Petroleum News

page 3 Q&A: Stedman: Pendulum swing too far with tax changes in SB 21

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September Mining News inside

The September issue of North of 60 Mining News is enclosed.

Buccaneer, CIRI, Mental Health Trust at odds over Kenai Loop

The Alaska Oil and Gas Conservation Commission is wrestling with issues related to gas ownership in the Kenai Loop area on the Kenai Peninsula and has recently denied two requests from Buccaneer Alaska Operations LLC for spacing exceptions for Kenai Loop wells because of objections from adjacent owners that their property would be drained by production from the Buccaneer wells.

The issue came to light when Buccaneer applied for spacing exceptions for Kenai Loop wells nos. 1-4 and 1-4ST. The company has other producing gas wells at Kenai Loop, north of the Cannery Loop unit, and has had production there since January 2012.

see KENAI LOOP ISSUES page 20

Hearing on MI/NGL at Prudhoe Bay rescheduled at BP's request

The Alaska Oil and Gas Conservation Commission is considering whether revisions are appropriate to Conservation Order 360, issued in 1995, based on changing circumstances.

That order concerns use of natural gas liquids from the Prudhoe Bay oil pool. The decision the commission made in CO 360 directed maximization of production of blendable natural gas liquids. That is, liquids that are sold down the trans-Alaska oil pipeline have had priority over liquids used for MI, miscible injectant.

Prudhoe Bay field operator BP Exploration (Alaska) has been following that direction.

However, based on testimony in a 2012 hearing on potential waste of propane at Prudhoe, the commission is now asking if

see HEARING REQUEST page 15

NATURAL GAS

Sparks are flying

Fairbanks gas utilities exchange counter claims at contentious hearing

By ALAN BAILEY
Petroleum News

Fairbanks, a city in Alaska's Interior perhaps better known for its calm but severe cold winter weather than for tempestuous storms, has become the center of a hurricane-force debate over future natural gas supplies, as two competing gas utilities do battle over who should be allowed to expand natural gas distribution services for the city's residents. And, in the latest twist in this contentious issue, the utilities, Fairbanks Natural Gas and the Interior Alaska Natural Gas Utility, have been arguing their positions in a public hearing being held by the Regulatory Commission of Alaska, or RCA.

The contention arises over which utility is best prepared to provide new gas distribution services in areas of Fairbanks with high or medium population densities, including the areas around North Pole and Eielson Air Force Base.

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see UTILITY SPARKS page 19

EXPLORATION & PRODUCTION

Three strikes and out?

Fish and Wildlife director upholds rejection of state's ANWR exploration plan

By WESLEY LOY
For Petroleum News

For the third time, federal officials have denied Alaska Gov. Sean Parnell's bid to conduct oil and gas exploration on the coastal plain of the Arctic National Wildlife Refuge.

The latest denial comes from Daniel Ashe, national director of the U.S. Fish and Wildlife Service, who in a Sept. 20 letter upheld the Alaska regional director's rejection of the state's exploration plan.

The Parnell administration was seeking a federal permit for a four-year, 3-D seismic survey across the coastal plain.

Back in June, Interior Secretary Sally Jewell rejected a more expansive exploration proposal that included not only a seismic survey but exploratory drilling.

"This continued head-in-the-tundra approach to resource development in Alaska is disappointing and disturbing."
—former DNR Commissioner Dan Sullivan

The latest rejection would appear to leave the Republican governor with only one option: sue the federal government.

Dueling interpretations

The coastal plain of ANWR is considered high-

see THIRD STRIKE page 15

NATURAL GAS

Canada faces LNG heat

US now viewed as overtaking Australia in jostle to gain access to Asian markets

By GARY PARK
For Petroleum News

The heat is building on Canada to snuff out hints of rising capital costs and on British Columbia to unveil its promised LNG tax structure, especially as evidence grows that the United States has overhauled Australia as Canada's major rival in the race to open markets in Asia, various speakers told a Calgary LNG forum in September.

JIM PRENTICE

The domestic pressures are being compounded by a concerted move among Asian buyers to slash their current LNG prices.

In an effort to jolt the industry out of any complacency, a former senior cabinet minister in the government of Prime Minister Stephen Harper warned that the prospect of entering the export field is "not eternal."

Jim Prentice, now vice chairman of CIBC, one of Canada's five largest banks, warned: "There is a window of opportunity and that window is closing. If Canada is to ultimately win in LNG, we need to pull together and seize the opportunity before the moment passes us by."

The message from him and others was that numbers alone will not win the day, least of all the list of 13 projects mooted for the British Columbia

see LNG HEAT page 18

contents

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● GOVERNMENT

Stedman: SB 21 won't stand test of time

On gas side, Sitka Republican believes state should have equity interest in pipeline, conditioning plant and liquefaction facility

By STEVE QUINN
For Petroleum News

Bert Stedman has made it clear: he does not like Senate Bill 21, Gov. Sean Parnell's oil tax rewrite. But the Sitka Republican senator won't defend the outgoing tax scheme, known as ACES, either. He simply believes the pendulum swung too far when the Legislature drafted ACES in 2007 and now SB 21 produced an extreme change in favor of the oil industry.

Stedman completed his one-year stint as chairman of Energy Council with a recent trip to Wyoming.

He spoke to Petroleum News about his time as chairman, his thoughts on an oil tax issue that won't seem to get resolved and the prospects of Alaska getting a natural gas pipeline built.

Petroleum News: You've just wrapped up your year as chairman for Energy Council. Can you provide a brief review of that year and how it connects to Alaska?

Stedman: The experience was good. I've chaired other kinds of meetings before so it wasn't just that. What I was able to do is get a little bit more focus on Alaska, the Arctic and the Pacific region with most of our members being from the Gulf of Mexico. It allowed us to have discussions about the Arctic and why it matters to North America, primarily the U.S. and Canada.

The exploration and transportation of the Arctic is opening at a very dynamic pace and a lot of the other members, I don't think realize the magnitude of that speed. Also we had the chance to have more focus on the Pacific energy trade triangle: Australia-China-U.S. and Canada-China-U.S. We are the energy state in the energy council, including the provinces that border the Pacific and the Arctic.

What was also really nice for Alaska was they invite members from Alaska to help lead some of the discussions. We had Lt. Gov. (Mead) Treadwell, and Cathy Foerster (commissioner, Alaska Oil and Gas Conservation Commission) and Dr. Mark Myers from (UAF). For example, Cathy talked about the leaky well issues on federal lands and now we're making progress. Treadwell talked about the Arctic in a broad sense, and of course Myers talked the resource potential in Arctic.

We also had discussion in the broader context. I mentioned the trade triangle in the Pacific. If you look at the economic ties between Australia and China, those are different from the political ties between Australia and the U.S. We also had engagements with Kazakhstan and their plains that are resource rich. Kazakhstan, their steppes are similar to our great plains. We heard a funny story about how we flew cattle from North Dakota to Kazakhstan, to rebuild their herds so they are interested in more than hydrocarbons.

As chairman you have the ability to not only lead the debate in a different direction from where it's been before, we were able to take some excursions. We visited the Gulf of Mexico to get an update on Macondo and we got to visit a fracking site. It's pretty exciting what's going on up in North Dakota. What interested me most was the speed of the technology. They are going to 50 to 60 wells per pad so the footprint pad is shrinking and the amount of wells drilled off the pad is escalating.

SEN. BERT STEDMAN

I had the chance to sit down with energy officials in Alberta in January, which was different from the normal Energy Council meetings. One with the energy minister in Alberta, Ken Hughes. We talked about how Alaska can assist or work together with Alberta for a mutual benefit in getting hydrocarbons to market.

They want to move 4 million to 5 million barrels a day to market; that's more than twice what we shipped in TAPS at its peak. They need to move their oil to the coast, the West Coast, the East Coast or for that matter bring it north through a rail extension. I'm hoping we get together with him again when I go there in three months.

The other thing we talked about was the Keystone XL and getting it permitted. I'm not sure that Mexico and neighbors farther south don't feel that the pipeline would put negative market pressure on their ability to ship crude to the U.S. and refineries in south Texas. So there is a tug-o-war there and we'll have to see what happens.

Petroleum News: Closer to home, SB 21 still hangs in the balance on two fronts. One is the referendum. The other is the concern over concluding what is new oil?

