



## BRBR hot off the press!



The special publications division at Petroleum News has just released a new full-color magazine called "Big Risk, Bigger Rewards," or BRBR. Designed to attract both new operators to Alaska and investment in existing Alaska projects, BRBR was first released at the annual North American Prospect Expo, or NAPE, in Houston. NAPE was created to provide a marketplace for the buying, selling and trading of oil and gas prospects. Next, the magazine is bound for North America's largest oil and gas event, the Offshore Technology Conference, or OTC, also in Houston.

## Eastern North Slope Badami field to be restarted in September

Greg Vigil, executive vice president of Savant Alaska, says the eastern North Slope Badami field will be back online by September 2010.

"Savant Alaska LLC has ... elected to have BP restart the Badami Plant for the purpose of resuming production from certain existing Badami Sand Participation Area wells, flow testing the B1-38 (Red Wolf) exploration well and evaluating the performance of the planned B1-18 sidetrack well," Vigil told Petroleum News in a Feb. 10 e-mail.

By restarting Badami, "we will be able to fully evaluate the prospective zones in the B1-38 exploration well and better determine if horizontal drilling will help unlock the extensive Badami Sands oil resource," he said.

Savant, which holds a 90 percent working interest in the two see **BADAMI** page 15

## Greening of Oil: Latest from Mac Ackers

### BILL STREEVER IN SPOTLIGHT

... A statistician may not be moved, but I was pleased to see people respond positively to our [Bill Streever story](#). No backlash regarding ecologist Streever as a "sellout," or worse, just real people with not-so-typical jobs in the oil industry who also feel they've had a positive impact, such as Al Allen, an oil spill specialist, who has worked "within" the oil industry for 42 years. Al says, "We can have a much more profound effect working this way. ... Bill has a great outlook and is doing such good things 'from



MAC ACKERS

see **GREENING OF OIL** page 19

## EXPLORATION & PRODUCTION

# Corps denies permit

National interest in Colville River Delta overrides local interest in CD-5

By KRISTEN NELSON  
Petroleum News

The U.S. Army Corps of Engineers has denied ConocoPhillips Alaska permits to develop the CD-5 project on Alaska's North Slope west of the Colville River Delta in the National Petroleum Reserve-Alaska.

The corps' record of decision, dated Feb. 5, acknowledged local and state support for the project, which would see the first development of oil and gas resources within NPR-A, but said overriding national interests drove the denial, specifically concerns about "further impacts to the aquatic resources" in the Colville River Delta, which lies just east of NPR-A.

ConocoPhillips had local and state support for the project; both the U.S. Environmental Protection

**Under the ConocoPhillips proposal, the corps said some 2.5 miles of gravel access road (approximately one-third the width of the delta at this location), three bridges with a total of 69 pilings and the 0.03-acre Nigliagvik pad would be constructed within the Colville River Delta.**

Agency and the U.S. Fish and Wildlife Service opposed the project, citing aquatic values in the Colville River Delta.

ConocoPhillips had reached resolution on local concerns about the project with changes in bridge location and an agreement to fund a road to connect

see **PERMIT** page 18

## LAND & LEASING

# A Point Thomson timeout?

DNR lawyers petition Alaska Supreme Court for relief in battle with Exxon

By WESLEY LOY  
For Petroleum News

Lawyers for the state have petitioned the Alaska Supreme Court to review and overturn a lower court ruling that ExxonMobil and other leaseholders deserve another administrative hearing in the fight for control of the Point Thomson field.

Such a hearing, lawyers for the state Department of Natural Resources told the high court, would be an arduous and expensive proceeding that would extend the Point Thomson litigation for years.

"More specifically, the hearing will involve testimony from technical experts representing both DNR and the lessees, including reservoir geologists, petroleum engineers, and drilling technicians," the state lawyers said. "Adding to the complexity is that a vast

**If the state has to hold a Section 21 hearing, it will need several state attorneys and DNR staffers, the petition says, yet "those best able to assist the agency in this hearing are the very people" Gleason has ruled the commissioner can't use.**

amount of the testimony, evidence, and data will require confidentiality protection, requiring protective orders, confidential filings, and hearing sessions. Both parties will likely seek extensive discovery, with tens of thousands of documents, numerous depositions, and discovery disputes. Given the significance

see **TIMEOUT** page 17

## SAFETY & ENVIRONMENT

# Waving the oil sands banner

Various industry leaders mount case for oil sands-derived exports to US

By GARY PARK  
For Petroleum News

Those opposed to the "dirty oil" and "fossil of the year" labels that have been stuck on Alberta's oil sands are answering back.

One of the strong messages, especially to his U.S. audience, came from BP chief executive officer Tony Hayward, who told the Guardian newspaper in the United Kingdom that Canadian heavy oil "is going to be a very important part" of the U.S. energy future.

He based that view on his belief that the U.S. will never impose import restrictions on oil sands-derived crude.

BP is involved in a joint production and refin-

**"Only 2 percent of our oil sands resources can be mined," she said. "The balance has to be developed through in situ processes." —Pat Nelson, vice chair of the In Situ Oilsands Alliance**

ing venture with producer Husky Energy and faces a decision this year on whether to proceed with the 200,000-barrel-per-day Sunrise project.

However, Hayward did concede that BP's emphasis on cleaner production methods is at odds with the more environmentally damaging means of extracting bitumen from the oil sands deposits.

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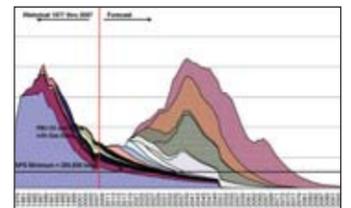
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• ALTERNATIVE ENERGY

# Chakachamna hydro seeking \$5M

*TDX riding favorable Integrated Resource Plan recommendation and pending FERC permit into legislative session, asking for money to help fund fieldwork for studies this summer*

By ERIC LIDJI  
For Petroleum News

The profile of Chakachamna Lake hydropower, a project proposed for the west side of Cook Inlet in Southcentral Alaska, has risen a lot in the last two months.

In early December, a study of Railbelt energy needs placed Chakachamna ahead of a much larger and more widely discussed hydropower project on the Susitna River.

The Federal Energy Regulatory Commission is currently deciding whether to extend the permit that lets TDX Power, the sponsor of the Chakachamna project, study the project.

Now, TDX hopes those developments will bolster its case before the Alaska Legislature. The company wants \$5 million in state funds to help pay for fieldwork this summer.

Lake Chakachamna sits near the southern end of the Alaska Range, about 80 miles west of Anchorage across Cook Inlet.

Updating a concept from the 1980s (based on site work conducted by the U.S. Bureau of Reclamation in the 1960s), TDX would use the lake's elevation to generate power by sending water down a 10-mile tunnel from the eastern end of the lake to an underground power plant on the north side of McArthur River.

The power would be fed into the Railbelt grid through a new transmission line.

TDX, a subsidiary of the Tanadgusix Native Corp., estimates the project could produce an average of 1.6 gigawatt hours of energy from an installed capacity of 330 megawatts.

TDX estimates the project would cost \$1.6 billion in 2008 dollars with an additional \$58 million in transmission costs and around \$10 million in annual operating expenses.

### Good, but not yet certain

Although based on a decades-old idea, Chakachamna often

see HYDROPOWER page 5



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• SAFETY & ENVIRONMENT

# Melt faster than 'pessimistic models'

*Pew study says cost of Arctic meltdown could reach US\$2.4 trillion; second study, headed by University of Manitoba's David Barber, finds Canadian sea ice could be gone in 3 years*

By GARY PARK  
For Petroleum News

Two more scientific reports have added to the sound of alarm bells in the Arctic with the results being presented to the world's most powerful finance ministers and bank heads who met in Canada's Nunavut Territory Feb. 5 and 6.

A study prepared for the Pew Environment Group said the global cost of an Arctic meltdown could reach US\$2.4 trillion unless there is reversal of current warming trends.

Separately, a circumpolar study group said sea ice in Canadian Arctic waters is melting faster than anyone expected and the sea ice could be eliminated within three years.

They follow similar warnings in the last two months by Canada's National Round Table on the Environment and the Economy and by scientists at the University of Colorado.

### Pew study estimates cost

The Pew study, released Feb. 5, said the "cumulative cost of the melting Arctic in the next 40 years is equivalent to the annual gross domestic products of Germany, Russia and the United Kingdom combined."

The report was released as a Group of Seven leaders arrived in the Nunavut capital of Iqaluit.

The Pew Environmental Group urged G-7 ministers to "commission a full economic analysis of the global climate services provided by a frozen Arctic and what losing the planet's 'air conditioner' will cost all of us."

The study, written by economist Eban Goodstein and Arctic scientist Eugenie Euskirchen, developed the cost estimates by looking at the impact on agriculture, energy production, water availability, rising sea levels and flooding.

For 2010 alone, the study estimated Arctic melting would be "equal to 40 percent of all U.S. industrial emissions, or (be similar to) bringing on line more than 500 large coal-burning power plants."

Euskirchen said the costs will ultimately be borne by farmers, homeowners, businesses, cities and towns "as they

face the consequences of instability."

### Melt happening faster

In the second study, University of Manitoba Professor David Barber, the lead investigator of Canada's largest climate-change study to date, said the rapid decay of thick Arctic ice underscores the rapid changes taking place in the north and foreshadows what will happen in the south.

The melt is happening "more quickly than what our models thought would happen. It is happening much faster than our most pessimistic models suggested."

The project involved global scientists who spent last winter on the Canadian Coast Guard research ship Amundsen, work which was covered by C\$156 million of Canadian government money.

Barber equated the melting sea ice with the disappearance of rain forests, where cutting down all of the trees collapses the ecosystem.

He said the scientists initially assumed

the Arctic would be ice-free by 2100; now they expect it will be somewhere between 2013 and 2030, which will mean warm trends will be warmer and cold trends colder.

John Hanesiak, an associate professor at the University of Manitoba, said human actions and the releases of greenhouse gases could result in more frequent summer droughts and more spring floods in southern climates.

Scot Nickels, senior science advisor with Canada's national Inuit organization, said climate change is already having a significant impact on the lives of people in the Far North, creating a need for economic development such as mineral and oil and gas exploration as those lifestyles disappear.

"It's a real balancing act that has to be done," he said. "As we know in the south, that's not an easy thing." ●

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• SAFETY &amp; ENVIRONMENT

# A black eye that will stick

EnCana gets scolded for handling of sour gas leak in British Columbia; ponders new technologies to set off earlier alarms

By GARY PARK  
For Petroleum News

For EnCana, it's bound to be one of those low-water marks that is associated with the big Canadian independent for years to come.

You can safely bet a lot of corporate time and money will be devoted to ensuring there is no repeat performance.

It's something like EnCana's version of the 1982 Johnson & Johnson cause célèbre when cyanide-laced Tylenol killed seven people in the Chicago area, or the ongoing struggles by Toyota to snuff out the controversy over its brake and accelerator system.

EnCana's problems started on the morning of Nov. 22 and culminated Feb. 3 with one of the sternest rebukes a

**The OGC concluded the leak was caused by sand in the gas that eroded the side of the pipe and accused EnCana of failing to properly clean the well after it was built.**

company has ever received from the British Columbia Oil and Gas Commission.

The fallout is harder to measure, but it does no good for EnCana's public image, which has attracted considerable public sympathy during a series of unsolved pipeline bombings in British Columbia and frequent accusations that EnCana has not paid enough attention to public safety.

Suspicions among local residents

that their concerns are being brushed aside gained momentum in mid-January when the OGC belatedly cancelled a public meeting to discuss the causes and consequences of the potentially deadly hydrogen sulfide leak on Nov. 22 from an EnCana well site near Pouce Coupe, a town of 700 residents, about 15 miles west of the Alberta-British Columbia border — a leak the company initially said posed no danger.

## Commission cites failures

The OGC investigation took a much tougher line, laying out a litany of failures.

The watchdog said there were multiple system failures when a pipeline ruptured and EnCana failed to properly execute its emergency response plan.

"The commission notes that it would be impractical for EnCana to notify residents or prepare for evacuation upon receipt of every alarm," the report said, but insisted that in this case there were indications of an active gas release before a visual inspection.

The OGC said the company did not start evacuating area residents until 71 minutes after the first alarm went off and failed to notify the B.C. government until almost an hour after workers visually confirmed the leak.

The investigation said that although the flow of information within EnCana was effective, its delays in "external notifications reduced the overall effectiveness of the response."

A chastened EnCana quickly followed the report's release with a news conference when Mike McAllister, vice president of the Canadian Deep basin business unit, said the company fully accepted all the directions and 12 binding recommendations in the OGC report.

He said many of the proposed responses have already been implemented and the rest will be carried out, including additional controls and monitoring at all wells that are within about two miles of a residence and where well control is dependent on testing hydrogen sulfide levels in the air around pipes.

EnCana said it is exploring new technologies that might sound alarms earlier, including when slow leaks occur.

It is also planning educational sessions on emergency response and hydrogen sulfide awareness for residents living near its operations.

"We are very sorry this has happened," McAllister said. "We know this incident was disruptive and is of considerable concern for residents directly affected by the leak."

He said it was an extremely rare event, unlike anything EnCana had previously encountered, but conceded that "clearly procedures were not followed."

## OGC report

The OGC report said:

One resident first smelled what he thought was sewage at 2:30 a.m.; three others heard jet-like roaring sounds and smelled rotten eggs in the next five hours, but none notified authorities.

At 8:30 a.m. a local hunter saw a gas cloud and smelled strong odors, so he urged nearby residents to evacuate and called 911.

At 8:30 a.m. the pipe at the well site experienced a "sudden failure" and at 9:05 a.m. EnCana's control room received an alarm, followed five minutes later by an alarm which confirmed the well had shut-in due to hydrogen sulfide.

At 9:35 a.m. the Royal Canadian Mounted Police told EnCana about the leak, one hour after the 911 call.

An EnCana operator visually confirmed the leak at 9:52 a.m., but the company did not start evacuating residents until 10:16 a.m., then notified the Provincial Emergency Program at 10:49 a.m., which EnCana said it would not normally do until it knew exactly what was happening.

