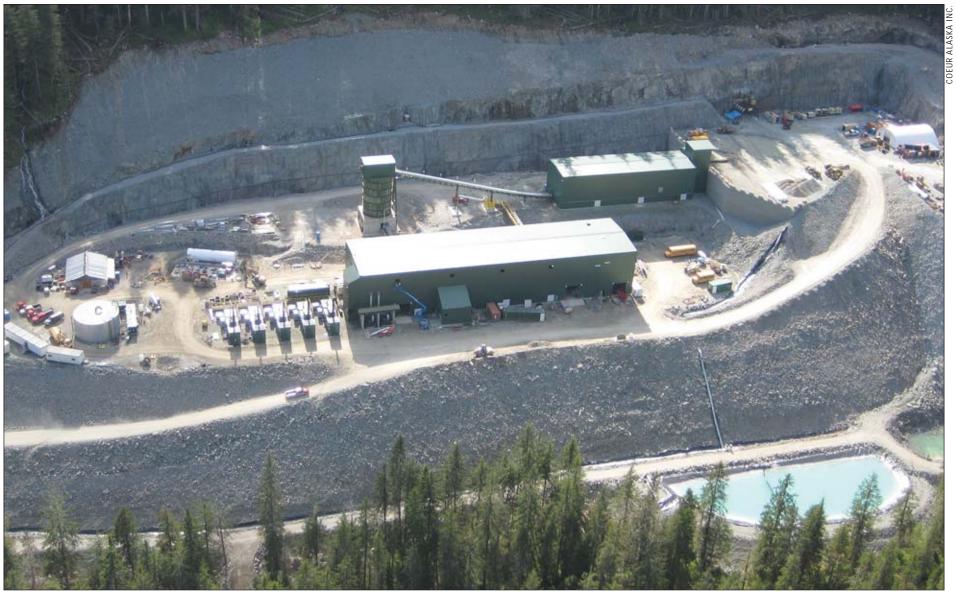
RAMRAS

order Sept. 24 against Ramras, Alaska Attorney General Talis J. Colberg and the Alaska Department of Public Safety. A Dillingham Superior Court judge denied the restraining order later the same day.

If there needed to be an investigation into the bribery allegations, Fortier argued that it should not coincide with public hearings to be held in the Bristol Bay on HB 134 because it would intimidate area residents and inhibit them from speaking out against the legislation.

An affidavit by Angasan was included in the order filed by Fortier. "Ramras' demand to investigate our thoughts and concerns is chilling the ability of our people to speak at the hearings," Angasan wrote.

Judge Fred Torrisi ruled that the restraining order was too broad, and no one's free speech rights had yet been violated. The lawsuit still stands.



An aerial photo of the newly completed mill site at the Kensington Gold Mine shows generator-sets, mill and crusher buildings as well as the Jualin portal.

Coeur, environmentalists pledge cooperation

Developer to work with opponents on dry tailings design for Kensington; completes access tunnel, mill and processing facility

By ROSE RAGSDALE
Mining News

oeur D'Alene Mines Corp., owner and operator of the Kensington Gold Project near Juneau, has agreed to work with Southeast Alaska environmental groups on a new plan to dispose of the proposed mine's tailings. Coeur D'Alene CEO Dennis Wheeler told the Juneau Chamber of Commerce Aug. 30 that the company will accept an invitation from the Southeast Alaska Conservation Council, Sierra Club Alaska Chapter, and Lynn Canal Conservation to work together to allow Kensington to begin production by developing temporary and permanent "treated" tailings storage fro the project.

SEACC offered earlier in August to work with Coeur toward a mutually acceptable dry stack tailings plan if the company agreed to forego its plan to dispose of tailings in Lower Slate Lake. The 23-acre lake is located in the Tongass National Forest and drains into Berners Bay.

Buck Lindekugel, conservation director of SEACC, told the Juneau City Assembly Aug. 20 that the organization was willing to work with Coeur and permitting agencies on a location and design for a mutually acceptable dry stack tailings facility and on the development of temporary storage options for the tailings until the permanent facility is permitted. The temporary storage options would allow the mine to begin production while the details of the permanent facility are being worked out.