Stedman: Let me put things into context a little bit. There seems to be a black and white version in the state: you either support SB 21 or you support ACES. I hate to say it, but this isn't black and white.

The issue with SB 21 isn't to scrap SB 21 because ACES is the answer. ACES needed to be restructured. The bottom line issue with SB 21 is the split of profit oil. You can call profit oil an economic grant, you can call it net cash or you can call it net value.

The problem with it resides in the legacy fields. You set up a fiscal system with a split between the sovereign — in this case the people of Alaska — and the industry. There isn't really a numeric that's the right numeric, but there is a range you fall within when splitting up the profits. We are not even in that range. We weren't in that range under ELF (Economic Limit Factor regime rewritten in 2006) and eventually people figured that out. SB 21 puts us in that same position.

It's not going to stand the test of time in my opinion even if the referendum is not successful in passing. If you take a look at North Dakota, they have an 11 percent tax structure and roughly about 20 percent royalties to landowners .We will be so far under North Dakota with the legacy fields. It takes the state out of that range of reasonableness.

Petroleum News: So go back to your concerns about ACES.

Stedman: Here's an example of what I mean, and I'm not saying this to support ACES, but just to put in context: ACES at $100 a barrel after you take out the credits is about on par with North Dakota, fairly close. Say you take things to $120, $130 or $140 things are out of whack in the opposite range of where SB 21 is.

That's the fundamentally issue of SB 21 and it comes down to fiscal stability. If you don't have enough stability within your policy, you can't the public to support it in the long-term.

We are in the oil business with Exxon, BP and Conoco and the four have to have a reasonable comfort in the policy they are working under or it's not going to last. That creates a problem.

So the underlying issue with ACES is when that legislation went through it turned into a political feeding frenzy. Progressivity was hijacked and it was turned into a rate that was unsustainable. With the capital credits, there was a feeding frenzy. It was layered everywhere so it made that tax policy completely unstable. Rather than fix those problems, it became a feeding frenzy on the other side. I don't think we are much better off under SB 21 than we are under ACES. We've created an unstable policy and it needs to be rectified.

All that said, it's going to come down to the people. If they don't want to support it, then we hopefully will go in and hopefully concentrate on areas that need

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● GOVERNMENT

EPA proposes power plant emission rules

Standards would limit carbon dioxide emissions from new power plants; come as part of President Obama's Climate Action Plan

By ALAN BAILEY
Petroleum News

The Environmental Protection Agency, or EPA, has proposed new standards limiting the emission of carbon dioxide from new power plants. The standards, which would impact the demand for more carbon-intensive fuels such as coal for electricity generation, come as the first milestone of President Obama's Climate Action Plan, a plan including the use of federal regulation to limit carbon emissions in the United States.

New facilities

The proposed standards only apply to new facilities — EPA is still talking to potential stakeholders about additional standards for existing power stations, with the intention of publishing a proposed version of those standards by June 1, 2014, EPA says.

Most climate scientists blame manmade carbon dioxide in the atmosphere for rising global temperatures.

"Climate change is one of the most significant public health challenges of our time," said EPA Administrator Gina McCarthy on Sept. 20 when announcing the new carbon emission standards. "By taking commonsense action to limit carbon pollution from new power plants, we can slow the effects of climate change and fulfill our obligation to ensure a safe and healthy environment for our children. These standards will also spark the innovation we need to build the next generation of power plants, helping grow a more sustainable clean energy economy."

Emission limits

Under the proposed standards, new large natural gas-fired turbine plants would be limited to emitting up to 1,000 pounds of carbon dioxide per megawatt hour of power generated. New smaller gas fired-turbines would be limited to 1,100 pounds of carbon dioxide per megawatt hour. And new coal-fired facilities would be limited to 1,100 pounds of carbon dioxide for the same amount of power generated.

EPA is opening a 60-day public comment period for the proposed standards.

According to data published by the Energy Information Administration, coal-fired power stations typically emit around 2,100 pounds of carbon dioxide per megawatt hour, while gas-fired facilities emit about 1,200 pounds per megawatt hour.

DOE support

In a statement supporting EPA's action, Energy Secretary Ernest Moniz said that the power generation sector currently contributes about 40 percent of all U.S. greenhouse gas emissions.

"To continue implementing the president's (climate change) plan, the Department of Energy will work with our partners to further increase power plant efficiency across the range of generation types, promote advanced fossil energy technologies such as carbon capture, utilization, and storage (CCUS), and deploy more clean energy," Moniz said. "DOE is also working to encourage the growth of advanced fossil energy technologies through a new process for $8 billion in loan guarantees for projects that avoid, reduce, or sequester air pollutants or greenhouse gas emissions."

> *"To continue implementing the president's (climate change) plan, the Department of Energy will work with our partners to further increase power plant efficiency across the range of generation types, promote advanced fossil energy technologies such as carbon capture, utilization, and storage (CCUS), and deploy more clean energy."*
> **—Energy Secretary Ernest Moniz**

DOE has already committed $6 billion to advance CCUS and other clean coal technologies to reduce carbon emissions, he said.

Environmentalist support

EPA's proposed standards have met with broad support from the environmental community. A group of environmental organizations including Earthjustice, the Sierra Club, the Environmental Defense Fund and the Natural Resource Defense Council issued a statement praising the Obama administration for its actions in addressing carbon dioxide emissions.

"This proposal is a major step forward towards meeting our obligation to protect our children and future generations from the growing threat of climate change," the group said. "When this proposal is finalized, the president and the EPA will ensure that no future power plants can dump unlimited amounts of carbon pollution in the air."

Industry opposition

Peabody Energy, a major U.S. coal producer, has a different perspective.

"Peabody believes that the U.S. Environmental Protection Agency's proposed rule, if advanced, would cause consumers' power bills to skyrocket over time and cause more pain at the plug than Americans have experienced at the pump," Peabody said in a Sept. 20 statement. "Carbon capture and storage technology is simply not commercially available and not able to satisfy America's need for low-cost electricity. Advanced supercritical generation is the best technology available today and the standard that EPA should follow."

Sen. Lisa Murkowski, R-Alaska, expressed her concern at the EPA action, accusing the administration of circumventing Congress, which, she said, is currently debating energy efficiency.

"I'm very disappointed by this latest rule-making from the EPA," Murkowski said. "Despite opposition, the administration has charged ahead with command-and-control regulations that will drive up energy costs for all Americans. And today we find that they are even willing to mandate the use of technologies that don't exist on a commercial scale. This is the wrong way to advance our energy and environmental objectives." ●

Contact Alan Bailey at abailey@petroleumnews.com

GOVERNMENT

Rail enters Gateway debate

Discussions between Canadian National Railway and the Canadian government delve into use of rail to move crude to Pacific Coast

By GARY PARK

For Petroleum News

The wrangling over Enbridge's stalled Northern Gateway project has taken a fresh twist, with rail entering the picture.

Documents obtained by Greenpeace under Canada's Access to Information Act disclosed that during a March 1 meeting CN said it had the "capacity to move crude to a variety of destinations, including the Port of Prince Rupert."

But Canadian National Railway, CN, spokesman Mark Hallman emphasized that the discussions did not delve into a "specific crude-by-rail project" to the northern British Columbia port.

In answer to reports that Nexen, owned by China's CNOOC, had urged CN to consider the use of rail, he said CN "does not disclose publicly its commercial discussions with customers."

However, the documents made public by Greenpeace showed that an internal government memo claimed CN said it had capacity to run seven trains per day that could match Northern Gateway's proposed capacity of 525,000 barrels per day of crude bitumen for export to Asia and California.

Hallman said CN is currently moving crude from the Bakken, heavy oil and oil sands regions of Western Canada and delivered 30,000 rail car loads (about 19.5 million barrels) in 2012, with the prospect of doubling those volumes this year.

The current Northern Gateway plan involves the construction of two pipelines — 525,000 bpd of crude for export and 193,000 bpd of imported condensate.

Issue of environmental assessment

Greenpeace also released the contents of a separate memo from government officials to International Trade Minister Ed Fast and former Transport Minister Dennis Lebel, noting that the movement of crude by rail does not require a federal environmental assessment, but proposals for new infrastructure to support rail shipments might need an environmental approval.

Michael Gurney, manager of corporate communications with the Price Rupert Port Authority, said the authority has held previous discussions with Nexen about transporting petrochemical products by rail, although no project has been defined.

