

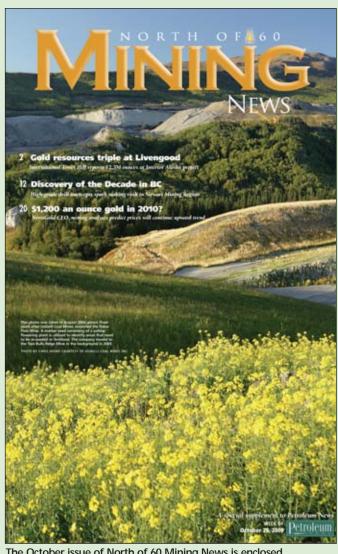
page F&W proposes 200,541-square miles **12** of critical habitat for polar bears

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October Mining News inside



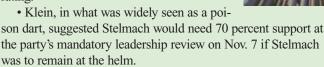
The October issue of North of 60 Mining News is enclosed

Alberta's leader in a deep hole

Alberta Premier Ed Stelmach is in a struggle for his political life.

Consider this:

- His Progressive Conservative party got relegated to third place in a recent election to fill a vacancy in the provincial legislature.
- Support for his governing party has tumbled to 30 percent from 54 percent three years ago, when he was chosen to succeed Ralph Klein, and his own performance as leader has close to a 60 percent disapproval



• Alberta's Auditor-General Fred Dunn warned the province could lose C\$100 million in royalties this year because it allowed oil sands giants Suncor Energy and Syncrude Canada

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OK for Shell plan

MMS approves Beaufort Sea 2010 drilling if permitting requirements met

By ALAN BAILEY Petroleum News

n Oct. 19 Shell passed another major milestone in its multivear quest to start exploration drilling on Alaska's Arctic outer continental shelf, when the U.S. Minerals Management Service approved the company's new Beaufort Sea exploration plan, a plan involving the drilling of two exploration wells during the 2010 open water season using a single drillship, the Frontier

"The Minerals Management Service is committed to developing offshore energy resources responsibly," said MMS Director Liz Birnbaum. "Now that we have approved Shell's plan and reached this important milestone, we will continue to work with Shell to ensure that all activities are

And time is of the essence for completion of the permitting for both the Beaufort and Chukchi Seas: The company has said that it needs it to be in a position to make

a go-or-no-go decision on the 2010 drilling at the start of that year, given the expense and effort involved in ramping up for any Arctic outer continental shelf drilling activity.

conducted in a safe and environmentally responsi-

Plan approval is subject to Shell obtaining all required permits and authorizations, including

see SHELL page 23

EXPLORATION & PRODUCTION

Cosmo back on track

Pioneer plans more appraisal work at offshore Cook Inlet prospect this year

By KAY CASHMAN

Petroleum News

ork on the Cosmopolitan oil prospect in Southcentral Alaska's Cook Inlet basin has ramped back up, operator Pioneer Natural Resources told Petroleum News Oct. 20.

In January, Pioneer put plans to drill an appraisal well on hold until 2010 because of low oil prices, although Tadd Owens said the company would continue to investigate the feasibility of commercial oil production from Cosmopolitan, which was discovered in 1967 by Pennzoil.

Owens, Pioneer's director of government and public affairs, also said Pioneer was "well positioned to ramp back up when prices recover."

"Pioneer will conduct additional appraisal work at Cosmopolitan during the fourth quarter of this year and first quarter of 2010. The company plans to work over and flow test the Hansen 1A L1 well originally drilled in 2007 — in order to gain additional reservoir information."

—Tadd Owens, Pioneer Natural Resources Alaska spokesman

In August, Pioneer said it would continue with just one drilling rig in Alaska in 2009 and 2010 at its offshore North Slope Oooguruk oil field —

see COSMO page 22

Massive OCS feedback

NOAA, Natives oppose much of 2010-15 leasing plan; drillers, lawmakers endorse

By WESLEY LOY

For Petroleum News

key scientific agency is advising the Obama administration against oil and gas leasing in large portions of the nation's Outer Continental Shelf.

The National Oceanic Atmospheric Administration recommends that Alaska's North Aleutian basin, which takes in rich Bristol Bay

commercial fishing and subsistence gathering grounds, be crossed off the government's proposed 2010-15 leasing schedule.

And NOAA also says no leasing should occur in Alaska's remote Chukchi Sea pending further



KEN SALAZAR

research into oil spill risk and Arctic cleanup capabilities.

NOAA's position was amid an extraordinary outpouring of public feedback the U.S. Minerals Management Service received by the Sept. 21 extended deadline to comment on the new offshore leasing plan, which would revise the current 2007-12 plan.

MMS, an Interior Department agency that regulates offshore oil and gas activity,

said it received more than 450,000 comments on the plan, which the Bush administration released in its final days in office.

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Mackenzie Gas Project mood on upswing on all sides

By GARY PARK

For Petroleum News

The key Canadian government and Imperial Oil leaders in the Mackenzie Gas Project are not even close to giving up on the scheme.

Environment Minister Jim Prentice said Oct. 14 the chances

of a natural gas pipeline from Canada's Arctic have "never been closer" to success — a view strongly endorsed the next day by Imperial Chief Executive Officer Bruce March.

Prentice told the Calgary Herald's editorial board he is counting on the regulatory groundwork for the MGP to wrap up next spring.

March shares that view, saying the process is closer than ever to completion, although there is much work still to be done.

Despite an uncertain outlook for gas "those are the risks that all the developers and producers in the energy business know how to manage much easier than the risks" of the Joint Review Panel and other regulatory aspects of the MGP, he said.

"When we get to the point it is in our hands we will be thrilled," he said.

Prentice said he is confident the JRP, which is examining the socioeconomic and environmental aspects of the pipeline, will

deliver its final report close to the December target date.

Assuming that happens, the National Energy Board should hear its final arguments in April, allowing the regulators to deliver their conclusions and recommendations to the federal cabinet.

Several years late

"As you know, (the JRP is) several years late," Prentice conceded. "But my understanding is that they should be able to get this done by the end of December.

"It's easy to be dismissive, but the truth is this has been a lot of work for many years and we've never been closer (in 40 years) to having the regulatory and environmental part finished."

Meanwhile, Imperial and its co-venturers (Shell Canada, ConocoPhillips Canada, ExxonMobil Canada and the Aboriginal Pipeline Group) have been working on a fiscal framework with the Canadian government.

Prentice said those talks are upbeat, despite the slump in gas prices.

"I get the sense the proponents continue to be committed to the project," he said.

Inuvik Mayor Derek Lindsay told the Calgary Herald that he was living in Inuvik when the first serious attempt to develop Arctic gas fell through in 1977.

"I don't want to see that happen again," he said. "It crippled this town for 10 years."

If and when a pipeline gets a green light, there will be more activity in Inuvik and in the Beaufort Sea. ●



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• SAFETY & ENVIRONMENT

Uncertainty over Copenhagen talks

Prentice suggests financial crisis trumping environmental concerns; Obama administration looking at bilateral pacts with India, China a to break developed-developing country deadlock

By GARY PARK

For Petroleum News

opes for a global climate-change agreement are wilting in the buildup to December's United Nations-sponsored talks in Copenhagen, with the Canadian government suggesting that the financial crisis is trumping environmental concerns.

Environment Minister Jim Prentice said Oct. 14 he is far from sure an agreement will be reached in Denmark, not least because of the differences emerging between the United States and the European Union.

The Obama administration is also turn-

ing its energies to alternative bilateral pacts with India and China, with the intention of breathing fresh life into the deadlock between developing and economically advanced countries.

In a candid assessment, Prentice said "increasingly people are being realistic" about the chances for a full and complete agreement.

"There's probably too much work to be done in that time that is left," he said.

Prentice said it is likely that Copenhagen will achieve nothing more than "some agreed principles."

Whatever happens on the global stage, Prentice said Canada intends to roll out its own plans for reducing greenhouse gas emissions by 20 percent from 2006 levels by 2020.

If that happens, each Canadian province will have to carry its share of the load, which could involve more ambitious federal targets than Alberta is currently willing to introduce on its own, he suggested.

But Prentice said the road to Copenhagen has encountered the compelling argument that reducing poverty is a greater priority for less-wealthy countries than reducing GHGs.

Some expect greater certainty

Despite Prentice's less than optimistic forecast for Copenhagen, there are petroleum industry leaders who expect greater certainty on issues such as cap-and-trade systems and carbon capture and storage.

Peter Voser, the chief executive officer of Royal Dutch Shell, told a Calgary conference that society "needs real progress on climate policy frameworks that put a price on emissions and promote CCS and other clean energy technologies."

A spokesman for Environment Canada said the Canadian government remains committed to tabling a "full suite of specific policies (prior to the Denmark summit) covering all major sources of Canadian greenhouse gas emissions."

He conceded that federal plan will involve major revisions to the Canadian strategy released 18 months ago to cut GHGs by 20 percent by 2020 and 60 percent by 2050.

"The economic downturn and the renewed engagement by the new U.S. administration has required that we fine tune our approach to tackling climate change," he said.

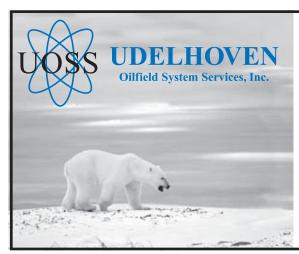
The spokesman said there has been progress in talks between U.S. and Canadian officials seeking to harmonize climate

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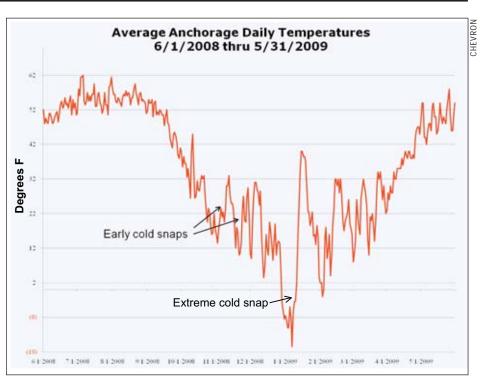
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A graph of daily temperatures in Anchorage between June 2008 and May 2009 demonstrates the extreme fluctuations in temperature that typify a Southcentral Alaska winter. In this particular winter two cold snaps in October and November followed by an extreme cold spell in January nearly brought the Cook Inlet natural gas delivery system to its knees, especially when coupled with two gas compressor failures.

NATURAL GAS

Are Cook Inlet gas supplies in crisis?

As winter approaches, Chevron manager presents facts, figures about natural gas supply and demand in Southcentral Alaska

By ALAN BAILEY
Petroleum News

atural gas has flowed out of the Cook Inlet basin with apparent ease for around 40 years, in some ways the life blood of Southcentral Alaska, firing heater furnaces, fueling power stations and supporting significant industrial activity. But does recent talk about gas shortages in the basin signal the beginning of the end for Cook Inlet gas? Or is the region merely transitioning through a period when gas supplies come more into balance with demand, following years of excess gas resources?

At the Oct. 15 meeting of the Alaska Geological Society, Steve Wright, Chevron's Alaska development manager, presented his perspectives on the Cook Inlet gas situation. Wright, an experienced oil industry geologist, now oversees Chevron's Cook Inlet oil and gas development program.

Most of the Cook Inlet gas comes from oil and gas fields discovered during the heyday of oil exploration in the 1960s and 1970s. And, after many years of production, gas reserves — the volumes of gas confidently thought to exist in proven gas reservoirs — have declined by about 80 percent, from about 8 trillion cubic feet to about 1.5 tcf, Wright said.

"The Cook Inlet gas reserve base is now believed to be at its lowest point for 40 years," he said.

At the same time the gas deliverability
— the rate at which gas can be produced

and delivered to market — is also dropping.

"Total Cook Inlet gas deliverability has declined about 40 percent in the last three to four years," Wright said.

High investment

The declines in reserves and deliverability have come despite a high level of expenditure in Cook Inlet gas development in recent years, with something in excess of \$500 million being invested in just the last two years, Wright said.

"Over the past two years alone there have been 29 gas development wells drilled in 11 different gas fields around the basin," he said.

Development activities have included six wells in the Grayling Gas Sands; three wells in the Beluga River field; two winter-drilled wells on the west side of Cook Inlet; two development wells and a compression project in the Ninilchik field; three development wells in the North Cook Inlet field; eight development and storage wells in the Kenai field; and two development wells in the Happy Valley field.

That development activity probably slowed the annual rate of the gas deliverability decline to between 10 and 15 percent; the natural decline rate would likely be 15 to 20 percent, were there to be no development intervention, Wright said.

Production data from the Alaska Oil and Gas Conservation Commission indi-

see GAS SUPPLIES page 5



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GAS SUPPLIES

cates that the deliverability decline has become especially pronounced in the last three years, mainly as a consequence of production declines from the four big legacy gas fields: Beluga River, North Cook Inlet, Grayling Gas Sands and Kenai. In fact, the Ninilchik field, a good-sized field that came on line in 2003 as a result of modern exploration, has actually been increasing its production, Wright said.

Faced with declining deliverability, Cook Inlet gas producers have developed three underground gas storage facilities, to warehouse summer-produced gas to help meet peak demand levels in the winter.

Grim picture

A chart of historic and forecast annual gas production, published by the Alaska Department of Natural Resources in December 2006 and sometimes referred to as the "gas cliff," paints a grim picture of future gas production expectations. According to this chart, after a huge ramp-up in Cook Inlet gas production in 1965 to 1970, production continued to climb for another 10 years before leveling off and remaining fairly constant until around 2006-07. Using future production estimates based on known gas reserves, DNR predicted that production would plunge precipitously in subsequent years.

But current estimates of gas production for 2009 indicate an overall production level considerably lower than the projected value on the 2006 DNR graph, Wright said.

"You might conclude that the DNR forecast was somewhat optimistic overall," he said.

And an Alaska Natural Gas Development Authority projection of gas supplies versus gas demand shows annual supply volumes dropping below total gas demand around 2012-13, Wright said.