"Working with SEACC and the other plaintiffs on this approach is the best way to move the project forward without needless delay," SEACC and the Sierra Club said in a joint statement Aug. 30.

Coeur to proceed with caution

Wheeler said Coeur plans to proceed with caution because SEACC, the Sierra Club and Lynn Canal Conservation have not demonstrated that they will act in good faith in resolving the dispute. He said the environmentalists have opposed a dry stack tailings plan in the past and have recently made very inaccurate statements in the media.

Among key facts about the Kensington project:

It was fully permitted by June 2005, with more than 50 permits issued to operating subsidiary Coeur Alaska Inc. by the U.S. Forest Service, Army Corps of Engineers, Environmental Protection Agency, National Marine



Coeur Alaska employees celebrate the tunnel breakthrough connecting the Kensington Gold Mine Project and the Jualin property July 9.

Fisheries, Alaska departments of Environmental Conservation and Natural Resources as well as the City and Borough of Juneau.

It took six years to obtain permits for the Lower Slate Lake tailings disposal option with the help of highly qualified engineers, biologists and water quality specialists.

The project was 50 percent constructed when the environmental groups filed their legal challenge, which was subsequently thrown out by the Alaska District Court. Coeur continued to build and when the project was 80 percent complete, the 9th Circuit Appeals Court made its adverse ruling.

SEACC, Sierra Club and Lynn Canal Conservation have said no mine has been granted approval to place tailings in waters of the United States since the passage of Clean Water Act. In fact, Greens Creek, Pogo and Fort Knox, only to mention a few, have been approved by the Corps of Engineers, EPA and Alaska Dept. of Environmental Conservation to place treated tailings into U.S. waters., after exhaustive studies and a permitting process not unlike the

one Kensington underwent.

"It is almost inconceivable that anything material can wrong with this mine because of the world-class experts that have been found to look at every aspect of this project," Wheeler said.

Development progresses at Kensington project

So far, Coeur Alaska has completed surface facilities at Kensington, spending nearly \$250 million to reach this point. The mine is expected to produce 150,000 ounces of gold per year initially at a cash cost of \$310 per ounce and have a 10-15 year mine life on current mineral inventory. Kensington has 1.35 million ounces of proven and probable gold mineral reserves.

On July 9, construction workers finished a 14,500-foot horizontal tunnel that now allows for clear access between the Kensington Mine and the Jualin property, where a mill

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ALASKA

Operator seeks to expand Red Dog mine

EPA kicks off regulatory process aimed at reviewing plans to extend zinc-lead mine's life with ore from nearby Aqqaluk deposit

By ROSE RAGSDALE
Mining News

quest by Teck Cominco Alaska Inc. to expand operations at the Red Dog Mine in northwestern Alaska is moving forward as regulators prepare to conduct a series of public scoping meetings Oct. 2-5 in affected communities.

Red Dog, the world's largest producer of zinc concentrate, began production in 1989. It is located 82 miles north of Kotzebue on land owned by NANA Regional Corp., the Alaska Native regional corporation for northwest Alaska.

Current mining of Red Dog's main deposit is scheduled to wind down between 2010 and 2012. But Teck Cominco has proposed extending the mine's life by extracting concentrates from nearby deposits, notably the Aqqaluk deposit, which the Canadian major estimates could extend mining operations at Red Dog until after 2030.

In May, Teck Cominco asked the U.S. Environmental Protection Agency to modify its water discharge permit issued under the National Pollutant Discharge Elimination System to include development of the Aqqaluk Project.

Modifying the NPDES permit to include development of the Aqqaluk deposit triggered a National Environmental Policy Act review, with EPA as the lead regulatory agency.

The U.S. Army Corp of Engineers, State of Alaska, National Park Service, and nine tribal governments represented by the Maniilaq Association (the Native Village of Buckland, the Native Village of Kiana, the Native Village of Kivalina, the Native Village of Kotzebue, the Native Village of Noatak, the Noorvik Native Community, the Native Village of Selawik, and the Native Village of Shungnak) will participate closely in the review as cooperating agencies.

A Supplemental Environmental Impact Statement (SEIS) must be completed to update the environmental impact statement developed in 1984 when regulators issued the first NPDES permit for Red Dog's discharges.