Canada's Natural Resources Minister Joe Oliver said that although his government is backing pipelines to the British Columbia coast, it is up to the two provinces to work out a means of sharing the financial benefits.

He said any new terminal would require a thorough environmental assessment and consultations with the community and local First Nations.

Effort to break deadlock

Meanwhile, a prod and an olive branch have been introduced in an effort to break the deadlock between Alberta and British Columbia over building pipelines from the oil sands to Pacific Coast tanker terminals.

The pressure on the producers has also been underscored by their willingness to pay C$30 per barrel to get their crude on tankers at Kinder Morgan Canada's Westridge dock at Port Metro Vancouver.

A Kinder Morgan presentation to a Canadian crude markets and rail takeaway conference in Calgary showed the Westridge dock price averaged almost C$30 in the first quarter when the spread between world prices and landlocked Canadian crude was as much as C$40 a barrel.

For producers eyeing export markets in California and Asia, the best hope of relief lies in plans by Kinder Morgan to expand capacity on its Trans Mountain system to 890,000 barrels per day from the current 300,000 bpd, plus Enbridge's 510,000 bpd Northern Gateway pipeline.

Of the current volumes on Trans Mountain, only 75,000 bpd is exported — 75 percent to California and 25 percent to Asia — with the balance destined for a Vancouver and Washington state refineries.

Issue with royalties, revenues

But Alberta and British Columbia have been squabbling over whether British Columbia is entitled to a share of crude bitumen royalties and revenues in return for allowing pipelines across its territory and for shouldering environmental risks.

Although Alberta Premier Alison Redford has refused to even discuss the possibility of sharing royalties, a new poll shows Albertans are willing to give up some of their financial returns to see Northern Gateway proceed.

The polling firm of Leger found 68 percent of Albertans back the project, 17 percent are opposed and 15 percent are uncertain, while 49 percent favor creating a fund to clean up any related spills, 27 percent are willing to share revenues with British Columbia and 22 percent endorse paying money to First Nations affected by the pipeline route.

Alberta Energy Minister Ken Hughes said a working group on energy exports of senior officials in the Alberta and British Columbia governments is "going well" in its search for solutions, but he wouldn't say what options are being discussed.

The working group is "simply one element of a very complex, very intertwined economic relationship" between the two provinces, he said.

Hughes suggested that because Alberta has three times more pipeline than British Columbia and has been regulating the industry for 75 years, that should be proof to British Columbia that his province is not indifferent to the related risks and dangers.

He said there has been a dramatic improvement in the safety record of pipelines in Alberta, from 5.1 incidents per year for every 1,000 kilometers of pipe in 1990 to 1.5 incidents in 2012.

Hughes also said Alberta is in discussions with the Northwest Territories on ways to get northern resources to market.

The current Northern Gateway plan involves the construction of two pipelines — 525,000 bpd of crude for export and 193,000 bpd of imported condensate.

Up to provinces

Canada's Natural Resources Minister Joe Oliver said that although his government is backing pipelines to the British Columbia coast, it is up to the two provinces to work out a means of sharing the financial benefits.

However, he said his own talks with British Columbia aboriginal leaders, communities and the provincial government suggest that "some of the dire descriptions of attitudes are overstated and not entirely accurate. Many First Nations chiefs have made it clear they see the advantages of resource development."

Oliver said a team of federal officials visiting British Columbia have explained the "significant benefits" First Nations could derive from pipelines, but Art Sterritt, executive director of Coastal First Nations, said the eight communities in his alliance continue to view Northern Gateway as a "dead project" because of the threats posed by a pipeline and tanker traffic in British Columbia's coastal waters. ●

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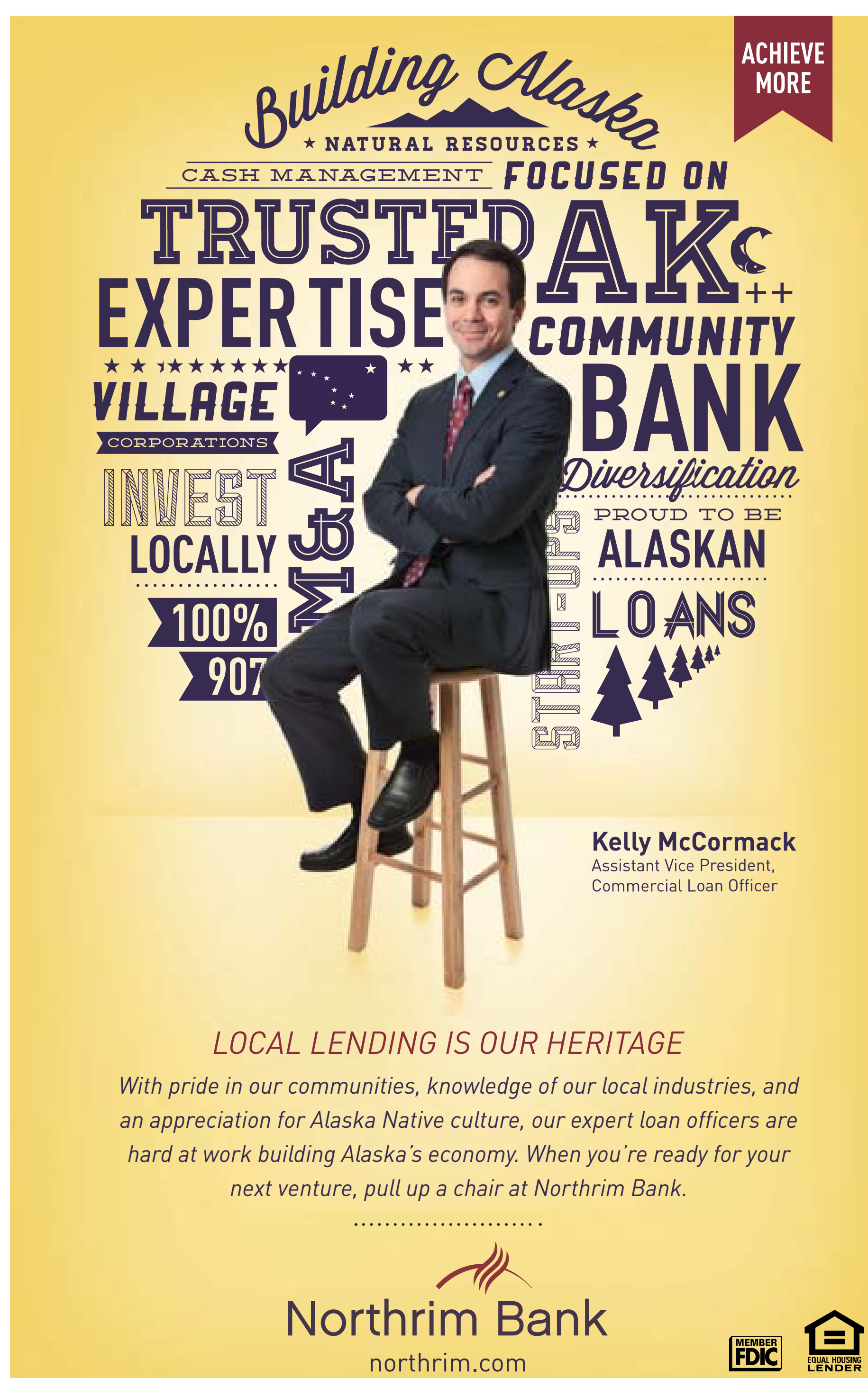

● GOVERNMENT

Commission continues fracking regs work

AOGCC takes more testimony on revised fracking regulations; industry says too much, cites security issues; critics say too little

By KRISTEN NELSON
Petroleum News

Too far and not far enough is what the Alaska Oil and Gas Conservation Commission heard at a Sept. 23 hearing in Anchorage on the agency's revision of its proposed regulations for hydraulic fracturing.

The commission proposed changes and took public comment in April; it published a revision of the proposal in early August and was taking public comments on the revised proposal.

Industry — represented by the Alaska Oil and Gas Association, Hilcorp and an attorney for Halliburton — detailed problems it would have in complying with the proposed regulations, while an attorney for the Wilderness Society, speaking for a group of environmental organizations, praised the commission for changes which stiffen the regulations compared to the original proposal, but said the commission's revised proposal did not go far enough.