## Side of pipe eroded

The OGC concluded the leak was caused by sand in the gas that eroded the side of the pipe and accused EnCana of failing to properly clean the well after it was built.

McAllister said EnCana shut down 225 wells after the incident and checked pipelines for erosion problems. None was found unsafe, but six are still being examined.

No matter what steps EnCana is taking to regain community trust, the damage has been done.

Lois Hill, a representative of a citizen's environment and safety group, told the Globe and Mail the Nov. 22 incident "has proven to us beyond any doubt that we are not safe."

EnCana and the OGC have repeatedly told the residents that safety measures are redundant.

"We now see that's not true," she said. "You shouldn't have to wait for a catastrophic failure until alarms are sounded."

Tim Ewert, a Pouce Coupe resident, said in January that he was told by the OGC that the level of hydrogen sulfide coming out of the well varied from 6,100 to 8,200 parts per million — the OGC report put the level of sulfur dioxide at 6,200 parts per million — when 7 parts per million "will kill you instantly."

"Sometimes it gets so frustrating, just the twisted kind of tale of deceit and cover up," he said.

And dealing with that view will be part of EnCana's long haul back to credibility in the region. ●

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# Administration oil tax change bill filed

Parnell proposes 'four discrete changes' to production tax; in House bill Johnson proposes tax reduction, credits for Alaska hire

By KRISTEN NELSON  
Petroleum News

Earlier this year Alaska Gov. Sean Parnell talked about the changes he would like to see made in ACES, Alaska's Clear and Equitable Share, the state's oil and gas production tax. The administration bill embodying those changes was introduced Feb. 9, and the governor said in a transmittal letter that the administration "bill will provide incentives for explorers and producers to continue to invest in Alaska," with changes designed to encourage investment and employment within the state and ultimately to increase production of oil and gas within the state.

Meanwhile, a bill introduced by Rep. Craig Johnson, R-Anchorage, to reduce the tax rate in ACES, was amended to include tax credits for companies who employ 80 percent or more Alaskans in the state, with the credit increasing as the percentage of Alaskans on the company's workforce increases.

However, a memo from Legislative Counsel Donald Bullock, warned that "The incentive for the employment of resident workers by a reduction in tax burden raises constitutional issues because of the effect on workers who are not residents of the state."

Bullock said the incentive for employing resident workers "corresponds to a disincentive for employing workers who are not residents. This raises a question of whether the inducement violates the privileges and immunities clause of the United States Constitution or the equal protection provisions in the United States and Alaska Constitutions."

**Currently the state interest rate for late payments of all tax types is the higher of the federal funds rate plus 5 percent or 11 percent, Dickinson said. The bill provides that the state would charge interest at the lower of the federal funds rate plus 2 percent or 11 percent. That rate would also apply to late royalty payments, he said.**

## Reduction in rate

While the administration proposal deals primarily with credits — expanding existing credits to include 30 percent for all drilling and well-work expenses; allowing the state to pay for capital credits earned by explorers regardless of their future spending levels; allowing companies to enjoy the benefit of capital credits in the year they are earned; and allowing for waiver of interest charges on late payments due to retroactive application of new regulations — Johnson's bill proposes a wider range of tax changes.

It includes a provision that interest is not due on retroactive regulatory changes prior to implementation.

But it also proposes — in addition to the tax rate reduction for resident hire — dropping the progressivity rate from 0.4 percent to 0.2 percent, providing a 30 percent credit for well work and changing the interest rate the state charges for all Alaska tax types.

## Interest rate issue

CPA Dan Dickinson, a former director of the

Department of Revenue's Tax Division, reviewed the interest rate issue for the House Resources Committee at a Feb. 8 meeting.

Currently the state interest rate for late payments of all tax types is the higher of the federal funds rate plus 5 percent or 11 percent, Dickinson said. The bill provides that the state would charge interest at the lower of the federal funds rate plus 2 percent or 11 percent. That rate would also apply to late royalty payments, he said.

Dickinson told the committee that the existing interest rate was implemented in 1991 as the state was settling major production tax and royalty litigation going back to 1977. Federal funds rates have dropped dramatically since the early 1990s, and a table included in Dickinson's presentation included interest rates for under payments of tax under the Internal Revenue Code: the federal funds rate plus 5 percent for large corporations; and federal funds plus 3 percent for corporate and non-corporate. According to a chart in Dickinson's presentation, the IRS large corporate rate is now running just above 5 percent, compared to the state's 11 percent rate.

While the state can compromise the amount of tax and interest in a settlement, state statutes do not mention compromise on interest, Dickinson said in his presentation.

Other oil tax bills introduced this session include a bill by Rep. Clarisse Millett, R-Anchorage, to reduce the net tax rate from 25 percent to 20 percent and a Senate companion bill to Johnson's bill, introduced by Sen. Lesli McGuire, R-Anchorage. ●

Contact Kristen Nelson at [knelson@petroleumnews.com](mailto:knelson@petroleumnews.com)

continued from page 3

## HYDROPOWER

found itself overshadowed by a much larger and much more heavily debated hydropower project on the Susitna River.

That balance shifted slightly in December, when the engineering firm Black & Veatch Corp. released a draft of its Integrated Resource Plan. The plan gives some direction to policy makers by taking a comprehensive look at the future energy needs in the Railbelt and by examining power projects currently being proposed or developed.

The study found that Susitna would provide more power than the Railbelt needs, and that even a scaled back version of the project would not be as cost-effective as Chakachamna.

The report even recommended that the state help pay for Chakachamna by offering large loans that would be built into power costs and paid back over the life of the project.

But Chakachamna isn't a sure thing, yet. "Chakachamna could fail to develop because of licensing or technical issues," the report noted, adding that if costs increased to the point where Chakachamna power became equal to Susitna power, it would no longer be the more preferable of the two projects.

As a result, the report recommended that Chakachamna, Susitna and other hydro projects all advance for now until environmental, geotechnical and cost uncertainties get resolved.

## 49 studies still remain

TDX is close to resolving one of those licensing issues: an extension from FERC.

TDX got a preliminary permit from FERC in late 2006, giving it exclusive rights to study a hydropower project at Lake Chakachamna. The permit only lasted for three years, though, and so this past November, TDX applied for another permit to keep studying the project.

The comment period on that application ends on Feb. 15, meaning TDX should

know soon whether or not it's cleared to continue looking into the feasibility of the project.

Although TDX told regulators it has spent more than \$2.5 million on the project so far, there is still a lot of work to do. In filings, TDX listed 49 studies — most related to fish, animals and engineering — that it still needs to complete during the studying phase.

TDX hopes to conduct 11 of those this year, according to project manager Eric Yould.

## Asking for money, and soon

To do that, TDX is asking the state for \$5 million this year.

The request is timely, but also competing for attention.

Lawmakers convened in regular session in Juneau right now not only have the draft Integrated Resource Plan on their desks, but will also be considering another round of Renewable Energy Fund applications. Humming along in the background is a left-over goal from the administration of former

Gov. Sarah Palin to have at least half of the state's electricity produced from renewable sources by 2025.

Yould said the draft Integrated Resource Plan bolsters TDX's case.

"We were always confident in ourselves," Yould said. "The Legislature and the administration, they needed their own individual assessment of the project and that's essentially what the IRP did. And so we're seeing much more support for it."

That support may not only help TDX get the money it wants in the capital budget, but also help get some of it sooner rather than later. Yould said the company ideally wants \$2 million of its requested appropriation to come in the supplemental budget, allowing TDX to have cash in hand by May so that it can pay for fisheries studies this summer.

"That's when the fish start to run," Yould said. "If we miss the fish, we basically miss the summer." ●

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# Alliance hears pluses, minuses on Alaska

State has good geology but small market; limited support services, infrastructure; high costs and mixed messages from government

By KRISTEN NELSON  
Petroleum News

The question asked at this year's Alaska Support Industry Alliance annual meet Alaska conference — are "Happy Days ... Here Again" for the Alaska oil and gas industry or are they "Gone with the Wind" — was addressed by a panel of five speakers from Alaska's oil and gas, refining and transportation industries.

On balance, the speakers on the Jan 22 panel found more to be concerned about than otherwise, in remarks that spanned the geographic scope of the Alaska oil and gas business from Cook Inlet to the North Slope, and addressed challenges from exploration through development to transportation and refining.

## Cook Inlet concerns

Carrie Lockhart, Alaska asset team leader for Marathon Oil, said it's more difficult to talk about things that are not going well, "And the deliverability and reliability of natural gas in Cook Inlet or Southcentral Alaska is not going well."

Last year there was interaction among many stakeholders in the area to address two issues, Lockhart said, "the need for peaking and storage mechanisms across Cook Inlet" but also the need for "contingency plans across the inlet in the event of a what if."

Contingency plan work includes producers, utilities, communities and the state, she said.

"Those are coming together" and a lot of work is going into those plans, although "... contingency plans probably should have been put in place long, long ago because you never know when there's going to be a critical upset whether it's Mother Nature or a facility disruption."

On the supply side, "Easy oil is gone," Lockhart said. "It takes more technology to tap into these resources that are much higher risk — things we wouldn't have dreamt of developing two decades ago we're going after today."

But that increases the costs and the recoveries are lower, which makes it more challenging for these projects to compete for financing at the corporate level.

The Cook Inlet market is also a challenge because the local market, the utilities in Cook Inlet, "is very small and the local utility market alone will not enable large-scale exploration or development."

Companies will not invest where capital will be stranded for lack of a market, Lockhart said.

There is no silver bullet — no single fix — for Cook Inlet.

"There has to be a market outlet for the gas," regulation "needs to be predictable and sensible" and projects have to be economic to compete at the corporate level, she said.

## North Slope issues

Dick Garrard, geosciences manager for FEX, said he was not speaking for the company, but was presenting



Panelists at Meet Alaska, left to right, Marathon Oil's Carrie Lockhart, Tesoro Alaska's Kip Knudsen, Alyeska Pipeline Service Co.'s Greg Jones, Dick Garrard of FEX, Ken Sheffield of Pioneer Natural Resources Alaska and panel moderator Mark Hylen of Beacon Occupational Health & Safety Services.

"observations regarding exploration that I've made over 15 years here exploring in Alaska."

Garrard said he looked at Alaska Oil and Gas Conservation Commission records for exploration — a commission category that includes both wildcats and exploration appraisal wells.

"And as far as I can understand we may be seeing, optimistically, up to four or five wells drilled in Alaska, exploration wells, this winter," a number which includes re-entries of old wells and continuation of earlier drilling.

"Going back in the records I can't come across another year where we've had less (exploration) activity, right up until 1956, and that precedes the Swanson River discovery," Garrard said.

And for the first time in a long time there will be no exploration seismic shot in Alaska this winter, he said.

Leasing activity, too, "may reach an all-time low this year."

So what are the positives and negatives for oil and gas activity in Alaska?

T-H-E C-U-P in Alaska is positive, Garrard said, using an acronym for: technology, hydrocarbon charge, exploration and development incentives, cooperation, under explored and pipeline capacity.

There is superb technology, particularly 3-D seismic, enabling "us to see things that we've never seen before."

The North Slope has a "prolific" hydrocarbon charge, with "bidirectional charge going up onto the Barrow Arch — multiple source rocks," resulting in a good

chance that wells drilled on the North Slope will find hydrocarbons.

The state offers exploration and development incentives, something Garrard called "a step in the right direction" which helps with exploration costs in remote areas.

The cooperation from state agencies, particularly the Division of Oil and Gas and the Division of Geological and Geophysical Surveys, is a plus, he said, and the state has "very talented people" in those agencies who are very helpful for new companies coming into the state and "can be a fantastic source of information."

In the National Petroleum Reserve-Alaska and the Foothills of the Brooks Range the state is under explored, with one well for about every 300 square miles.

And there is pipeline space available, with the trans-Alaska oil pipeline running at about 30 percent of capacity.

On the negative side are what Garrard catalogued as C-R-I-T-T-E-R factors:

- Cycle times are "painfully long" with 14 years in NPR-A, for example. An investor isn't going to invest in a project that can take 14 years from discovery to first oil, he said.

- Reservoir quality is challenged, with reservoirs at new discoveries thin with low-quality permeability and expensive to produce, requiring long horizontal wells and fracture stimulation.

see ALLIANCE PANEL page 7

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continued from page 6

## ALLIANCE PANEL

“The resource is there — it’s more expensive to get out,” he said.

- “I” is for infrastructure, specifically the lack thereof. Very little new infrastructure has been built on the North Slope in the last 30 years, Garrard said. And there is no infrastructure near NPR-A. The State of Alaska is looking at a road to Umiat, he said, but the federal government is not looking at linking that road into NPR-A.

- Technical data is not available, he said, noting that unlike other parts of the world Alaska has no provision for releasing old seismic data.

- Taxes are also an issue, he said, because in Alaska companies don’t get to keep a lot of the upside. At \$80 a barrel, he said, ACES takes three times what the tax was under the old system, referred to as ELF, for economic limit factor.

- And Alaska is expensive, “incredibly expensive,” Garrard said. Work is seasonal, he said, but “it is logistics which ... is the huge cost. It’s not the drilling and it’s not the materials; it’s the logistics that seems to ... make it so expensive in Alaska.”

- Regulations “are onerous,” he said. Companies are invited to explore for oil and gas and then there are “agencies that seem to come in and do everything they can to prevent you exploring.”

Alaska needs to “be more competitive on a global scale,” Garrard said, because everything is negotiable except the geology.

Alaska has the geology, “but we’re not drilling enough exploration wells,” and without the exploration wells “we cannot hope to succeed at adding reserves.”

### The development side

Ken Sheffield, president of Pioneer Natural Resources Alaska, said “development operations ... must make enough profit to cover not only the successful exploration but all the unsuccessful exploration”; it’s where a company makes its money.

Remaining oil on the North Slope is “in remote areas both nearshore and offshore; it’s in smaller and lower quality reservoirs” and it’s heavy oil.

Technology is advancing, he said, with horizontal and extended reach drilling and hydraulic fracturing.