EPA selected Tetra Tech Inc. to be the third-party contractor to work with the lead agency and cooperating agencies to write the SEIS.

First public meetings scheduled

Scoping is the first step in the NEPA public process. It began when EPA published in the Federal Register a notice of intent to prepare the SEIS Aug. 31.

EPA plans to host Aqqaluk project scoping open houses/public meetings in Anchorage Oct. 2; Kotzebue Oct. 3; Noatak Oct. 4; and Kivalina, Oct. 5. Informal open houses are scheduled for 3:30-5:30 p.m. at each location, to be followed by public meetings from 6:30-9 p.m.

At the public meetings, EPA and the cooperating agencies will make presentations on the project and hear formal public testimony.

The scoping comment period ends Oct. 15. EPA will review all comments, identify the issues, and distribute a final scoping document along with a scoping responsiveness summary to the public and to state and federal agencies and tribal governments by the end of November. The scoping responsiveness summary will include comments received during the scoping period and

Current mining of Red Dog's main deposit is scheduled to wind down between 2010 and 2012. But Teck Cominco has proposed extending the mine's life by extracting concentrates from nearby deposits, notably the Aqqaluk deposit, which the Canadian major estimates could extend mining operations at Red Dog until after 2030.

describe how EPA intends to respond to them during the SEIS process.

Comments may be submitted at the open houses (in writing or recorded verbally), or they may be submitted to EPA in writing, by e-mail, or by fax, until the comment period deadline at the close of business Oct. 15. Comments should be sent to: Patty McGrath, Email: mcgrath.patricia@epa.gov, US EPA Region 10, Fax: (206) 553-0165, 1200 Sixth Avenue, OWW-135, Seattle, WA 98101.

Following the scoping process and identification of issues, Tetra Tech will prepare the SEIS under EPA's direction.

Public input is welcome, and there are specific points at which it is specifically sought. Here's a look at the tentative schedule for the public participation process:

- Distribution of draft SEIS for public/agency review, summer 2008;
- Draft SEIS open houses and public hearings, summer 2008;
 Close of public/agency Draft SEIS
- review period, late summer 2008
 Distribution of Final SEIS, December
- EPA record of decision and NPDES permit, open.

Aqqaluk promises 18-plus years of production

The Aqqaluk deposit is immediately to the northeast of Red Dog's main deposit on the north side of Red Dog Creek. It has probable reserves and indicated resources totaling 55.7 million metric tons, grading 16.4 percent zinc, 4.3 percent lead and 79 g/t silver. By comparison, the main Red Dog deposit had proven reserves of 19.7 million metric tons, grading 20.5 percent zinc, 5.7 percent lead and 109 g/t silver.

Teck Cominco proposes to begin developing the Aqqaluk Pit in 2010. Another deposit, Qanaiyaq, is located south of the main deposit. It would be developed at a later date.

Mining the Aqqaluk deposit would occur in four phases, according to Teck Cominco. The first, starting in about 2010, would be a low strip-ratio/high zinc grade starter pit. Stripping of the second phase would start in about 2011, while mining of a third phase would start in 2013. The fourth phase would begin in about 2015. The latter two phases would target lower grade reserves with elevated iron levels.

The ultimate Aqqaluk pit would cover about 135 acres. Another 110 acres of disturbance also may occur within the area as a "disturbance buffer" around the pit rim to provide access, room for constructing freshwater diversions, and for access to exploration targets, the company said. Haul trucks would cross Red Dog Creek over a culvert crossing on route to the mill and waste stockpiles.

Ore from the Aqqaluk deposit would initially be blended with ore from the main deposit, at a combined production rate of about 3.3 million metric tons per year, which is the same as current and planned production rates from the current main pit operations. In 2012, when ore from the main deposit has been depleted, to 2015, all of the production would be from the Aqqaluk deposit. From 2016 to 2025, mill feed would be blended with ore from the Qanaiyaq deposit, and then from 2026 to

the end of mining in 2031, production would be entirely from the Aqqaluk deposit, Teck Cominco said.