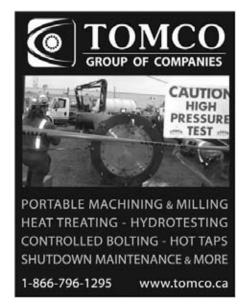
"After that point, total supply will not meet utility demand in the basin," he said.

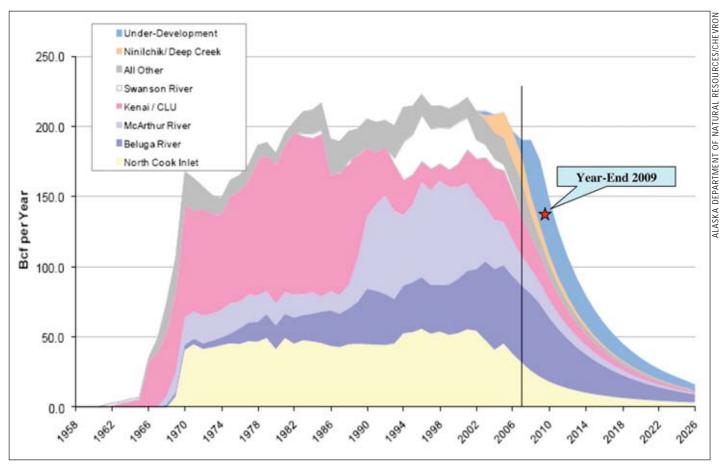
Data presented to the Regulatory Commission of Alaska by Enstar Natural Gas Co., the main Southcentral Alaska gas utility, and by Chugach Electric Association, a major Southcentral electric utility, suggest shortfalls in utility gas supplies at around that same 2011-13 timeframe, Wright said.

Production figures from the LNG plant at Nikiski on the Kenai Peninsula also make sobering reading — the LNG plant was originally built to establish an export market for excess natural gas from the Cook Inlet basin.

According to data from ANGDA, in 2008 the LNG plant used on average about 180 million cubic feet per day of Cook Inlet gas, a gas volume that repre-

see GAS SUPPLIES $page\ 6$





A December 2006 Alaska Department of Natural Resources graph showing historic annual Cook Inlet natural gas production, and estimates of future production based on known gas reserves. A current estimate of total production for 2009 falls at a level below the 2006 DNR projection.





GAS SUPPLIES

sented about 42 percent of the total amount of gas produced from the basin.

"Exports from the LNG plant have ramped down significantly this year, and the 2009 numbers may actually show those LNG volumes to be half of what they were in 2008," Wright said.

Urgent

Plots of projected daily gas deliverability versus daily gas demand show an even more urgent problem: Daily gas deliverability will likely fall below peak demand requirements during the cold of the winter, well before total annual gas production drops below annual gas needs.

With much of the utility gas being burned to heat buildings, daily temperatures in Southcentral Alaska form the key drivers behind gas consumption, Wright explained. And there is an obvious annual cycle of temperature changes between warm summers and cold winters, he said. But superimposed onto that broad cycle are chaotic day-to-day temperature fluctuations, fluctuations that become much more extreme during the winter than during the summer.

"That's obvious to all of us who live here and know that winter temperatures can vary by 30 or even 50 degrees over a couple of days," Wright said.

Those extreme temperature fluctuations, on top of an already heightened winter demand, place a huge stress on the gas deliverability system. And at no time has that stress become more apparent than in January 2009, when a series of events brought utility gas delivery to the brink of failure.

The problem started with two early winter cold snaps in October and November of 2008.

"The gas storage project operators at the three gas storage projects around the inlet had to start depleting the volumes that they had in the reservoirs very early, to meet the demand during these cold snaps," Wright said.

Levels halved

As a consequence, gas levels in the storage facilities had dropped to half of their start-of-winter levels by the end of 2008

Then came an exceptional, extreme cold period in January, with day tempera-

"Exports from the LNG plant have ramped down significantly this year, and the 2009 numbers may actually show those LNG volumes to be half of what they were in 2008."

—Steve Wright, Chevron's Alaska development manager

tures averaging around minus 8 F to minus 10 F, and night temperature bumping 20 below zero for 10 days to two weeks: The semidepleted storage facilities struggled to keep up with the extreme gas demand.

"The reservoir pressures in the storage reservoirs were about half of what they had been," Wright said. "They could only deliver, because of the dynamics of gas flow, about a quarter of what their total deliverability would have been at the start of the winter."

The failure of two gas compressors, the machines used to drive gas through the gas pipeline system, then completed what Wright characterized as a perfect storm for gas supplies.

Then, as gas pressures in the gas transportation system started to fall rapidly, oil company and utility personnel swung into action.

"The producers and utilities went into emergency response mode and worked together very effectively and we were able to head off a potential catastrophic situation by supporting one another, moving gas around the system ... and working together to deal with this problem," Wright said.

The various stakeholders in the gas supply system have since been reviewing what happened in this emergency, refining contingency plans to deal with any similar situations in the future.

"What we do know is that these types of temperature scenarios can't be avoided," Wright said. "This is reality. What we've got to do is put plans in place to deal with those kinds of scenario when they develop."

Solutions?

But what's to be done about the bigger picture of dwindling Cook Inlet gas supplies?

Natural gas exploration in the Cook Inlet basin is especially challenging, thanks to a high-cost environment, a dwindling support industry, long development lead times and difficult operational logistics. And the results of exploration over the past 10 years don't look too encouraging.

According to AOGCC data, eight different operators drilled 15 exploration wells and eight coalbed methane appraisal wells during that time period, Wright said.

"So we obviously had a lot of companies looking for gas," Wright said. "A lot of different ideas, concepts being generated, plays developed and wells drilled to test those concepts."

Five of the 15 exploration wells were classified as discoveries, with just two of the discoveries — the Ninilchik and Happy Valley fields — being deemed commercial.

"That translates to a commercial success rate of somewhere between 10 and 15 percent," Wright said. "Success rates for exploration in the Lower 48 are typically 50 percent or higher these days."

Moreover, in addition to land access being limited by the closure to oil and gas development of regions such as the Kenai National Wildlife Refuge, all of the moderate- to large-sized geologic structures that typify the reservoir settings of the established gas fields have now been drilled and tested, Wright said. Seasonal access restrictions on the western Cook Inlet coast result in a need to stage equipment over the winter. And, offshore, the listing of the Cook Inlet beluga whale and the increasing difficulty in renewing water discharge permits are raising new challenges for oil and gas development.

Wright also cautioned that, although there are explorers who want to drill off-shore using a jack-up rig, a realistic time frame to bring a new offshore gas field on line, taking into account exploration, field appraisal, engineering, platform construction and development drilling, would likely be 10 years.

And, although there may well be potential to find new Cook Inlet natural gas resources in stratigraphic traps, subtle traps formed by the juxtaposition of rock strata, rather than the big structural traps of the established gas fields, discovering those subtle traps would be a major challenge, given the limitations of Cook Inlet seismic data. Essentially, the ancient river channels that would have generated these traps are quite narrow and cannot be resolved in the existing seismic, Wright said

Other options

Other options being considered to bring new natural gas resources into Southcentral Alaska include a direct "bullet line" from the North Slope, or a spur line from a future main North Slope gas line. But first gas from a bullet line would be unlikely to appear before 2018, and first gas from a spur line might not flow until 2023.

Another possibility would be to import foreign LNG through the LNG plant on the Kenai Peninsula, although negotiating an acceptable LNG supply contract for the small quantities of utility gas required in Alaska could prove challenging, Wright said. And then there are possible alternative energy sources such as hydropower, geothermal power and CIRI's recently announced underground coal gasification plant.

But with so much uncertainty about the future, finding solutions will take a concerted effort by everyone, Wright said.

"We firmly believe that the best way to solve problems is through public and industry awareness, and working jointly," Wright said. "... There's no single entity, not a single producer, not a utility, not the regulatory agencies, not the State of Alaska, that can solve this problem on its own." ●



NATURAL GAS

Village corporations seek pipeline help

Coalition controls 100 miles of gas line route along Alaska Highway, wants partner to help pursue jobs, training for megaproject

By WESLEY LOYFor Petroleum News

A coalition of Alaska Native village corporations is seeking help in pursuing employment and other opportunities should a natural gas pipeline be constructed through their region.

The four corporations are arrayed along the Alaska Highway between Delta Junction and the border with Canada.

The coalition includes the Dot Lake, Northway, Tetlin and Tanacross village corporations. They are united as Din e'h LLC. State records show the limited liability company was organized on June 16 of this year.

Din e'h translates to "the people" in the Athabascan language of the Upper Tanana River valley.

Din e'h published an advertisement in the Oct. 11 edition of the Anchorage Daily News saying the group was "seeking a partner experienced in large project construction to provide capability, capacity, and proven performance for a joint venture in gas pipeline bidding processes.

"The goal is to create jobs, train workers, and encourage long-term economic opportunities for the Alaska Native people of the Upper Tanana."

The group planned to talk with qualified firms at an Oct. 24 meeting in Anchorage.

Belinda Thomas, general manager for Din e'h, told Petroleum News in an Oct. 20 e-mail the group had attracted several midsized and large contenders for the work.

Din e'h is looking for "teaming partners" who have "a strong commitment to local capacity building," Thomas said.

According to the group's newspaper ad, the four villages together own the surface estate of about 100 miles of the gas pipeline route between Delta Junction and the Canadian border.

Competing gas line projects

The four Native village corporations

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UNCERTAINTY

change policies to advance "our respective environmental and energy objectives."

Voser said Shell endorses a cap and trade system that is at the core of the American Clean Energy and Security Act passed narrowly in June by the U.S. House of Representatives, viewing that as the lowest-cost means of reducing carbon dioxide emissions.

If that bill is adopted by the Senate, now seen as unlikely before 2010, the U.S. would be committed to lowering GHG emissions by 17 percent from the 2005 level by 2020 and 83 percent by 2050.

Alberta government hasn't wavered

The Alberta government has never wavered from its position that it will not support any national approach that erodes investment in the province's energy projects, notably the oil sands — something Prime Minister Stephen Harper put high on his list when he agreed to work with President Barack Obama on a joint climate change

Harper reinforced that line after a meeting with Obama in mid-September when he reminded "all our American friends that

Canada is by far the largest supplier of energy to the United States."

"And we are determined to be a continental partner in dealing with the very linked problems of climate change and energy security."

However, the two leaders made no specific reference to the oil sands.

In a symbolic gesture, David Jacobson, the new U.S. ambassador to Canada, visited the oil sands on Oct. 14 in what was billed as an effort to help the Obama administration draft a policy on major sources of energy supply for the U.S.

He said officials in both countries recognize there must be a balance between the need for energy security and protecting the environment.

"I've learned a lot about the tremendous strides that have been taken over the last several years with respect to improving the environmental record in treating the oil sands," Jacobson told reporters in Calgary.

He echoed the suggestion by Prentice that a deal in Copenhagen is a long shot, noting that the U.S. health care debate has eclipsed work on energy legislation in Congress, meaning the chances of major energy policy decisions before the international conference are slim. •

are among many localities likely to seek jobs or other benefits should major energy companies succeed in building a multibillion-dollar pipeline to carry the North Slope's prodigious natural gas reserves to market.

The project has been a dream of Alaska economic development boosters for decades, but the extreme cost and complexity of the project coupled with weak gas prices have kept the project from happening.

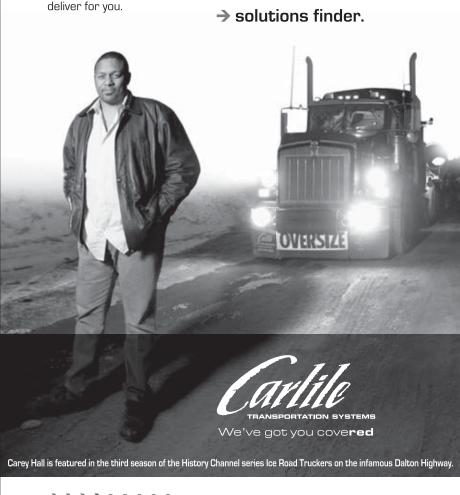
Currently, two competing projects are in the planning stages, with both aiming to hold open seasons next year to test interest among producers for signing long-term contracts to ship gas through a pipeline.

Both projects would follow the Alaska Highway into Canada, passing through the Din e'h region.

One project, called Denali, involves partners ConocoPhillips and BP. Pipeline operator TransCanada and ExxonMobil are teaming on the other project.

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Canadian trusts face 'brave new world'

NAL sets standard with 4 deals in recent months as it bulks up prior to joining corporate world once trusts lose tax-free shelters

By GARY PARK For Petroleum News

AL Oil & Gas Trust is rapidly becoming a leader among Canada's trusts as it settles on a future strategy with barely one year left before losing its taxfree status.

It struck an agreement Oct. 13 to take over Breaker Energy for C\$403 million (including the assumption of C\$93 million in net debt) — its fourth deal in recent months.

Launched six years ago by former executives of Alberta Energy Co. (a founding company of EnCana), NAL is moving into the midrange of Canadian oil and gas producers.

Assuming the Breaker transaction is concluded in early December, NAL expects to enter 2010 with production of

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NAL's objective is to add "quality assets with upside opportunity through internal investment and acquisitions."

-NAL Oil & Gas Trust CEO Andrew Wiswell

31,000 barrels of oil equivalent per day from properties in Alberta, British

It will have a proved-plus-probable reserve life index of 8.7 years from land of 550 acres and tax pools (or credits) of C\$1.2 billion (including Breaker's

Breaker will contribute production of 6,700 boe per day (45 percent oil and gas liquids and the rest natural gas), 23 million boe of proved-plus-probable reserves

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and 140,000 net undeveloped acres.

Deal follows earlier buys

The deal follows NAL's acquisitions of Alberta Clipper for C\$115 million and Spearpoint Energy for C\$16 million, plus a joint venture to exploit central Alberta's Cardium oil play.