“But with the tough reservoirs that we’re given, it requires more wells and more cost to get the same amount of oil out of the ground.”

On the North Slope “development continues to be challenged by high costs.”

“Our unique geography contributes significantly to that, (both) the high cost of transportation to bring supplies and materials up to the slope (and) the high cost to get our oil to the markets on the West Coast,” Sheffield said.

Other contributing factors are “a relatively small service market which limits competition” and upgrades required to operate in the cold weather on the North Slope.

“And construction up on the North Slope is very inefficient and costs quite a bit more,” Sheffield said.

After the huge cost increases over the last three years, costs have dropped back “quite a bit” in the Lower 48, but haven’t dropped back by as much in Alaska, where “it’s just a little tougher” with the state’s small service market.

The regulatory environment is also challenging, he said.

“We operate in a unique pristine environment,” with “complex regulatory processes” sometimes with overlapping federal, state and local jurisdictions, and “all this complexity costs us time and costs us money,” and the cumulative impact “makes Alaska a very tough place to operate.”

And Alaska projects have to compete for capital.

Sheffield said the state needs to focus on things it can control.

“We need to get new areas open to responsible development,” he said.

“We need to work for regulatory certainty and regulatory streamlining.”

“And on the fiscal policy side, with all the challenges that there are to development, I think the state needs to err on the side of more investment,” he said, and specified the increased tax credits that have been proposed.

As for the tax rate and progressivity, Alaska projects compete against projects that “don’t have escalating tax rates. So we will be at a significant disadvantage as compared to those projects,” Sheffield said.

### The transportation side

Greg Jones, senior vice president of Alyeska Pipeline Service Co., said while “Alyeska has just finished its best year on record from a performance standpoint,” the challenges and opportunities facing Alaska’s oil industry come together and impact the state in the trans-Alaska oil pipeline.

Throughput on the line peaked at 2.1 million barrels per day in 1988, Jones said, is at some 680,000 bpd currently and at the current rate of decline will be at 500,000 bpd in 2014.

And “declining throughput poses significant technical challenges for the pipeline,” he said.

In 1988 it took just four days for a barrel of oil to go from the North Slope to Valdez; today it takes about 12 days.

“By 2014 we anticipate the crude temperature will be approaching or dipping below 32 degrees and even today when

we have slowdown, for instance with high winds in Valdez ... we begin approaching ranges in the mid-30s,” Jones said.

The trans-Alaska oil pipeline was designed to move warm crude oil and with dropping temperatures “we have to anticipate more wax buildup, water dropout, freezing and frost heaves.”

In Valdez the tanks no longer shed snow because of cooler oil temperatures and snow has to be removed from them manually.

Alyeska has a \$10 million study under way to look at the technical issues, he said, and has “already updated and converted three of our pump stations and we have one more to go.”

Other investments by the pipeline’s owners will be required in the future to extend the pipeline’s viability, Jones said.

But there are also economic challenges, because as throughput declines, “the cost for transporting each barrel increases and that cost will be compounded by any additional investment.”

Taxes are also a factor, he said, with a three-fold increase when the State of Alaska changed the way it valued the pipeline from an income approach to what it would take to replace the line today.

All this increases the transportation cost and “this increasing cost per barrel decreases Alaska’s attractiveness for oil and gas development; if we do nothing to change the economics of running the pipeline, our costs per barrel will quintuple in the next two and a half decades,” he said.

Even if Alyeska cuts 3.5 percent out of its expenses each year, “the cost per barrel will still double by 2033.”

Alyeska’s 2010 capital and expense budget is down some \$100 million from 2009, Jones said, and the company recently reduced the number of its employees and contractors.

“Some of these decisions are very hard and they’re not popular, but we have to face the economic reality of declining throughput,” Jones said.

### Refining Alaska’s crude oil

Kip Knudsen, Tesoro Alaska external affairs manager, said neither “Happy Days” nor “Gone with the Wind,” describes the U.S. refinery sector — “the only movie title that comes to mind is ‘Armageddon,’” with seven North American refineries closed permanently or indefinitely and recent talk about another closing.

But refining is a cyclical industry and it might survive, he said.

Alaska has its own particular refinery issues.

While the Tesoro Nikiski refinery is in one of the world’s premier oil regions,

the company currently has to use 20 to 30 percent foreign crudes, because it can’t buy enough Alaska crude oil.

This “amazing statistic ... makes people mad,” Knudsen said. “They think somehow we’re shunning Alaska oil.”

The company would buy all its crude in Alaska if it could, but there isn’t enough crude oil available to meet all of the needs of the Nikiski refinery, and Tesoro has “to go as far away as Nigeria now to buy crude that looks like ... North Slope” crude oil.

Over the long run, that isn’t good, he said.

“Obviously you build a refinery ... where either the market is or the crude is and we’re a little bit challenged by both.”

Not only isn’t there enough Alaska crude, but Alaska is a small gasoline and diesel market.

Then, he said, add the fact that the company has spent \$200 million over the last five years just to stay in the gasoline and diesel business in Alaska, and has another investment coming up this summer to take benzene out of the gasoline.

Add to that the fact that it hasn’t gotten any easier to operate ships in Cook Inlet since 1989.

Then there are support industries, Knudsen said.

“Nikiski used to be a booming place with all kinds of support industries — many of you have suffered through this decline,” he said.

And there are efforts by some to change how the market operates.

“Government needs to maintain a level playing field,” Knudsen said.

Beyond that, either consumers or taxpayers will pay for any government-mandated actions, “because when government intervenes they generally end up making it a more expensive process,” he said. ●

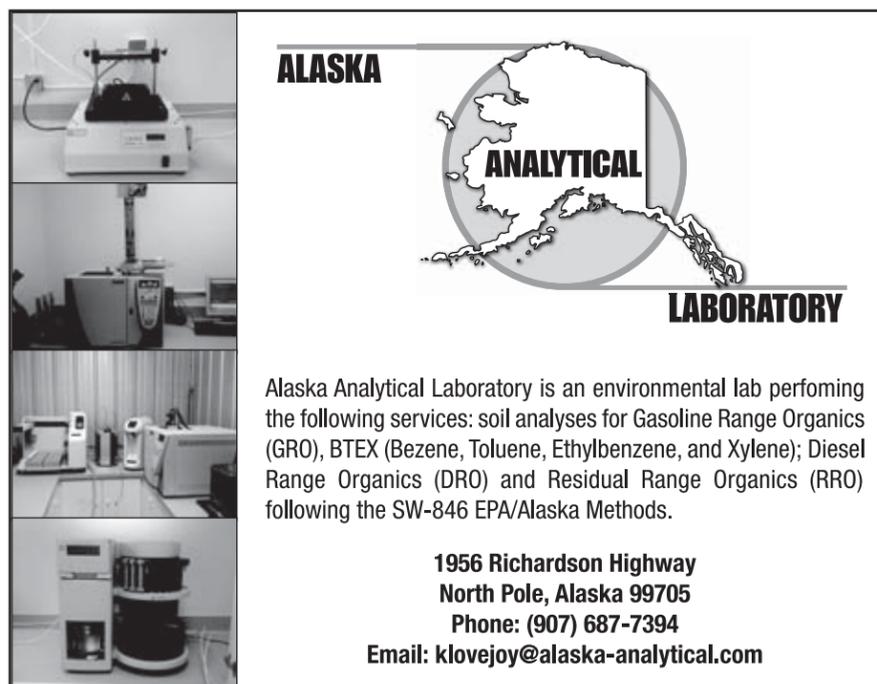
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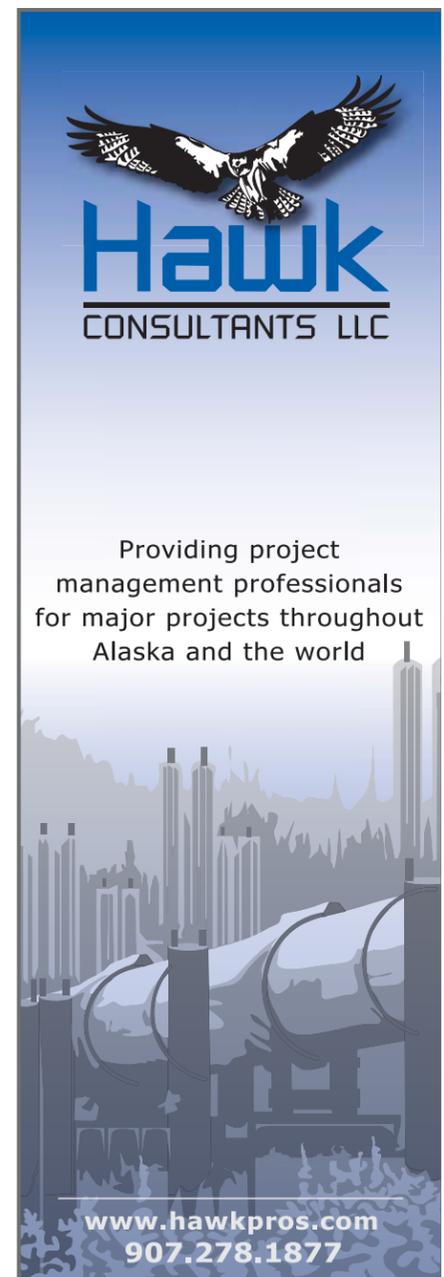
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# How much longer for the North Slope?

Revised DOE report indicates oil production from remaining reserves could last 35 years, but much longer after new developments

By ALAN BAILEY  
Petroleum News

The slowly declining meter readings at the trans-Alaska pipeline pump station 1 on the North Slope, as production from America's most northerly oil fields continues to flow south at a slowly dwindling rate, raise some worrying questions for those whose livelihoods and well being depend on a corresponding flow of oil dollars.

But just how much oil is left in Arctic Alaska? And at what point would the pipeline cease to be viable?

An updated version of a major U.S. Department of Energy report titled "Alaska North Slope Oil and Gas: a Promising Future or an Area in Decline?" attempts to answer these questions through a comprehensive analysis of data about the existing North Slope fields and by piecing together an impressive quantity of available data about potential new oil and gas developments and future exploration.

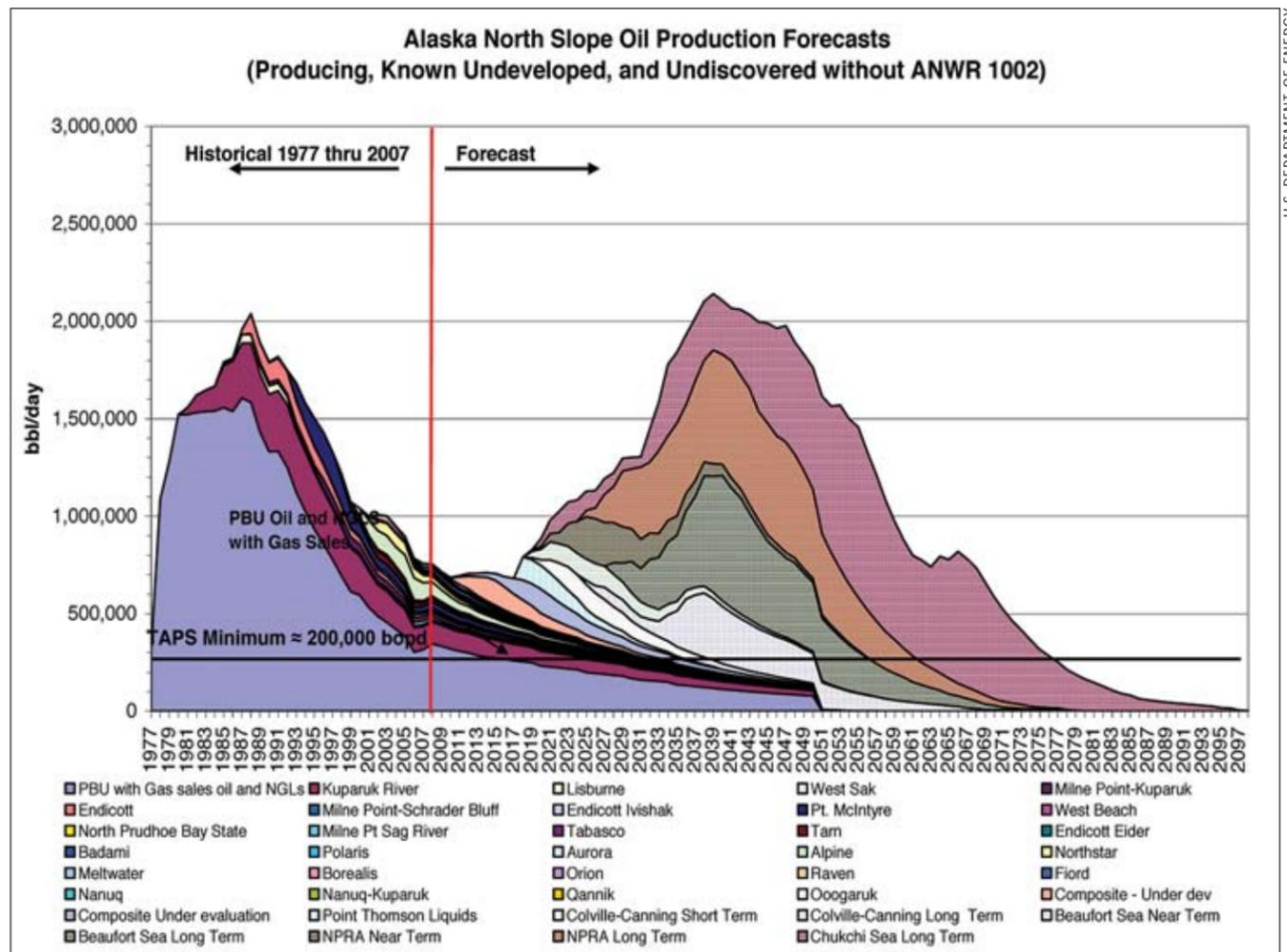
## Earlier version

An earlier version of the report, published in 2007 and based on data available in 2005, contained a massive amount of information about the North Slope oil industry but was substantially out of date by the time that it went to press. Its economic analysis was based on a state oil production tax system that was already defunct at the time of publication, oil production data were nearly three years old, and the report lacked coverage of the most recent exploration programs, oil field developments and development plans.