The ore production rate would remain relatively constant at 3.3 million metric tons per year until 2021, when it would drop to about 3 million metric tons annually. About 56 million metric tons of ore would be mined from the Aqqaluk deposit over the life of the project. Some 86 million metric tons of waste rock and 7.1 million metric tons of low grade ore also would be produced from Aqqaluk.

State review for solid waste permit, reclamation update

In addition to the NEPA SEIS process, the state's large mine project team is currently working with Teck Cominco Alaska, NANA, local governments and the indigenous people of the region to update Red Dog's reclamation plan and review an application for a solid waste permit for the mine expansion, according to state officials.

Red Dog is an important component of the economy of Northwest Alaska, employing some 450 people directly and creating an additional 150 jobs indirectly. A majority of the mine's employees are NANA shareholders.

One of the important issues to be addressed in the state's permitting efforts will be ensuring that necessary steps are taken to minimize, monitor and control acid rock drainage during and after mine life, state officials said.

The solid waste permit is expected to be issued in 2008 and cover the period from 2008 to 2013, with a renewal review every five years.





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An recent aerial photo of the Wolverine zinc-lead-copper-silver-gold project in southeastern Yukon Territory.

Production decision on tap at Wolverine

Yukon Zinc chases early 2009 startup target with numerous development activities; works to complete project financing by October

By ROSE RAGSDALE

Mining News

ith project financing under way and initial construction of a 15-mile access road completed, Yukon Zinc Corp. is loping toward a production decision in October that could see the silver-rich Wolverine project in southeastern Yukon Territory become the region's next significant zinc-silver mine.

Since outlining its development plans in a feasibility study in January, the Vancouver, B.C.—based junior has made dramatic progress toward constructing a 1,400-tonne-per-day underground mine and mill plant to develop the zinc-lead-copper-silver-gold deposit.

Two years ago, publicly held Yukon Zinc completed a \$19 million test mining and definition drilling program at Wolverine that showed the project had considerable potential.

Located in the Finlayson Mining District about 121 miles northwest of Watson Lake, Wolverine has proven and probable mining reserves based on measured and indicated resources totaling 5.15 million metric tons, grading 9.66 percent zinc, 0.91 percent copper, 1.26 percent lead, 281.8 g/t silver and 1.36 g/t gold.

Yukon Zinc estimates an 8-year mine life based on current resources. Average annual metal production in the first 3 years of full production is forecast to total about 53,400 metric tons of zinc, 4,860 metric tons of copper, 6,010 metric tons of lead,

4,933,200 ounces of silver and 20,200 ounces of gold contained in the zinc, copper and lead concentrates. (Not all of the metals in concentrate are payable).

Additional exploration envisioned for Wolverine likely will yield more reserves, which would extend the mine's life, according to Yukon Zinc officials.

Access road nearly complete

Yukon Zinc said Sept. 18 that initial construction of an all-weather gravel access road from the Robert Campbell Highway to the project site was nearly complete and upgrading of culverts and other parts of the road would continue during the coming months. Large trucks, meanwhile, are now able to transport equipment and supplies to the project site.

"The ability to mobilize equipment and supplies to the site by truck transport is key to keeping to our time-



Large trucks are now able to transport equipment and supplies to the remote Wolverine project thanks to this gravel access road. Workers nearly finished the artery this season. The project is poised for a production decision in October, once financing is completed. Startup is envisioned for early 2009.

line for mine development," said Raymond Mah, Yukon Zinc's chief operating officer.

Previously, the project area was only accessible by an 800-meter gravel airstrip and an ice road in winter.

Yukon Zinc also aims to lengthen the airstrip to 1,200 meters and upgrade its surface to accommodate larger aircraft needed to transport construction and mine personnel.

Buyers chosen for concentrates

Zinc, copper and lead concentrates are to be trucked about 533 miles to concentrate-loading facilities in the port of Stewart, B.C. for trans-shipment to smelters in Asia. The high content of silver and gold in the copper and lead concentrates increases their unit value and reduces the impact of high transportation costs, according to Yukon Zinc.

On Sept. 4, the company announced the selection of

Glencore and MRI Trading AG as buyers for all of the initial projected Wolverine concentrates production for five years, ending Dec. 31, 2013.