The trust will issue about 25 million trust units at C\$12.54 each to finance the acquisition, which works out to C\$5.96 a Breaker share, a 12 percent premium to the junior company's preceding 20-day average trading price.

On a production basis, NAL is paying about C\$58,000 per flowing barrel and C\$16.91 per barrel for reserves, compared with ATB Financial's estimated average of C\$46,195 and C\$12.93.

Kim Page, an analyst with Wellington West Capital Markets, said that given the valuation metrics there is unlikely to be a counterbid.

Breaker President Dan O'Neil said blending his company's assets with NAL's strong financial position "will allow the combined entity to high-grade its opportunities and fully develop and expand Breaker's potential."

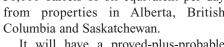
Breaker has pinpointed about 400 (350 net) low-risk development prospects, including 190 horizontal resource-style locations on its land, with the prospect of adding 2,900 boe per day in central Alberta and long-term gas opportunities in northeastern British Columbia of 50-100 billion cubic feet of recoverable gas.

NAL Chief Executive Officer Andrew Wiswell said the inclusion of Breaker will be another significant step in repositioning to convert NAL from a trust to a corporation in 2011, when the Canadian government will put both sectors on the same tax footing.

He said NAL's objective is to add "quality assets with upside opportunity through internal investment and acquisi-

Action on the M&A front has been quietly gathering speed this year as trusts have decided what route they will take in the post-2010 world.

Delivered on time and on budget, July 2009



reserves of 96 million boe, undeveloped contribution of C\$270 million).

No single solution

The decision making comes three years after Canada's Finance Minister Jim Flaherty dropped a bombshell on the sector to avert a stampede by corporations in all sectors to join trust ranks and take advantage of a tax loophole.

Now that the initial anger has faded, the bulk oil and gas trusts seem resigned to joining the corporate world, though some will delay their transition while they use tax pools to reduce their taxable income beyond Jan. 1, 2011.

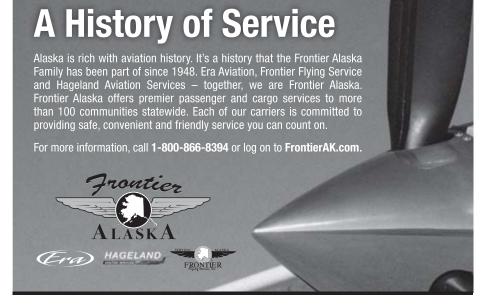
Some apparently believe that it will make no difference if they continue as trusts and some have trimmed their monthly cash payouts in favor of increasing capital spending to strengthen their reserves and production.

The conclusion is that there is no single solution for trusts plotting their future direction. Sayer Energy Advisors has reported that trusts completed C\$1.4 billion in unit issues in the first half of 2009, compared with a paltry C\$218 million in the same period of 2008, raising the total from unit issues and debentures to C\$2.1 billion.

Sayer said these moves could underscore M&A activity by trusts that want to expand their core operations before joining the corporate world in 2011.

In addition to NAL, the busiest acquisitors have been Penn West Energy Trust and Zargon Energy Trust.

Blackmont Capital said that comparing the "real-world valuation parameters" of the NAL-Breaker deal with current market valuations of some intermediate producers, "a couple of them appear to be overvalued."



More capital appreciation

One thought taking hold is that the next generation of trusts will lean more toward capital appreciation from their transition income-generating priority, which could benefit the struggling service sector if it results in increased exploration and development, with an emphasis on horizontal wells and multifracturing work.

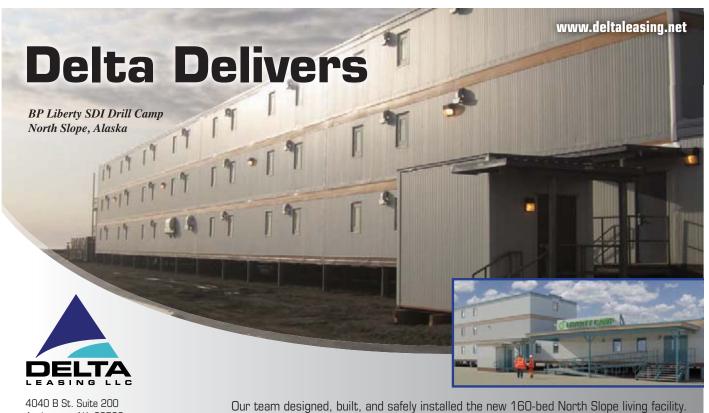
Meanwhile, Calgary-based investment dealer Peters & Co. has listed Pengrowth, Paramount Energy Trust and Peyto Energy Trust as relatively cheap takeover targets based on their expected 2010 cash flows per barrel of oil equivalent against their boe enterprise values.

"From an acquirer's viewpoint, desirable entities possess above average cash-flow generating capabilities and below average current valuation levels," the firm said.

Blackmont Capital said that comparing the "real-world valuation parameters" of the NAL-Breaker deal with current market valuations of some intermediate producers, "a couple of them appear to be overvalued."

In particular, the firm identified Birchcliff Energy and Progress Energy Resources as "expensive on a flowing barrel basis," while Celtic Exploration and Progress "look expensive on a reserve basis."

However, Blackmont said it was "dangerous to draw conclusions based only on this one transaction" adding it would "not expect market valuations to vary too widely from what real-world purchasers are prepared to pay for assets."



• ALTERNATIVE ENERGY

RCA to adopt net metering regulations

New regulations provide incentive for investment in renewable electric generation, allowing consumers to put power into utilities

By KRISTEN NELSON

Petroleum News

Renewable power generation may be coming to your neighborhood. And it may be built by your neighbor, thanks to proposed regulations that would require Alaska's largest utilities to allow hookups by such privately built generation to their power grids.

The Regulatory Commission of Alaska voted 4 to 1 on Oct. 14 to adopt regulations establishing net metering requirements for the state's largest electric utilities.

The vote ends a tussle between Alaska's electric utilities and proponents of net metering, who believe net metering will increase renewable energy development in the state, while utilities believe net metering will be a burden on other consumers.

Net metering allows a customer of an economically regulated utility to interconnect eligible onsite generation facilities with the electric utility's distribution system, the commission said in an Oct. 16 press release.

In 2008 RCA rejected net metering standards proposed by the Bush administration and began work on regulations targeted to Alaska, including workshops with participation by utilities and proponents of net metering.

The regulations commissioners approved are the result of work done since the Environmental Policy Act of 2005 created guidelines for net metering which state regulators were required to consider, but not to accept.

Alaska regulations

The new Alaska regulations apply to economically regulated electric utilities with total retail sales of 5 million kilowatt hours or more, which limits the RCA regulations to the state's largest electric utilities: Bethel Utilities Corp., TDX North Slope Generating, Alaska Power Co., Alaska Electric Light & Power, Homer Electric Association, Matanuska Electric Association, Municipal Light & Power, Chugach Electric Association and Golden Valley Electric Association, which sell from 39.1 million kilowatt hours (Bethel), to 1.349 billion kilowatt hours (Golden Valley Electric).

The affected utilities would be required to interconnect with eligible customer generation systems up to a systemwide total capacity of 1.5 percent of average retail demand. Eligible customer generation systems are limited to a total onsite capacity of 25 kilowatts.

Net metering customers would be billed for net consumption and receive bill credits when the customer's generation exceeds usage.

Technologies eligible for net metering generation are limited to solar photovoltaic, solar thermal, wind, biomass, hydroelectric, geothermal, hydrokinetic, ocean thermal, landfill gas and biogas energy. The commission may approve other sources that generally have similar environmental impact.

For and against

Summaries of comments on the proposed regulations by RCA staff highlighted some of the disputed issues between net metering proponents and the state's electric utilities.

Municipal Light & Power — one of two electric utilities serving the Anchorage

area — told the commission it believed net metering would cause more harm than good while the Alaska Power Association, which represents major consumer-owned power utilities in the state, including ML&P, said that although the proposed regulations did not reflect its preferred position, they were a reasonable compromise between two extremes.

The Alaska Center for the Environment said net metering would reduce utility bills for participating consumers, while the APA said public benefits of net metering would be privately subsidized by non-net metering consumers rather than through typical public means such as grants, tax incentives or similar methods.

ML&P said net metering would cause generation to be built that is not cost effective, burdening ratepayers as a group with higher costs, and requiring ratepayers who do not own net metered generation to subsidize the small minority of ratepayers who will install net metered generation.

Golden Valley Electric Association concurred, telling the commission that net metering is in conflict with the cost-causer cost-payer principle, requiring nongenerating members to subsidize members installing small renewable generation and forcing the utility electrical system to act as a battery for renewable generating facilities.

What about smaller utilities?

In response to comments that the 5 million-kilowatt-hour limit would prevent smaller utilities from utilizing net metering, RCA staff said if a utility is too small to be covered by the RCA regulations it

can enact its own net metering regulations.

"The regulations require certain larger utilities to enact net metering rules. Smaller utilities, or utilities that are outside of our authority to economically regulate, are exempted from the requirement and instead allowed to choose independently whether net metering makes sense for their system."

RCA staff said the limitations on net metering were imposed to protect the integrity of the systems:

"The Railbelt electric system, the largest interconnected 'grid' in Alaska is very small in comparison to the nation-wide grid in the Lower 48 states and lacks

a robust transmission and distribution network."

TDX Sand Point Generating is a case in point, the staff said, with retail sales for their last fiscal year 4.254 million kilowatt-hours, an average retail demand of 485 kilowatts per day.

With the proposed 1.5 percent of average retail demand limit, TDX Sand Point could have up to 7.3 kilowatts of installed on-site consumer renewable generation, less than half of the proposed 25 kilowatt per installation limit proposed in the regulations

see NET METERING page 10



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PETROLEUM NEWS • WEEK OF OCTOBER 25, 2009

GOVERNMENT

Senate passes bill with icebreaker funding

The full U.S. Senate has passed the 2010 Homeland Security Appropriations conference report that includes \$32.5 million in funding for enhancements to U.S. icebreaker capability, Sen. Lisa Murkowski, R-Alaska, said Oct. 20. The bill, which also appropriates U.S. Coast Guard funding for fiscal year 2010, now goes to President Obama for his signature.

The United States currently has just two working icebreakers, the Healy and the Polar Sea, with a third icebreaker, the Polar Star, currently in caretaker status.

The United States currently has just two working icebreakers, the Healy and the Polar Sea, with a third ice breaker, the Polar Star, currently in caretaker status.

Funding from the conference report that the Senate has just passed

would pay to finish refurbishment of the Polar Star, to reactivate this icebreaker and extend its service life. The conference report would also require the Coast Guard to investigate whether a new heavy polar icebreaker class vessel should be built, or whether money should be spent on extending the service lives of the existing icebreakers — the Polar Sea has a remaining service life of five years, Murkowski said.

"While reactivation of our second heavy icebreaker helps, the U.S. must begin to plan for the long term replacement or extension of our ice breaker fleet," Murkowski said. "These vessels are becoming increasingly important as access to the Arctic, and its resources, increases due to climate change and a reduction in summer sea ice. Activities such as energy development, tourism, marine transportation and shipping will increase and the Coast Guard must have the resources to respond. This funding is a good start."

—ALAN BAILEY

continued from page 9

NET METERING

Smaller utilities also have different operating parameters, staff said, and interconnecting small non-firm generation may create operational problems, with scenarios varying from utility to utility.

But, RCA staff said, nothing in the regulations prevents a rural community from implementing net metering.

Limit at 1.5 percent

There were a number of objections to a limitation in the regulations of 1.5 percent — that is, a utility may refuse to interconnect for new net metering if that connection would cause net metering to exceed 1.5 percent of the utility's average demand.

APA, Chugach Electric Association and ML&P all pointed out that 1.5 percent was the agreement reached at the commission's technical conference.

RCA staff said the proposed regulations allow a utility to approach the commission regarding increasing the cap to allow additional net metering beyond the 1.5 percent of average retail demand.

"Staff believes it is the intent of the commission to allow a controlled trial of

On the Web



See previous Petroleum News coverage:

"RCA rejects federal net metering rules," in Sept. 14, 2008, issue at www.petroleumnews.com/pnads/8534336 29.shtml

"RCA starts net metering discussions," in Oct. 26, 2008, issue at www.petroleumnews.com/pnads/4197405 26.shtml

net metering that will limit the potential rate increase for consumers who do not choose to net meter. This cap is an essential part of limiting that financial risk."

Utilities are required to publish annually the result of the 1.5 percent of average retail demand calculation and the total nameplate capacity of interconnected net metering consumers, which will allow the commission to monitor how quickly interconnection is occurring and revisit net metering regulations as required, RCA staff said.

Commercial generation not included

There were objections to the limit of 25 kilowatts on consumer generation and the staff said that limit was chosen so that smaller consumer generators would have the opportunity to participate.

"With a larger generator capacity and a limited system capacity for net metering, the smaller systems could be squeezed out," RCA staff said.

Larger corporate consumers did not participate in the process, staff said, indicating a lack of serious interest at this time.

There were a large number of comments arguing that excess generation should be valued at the full retail rate rather than the discounted avoided-cost rate.