The new version of the report has updated the data by three years or so. And, given a lack of sufficient data about the operation of Alaska's new ACES oil production tax, the new report does not now attempt an economic analysis of the North Slope oil industry, instead presenting estimates of technically recoverable rather than economically recoverable oil and gas resources.

So what's the bottom line?

In the absence of any new oilfield development, the existing oil fields could probably produce about another 6.1 billion barrels of oil, the report says. But based on estimated decline rates for oilfield production, flow rates through the trans-Alaska oil pipeline would drop below the 200,000-barrel-per-day mechanical limit for the



Northern Alaska oil production, historically and projected into the future, assuming active oil exploration and development across the region, offshore and onshore. Without new exploration, the lower mechanical limit of 200,000 barrels per day of throughput in the trans-Alaska oil pipeline would be reached at around 2045. The development of new oil in areas such as the National Petroleum Reserve-Alaska, the Beaufort Sea and the Chukchi Sea could extend the life of the pipeline by several decades.

pipeline by 2039, with that date being extended to 2045 if new oil comes online from fields currently being developed or under evaluation, the report says. A shut-down of the pipeline in 2045 "would potentially strand about 1 billion barrels of oil reserves from the fields analyzed," the report says.

## Gas pipeline impact

If a North Slope gas pipeline comes to fruition, estimated gas reserves in the Prudhoe Bay and Point Thomson fields would provide about 32 trillion cubic feet of the 57.5 tcf of natural gas required to support the construction of a pipeline with a capacity of 4.5 billion cubic feet per day and a 35-year lifespan, the report says.

"The assurance of a gas pipeline to transport the gas to market is needed to encourage exploration and development of sufficient gas resources to support the gas

sales project," the report says. "The potential life of the gas sales project could easily exceed a 35-year life for a 4.5-billion-cubic-feet-per-day rate by many years if the potential of Alaska North Slope gas resources is realized."

But, although the export of condensate and oil associated with gas from the Point Thomson field would boost North Slope oil production, extending the life of the oil pipeline would require new oilfield development, the report says.

On the other hand, with a low density of oil wells other than in the immediate vicinity of the existing oil fields, the North Slope and adjacent areas are "not representative of mature petroleum provinces," from an exploration perspective, the report says. New exploration efforts in the period up to around 2018-20, prior to any possibility of a North Slope gas pipeline coming online and probably targeting the central North

Slope, the National Petroleum Reserve-Alaska and the Beaufort Sea (including the outer continental shelf), could add 2.9 billion barrels of recoverable oil to the inventory of known resources. Exploration in these areas and in the Brooks Range foothills could discover 12 tcf of natural gas.

## Longer term

In the longer term, assuming adequate oil and gas prices; unrestricted land access; and stable government fiscal policies, exploration and development onshore and in nearshore waters, but excluding ANWR, could add another 9 billion to 10 billion barrels to oil reserves, the report says.

Successful construction of a gas pipeline could eventually enable 65 tcf of natural gas to come online, while also having the

see DOE REPORT page 9



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# First Point Thomson well reaches target

ExxonMobil says drilling, casing is done on injector tapping gas reservoir a mile and a half offshore beneath the Beaufort Sea

By WESLEY LOY  
For Petroleum News

ExxonMobil announced Feb. 8 it has successfully drilled and cased the first development well for its Point Thomson project on Alaska's North Slope.

The well, PTU-15, reaches a measured depth of more than 16,000 feet. Nabors rig 27-E drilled from a land-based pad directionally beneath the Beaufort Sea to a target natural gas reservoir over a mile and a half offshore, ExxonMobil said.

"PTU-15 pushed the limits of drilling technology and demonstrated that the Point Thomson drilling plan is sound," said ExxonMobil senior project manager Lee Bruce.

PTU-15 is an injector well ExxonMobil will use in a cycling project that involves bringing gas to the surface, collecting condensate, then shooting the dry gas back down into the reservoir.

The Nabors rig now will be moved to resume work on a partially drilled second hole, a producer well called



EXXONMOBIL

see POINT THOMSON page 15 Point Thomson drilling pad in January

continued from page 8

## DOE REPORT

secondary effect of encouraging new oil development and pushing the oil reserves to 15 billion to 16 billion barrels. The addition of further exploration and development on the Beaufort Sea outer continental shelf might push the recoverable oil resources to 19 billion to 20 billion barrels, and recoverable natural gas to 85 tcf, while addition of the Chukchi Sea could perhaps boost those figures to 29 billion to 30 billion barrels of oil and 135 tcf of gas.

In fact, taking into account new reserves developed in existing fields and assuming that exploration proceeds in more remote areas — in the Chukchi Sea and perhaps in the Arctic National Wildlife Refuge — a total of 35 billion to 36 billion barrels of oil and 137 tcf of natural gas might ultimately be added to reserves by 2050, with those oil reserves additions amounting to more than twice the cumulative North Slope production to date, the report says.

The exploration of the coastal plain area of ANWR would be especially valuable in boosting oil reserves, because the estimated ANWR undiscovered oil resource of 10.3 billion barrels relates to a land area of just 1.9 million acres, the report says. By comparison, NPR-A is thought to hold 10.6 billion barrels of undiscovered oil across a much larger area of 24.2 million acres.

### Beyond 2060

Even the most conservative of these future exploration and development scenarios, with the addition of perhaps 10 billion barrels of new oil reserves, would extend the life of the trans-Alaska oil pipeline to 2060 or beyond, thus also unlocking the 1 billion barrels of oil otherwise stranded in current fields after a 2045 closure, the report says.

However, the report characterizes its estimates of future oil and gas discovery and development as based on "optimistic assumptions" and presents a lengthy list of potential impediments to development. That list includes land access; infrastructure dismantlement and removal requirements; marine mammal protection in the offshore; and gravel availability for onshore infrastructure construction. ●

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## • NATURAL GAS

# DOE optimistic about methane hydrate

*New report highlights progress towards possible future development of a resource that could produce vast quantities of natural gas*

By ALAN BAILEY  
Petroleum News

In the nearly 10 years since Congress first authorized the U.S. Department of Energy to implement and coordinate research into the possible production of natural gas from methane hydrate, vast quantities of which exist offshore the United States and around the base of the permafrost under Alaska's North Slope, the DOE gas hydrate program has made significant progress in its mission, according to a draft status report mandated by Congress and published by the National Research Council Jan. 29.

"DOE's program and programs in the national and international research community provide increasing confidence from a technical standpoint that some commercial production of methane from methane hydrate could be achieved in the United States before 2025," said Charles Paull, chair of the committee that wrote the report, and senior scientist, Monterey Bay Aquarium Research Institute. "With global energy demand projected to increase, unconventional resources such as methane hydrate become important to consider as part of the future U.S. energy portfolio and could help provide more energy security for the United States."

## Concentrated natural gas

Methane hydrate consists of a white crystal-like substance that concentrates natural gas by trapping methane molecules inside a lattice of water molecules (methane is the primary component of natural gas). The hydrates remain stable within a certain range of temperature and pressure, but when decomposed yield about 164 times their volume in methane.

The huge volumes of methane locked up in methane hydrate deposits under the North Slope could become a major source of natural gas for export through a future North Slope gas pipeline, and the close proximity of an existing oilfield infrastructure to these deposits has made the deposits a prime focus of methane hydrate research. The U.S. Geological Survey has estimated that there are between 25.2 trillion and 157.8 trillion cubic feet of technically recoverable natural gas in these deposits.

There are also major methane hydrate deposits under the Gulf of Mexico, perhaps less easy to access than on the North Slope but also close to existing infrastructure.

## Three North Slope projects

There are currently three DOE-supported methane hydrate projects in progress on the North Slope: a BP-managed project that drilled the Mount Elbert methane hydrate test well in the Milne Point area in 2007; a ConocoPhillips-managed project to investigate the possi-

bility of using waste carbon dioxide to tease methane from hydrates; and an investigation of the methane hydrate resource potential of gas fields near the town of Barrow.

The drilling of the Mount Elbert well in the BP-managed project followed a multiyear investigation of seismic and well-logging techniques for locating, characterizing and quantifying gas hydrate deposits under the central North Slope, and a parallel program of field and laboratory studies to evaluate the practicalities of producing natural gas from the hydrates. A total of 16 research groups have been involved in this project, the NRC report says.

The researchers successfully recovered methane hydrate samples from two sandstone intervals in the Mount Elbert well, thus enabling the refinement of the well-log and seismic attributes of the hydrates and ultimately enabling USGS to reassess the methane hydrate resource potential of the entire North Slope. And down-hole testing of the hydrate-bearing rock formations provided new insights into the response of the hydrates to pressure changes, an important factor in the potential production of natural gas from the hydrates.

The research team wants to follow up on the results from the Mount Elbert well by conducting a methane hydrate production test somewhere in the central North Slope and has been investigating possible test sites. The team may reconfigure its membership to help resolve any land ownership and land access issues, the NRC report says. And BP anticipates deciding by the end of March on whether to move to the production test phase of the project, the report says.

## Using carbon dioxide

The ConocoPhillips project, initiated in 2008 and having the attraction of offering a means of sequestering carbon dioxide in addition to producing natural gas, is based on a concept demonstrated in small-scale laboratory experiments, involving the replacement of methane molecules in the methane hydrate lattice structure by molecules of carbon dioxide. No tests of this type have been conducted on naturally occurring methane hydrate samples, the report says.

To address the significant challenge of replicating the laboratory experiments in a scaled-up field trial, ConocoPhillips has selected a field site and plans to initiate a test project in early 2010, the report says (ConocoPhillips said in October that it anticipates conducting the field test in the winter of 2011).

The Barrow gas fields project also started in 2008, this time under the terms of an agreement between DOE and the North Slope Borough, and involving Anchorage-based Petrotechnical Resources of Alaska. The production characteristics of the gas fields had led people to suspect that the disassociation of methane hydrates in the gas reser-

voirs had been contributing to gas production from the fields, and work to date in the DOE-sponsored project has focused on the assessment of where in the subsurface the hydrates may be stable and, hence, what volume of hydrates may be present.

The project team now plans to drill a well, to verify whether the methane hydrate is present and to test a production technique in which the hydrates would be disassociated by the removal of adjacent free gas in the reservoir.

## Gulf of Mexico

A DOE-sponsored and Chevron-led project in the Gulf of Mexico began in 2001 and has focused primarily on characterizing gas hydrate deposits in reservoir-quality sands under the gulf. The project has involved 18 industry partners, several federal agencies, national laboratories and university research groups, the NRC report says.

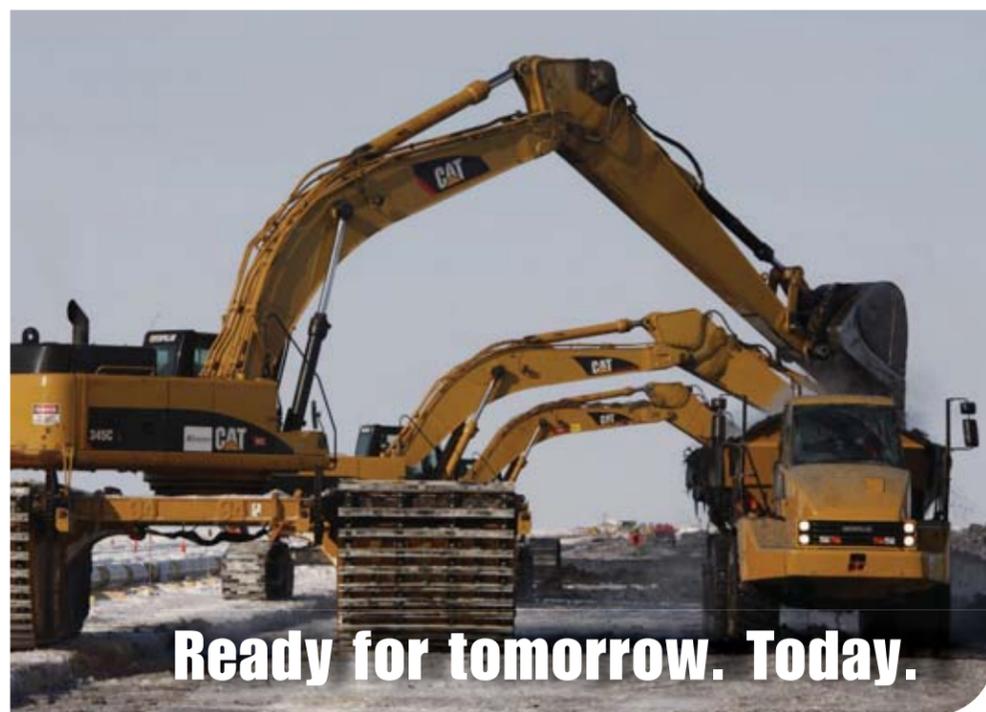
Initial phases of the project culminated in 2005 with the first successful drilling and coring of methane hydrate in the Gulf of Mexico, with well logs, cores and borehole seismic data being acquired from two sites. Equipment developed for the project enabled the testing of cores from the wells at in-situ pressures.

Results from the 2005 drilling led to the planning of a further drilling program and the drilling of seven wells in the spring of 2009, penetrating gas hydrate deposits and confirming the effectiveness of techniques such as 3-D seismic for detecting the deposits. The delineation in some wells of thick sand bodies with methane hydrates confirmed the existence of hydrate resources that may be used to produce natural gas, if appropriate production techniques are developed, the NRC report says.

But many significant challenges remain, to prove out both the sustained production of significant volumes of natural gas from methane hydrates and to show that this production can be done at an economically viable cost. It will be necessary to demonstrate well completions designed for gas hydrate production and to conduct long-term production tests to evaluate the possibility of commercial methane hydrate development, the NRC report says.