PETROLEUM NEWS • WEEK OF SEPTEMBER 30, 2007

The arrangement will provide a secure market for Wolverine concentrates and assist the company in completing project financing, Robert McKnight P.Eng., Yukon Zinc's vice president of corporate development.

Project sensitive to operating costs

Meanwhile, construction activities under way or nearly complete at the project site include erection of a water treatment facility cover and site preparation for a new 200-worker construction camp. With completion of these earthworks activities, Yukon Zinc said it will be ready for the next phase of construction activities, which includes resumption of underground development and preparation of mill site foundations.

see WOLVERINE page 12

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NORTH OF 60 MINING



A look inside the new mill building at the Kensington Gold Mine. The primary and secondary ball mills are in the foreground.

continued from page 8

KENSINGTON

and processing facility were completed in August. Contractors from the Redpath/Kake Native corporation joint venture, along with Coeur Alaska, completed the final 4,800 feet of tunneling during the past year.

"Our Comet Beach water treatment plant is state of the art and fully operational and the camp facilities are completed," Wheeler said. "We remain poised to commission the power facilities and begin production once the tailings plan is finalized."

Wheeler also outlined more than 20 years of development efforts by Coeur Alaska at Kensington, saying the road to production has resulted in more than 900 environmental studies costing in excess of \$30 million in order to clearly demonstrate the company's commitment to clean water and environmental excellence.

He said the company also has worked hard to involve the local community and hire both Alaska Natives and other Alaska residents for jobs on the mine project. A recent survey showed some 76 percent of Juneau-area residents favor the mine's development, he observed.

Coeur: SEACC, others appear disingenuous

Though SEACC said it supported Coeur Alaska's previous dry tailings facility option, or DTF, in 1998, that is simply not true, Wheeler said.

In comments to regulators in 1997, SEACC's consultant David Chambers specifically criticized the dry tailings facility proposal, he said.

SEACC said more water treatment should be required; questioned the ability to keep tailings dry in such a high precipitation region; and raised issues with visual impacts and the feasibility of paste backfill, among other negative comments, Wheeler said.

"Most importantly, after two years of discussions, SEACC did not sign the 'litigation avoidance agreement' involving nine environmental organizations, he said. "Despite what the plaintiffs have told you, they did not support Kensington even with a Dry Stack option."

Moreover, permits for the earlier dry tailings plan are not available to Coeur Alaska today because the project at that time was for a much larger 4,000-tons-per day mine design. Since then, the design has been optimized to have a 2000-tons-per-day mine with a smaller environmental footprint, dramatically less fuel consumption and storage needs, and overall lower impacts, Wheeler said.

"The previously approved dry tailings plan which SEACC claims to have supported would result in a net loss of over 160 acres. In contrast the new Lower Slate Lake option would eliminate only 3.4 acres of wetlands," he said.

Groups focus on dry tailings option

SEACC and the Sierra Club said their cooperation with Coeur Alaska on a dry stack tailings plan is contingent on moving away from the Lower Slate Lake. During the Aug.20 presentation, Mark Rorick of the Sierra Club said he thinks the mine is going to move forward and eventually begin production, but he said it must do so in a legal and environmentally sound way.

"The Sierra Club will oppose any attempt to use Lower Slate Lake as a tailings disposal site," Rorick said.

SEACC's Lindekugel said the group appreciated Wheeler's commitment to work together on a mutually acceptable dry stack tailings plan.

"We remain hopeful that we can reach such an agreement. It is important to remember that the lawsuit is done. The court ruled Coeur's tailings facility at Lower Slate Lake is illegal. It's time to move forward on a dry stack tailings plan," he added. ●

Appeals court seeks response from environmentalists on Kensington appeal

The 9th U.S. Circuit Court of Appeals indicated in late August that it may be willing to resurrect the waste disposal plan for the Kensington Gold Mine Project that a three-judge panel rejected in May.

The appeals court asked SEACC, Sierra Club and Lynn Canal Conservation, who are plaintiffs in the case, to respond by October to an appeal of the earlier ruling against mine developer Coeur D'Alene Mines Corp., which had proposed a plan for disposing of treated tailings plan that involved Lower Slate Lake.