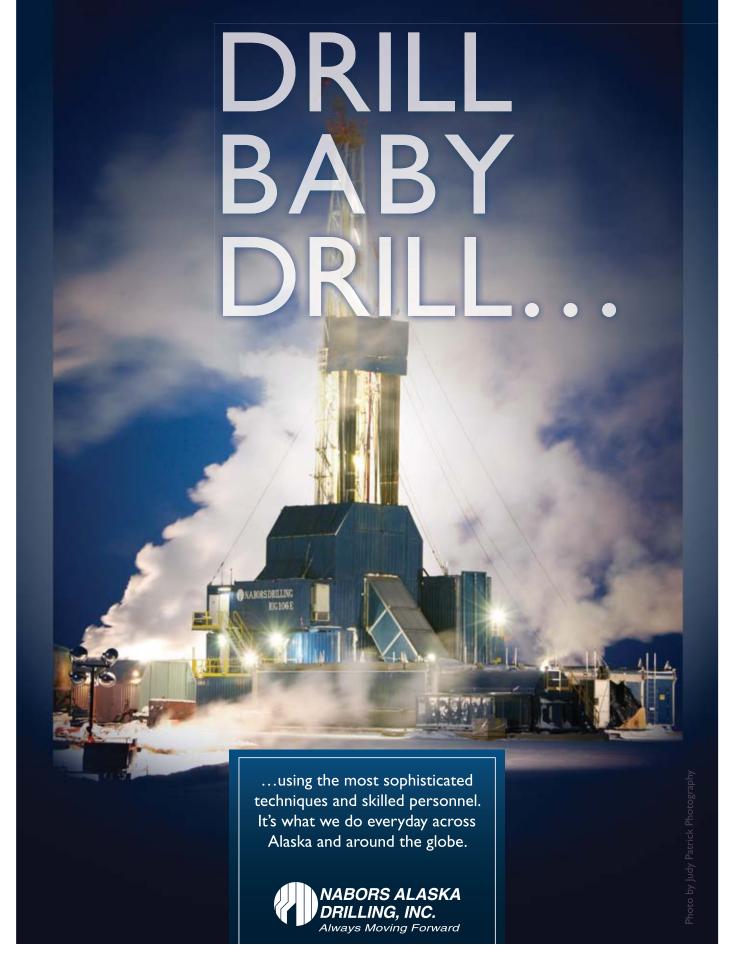
RCA staff said the language was based on "the compromise reached by the net metering advocates and the utilities at the technical conference. To alter this section at this juncture would undermine the fragile agreement that was reached by the participants. The net metering rules contained herein are designed to limit the potential negative financial effects of net metering" on those consumers who do not participate in net metering.

"Staff concurs that this mutes the benefits of net metering for those who participate in the program. Both sides on this issue have strongly argued their positions but neither side has any real experience with net metering in Alaska. Staff believes that going forward with the substance of the proposed regulation is the best way to build experience in net metering. The rules can be revisited in the future as needed and with actual data."

There were a number of objections to language in the proposed regulations allowing utilities to petition the commission for special rates for net-metered consumers "if the utility can demonstrate an adverse material rate impact on utility consumers that do not participate in the net metering program."

RCA staff said utilities always have the right to petition the commission for changes in the rates they charge, and it "believes the proposed language offers a protection to net metering consumers by requiring the utility to demonstrate that the effect of net metering is both 'adverse' and 'material' to consumers that do not participate in net metering."

The commission will release an order adopting net metering regulations, which become official once reviewed by the attorney general and the lieutenant governor. ●



SAFETY & ENVIRONMENT

Canada backs carbon capture

Governments commit C\$1.65B to 2 projects, claim they lead world in developing technology; others say industry should do cleanup

By GARY PARK

For Petroleum News

anadian and Alberta taxpavers are starting to feel a rather large hand in their pockets as the two governments roll out plans for carbon capture and storage projects — their key technological initiative to remove greenhouse gas emissions from the atmosphere.

In early October, C\$865 million in public money was pumped into Royal Dutch Shell's planned C\$1.35 billion Quest project, with Chevron Canada and Marathon Canada as partners, to inject 1.1 million metric tons a year of carbon dioxide from the company's Edmonton-area heavy oil upgrader into underground storage, some

of it for possible use in enhanced recovery.

Less than a week later, the governments announced they would contribute C\$781 million for a \$1.4 billion CCS project TransAlta plans to capture about STEPHEN HARPER



1 million metric tons a year from its coalfired electricity plant in central Alberta.

These handouts are taking place amid mounting questions about whether largely untested CCS technology will achieve its hoped-for goals without causing a financial boondoggle.

Of the public share, Alberta will account for almost C\$1.2 billion, drawn over 15 years from the C\$2 billion it has earmarked to develop and test CCS technology.

'Clean energy superpower'

Prime Minister Stephen Harper said the TransAlta venture, with Capital Power and Paris-based Alstom as partners, meets the federal government's objectives of helping economic recovery and improving the environment.

"To keep Canada on the cutting edge, we are investing massively in scientific research and development. A major focus of these investments is our energy sector."

Harper said that in order for Canada to meet its goal of becoming an "energy superpower" it must be a "clean energy superpower."

Alberta Premier Ed Stelmach said the benefits of Project Pioneer will extend far beyond the TransAlta plant by offering "lessons on how other plants might be retrofitted here in Alberta and around the world."

The project was not on the original short list of three projects that Alberta tagged for its CCS money.

A spokesman for Greenpeace said governments should play no role in subsidizing CCS efforts by giant companies.

"Industry created this toxic mess and they should be fully and financially responsible for cleaning it up," said Mike Hudema.

He also described CCS as a "risky, expensive smokescreen," urging governments to invest more in renewable energy technology, such as wind and solar power, which he said will create more jobs over

Alberta Energy Minister Mel Knight defended the approach, arguing government must be a partner in developing CCS technology.

Federal Natural Resources Minister Lisa

Raitt, who joined Knight at the Quest announcement, said: "We have to start somewhere. We start today. There are some hurdles to CCS, but the good news is the technology has already been technologically proven."

Reduction in emissions pledged

The Canadian government has pledged to reduce greenhouse gas emissions by 20 percent below 2006 levels by 2020.

Graham Boje, vice president of health safety and sustainable development with Shell's Canadian division, cautioned that, despite the financial backing, Quest has yet to receive corporate sanctioning.

He said the project has a "long way to go before it becomes a fully operational CCS project. We're still in the project development phase and the final investment decision depends on a range of factors."

Boje said it will take about two years to complete engineering, undergo public consultation and obtain regulatory approvals.

The Alberta government is still working on the two other projects that made its initial short list: the Alberta Carbon Trunk Line, a joint proposal by Enhance Energy and North West Upgrading to incorporate gasification, carbon dioxide capture transportation, enhanced oil recovery and storage, drawing on carbon dioxide from the Agrium fertilizer plant and the planned North West heavy oil upgrader; and an integrated gasification combined-cycle power generation plant proposed by Epcor Utilities and Enbridge at the Genesee site in central Alberta.

Coalbed methane recovery honored

The Alberta government derived some hope when an enhanced coalbed methane recovery project, led by the Alberta Research Council, landed an international award in London, England, earlier in October.

The recognition from the Carbon Sequestration Leadership Forum was for work completed last year involving the injection of carbon dioxide into deep, unmineable coal bed, displacing the underground methane with CO2, reducing greenhouse gas emissions and improving the recovery of coalbed methane in the process.

Knight said the award established that the government-funded research council is a "global leader when it comes to contributing real solutions to address climate change."

The forum also endorsed a second Alberta project, co-led by ARC Resources and the research council, aiming to store carbon emissions from Alberta's industrial heartland region, north of Edmonton, in an underground reef formation, which is estimated to have the potential to handle 1 million metric tons a year of CO2 by 2015 for more than 20 years. ●



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SAFETY & ENVIRONMENT

F&W proposes polar bear critical habitat

200,541 square-mile area includes much of the outer continental shelf, the barrier islands and land along the Beaufort Sea coast

By ALAN BAILEY
Petroleum News

n Oct. 22 the U.S. Fish and Wildlife Service announced its proposed designation of critical habitat for the polar bear, following the May 2008 listing of the bears as threatened under the Endangered Species Act. The proposed habitat region encompasses a total area of 200,541 square miles of U.S. territory covering those areas of the Arctic Alaska offshore continental shelf where water depths are 300 meters (980 feet) or less in depth; barrier islands and spits along Alaska's northern coast; and polar bear, on-land denning habitat along the Beaufort Sea coast.

The onshore denning habitat consists of lands within about 20 miles of the northern coast of Alaska between the Canadian border and the Kavik River, and within about eight miles of the coast between the Kavik River and the city of Barrow.

The announcement of the proposed critical habitat designation triggers a 60-day public comment period.

But Strickland emphasized that federal agencies had already been conducting Endangered Species Act section 7 consultations for the polar bear, prior to the critical habitat designation, and that the recent U.S. Minerals Management Service approval of Shell's Beaufort Sea exploration plan had successfully gone through this consultation process.

"This administration is fully committed to the protection and recovery of the polar bear," said Interior Assistant Secretary for Fish, Wildlife and Parks, Tom Strickland. "Proposing critical habitat for this iconic species is one step in the right direction to help this species stave off extinction, recognizing that the greatest threat to the polar bear is the melting of Arctic sea ice caused by climate change. As we move forward with a comprehensive energy and climate strategy, we will continue to work to protect the polar bear and its fragile environment."

Fish and Wildlife has also proposed the prohibition of international trade in polar bears and their parts, Strickland said.

Thorough evaluation

Although the Endangered Species Act

requires the Department of the Interior to, if possible, designate critical habitat at the time a species is listed under the act, Fish and Wildlife has not proposed the critical habitat designation until now because of the time that it has taken to conduct a thorough evaluation and peer review of its proposal, Fish and Wildlife said.

Under the terms of the Endangered Species Act, geographic areas designated as critical habitat contain features that the Department of the Interior considers essential for the conservation of a listed species and that may require special management or protection. And under section 7 of the act, federal agencies must ensure that any federally authorized activities are unlikely to jeopardize the continued existence of the species or to destroy or adversely modify the critical habitat.

Oil industry

The designated critical habitat area for the polar bear includes places where the oil industry is active: Fish and Wildlife will evaluate the economic impacts of the habitat designation, Strickland said.

But Strickland emphasized that federal agencies had already been conducting Endangered Species Act section 7 consultations for the polar bear, prior to the critical habitat designation, and that the recent U.S. Minerals Management Service approval of Shell's Beaufort Sea exploration plan had successfully gone through this consultation process. Onshore and offshore oil and gas activities have also already been subject to significant review and regulation under the Marine Mammals Protection Act.

"We believe that it will not be a significant additional burden on the industry ... but it does further heighten the importance of trying to minimize any kinds of activity in these critical areas that might adversely affect the bear," Strickland said of the proposed critical habitat designation.

Critical habitat receives an additional level of legal protection under section 7 of the Endangered Species Act, he said.

Fish and Wildlife has stepped up its funding efforts and is expanding its consultation capabilities, including the deployment of staff to the North Slope to support the development and implementation of community-based, polar bear-human interaction plans for the North Slope villages, said Sam Hamilton, director of the U.S. Fish and Wildlife Service.

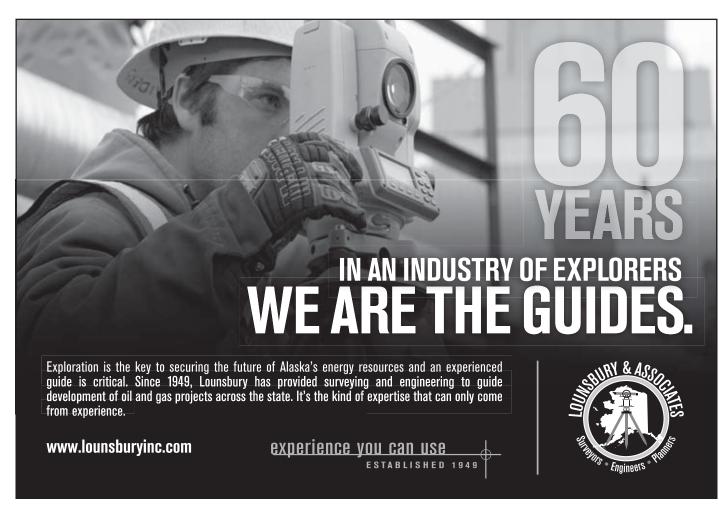
Sea ice

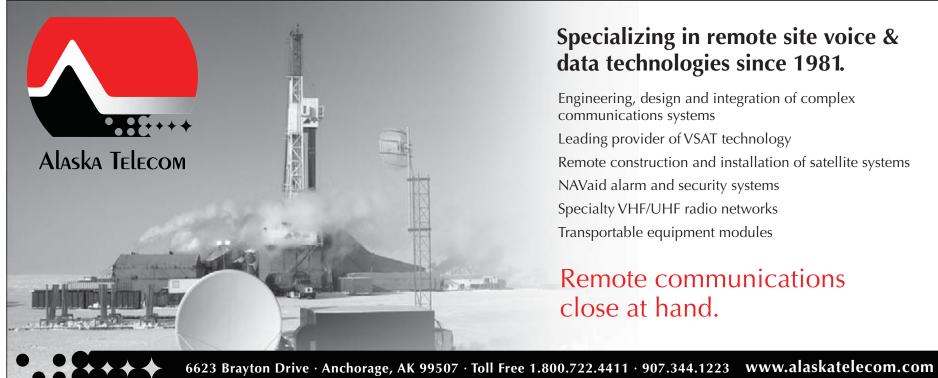
About 93 percent of the designated habitat area is occupied by winter sea ice, Strickland said.

"Through eons of time polar bears have evolved and adapted to life on the sea ice, and they depend on this area for resting, breeding, hunting and feeding," Hamilton said. "Polar bears require sea ice as a platform for hunting and feeding on seals; seasonal long-distance movements; travel to terrestrial maternal denning areas; resting and mating."

The majority of the U.S. polar bears remain on sea ice year round and prefer the shallow areas of the continental shelf, he said. And, according to Fish and Wildlife, most polar bear populations use onshore

see HABITAT page 19





B.C. lifts lid on new gas play

Government discloses 'sleeping dog' in Liard basin, west of Horn River, Montney plays; operators tight-lipped about plans, results

By GARY PARK

For Petroleum News

t's in a hush-hush mode right now, but E&P companies in British Columbia could be quietly extending the province's gas hot spot beyond the Montney and Horn River formations.