The report also recommends several other lines of research, including further research into the use of carbon dioxide for natural gas production from hydrates; further research into the hazards associated with the presence of methane hydrates when drilling conventional oil and gas wells; and the continued development of geophysical techniques for mapping and measuring gas hydrate deposits. ●

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• EXPLORATION & PRODUCTION

# Marathon expects reduced CI drilling

*Planning four to six wells each year through 2012; planning to finally spud at Sunrise prospect in Kenai National Wildlife Refuge*

By ERIC LIDJI  
For Petroleum News

**M**arathon Oil doesn't expect to ramp up drilling in Cook Inlet this year after a reduction in 2009, but also isn't planning to continue scaling back in the near term and is currently planning an exploration well at its much-considered Sunrise prospect.

The Houston-based major plans to drill between four and six wells each year between 2010 and 2012, according to a presentation made to analysts toward the end of last year.

Marathon is one of the most active companies in Cook Inlet. The company has ownership stakes in 10 fields, many of which it operates or owns outright.

Through the middle years of the 2000s, the company regularly drilled 10 or more wells each year in Cook Inlet, but in March 2009, in response to the economic downturn, the company announced a "roughly a 40 to 60 percent" reduction in drilling for the year.

In its November presentation to analysts, Marathon said

it drilled six Cook Inlet wells in 2009. Those reduced drilling levels will now most likely continue until at least 2012.

## Sunrise appears to be set

Despite that, Marathon is planning to explore its Sunrise prospect this winter.

The prospect is on Cook Inlet Region Inc. land in the Kenai National Wildlife Refuge, east of the Swanson River oil field. (In fact, Sunrise was commonly known in the past as East Swanson.)

On Dec. 30, 2009, the Alaska Oil and Gas Conservation Commission gave Marathon permits for a Sunrise LK2 and Sunrise LK 2RD wells, both for the same location.

In mid-January, the Peninsula Clarion reported that Marathon had a rig ready at Sunrise and expected to spud the well shortly. When Petroleum News asked about the status of the well on Feb. 8, the company did not say whether or not it had spud the well yet.

"It is a tight well," said Carrie Lockhart, Marathon's

Alaska asset team production manager, in the Clarion's report of the Industry Outlook Forum. "We probably won't be saying a whole lot about it until we fully evaluate it, but cross your fingers."

The Clarion also reported Lockhart as saying, "Do I think there are going to be 10 or 15 wells in Cook Inlet in the near future? I don't think so because the market doesn't demand that. The local utility market is too small to enable growth across the inlet."

Marathon estimated it produced around 115 million cubic feet of natural gas per day net in 2009. The company said it realized an average price of \$6.17 per thousand cubic feet.

On Dec. 31, 2009, the AOGCC also gave Marathon a permit for the Ninilchik Unit Paxton 3 well, listed as a development well. The Ninilchik unit is along the northern coast of the Kenai Peninsula, between the cities of Ninilchik and Clam Gulch. ●

Contact Eric Lidji at [ericlidji@mac.com](mailto:ericlidji@mac.com)

• PIPELINES & DOWNSTREAM

# Valdez terminal watchdog adds new member

*Citing increased complacency, village corporation for Port Graham joins Prince William Sound Regional Citizens' Advisory Council*

By WESLEY LOY  
For Petroleum News

**A** Valdez-based oil industry watchdog group has expanded the ranks of its member organizations.

The Prince William Sound Regional Citizens' Advisory Council has added Port Graham Corp. as its 19th member.

The council is a congressionally sanctioned nonprofit, formed after the Exxon Valdez disaster of 1989, that keeps watch over the Alyeska Pipeline Service Co. oil terminal and tanker operations at Valdez and in Prince William Sound.

Its members include a mix of local governments plus commercial fishing, environmental, Native, and recreation and tourism groups from across a region stretching from the Sound to Cook Inlet to Kodiak Island.

Port Graham Corp. is one of the many Alaska Native corporations formed under the Alaska Native Claims Settlement Act of 1971. With headquarters in Anchorage, the corporation represents the village of Port Graham, located about 30 miles southwest of Homer.

"In its Oct. 22, 2009, resolution requesting membership in the council, the corporation cited the impacts of the Exxon Valdez oil spill on its extensive coastal landholdings in

Kenai Fjords National Park, as well as on lands and subsistence beaches near the village of Port Graham," said a Feb. 9 press release from the council.

The corporation is developing its lands for tourism at Aialik Bay in the Kenai Fjords.

Diane Selanoff, the corporation's vice chairman, will hold a seat on the council's board of directors. Raised in Port Graham, Selanoff now lives in Valdez and works for TCC, an oil spill cleanup services contractor for Alyeska, the council press release said.

"Our goal is to ensure the proper degree of regulatory oversight is maintained in accordance with the Oil Pollution Act of 1990," Selanoff said. "It seems that recently we have all become more complacent and as descendants of people who by oral tradition have been here since the Pleistocene period we are concerned and want to be part of the solution. We can't let human nature slip and result in another catastrophe."

## Council still seeking new leader

The oil industry provides most of the funding for the council, which has an annual budget of more than \$3 million and a staff of 18 in Valdez and Anchorage.

Two recent events have drawn the council's scrutiny: the wreck of an oil industry tugboat on infamous Bligh Reef two days before Christmas, causing a significant diesel spill; and a Jan. 17 incident in which a tanker carrying oil for ExxonMobil needed an emergency tow from escort tugs after the ship experienced a power loss.

Port Graham is the council's first new member organization since 1992.

The council's other members are the communities of Chenega Bay, Cordova, Homer, Kodiak, Seldovia, Seward, Tatitlek, Valdez and Whittier; the Kenai Peninsula and Kodiak Island boroughs; the Oil Spill Region Environmental Coalition; Chugach Alaska Corp.; the Alaska State Chamber of Commerce; Cordova District Fishermen United; the Kodiak Village Mayors Association; Prince William Sound Aquaculture Corp.; and the Alaska Wilderness Recreation and Tourism Association.

The council has been searching for a new executive director since John Devens resigned in May 2009. Devens was mayor of Valdez at the time of the Exxon Valdez oil spill. ●

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## OUR ARCTIC NEIGHBORS

### Industry works with Yamal indigenous peoples

Oil companies and the local authorities are successfully working with the indigenous peoples of the Yamal Peninsula to make projects beneficial for everyone, a politician from the northern region of Russia told the Arctic Frontiers conference in Tromso, Norway, Jan. 25. Sergei Kharyuchi is president of the Russian Association of Indigenous Peoples of the North and chairman of the Yamalo-Nenets Autonomous Okrug's legislative assembly.

The Yamal region has been the largest gas producer in Russia for almost three decades, Kharyuchi said in his presentation. It is home to about 260 oil and gas fields, 60 of which are being developed. About 92 percent of Russia's gas reserves are located there. There are also 700,000 reindeer in the region — the biggest herd in Russia — and more than 37,000 indigenous people. Half of those people still lead a nomadic life. The Ob River and other rivers on the peninsula contain one-third of the world's stock of whitefish.

"We have accumulated very good best practices in cooperation between the authorities and the oil and gas companies working here in Yamal," Kharyuchi said. "There is a practice of drawing up annual agreements with the indigenous population and with the authorities locally. Thanks to the allocations in these agreements with companies, we have enough money to use to take care of the environment, to build new housing and to resolve outstanding social and health issues. The local municipalities and the district administration are continuously negotiating with the industrial development companies, establishing the rights and obligations of the stakeholders."

### Annual public hearings

Subsidiaries of Russia's energy giant Gazprom have helped to build trading posts for the indigenous people and infrastructure to support their small dwellings, Kharyuchi told the conference. There are annual public hearings in Yamal to draw up plans to develop the indigenous communities based on input from reindeer herders, fishers and hunters, he added.

"Such public dialogues between the authorities, the companies, the industry and the indigenous population are a very efficient way to see the outstanding issues and to find mutually acceptable solutions," Kharyuchi said. "Usually we also have the practice of parliamentary visits in the remote areas, which gives us an opportunity to see and feel the issues on the spot, to be able to look at them practically." In recent years there have been visits dedicated to the environment, to cooperation between agriculture and oil and gas companies, to furthering the development of agriculture, to improving the salaries of teachers and to the social and economic development of municipalities.

"I know from personal experience ... that you can never underestimate the positive effect of the participation and involvement of the indigenous people," Kharyuchi said. "This is probably the most efficient way to take stock of the opinions, problems and challenges of the indigenous population. It is actually a moral imperative to include and involve the indigenous peoples."

—SARAH HURST

## OUR ARCTIC NEIGHBORS

# Norway awards far north offshore licenses

Companies from all over Europe will be operators of licenses in Arctic; northern Norwegian company joins three partnerships

By SARAH HURST

For Petroleum News

The Norwegian government has decided to offer 38 production licenses in the Awards in Predefined Areas 2009, including 10 in the Norwegian Sea and three in the Barents Sea, the Ministry of Petroleum and Energy said in a release Jan. 19. Another 25 licenses were awarded in the North Sea, below the Arctic Circle.

"Today I am offering production licenses to 42 companies, of which 19 companies have been offered operatorships," said Terje Riis-Johansen, Norway's minister of petroleum and energy. "APA 2009 is the seventh licensing round with a focus on mature areas on the whole shelf. The industry's continuing interest in these areas indicates that the annual licensing rounds in mature areas are working in accordance with the goal of efficient exploration of the mature areas. Offers have been given to large, medium-sized and small companies. This illustrates the diversity of companies on the Norwegian continental shelf."

Mature areas are the most explored areas on the shelf and have known geology. The main challenge in mature areas is that the expected sizes of discoveries are declining, according to the ministry.

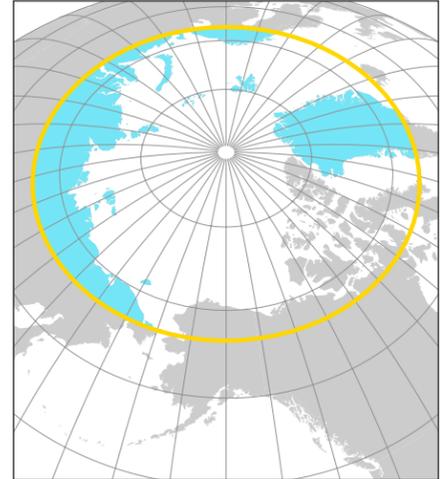
"Small discoveries can often not justify a standalone development, but can be profitable with a tie-in," the release said. "It is therefore important to discover and develop resources in these areas before existing infrastructure associated with other fields is shut down."

### Arctic licenses

In the Norwegian Sea, four of the licenses awarded are above the Arctic Circle.

The operators of those licenses will be the UK's Dana Petroleum, Germany's Wintershall, Norway's state-owned Statoil and Bergen, Norway-based Rocksource.

The operators of the licenses in the Barents Sea will be Austria's OMV, Sweden's Lundin and Denmark's DONG



Energy.

"With our success in the licensing round we are making significant progress in the implementation of our growth strategy in Norway," said Harald Vabo, Wintershall Norge's general manager. "Our near-term plans include both acquisition of new seismic data and reprocessing of old data," he said. Wintershall is a wholly owned subsidiary of BASF.

Dana Petroleum and its partners in their Norwegian Sea license have committed to seismic reprocessing and acquisition and already recognize two substantial prospects in the blocks there, Dana said in a release Jan. 29.

Northern Norwegian oil company North Energy is one of Dana's partners in the Norwegian Sea license, having been awarded a 10 percent interest in it. The company also received a 20 percent interest in the Barents Sea license operated by OMV and a 30 percent interest in the Barents Sea license operated by DONG.

"This will strengthen the company's position in the Hammerfest basin and the northern Norwegian Sea, which are the core areas for North Energy," said North Energy's CEO, Erik Karlstrom. The partnership with DONG is in an area adjacent to the Goliat oil and gas field, North Energy noted in its release Jan. 20. The Norwegian government has been making a strong effort recently to encourage northern Norwegian companies to participate in the oil and gas industry in their own region. ●



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• ALTERNATIVE ENERGY

# Akutan planning geothermal program

*Aleutian island is an active volcano and home to major seafood plant, four-well program would delineate geothermal resources*

By ERIC LIDJI  
For Petroleum News

The city of Akutan is planning a four well geothermal exploration program this summer.

The drilling and testing program is expected to from June through September.

The Aleutian Island city of Akutan is best known for being home to the largest seafood production facility in North America, a plant owned by Trident Seafood Corp.

Trident is not only the largest employer, but also the largest energy user on the island. As of 2007, the company produced its own electricity using large diesel generators, but apparently the generators are aging and the company has approached Akutan Electric Co. about potentially buying municipal power if it becomes available in the future.

Trident uses around 4.1 megawatts on average, peaking between 7 and 8 MW.

The municipal utility currently produces around 79 kilowatts on average.

A successful geothermal operation could also provide power for the Eastern Aleutians.

Akutan Island, like many of the islands in the Aleutians, is an active volcano, making it highly prone to successful geothermal development. The proposed exploration drilling would take place in Hot Springs Bay Valley, located due west of the coastal village.

Akutan Village Corp. owns the surface rights to the proposed drill sites and Aleut Regional Corp. owns the subsurface rights. The corporations signed agreements with the city for control of the property for geothermal development.

## Wells to delineate resource

The wells will be drilled to measure temperature gradients in the valley. If the wells hit liquid, the city will run flow tests and take fluid samples for chemistry analyses.

The first well, called Well No. 1, would be at the top of the valley, near what is believed to be the “upwelling zone” for the geothermal fluid. It would be drilled to 3,500 feet.

Well No. 2 would be near the hot springs, by what is believed to be “the center of the outflow zone, where two different tabular aquifers could be penetrated at relatively shallow depths.” The second well would be shallower, drilled to a depth of 1,500 feet.

Well No. 3 and Well No. 4 “appear to be located in the outflow zone and would provide constraints on the geometry, temperature variations, and flow patterns of the outflow.”

Based on the results of the drilling program, Akutan may decide to drill more wells.

The wells are considered “slim” holes, about three inches in diameter.