AOGA recommends exemption

Kara Moriarty, executive director of the Alaska Oil and Gas Association, told commissioners that while AOGA's 15 members are supportive of chemical disclosure, the proposed regulations attempt to address misconceptions rather than issues. She said additional costs resulting from the regulations could frustrate development of some wells and characterized public concern about groundwater contamination from fracking as not supported by evidence.

The proposed regulations provide no trade secret protection, Moriarty said, and are some of the most stringent of any state. Referring to water well sampling required in the proposal, she said AOGA recommends an exemption for wells, such as those on the North Slope, which are far from freshwater aquifers.

Concern for Cook Inlet

Keith Elliott, south Kenai asset team leader for Hilcorp, which operates in Cook Inlet, said the regulations had the potential to impact cost — as well as the pace — of natural gas development in Southcentral Alaska. He said Hilcorp hasn't yet fracked, but expects fracking to be a cornerstone of future operations, and said it should have no potential to do damage because of the commission's strict well construction requirements and the depth, 6,000 to 8,000 feet. The fractures would not extend to groundwater aquifers, he said.

Water sampling required in the proposed regulations would have a significant cost, he said, citing the one-half mile radius specified in the revised regulations (the original called for one-quarter mile), the number of water wells and issues with identifying them. In an area Hilcorp looked at, he said, there were 37 wells, although Department of Natural Resources records showed only 12.

Trade secret concern

Louann Cutler, an attorney with K&L Gates representing Halliburton, cited lack of trade secret protection. Without explicit trade secret protection, she said, the regulations would likely impact what products Halliburton offered in the state. It's an incredibly competitive business, she said, with lots of time and money spent developing additives used in fracturing.

Without explicit trade secret protection, she said, the risk was that competitors could reverse engineer additives.

It's not that Halliburton is refusing to play ball, she said, just that it would have difficulty providing its "crown jewels," the newest and most environmentally friendly products, in Alaska without trade secret protection.

FracFocus

There is an online database of hydraulic fracturing additives, FracFocus, but attorney E. Barrett Ristroph, speaking on behalf of the Wilderness Society and other environmental organizations, said they didn't want to see exclusive reliance on FracFocus because that website isn't set

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GOVERNMENT

Balash named acting DNR commissioner

Alaska Gov. Sean Parnell named Joe Balash acting commissioner of the Department of Natural Resources Sept. 24, replacing Dan Sullivan whose resignation was effective that day.


JOE BALASH

Balash has been deputy DNR commissioner.

The governor's office said in a statement that prior to joining DNR, Balash was a special assistant to the governor for energy and natural resource development issues, coordinating policy on behalf of the governor's office, DNR, the Department of Environmental Conservation and the Alaska Energy Authority.

Balash previously was staff to the joint Legislative Budget and Audit Committee and was chief of staff to the Senate president.

—PETROLEUM NEWS

● ENVIRONMENT & SAFETY

BLM polishes legacy well cleanup plan

Sixteen old federal well sites on Alaska's North Slope identified as top priorities; Senate passes legislation to provide funding

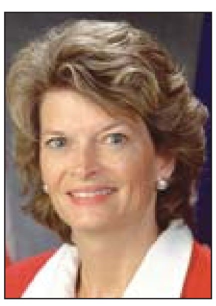
By WESLEY LOY
For Petroleum News

The Bureau of Land Management has finalized its "strategic plan" to plug and clean up so-called legacy wells on Alaska's North Slope.

The well sites are located predominantly in the National Petroleum Reserve-Alaska, which the BLM manages.

The agency rolled out a draft of the cleanup plan in May.

The final plan, released Sept. 23, identifies 16 priority wells for remediation. The BLM, in a press release, said work could begin "as early as next field season" to remove solid waste from three well sites on the Simpson Peninsula, southeast of the village of Barrow.


SEN. LISA MURKOWSKI

The plan does not estimate a total cost for legacy well cleanup.

But the BLM said full remediation of the sites will require "tremendous resources over the coming years."

U.S. Sen. Lisa Murkowski, R-Alaska, is pushing legislation that could provide $50 million to reclaim and close abandoned oil and gas wells nationally.

An 'inherited' problem

The Navy, the U.S. Geological Survey and their contractors drilled some 136 exploratory wells and boreholes between 1943 and 1982. The drilling was to assess the oil potential, and to test arctic drilling concepts, in what originally was known as Naval Petroleum Reserve No. 4.

In recent months, Alaska elected officials and drilling regulators have blistered the BLM for neglecting the old wells. They have complained the sites are junk-strewn, many wells haven't been properly plugged and abandoned, and some are even leaking natural gas.

The BLM notes it "inherited" responsibility for the wells in 1982, after administration of NPR-A was transferred to the agency. The federal government, since 2002, has spent nearly $86 million to plug 18 legacy wells and conduct surface cleanup, the BLM says.

The cleanup plan categorizes the 136 legacy wells. Half, or 68 wells, require no further action "because they have been remediated or pose no threat to the public or the environment," the agency says.

The USGS continues to use another 18 wells as part of climate change studies.

The final 50 wells require BLM action, including the 16 priority wells.

High-risk wells described

"We appreciate the feedback we received from the state of Alaska, the North Slope Borough and other stakeholders," said Bud Cribley, the BLM's Alaska director. "While this final plan lays out an aggressive strategy to address 16 of our highest priority wells, we continue to work with our partners to determine the next steps on the remaining wells requiring remediation."

One outspoken BLM critic, state Rep. Charisse Millett, R-Anchorage, wasn't impressed with the plan.

"It's good to see the report is finally out and the agency is targeting the worst sites but overall, the plan is more inaction than action," Millett said. "BLM only plans to clean up 50 sites. What about the remaining 68 wells? Alaskans would really appreciate it if the federal government held itself to the same standards it sets for private petroleum companies."

In the near-term, the BLM will concentrate on the Barrow and Simpson Peninsula areas, the cleanup plan says.

The first high-priority wells to be addressed include Simpson Core Test No. 26, Simpson Core Test No. 30, Simpson Core Test No. 30A and the Iko Bay Test No. 1 well at Barrow.

"The three Simpson core test wells all have high surface risks, with solid waste left behind by the U.S. Navy, including half barrels and other drums submerged in oil seeps," the plan says. "A detailed surface investigation and preliminary survey of the site occurred in June 2013. The data col-

see **LEGACY WELLS** *page 9*


BUREAU OF LAND MANAGEMENT

Fish Creek No. 1 well site during operations, summer 1949. Photo taken by George Gryc.

● ENVIRONMENT & SAFETY

Pew proposes Arctic drilling standards

Public policy organization spells out what it sees as essential requirements for safe oil exploration in the Arctic offshore

By ALAN BAILEY
Petroleum News

While officials in the Department of the Interior work on new safety standards for oil drilling on the Arctic outer continental shelf, Pew Charitable Trusts, a nonprofit organization that analyzes public policy, has published its own recommendations for Arctic offshore safety standards for the oil industry.

While not opposed to offshore drilling, the organization urges a balance between responsible energy development and protection of the environment.

"Diminishing sea ice is opening Arctic waters to increased industrial activities such as shipping and oil and gas development," Pew says in the overview of its report. "Yet industrial development in these waters brings a new set of challenges and a larger set of risks than in other oceans because, in the Arctic, people and machinery will be working in some of the most remote and harshest conditions on the planet."

"The Department of the Interior welcomes the thoughtful review and ideas on standards for prevention, response and safety in the areas offshore Alaska," said Tommy Beaudreau, acting assistant secretary, land and minerals management, in response to the report. "The Bureau of Safety and Environmental Enforcement and the Bureau of Ocean Energy Management are diligently working on developing a proposed rule that focuses on these areas and will closely examine this report."

In the Arctic there is an oil spill response gap when physical factors such as sea ice, wind and poor visibility exceed the operating limits of spill response equipment, the Pew report says.

Response gap

In the Arctic there is an oil spill response gap when physical factors such as sea ice, wind and poor visibility exceed the operating limits of spill response equipment, the Pew report says. During the middle of the winter, for example, the sea is entirely covered with ice, while broken sea ice during the summer may significantly hamper response operations. And the Arctic coastline of Alaska lacks significant support infrastructure such as major ports, airports and roads, the report says.

Faced with these difficulties, there is a need for seasonal limits, with drilling into hydrocarbon-bearing zones only allowed when an oil spill response is possible, and when there is adequate time for drilling a relief well from open water should a well blowout occur, the report says. During a 106-day open water season, for example, these considerations would limit drilling to 46 days, the report says.