The request seemed to indicate that the full appeals court is at least considering hearing the appeal, according to Coeur officials.

They said the court does not always want to hear responses to appeals for full hearings and often rejects such requests without asking for responses from plaintiffs.

SEACC officials, however, said the court's request should be construed as nothing more than an effort to get additional information.

—ROSE RAGSDALE

ALASKA



A worker prepares a cliff face for the start of portal construction and tunneling this summer at the copper-zinc-gold-silver Niblack Project being advanced by Niblack Mining Corp. on southeastern Prince of Wales Island.

Niblack breaks ground on Southeast Alaska underground program

Niblack Mining Corp. Sept. 20 announced the start of portal construction and tunneling at its copper-zinc-gold-silver Niblack Project in southeast Alaska.

Niblack Mining, a Vancouver, B.C.-based junior exploration company, is pursuing an advanced underground exploration project at Niblack, which is located off Moira Sound on southeastern Prince of Wales Island about 30 miles southwest of Ketchikan

The underground program, which will cover 6,000 feet of tunnel development, is designed to provide drill access to areas beneath gold-rich base metal mineralization in the project's Lookout Zone. The underground work also will provide a platform to explore the Mammoth Zone, and new zones of massive sulphide mineralization covering more than a mile of prospects. Drilling at the Mammoth Zone, located near the portal entrance, is scheduled to begin before year's end, and will be followed by drilling at the Lookout Zone in the spring.

"The commencement of the underground (construction) program is a key part of our short-term strategy for the expansion of the Lookout Zone," said Niblack President Paddy Nicol. "Over the next 18 to 24 months, it is our objective to define a mineable ore deposit at Niblack."

The project is expected to require two years of development work, including a marine access and camp barge facility on adjacent state-owned tide and submerged lands. An access road, portal, and waste rock storage and disposal areas are also envisioned for the project, but will be confined to private property, according to the Alaska Department of Natural Resources, Division of Land, Mining & Water.

—MINING NEWS

YUKON TERRITORY

Minto copper-gold mine to open near budget, ahead of schedule

Sherwood Copper Corp. has completed phase 1 construction of the Minto copper-gold mine ahead of schedule and essentially on budget, while production continues to ramp up at the central Yukon Territory mine.

Sherwood, a Vancouver, British Columbia-based junior mining company, expects to recover 300 million pounds of copper, 122,000 ounces of gold and 1.8 million ounces of silver from Minto over the life of the original mine plan.

The operation's mill is currently undergoing commissioning and is expected to ramp up to full production by October. Sherwood plans to officially open the mine with a ceremony Oct. 11.

Capital costs projected for phase 1 construction at Minto was C\$98.1 million, and actual costs totaled C\$100.2 million, about 2 percent above budget. Sherwood also anticipated a July 1 mill start-up, but the mine actually produced its first concentrates May 28, and achieved continuous operations in early June.

Sherwood President & CEO Stephen P. Quin called the performance is a remarkable, considering current heated competition for people, equipment and supplies in the industry.

"Considerable credit for this outstanding result belongs to JDS Energy & Mining, the construction managers for the Minto Mine, as well as to project engineers, Hatch Ltd., general contractors, Clark Builders, mining contractors, Pelly Construction, and their numerous other subcontractors, trades and suppliers," he said.

Meanwhile, ramp up of production continues at the mine. During August, the mill reached peak throughput of more than 1,750 metric tons per day relative to Phase 1 design capacity of 1,563-metric t/d. It averaged 1,363 metric t/d, or 87 percent of design capacity, for the entire month. Mill availability averaged 89 percent for the month. Copper recoveries averaged about 80 percent and concentrate grades 35 percent copper, which is in line with or better than expectations at this stage of the rampup to full production, the company said.

Sherwood also began trucking ore concentrates some 250 highway miles to the Skagway Ore Terminal this summer. The ore is then loaded onto oceangoing carriers for transport to smelters in Asia.

—MINING NEWS

BRITISH COLUMBIA

Joint government panel rules against **Kemess North mine expansion**

A joint panel created by the governments of British Columbia and Canada has ruled against the Kemess North copper-gold mine project as currently proposed by Northgate Minerals Corp., saying the project would not be in the public's interest, B.C. officials announced Sept. 17.