## Exploration goes back decades

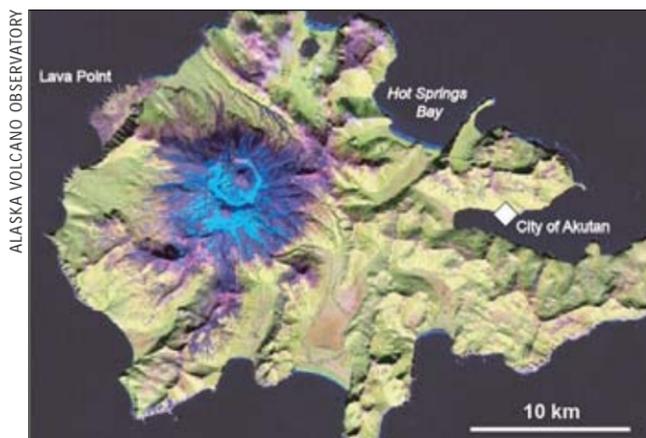
Geothermal exploration at Akutan dates to a program in the 1980s funded by the state and the U.S. Department of Energy. Between 1992 and 2008, private parties signed an exploration agreement, but never drilled. The city took over the program in 2008, funded by a nearly \$3 million grant from the Renewable Energy Grant Fund,

**Akutan Island, like many of the islands in the Aleutians, is an active volcano, making it highly prone to successful geothermal development.**

administered by the Alaska Energy Authority, and an \$800,000 loan from the Alaska Power Project Fund.

A major obstacle facing any geothermal program in Akutan is the high development costs of drilling in the remote area, estimated to be three times as high as mainland drilling. ●

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At left, geothermal exploration at Akutan Island would take place in Hot Springs Bay Valley. Above, steam rises from the valley

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## OIL COMPANY EARNINGS

### Earnings from Petroleum News top companies

Earnings fourth quarter 2009 • Change from third fourth 2008  
Liquids production fourth quarter 2009 • Change from fourth quarter 2008  
Natural gas production fourth quarter 2009 • Change from fourth quarter 2008

Company	symbol	earnings	%	liquids	%	gas	%
ExxonMobil	XOM	\$6,050	-23	2,393,000	-3	10,717	+9
BP	BP	\$4,295	—	2,577,000	+5	8,568	-1
Shell	RDS-A	\$1,177	-75	1,701,000	-4	9,452	-1
Chevron	CVX	\$3,070	-37	1,911,000	+12	5,054	+5
Total	TOT	\$3,052	—	1,404,000	-2	5,320	+4
ConocoPhillips	COP	\$1,246	—	1,056,000*	+1	4,632	-5
Eni	E						
StatoilHydro	STO	\$1,200	+247	1,068,000	-2	784	+3
Occidental	OXY	\$938	+112	493,000	+4	944	+8
EnCana ***	ECA	\$373	-32	24,000	-27	2,687	-10
Can. Natural	CNQ.TO						
Anadarko	APC	\$229	-71	237,000	+17	2,076	-6
Devon	DEV						
Marathon	MRO	\$355	—	259,000	+6	929	-2
Husky	HSE.TO	C\$320	+39	291,500	-19	529	-7
Talisman	TLM	-C\$111	—	203,000	-11	1,320	+7
Apache	APA						
Imperial	IMO	C\$543	-19	240,000	-4	298	-0
Suncor	SU.TO	C\$457**	—	510,800	+110	764	+259
Nexen	NXY.TO						
XTO	XTO						
Chesapeake	CHK						
Pioneer	PXD	\$57	—	50,094	-2	350	-82
EOG	EOG	\$462	-13	60,900	+9	1,607	-3
Swift	SFY						

\*Does not include Lukoil investment

\*\*Comparable quarters do not include former Petro-Canada profits or production

\*\*\*EnCana results are pro forma numbers representing components of the company retained after Cenovus Energy was spun off

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## NATURAL GAS

# In-state gas needs study looks at two periods

By KRISTEN NELSON  
Petroleum News

A study of in-state gas consumption needs was completed for TransCanada Alaska Co. and the study was submitted, as required by the Federal Energy Regulatory Commission, as part of the open season plan TransCanada submitted to FERC at the end of January.

TransCanada asked for, and received, approval from the state to use the study in the company's FERC open season notice.

The commissioners of Natural Resources and Revenue told TransCanada that they approved the use of the study by TransCanada and other Alaska gas pipeline sponsors "as a reasonable assessment of in-state natural gas consumption needs based on the facts currently available."

The commissioners noted that the study "correctly acknowledges the difficulty in predicting in-state gas demand in the relatively small Alaska market over a long period of time."

Northern Economics Inc. prepared the study with assistance from SAIC Inc. and the University of Alaska's Institute of Social and Economic Research.

### Projection of potential demand

The study looked at potential demand within the state in two different timeframes — the first five years of gas pipeline operation and years 10 to 15 of gas pipeline operation. The year 10-15 timeframe "captures potential demand of various economic development projects or prospects that are expected to take a longer time to develop," the study said.

The study also looks at the two lines proposed by TransCanada, the North Slope to Alberta line and the North Slope to Valdez line, which would terminate at a liquefied natural gas facility and marine terminal.

Natural gas and propane demand are evaluated for industrial uses, electric power generation and heating demand.

Because historic demand for natural gas "has been greater for gas-intensive industries than for all other sectors combined," the future demand for gas is "substantially affected" by the future of gas-intensive industries in the state.

### No, current or growth industry

Three scenarios were developed: no industry — in-state demand without a large

**There is a 48 percent chance that in the initial years the propane demand will be about 3,500 barrels per day, with a 67 percent chance of that demand growing to 35,000 bpd in the 10-15 year period as propane infrastructure is built.**

industrial load; current — continuation of current trends including industrial demand equivalent to full demand at the Nikiski LNG facility; and growth industry — no greenfield projects in the first five years, but with industrial demand equivalent to doubling of the LNG facility's current capacity.

The in-state demand for those three scenarios, in cubic feet per day, is 260 million for no industry; 490 million for current industry; and 740 million for growth industry. The report pegs the expected chance of those scenarios occurring at 29 percent, 38 percent and 12 percent respectively.

"In years 10 to 15, greenfield projects with reasonably likely economic feasibility are included under the Growth Industry case," the study said, and the estimates for those three demand scenarios are 290 million, 520 million and 1,120 million, with the percentage chances of the scenarios put at 14 percent, 18 percent and 6 percent.

### Valdez project

The study said the Valdez route — not counting demand from a new Valdez LNG facility — is expected to have a higher demand than the Alberta route "due to the additional industrial demands in the Valdez area with the availability of natural gas."

For the first five years those estimates (in cubic feet per day) are 270 million for the no industry case, 500 million for the current case and 750 million for the growth case, with chances of those scenarios happening pegged at 61 percent, 30 percent and 9 percent, respectively.

The study said there is expected to be a keen interest in propane because it is anticipated to cost less than distillate fuels. There is a 48 percent chance that in the initial years the propane demand will be about 3,500 barrels per day, with a 67 percent chance of that demand growing to 35,000 bpd in the 10-15 year period as propane infrastructure is built. ●

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# Alberta out to lead North America

By GARY PARK  
For Petroleum News

The Alberta government is sending out ever-stronger signals that its controversial oil and natural gas royalties are headed for change no later than early March.

In a speech Feb. 4 to open a new session of the Alberta legislature, the government said the first bill on the order paper will be the Alberta Competitiveness Act that demonstrates the government's "resolve to make Alberta the most competitive jurisdiction in North America."

"To do this we must reduce the cost of doing business here, including the cost of regulation, while at the same time providing world-class services that are the hallmark of competitive jurisdictions."

The underlying message is being interpreted as a wholesale retreat from the average 20 percent hike in

royalties introduced a year ago and which is being blamed for the loss of billions of dollars in upstream spending and thousands of jobs.

Gary Leach, executive director of the Small Explorers and Producers Association of Canada, said that reaching a more competitive level requires the government to make changes to "the royalty and fiscal framework and tackle the cost and complexity of the regulatory burden in the province."

He said his association welcomed the government's reference to the role played by its energy industry in contributing 50 percent of the Alberta Gross Domestic Product.

## Attracting investment

The speech said the government is "committed to ensuring that this industry remains vibrant and continues to attract investment and create new technologies."

Leach said the central role of the energy sector, in underpinning the prosperity of Albertans, needs supportive government policy.

Chris Theal, an analyst with Macquarie Capital Markets Canada, expects positive changes, especially a more aggressive approach to the mid- and deep-gas side, with incentives to stimulate activity.

He said the tight oil plays, such as the emerging Cardium region, also need a more attractive and stable fiscal regime similar to the low initial royalties in Saskatchewan's Bakken play.

Roger Soucy, president of the Petroleum Services Association of Canada, opted for a cautious view, but said the tone of the speech gave him some comfort that the government understands the industry better than it has previously. ●

Contact Gary Park through publisher@petroleumnews.com

continued from page 1

## BADAMI

wells, is drilling at Badami through an arrangement with unit operator BP. ASRC Exploration has the remaining 10 percent interest in the two new wells.

BP hopes improved oil recovery rates can jump-start the field, which came online in 1998 and has since been repeatedly shut-in and restarted due to exceedingly low production rates. BP originally expected to produce 30,000 barrels per day from Badami, but while early production ramped up as expected, it soon fizzled, dropping to only about 900 bpd in 2007.

The Red Wolf B1-38 well is primarily targeting oil in the Middle Ellesmerian Kekiktuk formation, a deeper and older geologic formation than the Brookian turbidite sands where previous Badami development by BP occurred from six vertical and near-vertical wells. (BP's highly efficient Endicott field produces oil from the Kekiktuk, and Red Wolf is down-trend from BP's Beaufort Sea, 100 million-barrel Liberty project, in the same fault block as Liberty's discovery well.)

Savant's sidetrack to BP's existing vertical well, B1-18, will be the first redevelopment well in the Badami unit, which was last shut down in 2007.

All drilling is being done from the unit's single, compact pad, B1, which also holds the Badami Plant — i.e. production facility.

Savant recently completed drilling the B1-38 well, where it was rumored to have an oil discovery. The Denver independent's Red Wolf prospect is in the western part of the Badami unit. (See story "Good news at Badami?" in the Feb. 7 edition of Petroleum News.)

After drilling the B1-18 sidetrack, B1-38 will be tested.

"That will be a very short-term test. The long-term test will happen after the plant is restarted," Vigil said.

"Doyon Rig 15 is now on B1-18. The first order of business is to plug and abandon the B1-18. After that is complete, the sidetrack operation will commence."

The existing "tundra ice road to Badami will be utilized to support the initial plant restart efforts by the companies including the movement of certain components of the facility which will be upgraded or rebuilt during the winter ice road season," Vigil said.

The B1-18 sidetrack targets the Badami Sands and is "intended to horizontally penetrate between 600 and 2000 feet of interval near the original Badami No. 1 discovery well."

The discovery well was drilled by Conoco in 1990 and had "an initial drill

stem test in excess of 4,000 barrels of oil per day in the Badami Sands. The sidetrack will prove whether or not more of the Badami Sands can be connected with horizontal well construction," Vigil said, noting Savant "intends to gather important formation pressure data during the drilling operation utilizing Halliburton's GeoTap service."

## ASRC, Savant pleased with venture

"Restarting the Badami Plant is a critical first step in appraisal of both the B1-38 (Red Wolf) and the B1-18 sidetrack wells; ASRC is pleased to be at this point in our venture with Savant. We appreciate the hard work that both Savant and BPXA have put into the structure of our agreements to allow for this outcome," said Teresa Imm of ASRC Exploration LLC.

"We look forward to working closely with BP and our working interest partner ASRC in taking this important step in determining the long-term viability of further redevelopment at Badami. We are grateful for the dedicated efforts of our employees, contractors, vendors, service providers and various state and local agencies without whom we would not have been able to accomplish all that we have to date," Vigil said.

—KAY CASHMAN

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## POINT THOMSON

PTU-16, ExxonMobil said.

The energy giant has pledged to the state that it will begin producing 10,000 barrels a day of gas liquids by year-end 2014.

The development is part of ExxonMobil's legal and on-the-ground strategy to hang onto the Point Thomson unit and the underlying leases, which frustrated state officials have moved to invalidate for lack of production from Point Thomson since its discovery in 1977.

## Challenging field

The state has granted ExxonMobil and its partners permission to proceed with the drilling even though the fate of the unit remains at issue in court.

"We are ready to resolve all outstanding issues with the Department of Natural Resources to maintain the pace and momentum set by the more than 1,500 people and 150 companies that worked on the project over the past year," said Dale Pittman, ExxonMobil's Alaska production manager.