Polar class rigs

And, to ensure that drilling can be carried out safely in Arctic conditions, Arctic operators must be required to use polar class rigs, appropriately certified for navigation in ice-infested waters. Blowout preventers, the devices used to shut off a wellhead in the event of a well loss-of-control incident, must be subject to a rigorous inspection and certification schedule, with redundant systems that come into operation should primary systems fail.

Should an oil field be developed on the Arctic outer continental shelf, production facilities must either be installed on a gravel island or on a platform that rests on the seafloor, able to withstand worst-case hazards, including wind and sea ice.

Pipeline requirements

Offshore oil pipelines must be buried to depths sufficient to prevent being damaged by the keels of floating sea ice or other ice-related hazards. And, given the difficulty of access to pipelines once buried, a pipeline will require a stronger than normal design, with an ability to be emptied of oil should need arise. Heat transfer into permafrost must be minimized.

All support vessels in an oil industry Arctic operation must meet the International Maritime Organization's guidelines for ships operating in polar waters and be appropriately inspected and certified for their intended use in the Arctic. And any drilling rig towing plan must demonstrate that the tow can be conducted safely in the worst-case weather conditions that may be encountered.

Vessels transiting the Arctic should have state-licensed marine pilots on board, the report says.

An oil company operating in the Arctic must have procedures that spell out the weather and other thresholds for offshore operations and the actions to be taken when those thresholds are exceeded. And a monitoring program is required, to forecast conditions that might exceed those safety thresholds.

The Department of the Interior must establish and require certain levels of expertise and experience for personnel conducting Arctic operations, the report says.

And government regulations should prohibit the discharge of drilling waste, produced water and sanitary waste into Arctic waters, the report says.

The report also recommends minimum standards for oil spill response contingency arrangements, including oil spill trajectory and recovery models that take account of Arctic conditions and that are coupled with the availability of sufficient and appropriate equipment to clean up an entire spill.

Spill response standards

The report also recommends minimum standards for oil spill response contingency arrangements, including oil spill trajectory and recovery models that take account of Arctic conditions and that are coupled with the availability of sufficient and appropriate equipment to clean up an entire spill.

And, in the interests of containing a well blowout and minimizing the amount of oil spilled, an outer continental shelf drilling operation must be equipped with a device for capping a well and a containment dome for capturing any leaked oil, the report says.

Relief well capability

During an Arctic offshore drilling operation, a second drilling rig must be available for drilling a relief well, in the event of a well blowout. This second rig must be able to reach the site of the stricken well within 24 hours, if not already drilling at another site, or within 48 hours if already engaged in a drilling operation.

Other recommendations include the required use of Arctic well control experts during drilling operations; the availability of sufficient polar-class vessels to support oil spill response operations; equipment and training standards for Arctic mechanical response equipment; and specific standards for Arctic oil spill response organizations. The report also stresses the importance of public participation in the planning of Arctic outer continental shelf operations and the need for public transparency for those plans. ●

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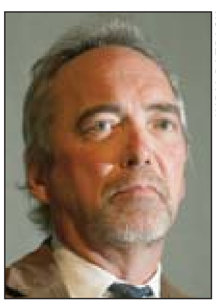
● EXPLORATION & PRODUCTION

Few clues on Great Bear's next steps

Duncan says rock samples from 2012 drilling still being analyzed; shale-oil development decision anticipated in the next year or so

By ALAN BAILEY
Petroleum News

When quizzed by reporters following a talk at the Alaska Oil and Gas Congress on Sept. 18, Ed Duncan, president of Great Bear Petroleum, offered few clues regarding his company's next steps in its quest to develop shale oil on Alaska's North Slope. Duncan said that Great Bear had completed the second of two 3-D seismic surveys in its North Slope acreage and that his company was still moving toward a decision point on moving ahead with developing a shale oil resource.


JUDY PATRICK

ED DUNCAN

"We are right on the original timeline," Duncan said. "So our hope would be that you'll see us sanction a full-field development in the next year or so."

But, with work still in progress analyzing rock samples obtained from drilling last year, the company has yet to firm up plans for its next drilling project, he said.

2011 plan

In September 2011 Great Bear filed an exploration plan for its North Slope leases with the Alaska Department of Natural Resources. That plan envisioned the drilling of up to four near-vertical test wells at sites along the Haul Road, south of Prudhoe Bay. Depending on the results of well logging and the testing of rock core samples, the company might drill sidetrack wells from the initial vertical wells, to conduct short-term oil production tests from oil source rocks that the wells encounter, the plan said.

However, the plan also stated that the sequence of drilling after the drilling of the first two vertical wells was uncertain and would depend on the results from those two wells.

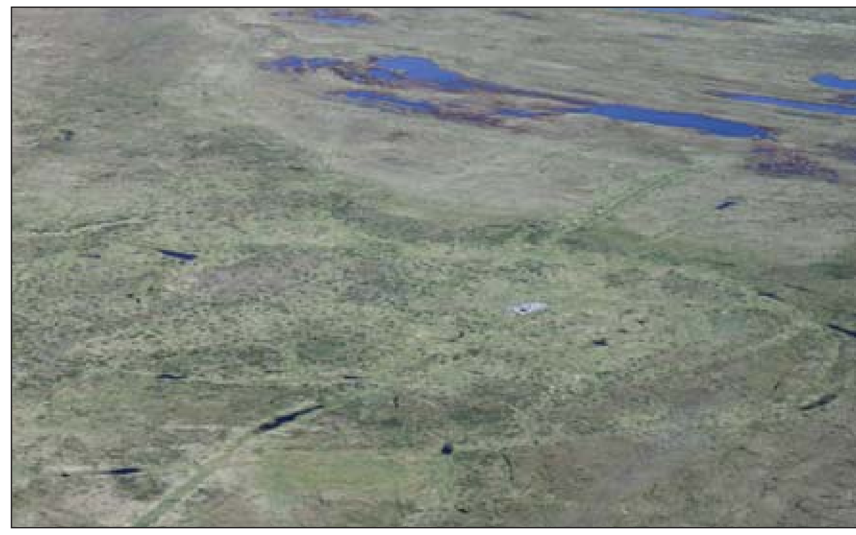
In the event, Great Bear, partnered by oil services company, Halliburton, drilled its first two wells, the Alcor No. 1 and the Merak No. 1, in the fall and early winter of 2012. The company did not sidetrack either well. However, in December of that year Duncan told the Alaska Oil and Gas Congress that the wells had successfully penetrated all three major North Slope source rock horizons and had found oil in the rocks. Great Bear, encouraged by the results of the drilling, wanted to accelerate its shale oil program by requesting state approval for extended production testing from its test wells and moving a decision on a full-scale shale oil development from 2014 to the middle of 2013, Duncan said.

However, although the company proceeded with a 3-D seismic program in its leases, the production testing did not happen.

Longer than expected

In December 2012 Duncan told the Alaska Geological Society that testing of rock samples from its wells was taking

see **GREAT BEAR** page 10


BUREAU OF LAND MANAGEMENT

Fish Creek No. 1, summer 2012. The concrete pad is visible in the middle of the photo. Change in vegetation type identifies the disturbed area.

continued from page 7

LEGACY WELLS

lected will be used for surface cleanup as soon as summer 2014."

The Iko Bay well "has high surface and subsurface risk ratings, as the BLM has verified a small gas leak," the plan says.

"The well lies near a well-traveled winter trail and the building that houses the well has been known to provide shelter for those traveling in inclement weather," the plan says.

A small drill rig will be used to plug the well, and all casing strings will be cut off a few feet below ground level, the BLM says. The plugging and surface cleanup will begin "during the winter season after a contract is awarded."

The plan spotlights a few other problem wells, including the Gubik No. 2 (seeping gas), the Skull Cliff Core Test (200 drums and other surface waste), the Topagoruk No. 1 (waste including battery cores, piping and remains of a burned-out drill rig), and the Tulageak No. 1 (only 350 feet from the fast-eroding Beaufort Sea coastline).

Murkowski likewise has been highly critical of BLM over the legacy wells, which she calls "an environmental crime committed against Alaska by the federal government."

The Senate has passed legislation related to the BLM-operated Federal Helium Reserve that provides $50 million to remediate, reclaim and close abandoned oil and gas wells on current or former national petroleum reserve land, Murkowski said in a Sept. 19 press release.