One of the first public hints came at a Northeast British Columbia Natural Gas Symposium in Calgary at the end of September, when a senior government official said the little-explored Liard basin west of the Horn River shale gas basin and 65 miles northwest of Fort Nelson — is generating strong interest at monthly land auctions.

Vic Levson, executive director of the Resource Development and Geoscience Branch of the B.C. Energy Ministry, said the region is a "sleeping dog that has been lying quiet."

But bidders committed C\$48.3 million in the first seven months of 2009 to secure exploration rights in the basin, compared with C\$18.5 million for all of 2008, doubling the average price to C\$1,500 per hectare.

However, he said the companies are "keeping a pretty low profile," although some of the operators are shifting their exploration efforts to unconventional from conventional prospects.

The players include two majors — Apache and EOG Resources — while three juniors (a partnership of Questerre Energy and Transeuro Energy and Stone Mountain Resources) have embarked on evaluation programs.

Levson said the government is hopeful that the early exploration is the start of a new trend.

He said the province believes the basin is a "good target ... we'd like to see more companies" take an interest in the area.

The lightly explored Beaver River area (incorporating the Liard basin and Fold Belt region) 100 miles northwest of Fort Nelson, has stirred interest among producers interested in evaluating and testing the potential of

Mississippian-aged shales.

B.C. tops land sales

Otherwise, British Columbia, having topped Canada's provincial land sales for the first time in 2008, remains the frontrun-

For the first nine months of the year, it generated C\$330 million in successful bids, compared with C\$247 million in Alberta and C\$51 million in Saskatchewan.

That total was a starting C\$3.5 billion behind the total for the same period last year, with British Columbia down about C\$2 billion, Alberta off by C\$715 million and Saskatchewan taking a C\$797 million tumble, all paying the price for the industrywide downturn.

British Columbia's per-hectare average price plunged to C\$1,281 from C\$3,820 in the first nine months of 2008; Alberta has edged up each quarter from C\$119 to C\$166 and C\$257, but lags far behind the 2008 average of C\$377; and Saskatchewan nosedived to C\$297 from C\$1,781.

There was no more hope for Alberta at its first October auction, which drew a mere C\$21.9 million in successful bids and an average C\$204 per hectare, compared with the C\$38.7 million and C\$329 per hectare at the comparable 2008 sale.

B.C. sees move to drilling

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Otherwise, British Columbia is seeing the first signs that blockbuster land sales in 2007 and 2008 are being translated into drilling plans, although what is in store for the upcoming peak winter season has yet to be disclosed.

For the first nine months of 2009, the regulator has approved 532 new well licenses. Although that is down more than 30 percent from the same period of 2008, the September permits totaled 68, the most in any month since March and only 11 behind September 2008.

Alex Ferguson, commissioner of the B.C. Oil and Gas Commission, said the mood among operators is more positive than it was a few months ago, but until companies complete their budget plans the government is in a "blind spot."

Over the past seven years, the commission has approved 32 experimental schemes for shale gas formations, allowing ongoing research in drilling, completion and/or production technology.

For Horn River those in the experimental phase include majors such as Imperial Oil, EOG Resources Canada and Hunt Oil Company of Canada and smaller players such as Stone Mountain, Kodiak Bear Energy, Quicksilver Resources Canada and Storm Gas Resource.

EnCana has led the way in Horn River since 2001, listed as operator of 90 wells, 79 categorized as nonexperimental and five wells licensed as experimental, but not yet drilled, a commission report said.

It said that after completing its 2008 drilling program, EnCana reported average per well production rates of 5 million cubic feet per day, while the first wells of 2009 have posted flow rates of 9.5 million to 11 million cubic feet per day after 15 days.

The lightly explored Beaver River area (incorporating the Liard basin and Fold Belt region) 100 miles northwest of Fort Nelson, has stirred interest among producers interested in evaluating and testing the potential of Mississippian-aged shales. The commission said some promising results have already emerged from tests. •



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OUR ARCTIC

Rosneft wants tax breaks for Arctic development

Russia needs to realistically assess the risks and costs of Arctic oil and gas development, Sergey Bogdanchikov, the president of state-owned oil company Rosneft, told the Murmansk International Economic Forum Oct. 15. Exploration drilling in the offshore Arctic can be done with far less certainty than drilling in traditional exploration areas in western Siberia, Bogdanchikov said. The cost of working in Arctic regions is also extremely high, he noted.

"Here we can already talk in quite concrete, specific terms, based on our development of the shelf off Sakhalin, and if you compare the figures from western Siberia, \$30 to \$50 to produce a ton of hydrocarbons, on the Far Eastern shelf we have about \$300 and it will be at least \$600 to \$700 to produce a ton of hydrocarbons here on the Arctic shelf," Bogdanchikov said. "Companies have to be prepared for this and our government, of course, also has to be prepared for it. When it determines a tax policy for the offshore regions it can't be identical for the Caspian, the Sea of Azov, the Black Sea and the Arctic Shelf. We hope for mutual understanding with the government here.

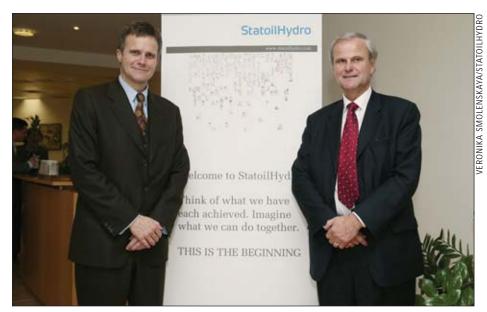
"We have to be honest above all with ourselves going into such a complex task as developing the Arctic shelf," Bogdanchikov said. "We are technologically backward here in the Russian Federation in virtually all the technology that is necessary."

At this point in Bogdanchikov's speech Alexei Miller, the CEO of Gazprom, Russia's other state-owned energy giant, interrupted to indicate that he agreed with the sentiment.

"We have to synchronize the following processes, the process of licensing on the shelf, the process of conducting geological exploration work and the process of preparing Russian industry, companies that are on both the regional and the national scale, in order to support these projects and to achieve the required production on time," Bogdanchikov said.

"When we're talking about investment of \$250 to \$300 billion, the question is whether this investment will go into Russian companies located in Russia or

see ROSNEFT page 16



StatoilHydro CEO Helge Lund and Bengt Lie Hansen, president of StatoilHydro in Russia, at the signing of the Shtokman phase 1 agreement.

OUR ARCTIC NEIGHBORS

StatoilHydro ready for Shtokman collaboration

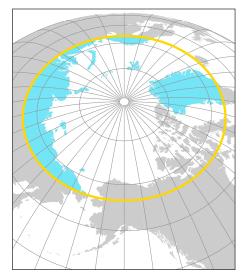
Norwegian company will use experience from Ormen Lange, Snohvit to develop subsea installations for Russian Barents Sea project

> By SARAH HURST For Petroleum News

orway's StatoilHydro is gearing up for the "mother of all projects" — developing the Shtokman gas field in the Russian part of the Barents Sea — Bengt Lie Hansen, the company's president in Russia, said in a speech at the Murmansk International Economic Forum Oct. 15. StatoilHydro is a partner in phase one of Shtokman, with a 24 percent interest in the Shtokman Development company. Russia's Gazprom has a 51 percent interest and France's Total has the remaining 25 percent.

StatoilHydro was trying for 20 years to get involved in Shtokman before signing the phase-one agreement in February 2008, Hansen said.

"(Shtokman) I think will be the locomotive for developments in the Arctic," he said. "And I think that will not only have implications for the investing companies, it will have lots of implications for the Murmansk region, as we have seen in



other areas where there are offshore developments, you see a lot of spinoff effects that you hardly are able to assess before you start out."

Shtokman will provide gas to Europe via the planned Nord Stream pipeline under the Baltic Sea, and to Atlantic mar-

see SHTOKMAN page 16

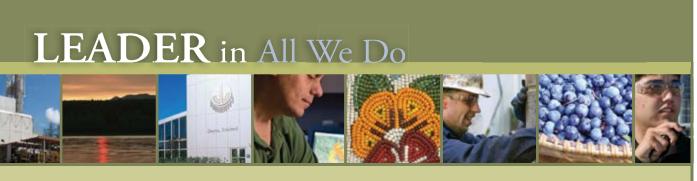


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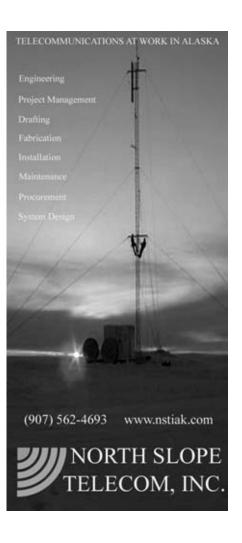
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SAFETY & ENVIRONMENT

No quick carbon fixes

Oil sands leader argues 'absolute' limits on oil sands' GHG would burden sector; Imperial boss says answers could take 100 years

By GARY PARK

For Petroleum News

wo leading players in the Alberta oil sands — the flashpoint of Canada's climate-change wrangling — have answered criticism that the sector is not doing enough to explain itself.

In the process, they got to grips with the range of challenges facing those seeking answers to greenhouse gas emissions

Marcel Coutu, chief executive officer of Canadian Oil Sands Trust, which owns 36.7 percent of the giant Syncrude Canada operation, said oil sands producers should be allowed to raise GHGs, even if that means forcing other industrial sectors to shoulder a heavier share of meeting national climate change goals. Bruce March, chief executive officer of Imperial Oil, said it has taken 100 years to create the GHG problem and it will probably take another 100 years to meet growing global energy demand while dealing with climate change concerns.

Their comments came a month after Peter Voser, the new chief executive officer of Royal Dutch Shell, told a Calgary business summit that industry and governments have failed to promote the oil sands as a key answer to the energy needs of Asia and the wider world.

Arguing that oil sands opponents have done an effective job of trashing the resource, he called on industry and governments to play a more active role in promoting the oil sands and making a case for the future importance of unconventional oil.

New Alberta publicity campaign

The Alberta government has recently launched a three-year, C\$25 million publicity campaign to counter some of the negative publicity from environmental groups who have labeled the oil sands as "dirty oil."

The Canadian Association of Petroleum Producers, whose member companies account for more than 90 percent of Canada's oil and natural gas production, has also admitted it is lagging in the battle for hearts and minds and has pledged to answer public concerns about the industry's environmental impact.

But Voser insists the oil sands could be taking a larger international role in energy markets by building pipelines to the British Columbia coast, opening up tanker routes to Asia-Pacific markets.

Speaking at the same Calgary conference, federal Environment Minister Jim Prentice agreed Canada needs to be more active in promoting its technological gains in energy production.

"Canada's role must be perceived as the most environmentally cautious producer of energy of all kinds, from green energy to hydrocarbons, in the world," he said.

Intensity-based limits proposed

But Coutu warned that if the oil sands face an absolute limit on their GHGs, regardless of increasing output, that would "put a very, very heavy burden on a business that is in a growth mode" and a key driver of the Canadian economy.

Rather that stifle oil sands output, the Canadian government should impose intensity-based limits, reducing per-barrel GHGs, leaving other industries to Marcel Coutu, chief executive officer of Canadian Oil Sands
Trust, which owns 36.7 percent of the giant Syncrude Canada operation, said oil sands producers should be allowed to raise GHGs, even if that means forcing other industrial sectors to shoulder a heavier share of meeting national climate change goals.

pick up the slack, he said.

"What we have to do is prioritize what is most important to the economy and our quality of life," Coutu said. "At the end of the day I don't think there is a single element of our economy that is more important than energy."

He told the editorial board of The Globe and Mail that the vast majority of

GHGs result from the consumption of energy by motor vehicles, airplanes and heating homes and commercial buildings — rather than the production phase.

He said the oil sands account for only 5 percent of Canada's total emissions, suggesting that figure should be measured from a global perspective.

Coutu said Canada's net export energy role should also be taken into account, because Canada could end up being saddled with the environmental costs of products that are used in other countries.

March, speaking to the Calgary Chamber of Commerce on Oct. 15, said the industry and governments must work on policies that allow energy to be developed from all available sources — such as wind, solar, nuclear, hydroelectric and geothermal power — not just oil and gas.

"We also require new transformative technologies such as second generation biofuels, which require long-term research investments, but will have the potential to effect change on a global scale," he said.

Exxon investing in algae

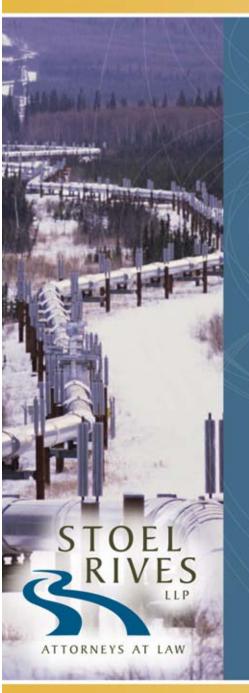
ExxonMobil, which owns 69.6 percent of Imperial, is planning to invest more than C\$600 million in a venture to develop biofuels from algae in a research and development venture with Synthetic Genomics, a privately held company that is concentrating on gene-based research.

March said this effort, which could bolster the world's transportation fuel supply and eventually reduce GHGs, needs long-term planning horizons to deal with climate change.

GHGs have been "created for 100 years and I believe it will take at least

see CARBON FIXES page 16

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continued from page 14

ROSNEFT

whether about 80 percent of it will go overseas to overseas suppliers and contractors who already have this experience," Bogdanchikov added.

-SARAH HURST

Total proud of Russia far north achievements

Total is committed to long-term work in Russia. Pierre Nerguararian. the head of Total E&P Russia, told the Murmansk International Economic Forum Oct. 15. The French company is involved in three projects in Russia, the Kharyaga oil field in the Nenets Autonomous Okrug, the Shtokman gas field in the Barents Sea and the Termokarstovoye gas and condensate field in the Yamalo-Nenets Autonomous Okrug.