"In the panel's view, the economic and social benefits provided by the project, on balance, are outweighed by the risks of significant adverse environmental, social and cultural effects, some of which may not emerge until many years after mining operations cease," said the panel in a 299-page

The panel also provided 32 recommendations to "manage and minimize" adverse effects of the proposed project, if Canadian ministers decide to

approve the project despite its warning. The Kemess North copper and gold deposit is about 155 miles northeast of Smithers, B.C., and 279 miles northwest of Prince George, B.C.

Regulatory review of the project has experienced a string of delays since last year to allow for additional public hearings and participation from local First Nations organizations.

Northgate is a gold and copper mining company, and its principal asset is the Kemess South mine, the second-largest metal mine in British Columbia with annual production of 16.4 million tonnes of gold and copper concentrate. It is adjacent to the Kemess North deposit and the Young-Davidson property in northern Ontario.

Northgate proposed to extend the life of the Kemess mining operation by developing the lower grade, higher sulfide copper-gold deposit about 3 miles to the north. The venture could deliver another 14 years of mine life. Northgate would produce 85,000 to 100,000 metric tons per day of copper-gold concentrate from estimated ore reserves in the Kemess North deposit, the company said.

But the proposal hinges on Northgate's plan to dispose of waste rock in nearby Duncan Lake and Attacelley Creek. Unlike Kemess South, the Kemess North deposit is in mountainous terrain, which makes construction of a separate tailings disposal structure uneconomic, according to Northgate.

Duncan Lake (also known as Amazay Lake) is a deep, steep-sided, low-nutrient, headwater-lake with a drainage area of about 15 square miles and an overall surface area of 88,440 acres. The lake supports rainbow trout, Dolly Varden char and mountain whitefish.

Four First Nations, the Gitxsan House of Nii Kyap, Kwadacha First Nation, Takla Lake First Nation and Tsay Keh Dene First Nation that traditionally use the area around Duncan Lake and Attacelley Creek as well as others have expressed concern about Northgate's plan.

-MINING NEWS





The panel also provided

32 recommendations to

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An aerial view taken July 30 of the 15-mile access road under construction this summer, linking Yukon Zinc Corp.'s Wolverine project with the Robert Campbell Highway in Yukon Territory.

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WOLVERINE

Additional construction activities will await completion of financing of the remaining \$110 million of project equity required to complete cash requirements for the project. This equity together with the \$140 million in senior debt financing from Barclays Capital, announced Aug. 27, will complete the project's financing and allow a full production decision to be made, Mah said.

Yukon Zinc has estimated capital costs for the Wolverine project, excluding working capital, at C\$175.6 million, before contingency costs of C\$24.3 million and C\$7.6M in owner's costs. Sustaining capital is estimated at \$26.5 million for the eight-year operating mine

Operating costs per metric ton mined was estimated at C\$95.58; resulting in life-of-mine cash cost of zinc of about 26 cents per pound, after deducting by-product revenue on the basis of average metal prices over the preceding two years, the company said.

According to an independent consultant's analysis, the Wolverine project is more sensitive to operating costs than capital costs, and the order of its sensitivity to metal prices in descending order is zinc, silver, copper, gold and lead.

Other projects on backburner for now

Yukon Zinc was created in December 2004 along with sister company Pacifica Resources out of Expatriate Resources. Earlier this year, Pacifica was split into two companies, Savant Exploration and Selwyn Resources. (See Feb. 25 article in Mining News.)

Yukon Zinc has several other exploration projects in the Yukon, including the Logan zinc-silver deposit about 67 miles west of Watson Lake in south-central Yukon. With a 60 percent joint venture interest acquired in Logan in May 2003, Yukon Zinc is eyeing its potential for development in conjunction with the nearby Swift property.

The company acquired a 100 percent interest in the Swift property in November 2004. It is located 34 miles southwest of Logan. A large property covering a 12 ?-mile-long belt of zinccopper-silver showings, Swift has the potential for higher grade ores that could be developed with the Logan deposit, the company said.