"The abandoned wells in the NPR-A have been ignored for far too long by federal land managers, who claim they lack the money to adequately address the issue," Murkowski said. "My hope is that this will remove that excuse and resolve this issue once and for all." ●

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FRACKING REGS

up so that records can be merged by public users; she also cited mistakes on the website.

Ristroph said the Wilderness Society wanted to see full disclosure of fracturing chemicals and concentrations.

She said they were concerned by the broad scope of variance and waiver provided in the proposed regulations and said revisions in the proposed regulations didn't address all the concerns they expressed in previous comments.

Commission Chair Cathy Foerster said the record would be left open for three weeks for additional information. She said that if the commission makes substantial changes in the proposed regulations it will issue a public notice and provide another chance to comment. ●

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● PIPELINES & DOWNSTREAM

State proposes royalty oil sale to Tesoro

Refiner to buy up to 15,000 barrels per day of Alaska North Slope crude under one-year contract potentially worth $568 million

By WESLEY LOY
For Petroleum News

The state is proposing a one-year contract to sell up to 15,000 barrels per day of Alaska North Slope royalty crude oil to refiner Tesoro.

San Antonio-based Tesoro operates a refinery at Nikiski, on the Kenai Peninsula. The refinery is Alaska's second-largest in terms of crude throughput capacity, trailing only the Flint Hills Resources refinery at North Pole.

The commissioner of the Alaska Department of Natural Resources has made a preliminary finding that the royalty oil sales to Tesoro would be in the state's best interest.

A final decision won't be made, however, until after the public has a chance to comment on the deal. Comments are due by Oct. 23.

The proposed contract is posted at dog.dnr.alaska.gov.

Benefits of sale

Royalty oil is the state's share of the oil produced from leased, state-owned land. On North Slope leases, the royalty ranges from 12.5 percent to more than 33 percent.

Tesoro is looking to become the second refiner this year to ink a deal to buy royalty oil. Legislators in April approved a five-year contract for the sale of 18,000 to 30,000 barrels per day of royalty crude to Flint Hills.

Legislative approval isn't required for the Tesoro sale, due in part to the short contract term.

Under the proposed contract, Tesoro would buy 5,000 to 15,000 barrels of royalty oil per day between Feb. 1, 2014, and Jan. 31, 2015.

The sale would benefit the state in a number of ways, the commissioner's preliminary finding says.

First, DNR projects the sale would provide $189 million to $568 million in revenue to the state over the course of the contract.

"The sale may also help facilitate the continued operation of the Nikiski refinery with the economic benefits that accompany such operations," DNR says. "The Nikiski refinery produces roughly 2 to 3 million gallons per day of refined petroleum products, most of which will be consumed in Alaska. Tesoro's Nikiski refinery is also the largest taxpayer in the Kenai Peninsula Borough and employs 200 Alaskans in full-time, high-paying positions."

Alaska has four commercial refineries, including Petro Star's refineries at Valdez and North Pole.

The Flint Hills and Petro Star refineries are all tied into the trans-Alaska oil pipeline.

The Nikiski refinery is different. Rather than drawing feedstock directly from the pipeline, Tesoro receives its supplies by water, whether from the oil fields on the west side of Cook Inlet, the Valdez oil terminal, or from foreign countries.

Foreign cargos are relatively rare, however, as more than 90 percent of the oil refined in the Nikiski plant is Alaska crude, DNR says.

The Nikiski refinery, like all of Alaska's commercial refineries, lacks the capability to fully transform a barrel of crude into finished product. Leftover portions of a barrel are called "heavy ends." The Flint Hills and Petro Star refineries can inject these heavy ends back into the trans-Alaska pipeline, but Tesoro must ship its heavy ends to the West Coast for further processing.

Tesoro's refinery has a nameplate throughput capacity of 72,000 barrels per day, but actual throughput is lower and varies seasonally. During summer, when demand for refined product peaks, the refinery processes about 65,000 barrels of crude per day.

Overall, DNR says, about 35 percent of the refinery's output is jet fuel, 24 percent is gasoline and 11 percent is diesel. The remaining 30 percent is heavy ends.

No sweetheart deal

Tesoro has operated its Nikiski refinery since 1969.

The state has a long history of selling royalty oil to Tesoro. The state supplied North Slope crude to the Nikiski refinery through most of the 1980s and '90s. Sales totaled 230 million barrels under seven contracts, DNR says.

In addition, the state supplied Tesoro with about 22 million barrels of Cook Inlet royalty crude from 1979 to 1985.

Under the proposed contract, the state isn't offering Tesoro a bargain, DNR says. Rather, state law requires that direct sales of royalty oil must generate revenue at least as great as allowing North Slope producers to market the royalty oil along with their own volumes on the West Coast.

Tesoro has a string of retail fuel stations around the state.

The royalty oil purchase does not signal a planned expansion of the Nikiski refinery, DNR says. The royalty oil is merely expected to replace private sources of feedstock. ●

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NATURAL GAS

Obama signs Denali act allowing gas line

President Obama on Sept. 18 signed the Denali National Park Improvement Act (S. 157), which allows a natural gas pipeline to pass through the eastern fringe of the popular park.

U.S. Sen. Lisa Murkowski, R-Alaska, sponsored the legislation. Sen. Mark Begich, D-Alaska, was co-sponsor.

Among other provisions, the law says the interior secretary may issue right-of-way permits for a high-pressure natural gas transmission line to run along the seven-mile stretch of the George Parks Highway that passes through the national park.

The law doesn't mean a gas line will be built. Rather, proposals are under consideration that could involve routing a trans-Alaska gas line through Denali park. Murkowski and others say such a route might be less disruptive to the Alaska landscape than other alternatives.

—WESLEY LOY

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GREAT BEAR

longer than expected. And in April 2013 Pat Galvin, Great Bear's vice president for external affairs and deputy general counsel, told Petroleum News that the analysis of well data and rock samples was advancing and that, when the analysis of the drilling data was complete, the results of that analysis, coupled with new 3-D seismic data, would enable Great Bear to determine its next steps.

On Sept. 18 Duncan said that Great Bear's next wells would likely be away from the Haul Road. He commented that the $40 million that his company had spent on seismic surveys demonstrated its satisfaction in what it had found so far in its leases. The company is not going to make that kind of capital commitment if it is not encouraged by what it has, he said. ●

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GOVERNMENT

Redford vs. Redford in oil sands debate

By GARY PARK

For Petroleum News

On a 12-day trade mission to China during the thick of the oil sands debate, Premier Redford said the wrangling is doing nothing to erode Chinese enthusiasm for Alberta's energy resources.

At the ripening age of 77, one-time movie heartthrob Robert Redford has done quite nicely for himself playing fictional roles on the big screen.

A lot of Albertans think he's now extended that make-believe world to his campaign against province's oil sands in contributing to climate change.

In the process, he is tangling with another Redford — Alison Redford, the premier of Alberta.

ALISON REDFORD

There is some thought they might be distant relatives; more certain is the apparently unbridgeable gap between their political views.

Robert raised Alison's hackles earlier in September when he launched a video as part of a new celebrity-studded climate change campaign in which he called the oil sands "the dirtiest oil on the planet."

He declared on a video that "tar sands oil is exactly the type of dirty energy we can no longer afford. It may be great for oil companies, but it is killing the planet. There's no energy security in that."

His singing sidekick Neil Young had earlier joined the fray by declaring the oil sands region to be a "wasteland."

Young compared Fort McMurray, the oil sands "capital," with Hiroshima, without saying whether he was referring to the Japanese city after its atomic devastation in the Second World War, or the city as it stands today.

Premier questions credibility

The premier retaliated by questioning how "people who are using energy, flying on planes, can make these sorts of comments and assume they're going to have any credibility."

"Celebrities being celebrities will never change, but at the end of the day, it is important for us to speak for the people whose lives are actually affected (by the economic development of the oil sands)," she said.

She and others noted that heavy crude produced in California and the heavy crudes the U.S. imports from Venezuela and Mexico contribute more greenhouse gases per barrel to the atmosphere than the bitumen extracted in Alberta.

On a 12-day trade mission to China during the thick of the oil sands debate, Premier Redford said the wrangling is doing nothing to erode Chinese enthusiasm for Alberta's energy resources.

In a conference call from Shanghai, she said: "There's a very clear understanding here that when we talk about oil sands development that we are seeing companies make tremendous progress with respect to environmental sustainability.