"A key word is partnership, partnership with Russian companies," Nerguararian said. "Of course we have partnership with Gazprom, Novatek, and in the past we had a relationship with Tatneft. We always try to maximize the local content. This is very important, to work with Russian contractors, and that's what we are doing in Kharyaga, and we try for our operation to develop this to a very high level and we reached 70 percent."

On Oct. 2 Total celebrated 10 years of production at Kharyaga, which is a production sharing agreement with Total owning 50 percent, StatoilHydro owning 40 percent and Nenets Oil Co. owning 10 percent. "Ten years of production above the polar circle is something. ... It was a very challenging project with very severe weather conditions — minus 45, minus 50 in winter sometimes — so very difficult logistics," Nerguararian said.

Total is now launching a new phase of Kharyaga to increase production and stop gas flaring on-site, something that the company is trying to do in all its fields across the world, Nerguararian added.

-SARAH HURST

continued from page 14

SHTOKMAN

kets in the form of LNG, according to Hansen. StatoilHydro's experience developing the Ormen Lange gas field in the Norwegian Sea just south of the Arctic Circle and the Snohvit gas field in the Barents Sea will enable it to develop the subsea installations for Shtokman, he

"Tie these installations after they've been pre-drilled by floating units to the large floating unit, which will be the floating production ship, which will be disconnectable due to the harsh environment and the ice," Hansen said. "Bring the gas and the condensate onshore to Teriberka, a journey of about 600 kilometers (373 miles), for processing and ready for transportation as pipeline gas as well as LNG.

"StatoilHydro feels prepared for venturing north together and we think that we can bring three main elements to that table, called TPC," Hansen said. TPC stands for "technology enabler," "performing challenging development tasks" and "cooperation across borders." The company has been an architect in developing technology on the Norwegian continental shelf and its skills in that regard are highly relevant in Russia, Hansen explained.

"We have been able to carry out megaprojects within cost and schedule - complex projects," Hansen said. "We know that these ... have a tendency to experience cost overruns and schedule slippages, which of course has a detrimental effect on the viability of the project. So no one can guarantee, but I think we have to use the best experience and the best expertise we can get hold of.

"And my last comment is cooperation," Hansen said. "I think that is very important: We have been able to drive the cooperation between the authorities. the suppliers, the research facilities and the oil companies to obtain maximum value for everyone involved, and I think that is also some luggage that we would like to bring to Russia, which I think can create even better results in the future. So we are looking forward to be one of the partners in developing these fantastic possibilities that we can see in the Arctic." ●

continued from page 15

CARBON FIXES

100 years to arrest (GHGs) without significantly affecting our quality of life and to allow the developing world to still improve their quality of life."

"Many of the cycles and planning processes governments and business and others use are frankly just too short," he

March said new technology is vital in addressing environmental issues confronting the oil sands, such as GHGs, water use and land reclamation, noting that about 80 percent of Imperial's research spending is assigned to developing new oil sands technologies.

He later told reporters that the oil sands have become the "whipping boy" for environmental groups such as Greenpeace.

March said that although the Canadian government's environmental policy framework is focused on smokestacks and industries such as the auto sector, there is a real need for consumers to look beyond that effort and understand how their own actions play a role in climate change.

"This is where the cooperation of business, government, academia and the corporate sectors is going to be absolutely critical because if all we do is count on big (carbon dioxide) producers to effect the change, you just simply won't get

"New technologies will be developed, but once you make CO2 it's nearly impossible to unmake it," he said.

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GOVERNMENT

Risk analysis gets low marks from NAS

National peer review recommends Alaska take a top-down look at oil and gas failures costliest to state, get industry cooperation

By KRISTEN NELSON

Petroleum News

n oil and gas infrastructure risk assessment methodology developed by a contractor for the State of Alaska has received failing marks in a review by the National Academy of Sciences.

After Prudhoe Bay transit line leaks revealed corrosion problems that shut down parts of the Alaska North Slope field for two months in 2006, the state began looking for ways to increase its monitoring of oil and gas facilities in the state. Frank Murkowski, governor at the time of the 2006 spills, envisioned an agency to monitor oil and gas field facilities comparable to the state-federal Joint Pipeline Office which monitors the trans-Alaska oil pipeline. His successor, Gov. Sarah Palin, established a smaller monitoring office in the Department of Natural Resources and also got \$5 million funding from the Alaska Legislature for a risk assessment of the state's oil and gas infrastructure

In 2008 the state put out a request for proposals for a risk assessment study and awarded a \$4.1 million two-year contract to a joint venture of Doyon Emerald Consulting Group LLC and American Bureau of Shipping Consulting.

Part of the risk assessment involved a third-party peer review of the methodology in the risk assessment, and the Alaska Department of Environmental Conservation, which is leading the risk assessment project, commissioned the National Academy of Sciences to conduct that review.

The report of that review, by the Transportation Research Board of The National Academies, was completed in September and was released to the public Oct. 20.

DEC said in an Oct. 20 press release that the risk assessment is one element in the state's response to oil spills and revelations about the condition of certain North Slope pipelines.

DEC's Ira Rosen, the state project manager for the risk assessment, said in the release that, "The state oversight team is in the process of weighing the Academy's input, along with what we are hearing from the public, industry and government, to chart the best way forward."

Academy: State not well served

The board's conclusion was that the

state was not well served by the design of the risk assessment, based partly on the state's request for proposals and partly on the risk assessment methodology developed by Doyon Emerald-ABS. The board reviewed available documentation and meetings in Washington, D.C., and Anchorage, and found the risk assessment methodology to be problematic in three main areas. The board said "the management plan was not feasible given real-world constraints, ... the proposed risk methods were too detailed and lacked a sufficient top-down perspective necessary for capturing important risks, and ... the proposed results were static and stopped well short of providing the State with a set of tools for evaluating risk mitigation opportunities."

Focus on reliability

The board recommended that the state revise the scope of the project for future risk assessment efforts, "focusing first on risks to infrastructure reliability followed by studies and environmental and safety concerns." It recommended a combination of top-down and bottom-up approaches, and characterized the initial risk assessment as bottom-up. The board said the state should work with industry from the beginning "so that common goals can be identified and mutual cooperation can be ensured," and recommended focusing on an end goal of risk management including methods to increase system robustness.

In analyzing the methodology developed by Doyon Emerald-ABS the board said it "appears to be too data intensive given the available resources," and "assumes significant industry cooperation that is neither promised nor likely to be forthcoming."

But, the board said, even if industry were willing and able to provide the requested data, "it appears unlikely that the proposed methods are doable and would be useful in identifying and ranking the risk components of the physical and operational infrastructure system."

The board said it had requested a "worked example" of one small portion of the proposed method but was told that was not available without "significant additional funding."

And, even if the method proposed was successful in uncovering risk factors, the board said it did not believe that the output of the project in the proposed format would be useful to the state in risk management decision making.

The data issue

The board said that for the proposed assessment to be completed given the time and funding constraints, the contract team "was apparently expecting to draw upon significant industry cooperation and voluntary assistance."

One document, the board said, pegged a gratis industry contribution at 50,000 hours for a six-month period, some 25 man-years of work or 50 industry personnel working just on providing data for this project for six months.

Industry assistance was needed for all phases of the project, including obtaining detailed facility descriptions and historical failure data.

The board said it was "unclear that the contract team had a clear idea as to what specific data were needed to complete the assessment," and apparently planned "to cast a very broad net and collect as much information as possible from various industry sources and then to sort through it and select what was needed."

The approach raised "legitimate concerns" with industry, which did not know how the data would be used and how access to it would be controlled.

System complex

The board characterized two types of events with the potential for harm: large events which cause the state financial harm, such as the 2006 spills which caused BP Exploration (Alaska), the operator at Prudhoe Bay, to do a major shutdown in order to search for additional corrosion that could be the cause of further leaks; and smaller events which would have the potential to harm the environment or people, but would not cause the state financial harm.

"The approach to assessing the risks of major reliability and financial events generally requires a different approach than would be used for the environmental and safety risks," the board said.

Large-scale events "might include communications failures involving two or more operating organizations, human factors issues ..., failures of management systems ..., or events outside the oil and gas infrastructure that propagate into the infrastructure. As one might expect, a detailed, bottom-up analysis of all of the infrastructure elements is unlikely to identify such overarching factors that would lead to major events."

The board recommended starting with "the identification of situations that could cause major financial impacts," such as an extended shutdown of the trans-Alaska oil pipeline.

The second step would be to identify events which could cause such a shutdown. Once all possible situations that might lead to major reliability events are identified, "it would be possible to conduct specific, detailed analyses in order to develop mitigation strategies to eliminate or at least manage the risks."



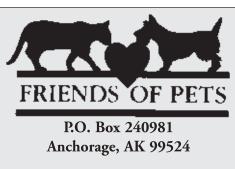
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Oil Patch Bits



Port, BP honored for clean 'shore power'

On Oct. 7 Everything Long Beach carried an article about the Southern California regional air pollution authorities presenting the Port of Long Beach with an award for becoming the first seaport in the world to construct an oil shipping terminal that offers clean "shore power" to improve air quality.

Port and BP America officials accepted the honor from the South Coast Air Quality Management District at the agency's 21st annual "Clean Air Awards" ceremony in downtown Los Angeles.

The Port of Long Beach outfitted BP's oil tanker terminal on Pier T with the ability to allow tankers to safely "plug in" to the landslide electrical grid for all power needs while docked and unloading crude oil. BP America retrofitted two of its Alaska oil tankers to plug in.

Crowley's Nalen named general manager in Valdez

Crowley Maritime Corp. said Oct. 7 that it has named Charlie Nalen general manager of the company's Valdez operations. In his new position Nalen will be responsible for the entirety of Crowley's marine operations in Valdez including ship assist and escort services for Alyeska Pipeline Service Co.'s ship escort and response vessel system. He will report to Bruce Harland, vice president of contract services, Alaska, and will relocate from Jacksonville, Fla., to Valdez.

"Charlie has helped to position Crowley as an industry leader in safety and environmental protection," said Harland. "He has taken the corporation to new heights and has earned a tremendous amount of respect from both Crowley customers and industry officials. We are very much looking forward to him bringing that know-how and focus to the Valdez operation where safety is paramount."



HoTH announces acquisition of Arctic Circle Air

HoTH Inc., an Alaska corporation owned by John Hajdukovich, Mike Hageland and James Tweto, the parent holding company of Frontier Flying Service, Hageland Aviation Services and Era Aviation Inc., said Oct. 14 that it has an agreement to acquire 100 percent of the common stock of Arctic Circle Air Service Inc.

Arctic Circle's cargo operation will join the in-state air group doing business as Frontier Alaska effective Dec. 1.

"This acquisition strengthens Frontier Alaska's position in the cargo business in the state of Alaska," said company CEO Bob Hajdukovich. "Both charter services, as well as scheduled services, will benefit from the added capacity and flexibility the acquisition will afford. Arctic Circle Air's two Shorts 330 all-cargo aircraft will complement the existing Frontier Alaska operations and improve the ability to move greater volume and oversized cargo within the state of Alaska."

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

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Air Logistics of Alaska		Engineered Fire and Safety		Northwest Technical Services	
Alaska Air Cargo	22	Epoch Well Services (see Canrig Drill	ing Technologies)	Offshore Divers (see Global Of	fshore Divers)
Alaska Analytical Laboratory		Equipment Source Inc.		Oilfield Improvements	
		ERA Helicopters		Opti Staffing Group	
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Alaska Coverall Alaska Dreams		ExxonMobil		PacWest Drilling Supply/Taiga Ventures	
Alaska Frontier Constructors		Flowline Alaska		Panalpina	
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Alliance, The		GPS Environmental			
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SAFETY & ENVIRONMENT

State of Alaska sets ESA issues strategy

By KRISTEN NELSON

Petroleum News

he State of Alaska is taking a threepronged approach to wildlife protection and development issues: It will intervene in court cases where the state has issues at stake and it will work more closely with other groups on conservation measures.

Alaska Gov. Sean Parnell and Alaska Attorney General Dan Sullivan announced the three-part strategy Oct. 21; Parnell said the goals were to help grow Alaska's economy and jobs while balancing wildlife interests which are also important to everyday life in Alaska.

"Alaskans have an excellent track record of both developing our natural resources and protecting our wildlife," Parnell said at a press briefing, and warned against attempts to "improperly use the Endangered Species Act to shut down responsible resource development."

"... I won't let this happen on my watch," the governor said.

Sullivan described steps the state is taking to implement the three-part strategy, including filing a summary judgment motion with others Oct. 20 in federal district court in Washington, D.C., opposing the polar bear listing.

The state will be intervening in the ribbon seal litigation, backing the federal government's decision not to list the ribbon seal as endangered.

And the state will be working more closely with others, beginning with the National Marine Fisheries Service, on conservation issues, including collecting baseline data using sound science to help the state make future decisions.

Sullivan said the state has focused on

continued from page 12

HABITAT

habitat partially or exclusively for maternity denning.

Although the Obama administration understands that the melting of Arctic sea ice constitutes the greatest threat to the bears, the administration also recognizes that the Endangered Species Act is not an appropriate tool for addressing the carbon emissions that are considered the root cause of climate change, Strickland said. The administration supports other climate change-focused initiatives such as proposed carbon emissions cap-and-trade legislation and the promotion of renewable energy sources, he said.

"These things will also, ultimately and indirectly, possibly affect the polar bear," Strickland said. "The action we're taking today is one that is functional and appropriate under the Endangered Species Act and we think is important to help protect the bear."

A recent order by Interior Secretary Ken Salazar is triggering initiatives by the Department of the Interior to use management practices and best science to address climate change, he said.

"The Fish and Wildlife Service recently released for public comment a strategic plan for addressing the impacts of climate change on wildlife and has begun working on a wildlife adaptation strategy," Strickland said. ●

protecting the polar bear through the Marine Mammals Protection Act and other measures, and significant North Slope resource development has been accompanied by "a significant increase in the robust polar bear population."