Last year, Yukon Zinc conducted airborne gravity surveys at both Logan and Swift, but since has placed exploration of the two properties on a backburner until the Wolverine project is brought into production, according to Yukon Zinc spokesman Shae Dalphond.



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NovaGold Resources Inc. 2300 – 200 Granville Street Vancouver, BC V6C 1S4 Contact person: Ariadna Peretz Phone: 1 (866) 669-6227 Fax: (604) 669-6272 E-mail: ariadna.peretz@novagold.net Other office: Alaska Gold Company P.O. Box 640 115 6th Avenue West Nome, AK 99762-0640 Website: www.novagold.net NovaGold Resources Inc. is a gold and copper company engaged in the exploration and development of mineral properties in Alaska and Western Canada.

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continued from page 2

FREEGOLD

months, before shutting down the plant for the winter.

"We will run the plant for as long as we can before we get frozen out," Manz said.

Following two veins at Rob

The Rob property, about 110 miles southeast of Fairbanks and 12 miles east of Teck Cominco/Sumitomo's Pogo gold mine, comprise 106 state mining claims totaling 4,240 acres.

Freegold acquired the property in 2002. Initial work at Rob included mapping, soil sampling and reconnaissance work, followed by additional surface sampling and top of bedrock auger drill sampling.

On Aug. 30, Freegold reported completion of an initial 17-hole (3,514 foot) drill program on the property. The company said it was following two vein systems. Eight of the holes were drilled on the Grey Lead vein system, and nine on the O'Reely vein system.

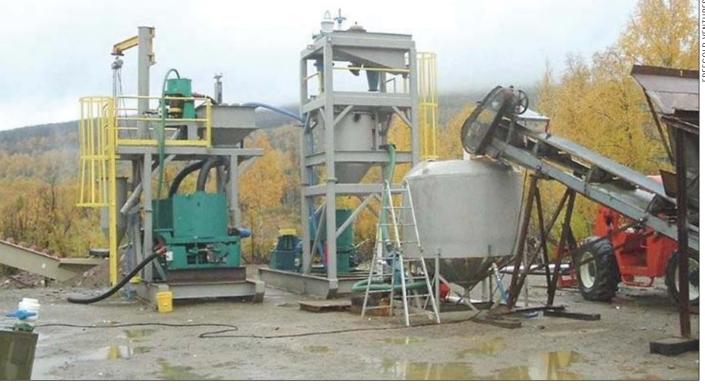
Freegold said it expects to receive assay results from these drill samples soon.

Follow-up work at Vinasale in 2008

Freegold's most recent exploration program in Alaska is under way at the Vinasale gold project, 16 miles south of McGrath. Vinasale sits on Doyon Ltd. land.

Freegold announced in March that the company had entered into a mining exploration agreement with the Fairbanks-based Alaska Native regional corporation that includes an option to lease.

Work at Vinasale began this past spring with the staking of 12,000 acres of state mining claims to the northeast, expanding the project acres to 140,000 acres from



Processing plant being used at Golden Summit for bulk sampling.

128,000. Drilling conducted in the early 1990s indicates that the gold mineralization may trend in that direction, Freegold said.

The 2007 exploration program is focused on evaluating the acreage surrounding the deposit. Reconnaissance has involved the completion of initial stream, soil and rock sampling, Freegold said in early September.

The company also commissioned a 1,788-line-kilometer high-resolution EM and magnetic aerial survey over the property in late September.

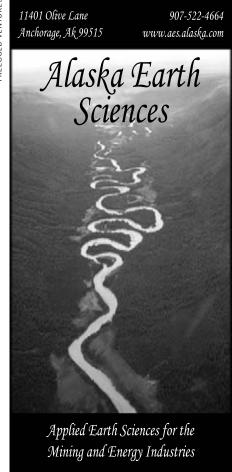
Freegold said it will follow up in 2008on targets found this year, as well as conduct new drilling aimed at confirming and expanding on gold mineralization around 36 holes previously drilled in the central zone of the deposit. •



Aerial photo of Golden Summit property.



Mike Gross, Vice President of Exploration for Freegold Ventures examining the O'Reely gold prospect, Rob project, Goodpaster District, Alaska.







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