"And there's very clear acceptance that when we do have economic development that there is environmental impact," she said.

'Long-term' investments

Redford said many of the Chinese companies, as part of their "very long-term" investments in energy, are confident that Canada will eventually allow pipelines from the oil sands to tanker terminals on the Pacific Coast.

Speaking in New York, Canada's Natural Resources Minister Joe Oliver entered the public oil sands fray by trying to shift the focus to U.S. dependence on coal-fired electricity.

"Coal is the single largest source of (greenhouse gas) emissions in the world," he said, noting that the International Energy Agency has cited the increasing use of coal-fired power as the "greatest threat to a low-carbon future and called on governments to take action to address it."

Oliver said Canada has already moved on that front by leading major global coal users in banning construction of new coal-fired electricity plants using traditional technology. ●

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FINANCE & ECONOMY

Dismissal of Miller Energy suit upheld

A federal appeals court has affirmed the dismissal of a shareholder derivative lawsuit against Miller Energy Resources Inc.

Miller operates in Alaska through its subsidiary, Cook Inlet Energy LLC.

Shareholders in 2011 sued derivatively on behalf of the company in federal court in Knoxville, Tenn., where Miller is based. They alleged Miller directors were culpable in misleading public statements on the value of oil and gas assets the company acquired in Alaska's Cook Inlet basin in late 2009.

A judge on Sept. 21, 2012, dismissed the case. Shareholder Patrick P. Lukas appealed to the 6th U.S. Circuit Court of Appeals. The appeals court upheld the lower court dismissal in a majority opinion issued Sept. 19.

—WESLEY LOY

LAND & LEASING

BOEM calls for Chukchi info, nominations

The federal Bureau of Ocean Energy Management is calling for information and nominations for a potential 2016 Chukchi Sea oil and gas lease sale.

The agency said Sept. 26 that the 45-day call is the first step in a targeted approach to offshore Alaska leasing under the Continental Shelf Oil & Gas Leasing Program 2012-2017, published last summer.

"The Chukchi Sea has substantial oil and gas potential, but also is a unique and sensitive environment that provides for the subsistence of Alaska Natives living on the North Slope," BOEM Director Tommy Beaudreau said in a statement. He said any future Chukchi leasing "must be focused on areas that can be developed safely and responsibly while also protecting sensitive habitats and places that are important to Alaska Native hunters and fishermen."

Industry is requested to identify specific blocks of interest and provide detailed information on the basis for its interest in nominated areas, "including a summary of the relevant geologic, geophysical and economic information."

Interested parties are also asked to provide comments and information about "conditions such as bottom hazards; archaeological sites on the seabed or nearshore; multiple uses of the area, including navigation and subsistence; and other socioeconomic, biological or environmental information."

BOEM said it would make decisions about potential areas for leasing after evaluating industry interest and environmental and traditional knowledge.

—PETROLEUM NEWS

● EXPLORATION & PRODUCTION

A flying first for ConocoPhillips Alaska

Company engages in 'groundbreaking' commercial use of drone over Chukchi Sea; potential seen for ice, marine mammal monitoring

By WESLEY LOY

For Petroleum News

An oil company, ConocoPhillips Alaska, recently helped write aviation history, making the first approved commercial use of an unmanned aircraft, or drone, in the United States.

The flight took place in remote airspace over the Chukchi Sea about 120 miles offshore the village of Wainwright, the company said in a Sept. 24 press release.

The drone is known as the ScanEagle, from Insitu Inc., a Bingen, Wash., subsidiary of The Boeing Co. The Federal Aviation Administration in July cleared the ScanEagle and another drone model to fly commercially.

The aircraft is quite small, weighing about 40 pounds, and can fly up to 18 hours on a gallon and a half of fuel, ConocoPhillips said.

36-minute flight

The aircraft was launched Sept. 12 from the research vessel Westward Wind, managed and operated by Olgoonik Fairweather LLC.

The FAA said four ScanEagle planes were aboard the boat, along with an FAA inspector, Jay Skaggs, who "helped ensure the first FAA-approved commercial flights by an unmanned aircraft went off safely and without a hitch."

The first commercial ScanEagle "zoomed off a catapult and into the rainy Arctic skies," completing a successful 36-minute flight, the FAA said.

The first commercial ScanEagle "zoomed off a catapult and into the rainy Arctic skies," completing a successful 36-minute flight, the FAA said.

The boat's retrieval system then captured the aircraft and the "groundbreaking mission" was complete, the agency said.

The FAA said the flight is just the start of a plan, mandated by Congress, to establish permanent Arctic areas where small unmanned aircraft systems, or UAS, can operate for research and commercial purposes. The plan includes developing protocols to operate the aircraft beyond the line of sight.

The proposed Arctic flight areas are ideal because of the low population and low levels of air and ship traffic, the FAA said.

"Small UAS in the Arctic can benefit many operations, such as scientific research, search and rescue, fisheries, marine mammal observers, oil and gas leaseholders and maritime route planners," the agency said.

Safer, less noise

The FAA said as early as October 2012, ConocoPhillips had expressed an interest in flying unmanned aircraft for its marine mammal and ice surveys. The agency and the oil company ended up signing an agreement.

ConocoPhillips has offshore oil and gas leases in the Chukchi Sea, and aims to conduct exploratory drilling sometime after 2014.

The company, in its press release, offered further description of the initial drone flight.

"Controlled by a UAS pilot on the Westward Wind, the ScanEagle sent real-time video and telemetry to the ground control system on the vessel," ConocoPhillips said.

The flight successfully tested the ScanEagle sensor payload and navigation system, said the company, which plans to share flight data with the FAA, academia and the energy industry.

"Airborne surveillance is often a component of offshore projects," said Trond-Erik Johansen, president of ConocoPhillips Alaska. "The UAS could be useful in our monitoring and data collection efforts, with the benefit of improved safety and lower noise levels as compared to using manned aircraft." ●

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● ENVIRONMENT & SAFETY

Arctic sea ice probably at minimum

Minimum sea ice extent for this year will likely be well above last year's record low; Northwest Passage remains closed to shipping

By ALAN BAILEY

Petroleum News

The extent of the Arctic sea ice cover has probably reached a minimum for this year, as the hours of daylight and the air temperatures drop in the polar region, the National Snow and Ice Data Center, or NSIDC, has reported. After falling to 1.97 million square miles on Sept. 13 the ice extent now seems set to increase again, NSIDC said.

Although 653,000 square miles above the record minimum extent set last year, this year's minimum remains below the average minimum extent recorded from 1981 to 2010, NSIDC said.

And this year there have been considerable variations between different Arctic regions. The ice extent was considerably larger than last year in the Chukchi Sea, Beaufort Sea and East Siberian Sea regions, and the Northwest Passage has remained closed thanks to the Canadian Archipelago retaining much more ice than previously. On the other hand, there is less ice this year off the east coast of Greenland, south of Fram Strait, as well as in small areas north of the Kara and Laptev seas, NSIDC said.

Although 653,000 square miles above the record minimum extent set last year, this year's minimum remains below the average minimum extent recorded from 1981 to 2010, NSIDC said.

NSIDC has characterized its sea-ice minimum report as preliminary and has yet to publish an assessment of how this year's sea ice conditions have arisen.

Hiatus in warming

In another aspect of global climate change, there has been a lively debate recently over observations that since the turn of the century average annual worldwide temperatures have remained relatively stable, rather than appearing to continue on a long-term upward trend. But, while some people have taken this new phenomenon as reason to justify skepticism over global warming, most climate scientists seem confident in their predictions of a greenhouse-gas-driven long-term temperature rise. And scientists have been searching for explanations for the recent hiatus in the warming trend.