He called the polar bear listing under the Endangered Species Act unprecedented. "Never before has a species been listed when the population of that species is at its highest, most robust. It's at all time historical highs."

The decision was wrong in a number of areas, he said: It was based on a speculative scientific model that goes too far into the future; it failed to take into account current successful conservation programs; and the listing was not based on an observed population decline, which is the traditional way ESA listings occur.

Sullivan said there hasn't been a decline; there's been a population increase.

He said the state is particularly concerned that under the theory advocated in this case, any species that lives in the Arctic could be listed under the ESA, without regard to current health or size of the population.

"The long-term ramifications, we believe, of this legal theory gaining wide-spread acceptance potentially preclude resource development and economic opportunities throughout much of our state, in essence making Alaska the world's largest zoo, with no additional benefit to our wildlife."

LAND & LEASING

Orion pool rules expansion in works

Prudhoe Bay field operator BP Exploration (Alaska) has applied to the Alaska Oil and Gas Conservation Commission for an amendment of pool rules for Orion, a Schrader Bluff oil reservoir and one of the western Prudhoe satellite fields. The amendment would expand the area covered by the pool rules by including portions of ADL 390067, an adjacent lease to the north of the Prudhoe Bay unit.

This expansion has been in the works for some time.

In February the Alaska Department of Natural Resources approved an expansion of the Prudhoe Bay unit in the Orion area, adding 1,000 acres within ADL 390067, but declining to expand the Orion participating area until BP presented well data showing the proposed PA-expansion area is capable of producing in paying quantities.

The Orion participating area, formed in 2004, includes portions of 14 leases, some 18,842 acres, and is being developed from Prudhoe Bay pads L, V and Z.

At the time DNR's Division of Oil and Gas approved the acreage expansion, no wells had been drilled in the expansion area.

BP has now received drilling permits from AOGCC for a multilateral development well, L-203, with laterals L-203L1 through L-203L5, to be drilled from L pad to bottomhole locations in tracts south and west of the ADL 390067 expansion acreage.

—KRISTEN NELSON



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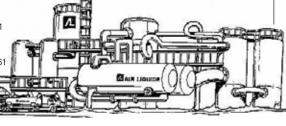
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OCS FEEDBACK

Many of the comments came from four regional meetings Interior Secretary Ken Salazar held in Alaska, California, Louisiana and New Jersey.

"I look forward to reviewing MMS's analysis of the public comments," Salazar said in a Sept. 22 press release. "The offshore energy program we are developing must address our nation's energy security challenges, deliver a fair return to the taxpayers who own the resources, and account for the views of local communities, states, and tribal nations."

The 2010-15 offshore leasing plan proposes 31 lease sales in the Gulf of Mexico; in south and mid-Atlantic waters; in areas off southern and northern California; and in Alaska's Beaufort and Chukchi seas as well as Bristol Bay and Cook Inlet.

NOAA's view

NOAA is an agency within the Commerce Department with broad regulatory and scientific responsibilities. These include managing the nation's commercial fisheries and protecting marine species listed as threatened or endangered.

Jane Lubchenco, a marine ecologist and environmental scientist who was teaching at Oregon State University when the Obama administration chose her to lead NOAA, signed the agency's comments to MMS.

NOAA questions many aspects of the

draft offshore leasing plan, including the ability to deal with oil spills in the Arctic.

The plan "does not focus on the challenges of spill response in Arctic waters, including the challenges of recovering oil from solid, broken and shorefast ice," NOAA commented.

"The challenges posed by Arctic conditions are greatly understated," NOAA continued. "Recovery rates of spilled oil in optimum situations (calm weather, in a harbor, rapid response) rarely exceed 20 percent, and response to spills in ice in remote areas is substantially more challenging. On-scene response efforts may take days to weeks to implement, and are rarely effective."

Before more Arctic leasing occurs, NOAA said more research is needed on oil spill risk, on preparing for and responding to spills, and on "human dimension impacts on Alaska Native cultures" from oil and gas exploration and accidents.

NOAA also said it strongly endorses lease deferral for Chukchi blocks within 25 miles of the coast, and suggests seismic airguns might drive marine mammals from their habitat.

As for the Beaufort Sea, NOAA said it's warming and experiencing more open water, prompting recent adoption of a federal policy banning commercial fisheries until more information is available. "A similar precautionary approach for oil and gas activities should be considered," NOAA said.

With respect to the North Aleutian basin, NOAA noted Bristol Bay supports

"nationally significant commercial fisheries, and extensive subsistence use by Alaska Natives." It added that northern fur seals in the region are "extremely sensitive to spilled oil," and seismic noise has potential to cause the endangered North Pacific right whale to abandon its feeding habitat.

NOAA said MMS failed to note the full impact an oil spill could have on Bristol Bay's fishing industry. "International markets for Alaskan seafood, for example, could be substantially impaired even by a small spill," NOAA commented.

"As a result of all of these factors, NOAA recommends that the Presidential withdrawal be extended for the North Aleutian Basin in order to protect these valuable fisheries," the agency wrote.

NOAA also said MMS can no longer truthfully say no "substantial environmental impacts" have been observed for many years as a result of offshore oil production and transport. NOAA cited the latest data on spills related to hurricanes Katrina and Rita, saying some damaged rigs and pipelines "continue to have episodic releases, and repairs have not been fully completed."

MMS figures show more than 600,000 gallons were spilled from federal offshore oil platforms and associated pipelines in hurricane-related incidents, NOAA wrote.

Elsewhere around the U.S. coast, NOAA recommended the leasing plan exclude Atlantic and Gulf of Mexico areas with environmentally sensitive seamounts, submarine canyons and coral. The agency also urged removal of entrances to Long Island Sound, Chesapeake Bay and Delaware Bay to protect sea turtle habitat.

Indigenous resistance

The North Slope Borough, which represents mostly Inupiat Eskimo villagers living along the Beaufort and Chukchi coasts, seemed to soften its general stance against offshore drilling, citing the new administration and hope for a break from "the flawed policies of the past."

Borough Mayor Edward Itta, in com-

ments to MMS, noted the borough previously had asked MMS to simply cancel the new leasing plan, which the borough saw as "an expedited rush to OCS develop-

Now the borough sees a compromise.

"We are willing to work with the federal and state governments to allow development of OCS resources, provided that drilling and infrastructure development occurs at onshore locations to the maximum extent practicable," the borough said, citing as a model BP's extended-reach drilling project to tap the Liberty field in the Beaufort Sea.

But no further lease sales should be held for the Chukchi Sea, where the ecology is changing rapidly and where extended-reach drilling "would clearly not be an option," the borough said.

Itta also touched on the subject of money, saying local governments in Alaska deserve a share of federal OCS oil and gas

The borough maintained its skepticism about industry's ability to prevent spills, or clean them up in the icy Arctic.

"The Borough understands that the probability of a major oil spill is extremely small. The evolution of offshore exploration and production technology has been paralleled by evolution in spill-prevention technology. Spills do continue to occur, however," the borough wrote, citing an Aug. 21 blowout and oil spill from a platform in the Timor Sea off northwestern Australia.

The Alaska Eskimo Whaling Commission, a nonprofit organization representing subsistence whaling captains in Barrow and other North Slope villages, said withdrawing the Chukchi and Beaufort seas from future leasing is "the only responsible decision." It said the Interior Department has provided "highly suspect" information about the risk of a catastrophic oil spill in the Arctic, and said the department's offshore leasing program under the Bush administration was "fundamentally broken."

"The new Administration must step in and assert new and responsible leadership to fix this situation," the whaling commission commented. It asked for "a comprehensive management plan" to protect North Slope and subsistence animals.

"Industrialization in the Arctic, particularly offshore activities, threaten to cause a myriad of interrelated impacts to the physical and mental health of the Inupiat people," the commission said.

ConocoPhillips, Shell weigh in

Two oil companies with vast Beaufort and Chukchi acreage under lease expressed general support for the proposed 2010-15 leasing plan.

ConocoPhillips, which spent \$506 million in last year's Chukchi Sea Lease Sale 193, noted MMS considers the Chukchi one of the most promising areas for offshore oil and gas exploration, second only to the Gulf of Mexico.

"We are taking a measured and responsible approach to prepare for our initial exploration well in the Chukchi Sea, which is now planned for summer of 2012," wrote David Brown, Alaska land manager for ConocoPhillips. "We are committed to explore the Chukchi Sea responsibly with respect for the environment and in a manner that also respects the subsistence way of life of the residents of Alaska's North Slope."

Chukchi production will be important for tempering the nation's reliance on imported oil, for extending the life of the trans-Alaska oil pipeline, and for supporting a proposed natural gas pipeline, Brown added.



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OCS FEEDBACK

Shell, which spent \$2.1 billion in Lease Sale 193, noted it's the nation's largest OCS leaseholder and the second largest offshore oil and gas producer.

While some say the leasing plan presents a difficult choice between economic and environmental impacts, "History and experience teach otherwise," wrote David Lawrence, Shell's exploration and commercial executive vice president in Houston.

The National Academy of Sciences has found that less than 1 percent of the oil in North American seas comes from OCS production and transportation, Lawrence

"Such analysis strongly indicates that failure to develop OCS resources may present an even greater risk of global environmental degradation as a result of increased worldwide dependence on production from less environmentally safe alternatives," he wrote.

Shell cited a recent University of Alaska study that found OCS development could produce \$5.8 billion in direct revenue to the state, with most of this going to local governments as property taxes on onshore petroleum facilities.

Shell supports legislation Alaska's senators, Democrat Mark Begich and Republican Lisa Murkowski, have introduced to share federal OCS oil and gas revenue with Alaska and other coastal states and Native corporations, Lawrence wrote.

The company also urged MMS to "expeditiously ... confirm the continued validity" of its Chukchi leases in light of an April federal appeals court decision partially vacating the 2007-12 leasing program pending further environmental analysis. Shell also said other court challenges and snags in getting federal air pollution permits have cost the company three Arctic drilling seasons and hundreds of millions of dollars.

Further drilling delays likely will "chill industry interest in any future Arctic OCS lease sales," Lawrence wrote.

Mixed legislative, fishing views

Among others submitting comments, a bipartisan group of Alaska state senators - Senate President Gary Stevens, Kevin Meyer, Con Bunde, Linda Menard, Dennis Egan and Bill Wielechowski — signed a joint letter expressing "strong support" for the new five-year leasing plan.

"Environmentally safe and responsible offshore oil and gas production has been going on for decades in Alaska," the letter said. "It can, and is being done, without harming the culture, traditions and lifestyle of Alaska's native population. Whale harvests and subsistence activities can take place while offshore exploration and development is conducted safely."

Two leading commercial fishing groups raised many concerns about the two proposed lease sales in the North Aleutian basin — Sale 214 in 2011 and Sale 239 in 2014.

Juneau-based United Fishermen of Alaska stopped short of calling for the basin to be excluded from the leasing schedule, but it requested such measures as "zero discharges from drilling installations" and a limit of one round of new seismic activity "with information to be shared by all leaseholders."

The Alaska Independent Fishermen's Marketing Association, a Seattle-based group of Bristol Bay salmon gillnetters, urged MMS to scrap the North Aleutian basin sales, calling oil and gas development "a grave threat" to the fishing indus-

CLARIFICATION

Administrative Support

Accounting

Clarification on EnCana oil sands story

The Oct. 18 issue of Petroleum News carried an article titled "EnCana fires up oil sands."

Rhona DelFrari, EnCana media relations advisor, sent a clarification about this sentence in the article: "The steam-oil ratio at Narrows Lake has a rating of 2 and could reach 2.5, while the steam-oil ratio at Christina Lake, leading up to eventual production of 200,000 bpd, has consistently ranged from 1.7 to 1.9."

DelFrari told Petroleum News in an e-mail that "The steam-oil ratio, or SOR, is expected to decrease with the use of solvent aided process, or SAP. That is what we've noticed with our pilot projects. If we go ahead with SAP at Narrows Lake, we are expecting to see an SOR of 1.5 -2. The current average SOR at Christina Lake, using SAGD, is 2.2. A lower SOR is better since it signifies less steam is needed per barrel of oil and thus less natural gas is burned to create the steam."

To view the full story, go here: www.petroleumnews.com/pnads/335743775.shtml.



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COSMO

suggesting no drilling was anticipated at Cosmopolitan in 2010.

On Oct. 20, with crude prices in the high 70s, Petroleum News asked Owens if there was any possibility Pioneer would do something at Cosmopolitan in 2010.

"Pioneer will conduct additional appraisal work at Cosmopolitan during the fourth quarter of this year and first quarter of 2010," Owens replied in an e-mail. "The

company plans to work over and flow test the Hansen 1A L1 well — originally drilled in 2007 — in order to gain additional reservoir information."

Pioneer, he said, "continues to move forward with permitting and facility planning activities as well as plans for a second appraisal well."

Thirty to 50 million barrels

The Cosmopolitan resource, which Pioneer has pegged at 30-50 million barrels of oil equivalent, lies about two miles offshore from Anchor Point on the southern Kenai Peninsula.

Pennzoil's Starichkof State No. 1 discovery well, a 12,112-foot vertical hole, was drilled with a jack-up rig. The company reported encountering the top of the Hemlock formation at 6,745 feet, recovering 30 barrels of oil from a drill stem test at about 6,900 feet and 21 barrels from a drill stem test at about 6,800 feet.

In a second well drilled in 1967 Pennzoil found some natural gas at 4,000 feet, but water in the Hemlock formation at 7,355 feet some two miles from the first well.

In 2003, ConocoPhillips, Cosmopolitan operator that year, drilled a long-reach well and sidetrack called Hansen 1 and Hansen 1A from an onshore well pad that sits six miles north of Anchor Point between the Sterling Highway and the coast.