The Point Thomson field straddles the Beaufort Sea shoreline about 60 miles

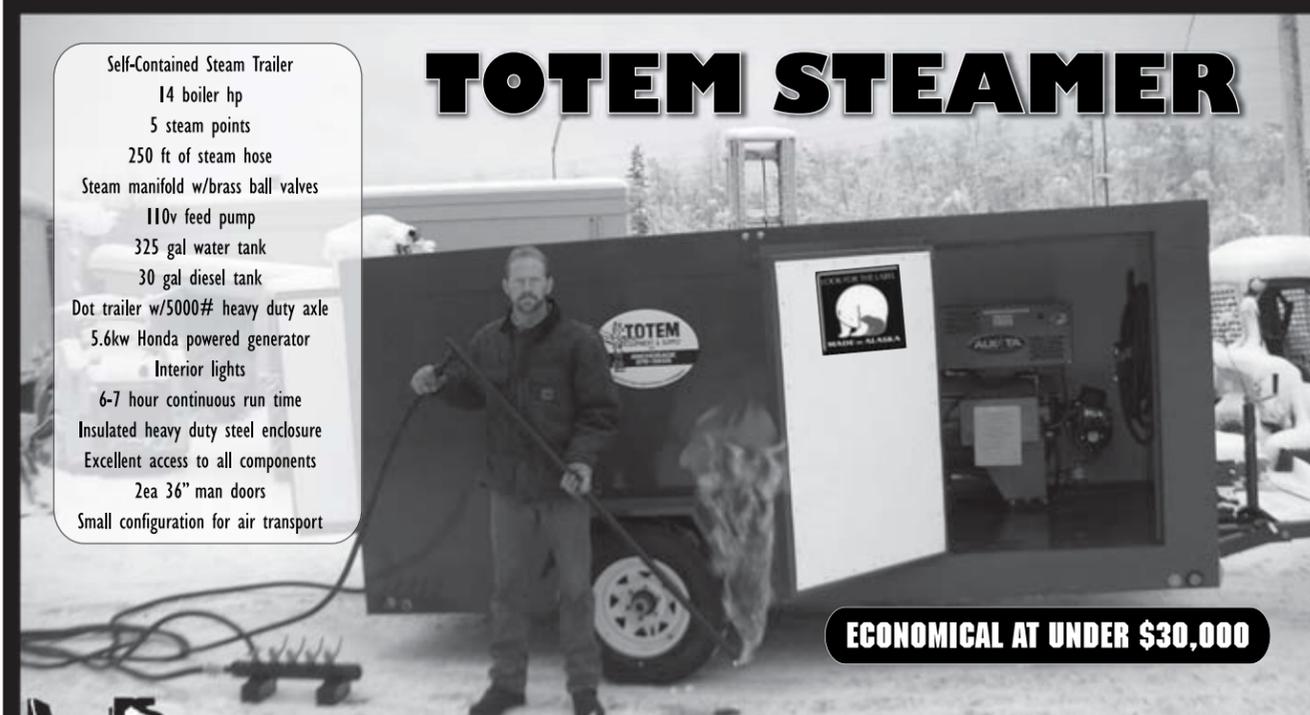
east of Prudhoe Bay. ExxonMobil says its development will be the highest-pressure gas cycling operation in the world. The condensate production will be shipped down the trans-Alaska oil pipeline. Over the years, the company has cited the high reservoir pressure, coupled with the lack of a North Slope gas pipeline, as reasons why no production has come yet from Point Thomson. The field is estimated to hold 8 trillion cubic feet of gas — about a quarter of the Slope's total gas reserves — with 200 million barrels of condensate. Aside from the drilling and casing of the first well, ExxonMobil also said it has finished a 60-mile ice road from Endicott to Point Thomson for hauling heavy equipment and materials to the site. ●

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**Rain for Rent launches new online customer portal**

Rain for Rent said Feb. 3 that it has launched a newly enhanced online customer portal. The new customer portal allows customers to access their accounts through the Rain for Rent Web site, [www.rainforrent.com](http://www.rainforrent.com). Now customers can view account data, rental status, download invoices or equipment reports on demand, and set up report subscriptions in a variety of formats. For more than 75 years and now through 60 locations, Rain for Rent, a rental-market leader, provides liquid-handling solutions to industrial, municipal, environmental, construction, and petrochemical customers nationwide.



COURTESY RAIN FOR RENT

**Schlumberger appoints chief operating officer**

Schlumberger said Feb. 8 that its board of directors has appointed Paal Kibsgaard chief

operating officer of Schlumberger Ltd. effective immediately. Reporting to Andrew Gould, chairman and chief executive officer, Kibsgaard will be responsible for the day-to-day management of all worldwide operation in addition to the Schlumberger technology organization, including engineering, manufacturing and product development. Previously, Kibsgaard was president of the Reservoir Characterization Product Group, responsible for the management of the WesternGeco, Wireline, Drilling & Measurements and Testing Services product lines. Schlumberger is the world's leading supplier of technology, integrated project management and information solutions to customers working in the oil and gas industry worldwide. For more information visit [www.slb.com](http://www.slb.com).



PAAL KIBSGAARD

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**AECOM wins 4 environmental publication awards**

AECOM said Jan. 27 that it has received four Business Achievement Awards from two leading environmental industry publications' annual award competitions. Dale Sands, senior vice president and global practices director in AECOM's Environmental practice and Lucy Labruzzo, U.S. managing director of the Energy practice, will accept the awards at the annu-

see OIL PATCH BITS page 17

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

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## TIMEOUT

of the matters at stake, the hearing could take from three to eight weeks, preceded by several years of pretrial activity.”

The state’s lawyers made the comments in an unusual petition to the Supreme Court for review of a Jan. 11 ruling in a state Superior Court case that’s not yet finished.

In that ruling, Superior Judge Sharon Gleason of Anchorage reversed DNR Commissioner Tom Irwin’s 2008 decision to dissolve the Point Thomson unit. The unit designation is important because it serves to bind together a collection of old leases that would otherwise expire.

Gleason faulted the state on two counts: First, that the Point Thomson leaseholders were wrongly denied a hearing under a key section of the Point Thomson unit agreement, and second, that the commissioner misused his lawyers and staff, depriving the leaseholders of their constitutional rights to due process.

### Two legal moves

Gleason’s ruling was a sharp setback for the state, but a delight for Point Thomson operator ExxonMobil and the other major stakeholders in the field, including BP, Chevron and ConocoPhillips.

The stakes indeed are enormous in the Point Thomson case, as the field contains an estimated 8 trillion cubic feet of natural gas plus hundreds of millions of barrels of petroleum liquids. It’s a world-class asset worth billions of dollars, and certainly not one the oil companies care to lose.

In their petition, the DNR attorneys repeatedly noted the leaseholders have failed to produce the known reserves for 30 years, forming the basis for the state’s efforts to dissolve the unit, void the underlying leases and take back the remote state acreage along the Beaufort Sea coastline east of Prudhoe Bay.

In recent days, the state made two legal moves. First, it filed a motion asking Judge Gleason to stay the proceedings in her court — to essentially call a timeout. Second, the state filed its petition for the Supreme Court to review Gleason’s Jan. 11 ruling, which the DNR lawyers argue was wrong.

ExxonMobil and the other leaseholders aren’t entitled to another administrative hearing — what would be the third concerning the Point Thomson unit status — and they weren’t denied proper due process, the state’s lawyers told the Supreme Court.

As Petroleum News went to press, neither the Supreme Court nor Gleason had ruled on the state’s requests.

### ExxonMobil resists

Doug Serdahely, a private attorney for ExxonMobil, on Feb. 8 filed papers opposing the state’s request for a timeout in the Superior Court case, calling it “completely unnecessary.”

The state made inadequate legal arguments to justify a stay, he argued.

Important work can continue in the Superior Court case, such as hammering out the details of how the administrative hearing would proceed, while awaiting a decision from the Supreme Court on whether it will grant the state’s petition for

a review of the Gleason ruling, Serdahely wrote.

In a concluding footnote, Serdahely also said the DNR “improperly assumes” the hearing would be complicated, costly and time-consuming. He suggested the two sides, with Gleason, could work out “reasonable, expeditious” procedures for the hearing.

Serdahely further noted that it’s ExxonMobil and the other Point Thomson leaseholders, not the state, that faces “real harm” depending on how Gleason rules on the motion to stay.

That’s because the oil companies are spending millions of dollars to drill on a couple of Point Thomson leases — work the DNR authorized even as the court battle rages on.

Any delay in court proceedings places these mounting investments at risk because the case is about the DNR’s efforts to terminate the Point Thomson unit, Serdahely wrote.

### Does state need new lawyers?

Gleason’s ruling appears to have seriously rattled state officials.

In their Supreme Court petition, the state’s lawyers say important questions need the high court’s review now, before the Superior Court case goes down the road any farther.

With regard to the hearing, DNR believes the leaseholders aren’t entitled to any such proceeding under Section 21 of the Point Thomson unit agreement.

Section 21 says the state can alter or modify the rate of production, provided the unit operator has the opportunity for a hear-

ing to consider whether a required production increase would violate “good and diligent oil and gas engineering and production practices.”

The state’s lawyers argued unsuccessfully in Gleason’s court that because Point Thomson has no production, Section 21 doesn’t apply.

Gleason’s ruling undermines DNR’s ability to manage the state’s resources in the public interest, the department’s lawyers say.

It puts the state in the position of having to either accept whatever development plan ExxonMobil offers — Irwin rejected its most recent plan as unreliable — or showing in a complex hearing that commercial production meets the “good and diligent” standard under Section 21, the lawyers argue.

“This shifts to DNR the burden of proposing an acceptable development path,” inviting years of appeals and further litigation, the state’s petition says.

The state also wants the Supreme Court to review and reverse Gleason’s holding that Irwin, during a weeklong administrative hearing in 2008, improperly relied on a former DNR manager, Nan Thompson, and lawyers who had previously advocated for DNR in court.

If the state has to hold a Section 21 hearing, it will need several state attorneys and DNR staffers, the petition says, yet “those best able to assist the agency in this hearing are the very people” Gleason has ruled the commissioner can’t use. ●

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## BANNER

He said BP never has and never will be involved in strip mining.

“We are focused on so-called steam-assisted gravity drainage, which is much more akin to conventional reservoir engineering,” he said. “Therefore the environmental footprint is no more or worse than normal oil or gas operations.”

### Not enough Canadian upgrading

Stephen Fekete, with the consulting firm of Purvin and Gertz, told a conference Feb. 2 there is no choice but to keep oil sands production flowing to the U.S. now that upstream projects are being revived, but are not being accompanied by the necessary upgrading and refining capacity.

He said those volumes will continue flowing to the U.S., where there is a surplus of refining capacity.

Greg Stringham, vice president of the Canadian Association of Petroleum Producers, said bitumen from Alberta will continue to have a market in the U.S. to fill the gap created by shrinking volumes from Mexico and Venezuela, even in a flat demand scenario.

Separately, Gary Doer, the former premier of Manitoba and now Canada’s ambassador to the U.S., warned U.S. lawmakers against imposing punitive climate-change measures against the oil sands.

He said the Canadian government’s decision to adopt the same greenhouse gas emission targets as the U.S. had bolstered opposition within Canada to U.S. states that plan to target carbon-intensive fuels.

Doer said that while Canada is grappling with ways to reduce GHG emissions at the oil sands, the U.S. has an even bigger challenge to cut emissions from 600 aging coal-fired power plants, claiming the oil sands emit one-sixtieth of the carbon dioxide of the coal plants.

### Widening gap

But there is a widening gap between Canada and the dozens of states that are following California’s lead to impose a low-carbon fuel standard that would penalize refiners using oil sands crude.

Canada has filed a complaint that California-type fuel standards “could be perceived as an unfair trade barrier.”

Doer said that case becomes even stronger now that Canada is committed to the same overall climate-change goal as the U.S.

His bold assessment aside, CAPP is worried the U.S. may use climate change policy as a way to introduce trade protectionism.

Jim Hughes, manager of energy analysis for Imperial Oil and manager of CAPP’s climate change file, told a Calgary seminar that “border adjustments ... sound like another name for tariffs.”

He said the fact that Canada has a trade-dependent economy, with exports accounting for 40 percent of its Gross Domestic Product and 80 percent of its exports destined for the U.S., raised concerns about links between climate policy and international trade policy.

Hughes thinks that if the U.S. fails to introduce federal carbon legislation this year, there is only a low probability of any legislation after 2010, although there could be steps to promote low-carbon energy supplies.

He said it is important to avoid discrimination against sectors such as the oil sands, arguing there must be a cohesive approach by Canada’s 10 provinces and between the provinces and the federal government.

### New tailpipe emission regulations could match California’s

Exactly what the thinking is within Canada’s federal government has grown foggy with indications that the federal Environment Department may be drafting vehicle tailpipe regulations that match the climate-change goals of California, as well as the province of Quebec.

A background document published late last year by the department said final regulations could be in place by this summer and those standards “would put Canadian GHG emission standards at par with U.S. national standards and, by 2016, with the California standards.”

That is at odds with comments earlier in February by Environment Minister Jim Prentice, who ridiculed Quebec for copying California. He said that would add an average C\$5,000 to the cost of cars.

An analysis by Calgary-based investment banker Peters & Co. said production from thermal recovery projects should double over the next five years as a number of smaller, modularized projects come onstream, although a number of mining projects are still proceeding — Imperial’s

Kearl, Canadian Natural Resources’ Horizon, Royal Dutch Shell’s Athabasca and Syncrude Canada.

The analysis estimated that the impact of carbon dioxide compliance costs on oil sands operations could range from C\$0 to C\$7 per barrel of production.

Pat Nelson, a former Alberta finance minister and now vice chair of the In Situ Oilsands Alliance, endorsed Peters’ view that the future lies with in-situ developments.

“Only 2 percent of our oil sands resources can be mined,” she said. “The balance has to be developed through in situ processes. ●

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## OIL PATCH BITS

al Environmental Summit in Coronado, Calif., on March 3. The Climate Change Business Journal recognized AECOM for its Renewable Energy practice, and Arauco Carbon Footprinting Analysis project. The Environmental Business Journal recognized AECOM for Green and Sustainable Remediation and its Environmental Mobil Application for Pipelines. AECOM is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is leader in all of the key markets it serves. For more information visit [www.aecom.com](http://www.aecom.com).

### NAC division to provide ground handling for UA

Northern Air Cargo said Feb. 8 that its Northern Air Services division has signed an agreement with United Airlines to provide ground handling services at Ted Stevens Anchorage International Airport beginning in May. NAAS will provide above- and below-wing services to United including passenger check-in, baggage handling, ramp control and related operational services. The company plans to hire up to 90 seasonal workers beginning in April. “We are looking forward to expanding our services at the airport through supporting United’s return to the market,” said company spokeswoman Margot Wiegale. “We’re looking for good people who are experienced in airport operations and want to join a great team.”

Editor’s note: All of these news items — some in expanded form — will appear in the next *Arctic Oil & Gas Directory*, a full color magazine that serves as a marketing tool for Petroleum News’ contracted advertisers. The next edition will be released in March.

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## PERMIT

the nearby community of Nuiqsut to the project's road system.

Major parts of the project included a new drilling pad in NPR-A, CD-5, one major and two smaller bridges — carrying pipelines as well as road traffic — and a road connecting CD-5 to central Alpine facilities.

"We are disappointed with the Corps of Engineers decision," ConocoPhillips Alaska spokeswoman Natalie Lowman told Petroleum News in a Feb. 5 e-mail.

"We have diligently tried to permit this project for almost five years and we intend to exercise our right to appeal the denial," she said.