Those wells "tested at a stabilized rate of 600 to 800 barrels a day over different intervals that lasted three to four months," according to statements made in 2005 by Tim Dove, president and chief operating officer of Pioneer.

Pioneer gradually bought out all the working interest owners of Cosmopolitan, including ConocoPhillips and Forest Oil, taking over as operator in 2006.

In September 2007, Pioneer started drilling the Hansen 1A 1L sidetrack from the same onshore pad used by ConocoPhillips, with Rowan rig 68. That well was completed in late 2007 and a subsequent extended test produced 400 to 500 barrels of oil per day from the Starichkof

"The whole objective here is to test this second horizon for its rate," Dove said at

The purpose of the rate test is to "determine whether we can go essentially directly to a development of this project." With an oil refinery about 60 miles away "... we've got a ready market for oil," he said.

Results encouraging, but no green light

Combined with the results of the tests in the original Hansen well, there was a flow rate of about 1,000 barrels per day, a number right in the middle of the hoped-for range, Owens said, but apparently not quite high enough to take the field to develop-

"The results were encouraging. ... Good news, but there's a lot of work to do before we can kick off full development at Cosmo," he said Sept. 12, 2008.

At that time Owens said Pioneer was

evaluating both the effectiveness of the drilling and the significance of the test

With the Hansen 1A 1L well targeting a relatively shallow prospect (the Lower Tyonek sand-prone interval found in the Starichkof well), and being the longest extended reach well ever drilled in the Cook Inlet basin's challenging coal seamlaced geology, he said it was critical to "learn from the experience of drilling that well before embarking on the next drilling project," describing Cosmopolitan as "sort of drilling Rubik's cube. You've got to be confident that your drilling plan is going to be successful and that you've got the best plan to develop that resource. Successfully drilling that well was a big step in the right direction for us, because that really proved to us that those long horizontals from onshore can effectively produce the reser-

"Technically they're very challenging wells. The technology that exists today in drilling allows these wells to even be contemplated. Ten or 15 years ago they probably would not have been realistic," he said.

Pioneer also intended to use the 2007 well test results, made public in February 2008, to learn more about the Cosmopolitan reservoir.

Second appraisal well

The second appraisal well, scheduled for late 2009, was going to be a separate well rather than a sidetrack, from the same well pad. That, combined with some frontend engineering development design work and some permitting, should lead to a development decision, the company said in 2008.

"At the end of 2009 we're hoping to have a good project design, to have permits in place and to have a second successful appraisal well drilled," Owens said Sept. 12, 2008, when West Texas Intermediate crude was still \$100 per barrel. "At that point we think we'll have everything in place to ... move forward with a full development."

The development design that Pioneer envisaged prior to cancellation of the 2009 well, would likely involve tankers trucking oil from the well pad to the Tesoro refinery at Nikiski. The trucks would use the existing Sterling Highway that runs down the west side of the Kenai Peninsula. The operation would only cause a small increase in highway traffic, Owens said.

"We'd have processing facilities and a truck-loading rack on-site adjacent to the existing drill pad," he said.

If Cosmopolitan goes on line, the field would also produce modest quantities of natural gas — the field reservoir has a very low gas-to-oil ratio, Owens said. Pioneer anticipated the construction of a 16-mile gas pipeline that would extend north to connect into the southern end of the existing Kenai Kachemak pipeline.

Original schedule

In November 2007, Pioneer's tentative development schedule called for permitting in 2008, facility construction in 2008-09 and development drilling in 2009-10.

If all went well, the Texas independent was hoping for first production in 2010, company President Ken Sheffield told attendees of the mid-November Resource Development Council conference in Anchorage, when oil prices were around \$55 per barrel. At that time the company was wrapping up drilling operations on sidetrack Hansen 1A L1 and hoped to have it flow-tested by the end of the year. If it was successful Sheffield said the company would drill 12 more directional wells to develop the field.

Pioneer has 100 percent of the working interest in Cosmopolitan.

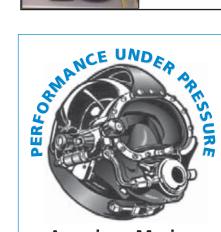


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SHELL

MMS permits to drill.

Scaled down

Shell's exploration plan, much scaleddown in comparison with a now-withdrawn 2007-09 plan that had run aground on a barrage of litigation, envisages drilling one well in the company's Sivulliq prospect and another well in the Torpedo prospect, both prospects being located on the west side of Camden Bay, north of the eastern end of the North Slope. The company has said that this limited two-well program, involving just a single drillship, takes account of concerns voiced in particular by North Slope communities, worried about the cumulative impact of offshore oil and gas activities on subsistence hunting and the marine environment.

According to MMS, Shell's drilling would occur between July and October, but operations would cease during the fall subsistence bowhead whale hunts by the Native villages of Kaktovik and Nuiqsut. That break in drilling operations would start on Aug. 25 and would continue until the whale hunts end for the season; the drillship and all vessels involved in the drilling would proceed to the northwest or entirely leave the Beaufort Sea during the break, MMS said.

"This is another positive step towards the goal of drilling in 2010," said Pete Slaiby, Shell's Alaska general manager, in response to MMS approval of Shell's plan. "There is still work to be done before we reach that goal, including obtaining all required permits and continued engagement with stakeholders. At this point we are still planning for success, and that means putting the blueprints in place for a successful open water season in 2010. We sincerely believe this exploration plan addresses concerns we have heard in the North Slope communities which have resulted in the programs being adjusted accordingly.

"These opportunities in the Beaufort Sea together with other opportunities in the Chukchi Sea have the potential to positively impact North Slope Borough residents, the State of Alaska and the nation in a material way."

Efforts recognized

The North Slope Borough, one of a

Staging area for the drilling fleet during the Fall Cross Island (Nuiqsut) and Kaktovik Bowhead whale hunt Kaktovik Pacific Ocean Village 2010 Exploration Plan Block State-Federal Water Boundary SHELL Shell OCS Lease Block Road **Pipeline** PLANNED EXPLORATION **DRILLING PROGRAM** NAD83, Alaska Albers Equal Are

number of organizations that appealed MMS approval of Shell's ill-fated 2007-09 Beaufort Sea plan, has recognized Shell's efforts to scale back its planned operations, while still expressing caution about offshore safety and environmental protection.

"Shell made a substantial effort to reduce impacts and shrink the footprint of its 2010 exploration work in the Beaufort Sea, and I appreciate that," North Slope Borough Mayor Edward Itta told Petroleum News Oct. 20 in response to the MMS announcement. "We will continue to work with them to achieve the safest possible operation in these sensitive waters. We'll also be watching to see if state and federal regulators do their part in assuring safe operations too."

But a raft of environmental organizations issued an Oct. 19 press release condemning the MMS decision.

"This decision is very disappointing," said David Dickson, Western Arctic & Oceans program director at Alaska Wilderness League. "Once again, MMS approved a drilling plan without a full analysis of the potential consequences."

"The reality of offshore oil drilling is that accidents will happen. And when oil spills in Arctic ice, there is no cleaning it up," said Chuck Clusen, director, national parks and Alaska projects, at the Natural Resources Defense Council. "A blow-out like the one that recently despoiled waters off the coast of Australia would leave oil in the waters off the coast of the Arctic National Wildlife Refuge for decades, killing whales, seals, fish and birds and turning irreplaceable spawning and feeding grounds into an ecological wasteland.'

Announcement welcomed

On the other hand, Alaska's two U.S. senators welcomed the MMS announcement.

"Today's announcement from the Minerals Management Service, approving Shell's plan of exploration for the Beaufort Sea, is an encouraging sign that Alaska's oil and natural gas resources will continue to play a major role in America's energy security," said Sen. Lisa Murkowski. "... I will continue to work with the administration to ensure that environmentally responsible exploration

see SHELL page 24



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to pay royalties based on a bitumen price that is half what all other producers pay.

Stelmach's response, other than suggesting Dunn merely "picked a number out of the air," was to make a province-

wide televised speech on Oct. 14 to defend his government's economic performance and follow that with word that he will trim 15 percent off his premier's allowance, while cabinet ministers



ED STELMACH

will take a 10 percent cut, in the process of imposing a two-year wage freeze on civil service managers and asking teachers, nurses, doctors and other public-sector workers to voluntarily accept the same freeze.

Stelmach's own gesture was scorned by opponents, who asked why he didn't make the announcement on television, and the government unions rejected any talk of a wage freeze.

In attempting some fence mending with the energy industry, which is still seething over royalty increases introduced this year, Stelmach said he is determined that the sector along with other industries will be globally competitive and able to attract the investment

He said the government will complete a competitiveness review by the end of 2009 that will ensure the upstream oil and gas industry can "reduce the cost of doing business in our province and remove barriers to prosperity."

needed to develop Alberta's resources.

He said that goal is part of a fourpoint strategy to achieve economic recovery, which means Alberta will not regain a budget surplus for another three years.

Stelmach said the oil sands are tied to the future prosperity of the province and the rest of Canada and, although that requires wise development over the long term, Alberta is leading the way in setting greenhouse gas emission limits and in the promotion of carbon capture and storage technology.

He said the government will complete a competitiveness review by the end of 2009 that will ensure the upstream oil and gas industry can "reduce the cost of doing business in our province and remove barriers to prosperity."

The review is targeted at improving the working relationship between the Department of Energy, industry and the financial sector to produce a common understanding of Alberta's competitive standing within the natural gas and conventional oil sectors and to make recommendations for changes.

—GARY PARK

FAIRBANKS ALASKA AREA PLUMBERS AND PIPEFITTERS JOINT APPRENTICESHIP TRAINING COMMITTEE WILL BE ACCEPTING APPLICATIONS FOR APPRENTICE PLUMBERS AND PIPEFITTERS ON A CONTINUAL BASIS BEGINNING OCTOBER 1, 2009. APPLICANTS MAY SUBMIT AN APPLICATION REQUEST TO: 1978 BURGESS AVENUE, FAIRBANKS, ALASKA 99709-5518. TELEPHONE: (907) 456-5989. FAX: (907) 456-5905, OR BY EMAIL: jatc375@acsalaska.net, INTERNET: www.ualocal375.org. OFFICE HOURS: MONDAY - FRIDAY, 8 - 12 PM, 1 - 5 PM.

REQUIREMENTS UPON MAKING APPLICATION:

A. YEARS OF AGE: A MINIMUM OF 18.
B. PROVIDE THE FOLLOWING DOCUMENTS:

- 1. BIRTH CERTIFICATE.
- 2. HIGH SCHOOL DIPLOMA & TRANSCRIPT OR G.E.D. CERTIFICATE AND REPORT OF TEST RESULTS.
- 3. MILITARY TRANSFER OR DISCHARGE FORM DD-214, IF APPLICABLE.
- 4. VALID AK DRIVER'S LICENSE WITHIN 6 MONTHS OF ACCEPTANCE.
- C. DRUG FREE

APPLICANTS WILL BE REQUIRED TO APPEAR FOR INTERVIEW WHEN SCHEDULED.

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SHELL

is also allowed to move forward in the Chukchi Sea, and to secure revenue sharing for Alaska."

"This decision shows Secretary Salazar and the Obama administration recognize the importance of Alaska's abundant offshore oil and gas resources, and it brings us one step closer to environmentally responsible development offshore of Alaska," said Sen. Mark Begich. "They are getting the balance right: including safeguards for important subsistence resources and allowing drilling to go forward."

Shell has said that it sees its 2010 drilling plan as an opportunity to demonstrate safe drilling in the Arctic offshore. A minimum of six support vessels will provide ice management, anchor handling, oil spill response capability, refueling and the servicing of drilling operations.

The company has said that modern well planning, real-time monitoring and state-of-the-art drilling techniques make an oil spill during exploration drilling extremely improbable. However, a four-vessel oil spill response fleet accompanying the drilling operation will include the Endeavor oil spill response barge and a 500,000-barrel-capacity oil spill response tanker — the tanker will be stationed at a location within a 24-hour sailing time of the drilling operations, with the on-site response vessels having sufficient storage capacity to support an oil spill cleanup until the tanker arrives.

Permits needed

However, Shell must still obtain a U.S. Environmental Protection Agency air quality permit for its offshore operations. And, following litigation over minor air quality permits that it has obtained in the past for Beaufort Sea drilling, Shell has applied for a major air quality permit for its 2010 Beaufort Sea program. EPA is processing that application.

Shell has also said that it will make a \$25 million modification to the Frontier Discoverer, to install catalytic reducers to scrub the engine exhaust and reduce the emission of pollutants from the vessel by more than 90 percent.

MMS has Shell's Chukchi plan under review

The Minerals Management Service said in an Oct. 20 letter to Shell Offshore Inc. that it has reviewed the company's 2010 exploration drilling program for the Chukchi and will make a decision within 30 calendar days on whether to approve, disapprove or require modification of the plan.

Shell said in the plan that it has identified seven lease blocks within three prospects — Burger, Crackerjack and Southwest Shoebill — for its 2010 Chukchi Sea exploration plan. The company said it has identified five possible drill sites, three in Burger and one each in Crackerjack and Southwest Shoebill.

If conditions are favorable, Shell said, it plans to drill exploration wells at three of the five sites, and said that to allow for operational flexibility, all five sites will be permitted for drilling in 2010.

See story in Nov. 1 issue.

—PETROLEUM NEWS

The company's Beaufort Sea exploration plan is also undergoing a review by the Alaska Department of Natural Resources for consistency under the Alaska Coastal Management Program.

Shell is also planning to drill a single exploration well in the Chukchi Sea in 2010. The company has submitted a separate exploration plan for MMS approval, as well as applying for the appropriate permits, for its planned Chukchi Sea operation.

And time is of the essence for completion of the permitting for both the Beaufort and Chukchi Seas: The company has said that it needs it to be in a position to make a go-or-no-go decision on the 2010 drilling at the start of that year, given the expense and effort involved in ramping up for any Arctic outer continental shelf drilling activity. •