In a follow-up e-mail Feb. 9 Lowman said the environmental impact statement completed in 2004 "concluded that a roaded bridge project was the preferred alternative, and the local landowner, the village of Nuiqsut, has endorsed that approach."

She said ConocoPhillips hasn't "made a decision on any path forward other than to appeal the decision."

The CD-5 project represents "more than \$600 million in investment, and 400 direct new jobs per year during construction, plus hundreds of support jobs," Lowman said, and the project cannot move forward "until this issue is resolved with the Corps of Engineers."

### Oil movement the issue

It wasn't the drill pad in NPR-A that triggered the denial, but the connection between CD-5 and the Alpine processing facilities.

ConocoPhillips proposed a bridge across the Nigliq Channel of the Colville River, with a road to CD-5 on the west side of the channel and back to Alpine facilities on the east side.

The pipeline carrying unprocessed crude oil from CD-5 would have been on vertical support members and would have crossed the Nigliq Channel on the bridge on its way to Alpine for processing. After processing at Alpine, the crude would move through the Alpine pipeline to connect with North Slope pipeline infrastructure to the east.

The corps said in a Feb. 5 statement announcing the denial that it "has determined that there are other practicable alternatives that would have less adverse impact on the aquatic ecosystem and still meet the overall project purpose."

"Other alternatives with less environmental impacts could include horizontal directional drilling but would require new permit applications," the corps said, referring to placing the pipeline under the Nigliq Channel using horizontal directional drilling.

ConocoPhillips' permit applications (under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act) were to discharge fill material over 62 acres of wetland tundra to construct the drill pad, access road, bridge crossings and pipeline supports.

### Aquatic environment

The corps said in its decision that it was concerned about impacts to the Colville River Delta, "the largest and most complex delta on the Arctic Coastal Plain of Alaska," which drains nearly 30 percent of the North Slope, provides habitat for some 80 species of birds, numerous fish and migrating caribou, and is within the subsistence hunting and fishing areas of the Native Village of Nuiqsut.

The Environmental Protection Agency and the U.S. Fish

## Alaska officials unhappy with decision

Statements from Alaska's elected officials in response to the denial of ConocoPhillips' CD-5 permits were negative.

"I am alarmed and amazed by this short-sighted decision, which totally ignores the economics of future energy development in all of northern Alaska," said U.S. Sen. Lisa Murkowski, R-Alaska.

Murkowski noted that a road across the Nigliq Channel is widely considered to be a step in oil and gas development within the National Petroleum Reserve-Alaska.

"If allowed to stand, this myopic decision will kill all future oil development from the nation's largest designated petroleum reserve and probably stop all future natural gas production from the area as well," she said.

"Today's announcement by the Army Corps that Conoco-Phillips' permit is not approved is obviously disappointing to me and the many Alaskans who are eager to develop the oil and gas potential in the NPR-A," said U.S. Sen. Mark Begich, D-Alaska.

"After the parties worked together for years to get agreement on NPR-A development, I am deeply disappointed the first project just got knocked off track," he said.

Begich said the decision shows "that Alaska needs a comprehensive plan to allow development in the NPR-A to happen expeditiously and responsibly."

Alaska Gov. Sean Parnell said the denial was part of a pattern of federal delays.

"Just in the last six months, we've fought the federal government for tying up Outer Continental Shelf leasing, and for adding bureaucratic nightmares and costs with Endangered Species Act listings and critical habitat area designations. We've seen the U.S. Fish and Wildlife Service and the Environmental Protection Agency show reluctance to approve anything related to jobs in Alaska," Parnell said.

"And then — first by delay, and now, through their decision — the Corps of Engineers continues to set back our nation's chances for economic recovery, domestic energy production, and Alaskans' prospects for jobs."

### State legislators also displeased

Alaska House Speaker Mike Chenault, R-Nikiski, and House Resources Committee Co-Chair Craig Johnson, R-Anchorage, also commented on the corps' action.

Chenault said ConocoPhillips has permits to explore in NPR-A.

"The last remaining obstacle was the bridge permit for the Colville River. This is a project that garnered widespread support from the outlying communities, within the industry, and stood to finally open up the reserve for development," Chenault said, calling the denial "another example of administrative obstruction."

Johnson said the decision was "another sign that Alaska's clearly not open for business, through no fault of our own" and "sends a terrible message to companies who want to help open up the known reserves on federal lands."

—KRISTEN NELSON

and Wildlife Service objected to granting the permits.

EPA told the corps it had determined that the Colville River Delta is an aquatic resource of national importance, triggering action under a 1992 memorandum of understanding between EPA and the Department of the Army.

EPA recommended denial of the permits.

So did the U.S. Fish and Wildlife Service, which also told the corps it had found the delta to be an aquatic resource of national importance, and also cited a memorandum of understanding with the corps.

The corps said it "does not take a position on the designation of the CRD as an ARNI ... (but) recognizes that impacts within the CRD floodplain may have a greater effect on the surrounding environment than impacts outside of the CRD due to the unique aquatic resources, its value as habitat, and its connectivity to other waters of the United States."

The CD-5 drilling pad, on the other side of the Nigliq Channel from the Alpine facilities, is not in the Colville River Delta, but 2.5 miles of the road back to Alpine and the bridges would be.

### Corps alternatives

The corps said in its record of decision that it identified two alternatives "that minimize impacts to aquatic resources within the floodplain of the CRD." Neither alternative, the corps said, has significant adverse environmental consequences.

The first alternative has a drilling pad at the location proposed by ConocoPhillips, but the pad is larger because this alternative is a road-less development. The 19.5-acre pad would be connected to an airstrip by a 1.1-mile road.

The pipeline carrying the crude oil would be drilled under the Nigliq Channel using horizontal directional drilling — the method used to install the pipeline from Alpine which carries processed crude oil under the Colville River.

"This alternative was included because it primarily avoided impacts to the Colville River Delta," the corps said.

The corps' second alternative involves a smaller pad, but includes an 8-mile road connecting CD-5 "to the existing Nuiqsut dump road," and an expansion of 1.25 miles of the existing Nuiqsut dump road "to a two-lane road suitable for heavy truck traffic."

Storage and vehicular infrastructure would be added at the Nuiqsut airstrip, so CD-5 could be supplied from Nuiqsut and by ice roads in the winter for drill rig transportation.

This alternative would also take oil to Alpine via a pipeline drilled under the Nigliq Channel using horizontal directional drilling.

EPA suggested ultra-extended-reach drilling from existing Alpine facilities, but the corps said information provided by ConocoPhillips indicated the orientation and low permeability of the CD-5 reservoir "make UERD technically

see PERMIT page 19

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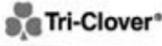
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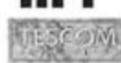
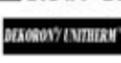
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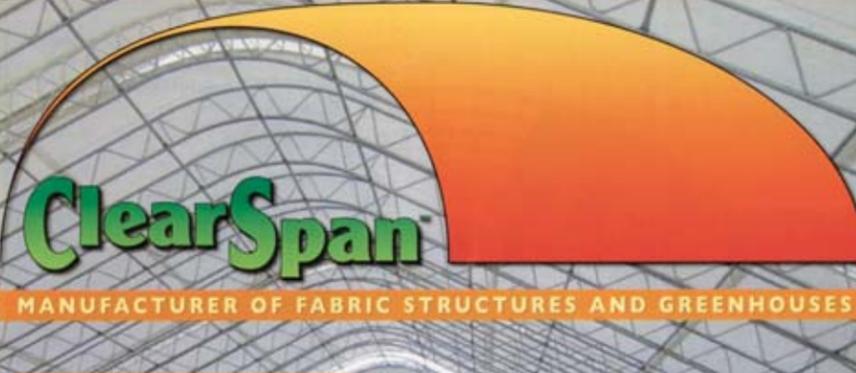






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## PERMIT

difficult given current drill rigs.”

### Project support

The corps said it received support for the ConocoPhillips’ proposal from the Alaska Department of Natural Resources, which commented on the modifications the company had made to the project. DNR said those modifications reduced impacts to hydrology, subsistence and the environment of the Colville River Delta. DNR also said a pipeline suspended on a bridge over the Nigliq Channel reduces the potential for scour and long-term maintenance.

The North Slope Borough told the corps it had adopted an ordinance approving the CD-5 master plan. The borough said it preferred a bridge rather than HDD, and said there was local concern about contamination when the Alpine sales oil line was drilled because an unknown amount of drilling mud was lost.

The borough also noted that a road connection between Nuiqsut and new infrastructure including a bridge would allow spill response teams from the village to be mobilized quickly, and said road access would make it possible for residents to drive to work and to access other subsistence areas.

Nuiqsut is across the Nigliq Channel from existing Alpine facilities.

The Native Village of Nuiqsut, the City of Nuiqsut and Kuukpik Corp. commented jointly, telling the corps they supported the CD-5 project as proposed, and noting that the project reflected major compromises, specifically the bridge location and

a memorandum of understanding between ConocoPhillips Alaska and Kuukpik Corp.

The corps acknowledged the support, but said it evaluates impacts and determines the least environmentally damaging practical alternative based on its statutes and regulations.

The corps said a significant portion of the memorandum of understanding involved ConocoPhillips reimbursing Kuukpik Corp. “for the construction of a road from Nuiqsut to the CD-5 access road. The road to Nuiqsut is not a part of CPAI’s proposal and will require additional permitting and review,” the corps said, adding that it “cannot guarantee that a Department of the Army permit could be issued for the Nuiqsut road.”

Anadarko Petroleum Corp., ConocoPhillips’ partner in the Alpine field, told the corps it supported the project as proposed, and said while HDD is technically feasible it poses significant risks for pipeline corrosion, sedimentation, slugging and leak detection.

Anadarko also said an HDD alternative would increase air traffic and noise, which may impact subsistence resources.

### Water issues in the delta

The corps said water circulation through the project site is different in the Colville River Delta than west of the delta, with the western limit of the delta defined as the western bank of the Nigliagvik Channel.

The delta, more than 25 miles long, encompasses some 250 square miles with the majority of the water within its watershed carried through two main channels, the East Channel and the Nigliq Channel.

Under the ConocoPhillips proposal, the

corps said some 2.5 miles of gravel access road (approximately one-third the width of the delta at this location), three bridges with a total of 69 pilings and the 0.03-acre Nigliagvik pad would be constructed within the Colville River Delta.

The drill pad and some four miles of access road would be outside the delta but almost entirely on wetlands. The pipeline corridor would contain approximately 725 vertical support members.

“It is likely that the presence of 2.5 miles of road and three bridges within the delta, perpendicular to the natural flow path, would impact water levels, overland sheet flow, and circulation/fluctuation patterns within the CRD even in events less than 50-year events,” the corps said. “Further disruption of circulation patterns could result if roads, culverts, or bridge abutments, create ice jams.”

Because the HDD alternatives proposed by the corps do not have roads, bridges or bridge abutments within the delta, “these structures will have less impact than the road and bridges in the applicant’s proposal,” the corps said. Any alterations to circulation patterns that did occur would be outside the Colville River Delta.

In acres the difference lies in the delta: ConocoPhillips’ proposal totals 62.3 acres of aquatic ecosystems, the corps said, 21.3 acres within the Colville River Delta, while the road-less HDD alternative impacts 54 acres, but only 0.4 acre within the delta and the HDD alternative with the Nuiqsut road connection totals 75.4 acres, but with only 0.4 acre within the delta.

The corps said current development within the delta totals some 160 acres, including all existing Alpine pads, pipelines and facilities.

### Other satellites possible

The corps said it had been told by ConocoPhillips that there is potential for a satellite development north of CD-5, Fiord West, which may be within the delta; access would be via a gravel road from CD-5. There are two other potential drill sites outside the delta — Greater Moose’s Tooth 1 and 2 — also with planned access by gravel roads from CD-5.

Other drill sites within NPR-A are also possible, ConocoPhillips told the corps, if future exploration is successful.

All of this development would use existing Alpine central processing facilities, “increasing the ACPF footprint to accommodate additional facilities, and increasing air and road traffic impacts,” the corps said.

The corps said “the greatest potential for cumulative effects in the aquatic ecosystem is to the hydrologic functions, and related biological functions. The construction of the east-west bridge and road system across the CRD to CD-5 would have an effect on hydrology channel geomorphology.”

Under the two HDD alternatives, the corps said, it is unlikely that a road-bridge system would be constructed to Alpine from NPR-A in the future.

In the case of the road-less development, “the CD-5 airstrip has the potential to link the future satellite developments” and in the case of the alternative with the road between CD-5 and Nuiqsut, “Nuiqsut would likely become the logistics and transportation hub for the future developments” in eastern NPR-A. ●

Contact Kristen Nelson  
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## GREENING OF OIL

within.” More responses came through on my networking pages, find me, add me.

**WHAT A BUNCH OF ...** My job is now easier folks. An oil industry extremist was upset to get a recent press release from us: “What a bunch of crap. Aren’t you aware that global warming and all the hoopla over CO2, etc. has been thoroughly discredited and shown to be both a fraud and a hoax?” Luckily, Greening of Oil reports solely on the science behind energy industry practices! Dare I recommend she actually visit the site? [Read the full comment.](#)

**DON’T YOU JUST LOVE IT?** Greening of Oil has a new freelance writer, Liz Bestic, who lives in Woodbridge on the Suffolk coast. She will be writing many of our energy career pieces (\$70,000-plus a

year section). Liz is a wonderful writer and artist. [Check out her Web site.](#) UK readers forgive me, but I simply adore the names you give homes, hills, farms and the like. Here are a few from Liz’s address and biography: Kyson Hill, Brrom Heath, Cuckoo Farm Workshops, Peter Pears Gallery, Ipswich ... You get the picture. Why couldn’t Americans have been more creative in naming the New World? Liz trained at West Surrey College of Art and Design and Exeter College of Art in the mid seventies before switching careers to become a journalist for the Sunday Times. It’s rare to find exceptional writing, painting and printmaking talents in one individual. Welcome aboard, Liz.

*Mac Ackers is Greening of Oil's social net worker. Her weekly column is posted in both Petroleum News and www.greeningofoil.com's Buzz page.*

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