According to research published in a recent issue of Nature, a cooling effect in the eastern equatorial Pacific Ocean can closely account for the stabilization of worldwide temperatures in the face of a continuing increase in the carbon dioxide content of the atmosphere. This research shows that the current temperature hiatus is part of natural climate variability linked to ocean temperatures, and that in the longer term global warming will likely continue, the authors of the paper say. ●

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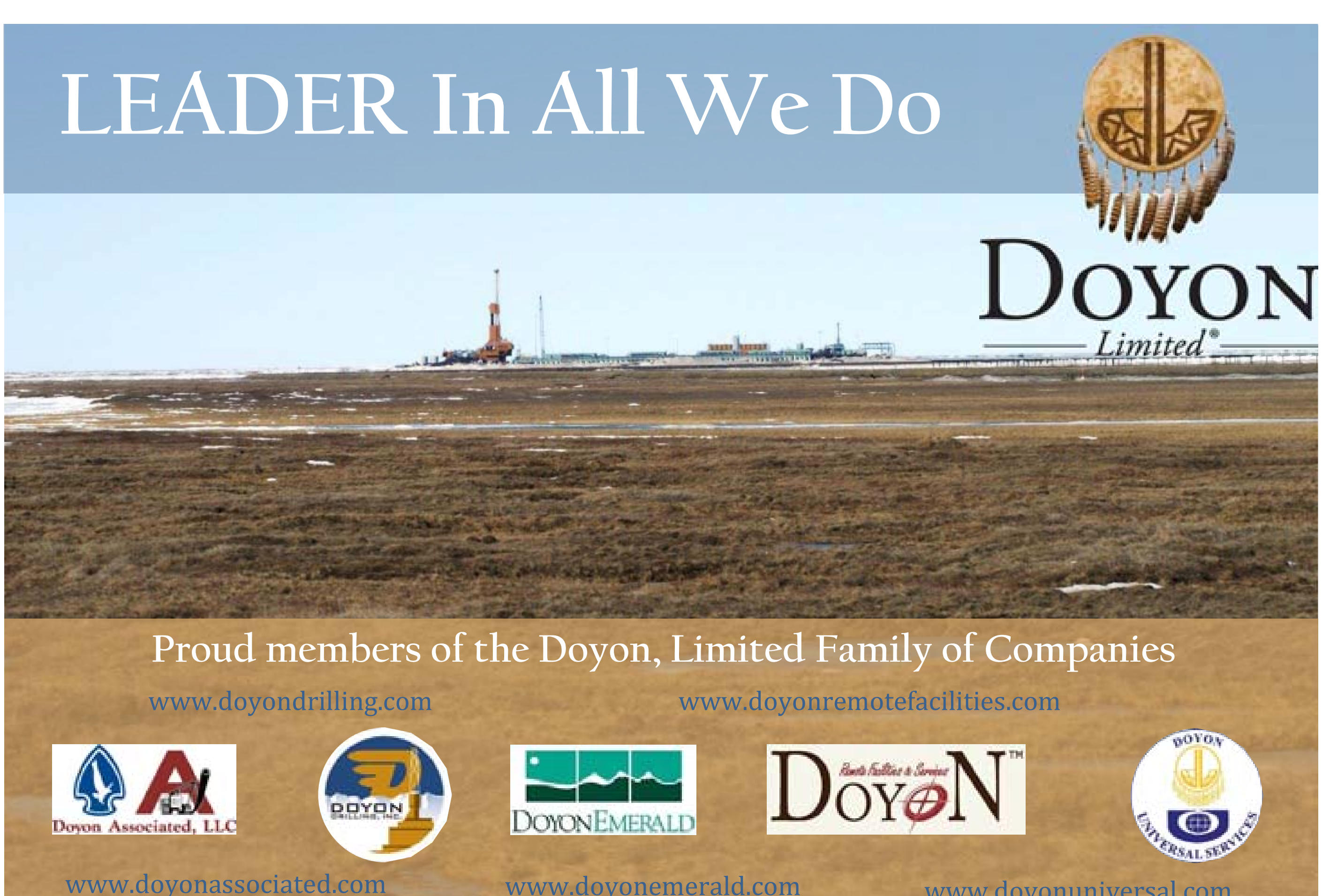

● PIPELINES & DOWNSTREAM

Rail option faces obstacle

By GARY PARK

For Petroleum News

Plans for experimental shipments of crude by rail to Canada's Hudson Bay, then by tanker through Arctic waters to refineries in Atlantic Canada and Europe have encountered stiff resistance.

The Manitoba government, although it has no final jurisdiction over the rail line, is not prepared to shoulder the safety and environmental risks in the wake of the Quebec rail disaster.

Transportation Minister Steve Ashton said the Lac-Megantic tragedy has triggered a "tenfold increase" in public concerns and served as a "wake-up call" to authorities over the use of rail to carry hazardous materials.

He suggested Omnitrax Canada, the regional railway that is spearheading the new option for getting crude to market, should be ordered by the Canadian government to "return to the drawing boards."

Omnitrax, working with the port authority at Churchill in Manitoba and oil producers, had planned an initial shipment in September that could grow to 2 million barrels a year of light sweet crude.

While agreeing to expand its public consultations, the railway gave no indication it is willing to drop the idea.

Ashton said that although his government supports diversifying shipments through Churchill it won't endorse the movement of crude by rail without further improvements to the line.

He noted Transportation Safety Board of Canada statistics show there were 63 accidents, 10 of them derailments, on the Hudson Bay line in the 2003-12 period.

Transport Canada, Canada's lead regulator, said only that Omnitrax would be required to comply with all federal regulations.

Omnitrax President Merv Tweed said his company has an obligation to answer any misunderstandings over what is being attempted and assure the public that it will comply with all safety and environmental regulations.

Grand Chief Irvin Sinclair of the Keewatin Tribal Council said one derailment could destroy the livelihood of First Nations people in northern Manitoba for generations.

Churchill Mayor Mike Spence said the town supports the Omnitrax plan provided it meets federal regulations governing the safe transportation of petroleum products.

But town residents have raised concerns about the risks to the town's reliance on tourists for polar bear, beluga whale and bird watching.

The port, which is used during a brief open water season to export grain and lumber, offers a "competitive cost advantage to deliver oil to multiple destinations for a short period of time each year," said Jeff MacEachern, executive director of the Churchill Gateway Development Corp.

He said earlier this year that Churchill is not a major solution to opening new markets for Canadian oil sands and Bakken crude, but the option is being "looked at seriously because producers want optimality in how they transport their product to refineries and overcome congestion in pipelines and rail services."

The Churchill port authority said the facility is experiencing a longer ice-free season that can be extended with the use of icebreakers. ●

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● EXPLORATION & PRODUCTION

Buccaneer relocates Endeavour jack-up

Rig at Southern Cross in Cook Inlet; settling of legs caused by scouring requires late September move of rig from initial location

By KRISTEN NELSON

Petroleum News

Buccaneer Energy Ltd. said Sept. 24 that it was relocating the Endeavour jack-up drilling rig some 450 feet southeast of the initial location at the Southern Cross unit in Southcentral Alaska's Cook Inlet due to scouring which caused some settling of the rig's legs.

The Endeavour was moved to Southern Cross in early September to drill the Southern Cross Unit No. 1 well following completion of the Cosmopolitan No. 1 well.

Buccaneer said installation of the 30-inch diverter and well control equipment on the conductor pipe had been completed at the original drilling site when "some settling of the rig's legs into the seabed was noted."

The rig was then leveled and side scan sonar used to evaluate seabed conditions. Buccaneer said "evidence of movement of sand behind and around the bottom of the rig legs was observed which is also called 'scouring,'" sand movement the company attributed to "the strong currents during incoming and outgoing tides." The company said the original drilling location had been surveyed and was approved by various state agencies prior to movement of the rig, and added "the current issue is not uncommon in shallow offshore drilling."

Divers mobilized

Buccaneer said the new drilling location has been surveyed using sonar and "as an added precaution" drivers were mobilized to sample the seabed to ensure that it would be suitable.

The required state agencies have approved the new location, the company said, and tugs were being mobilized to move the Endeavor, a move expected to take place on or around Sept. 29.

"Once the rig is at the new location, a new conductor pipe will need to be driven and preparations will be made to commence drilling operations," Buccaneer said.

Buccaneer is 100 percent working interest owner at Southern Cross, but in August it executed a farm-out agreement with Los Angeles-based EOS-Petro Inc. The deal allows EOS to earn a 50 percent working interest by paying 100 percent of the cost of the first two wells at the unit.

Kenai Offshore Venture LLC, a joint venture between Buccaneer and Ezion Holdings, and the Alaska Industrial Development and Export Authority, owns Endeavour, which was brought to Cook Inlet last year and began drilling at Cosmopolitan in May.

Buccaneer is the operator of the Cosmopolitan prospect and holds a 25 percent working interest in the leases there, with BlueCrest Energy Inc. holding the majority stake. ●

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LAND & LEASING

Hilcorp takes two Mental Health leases

Hilcorp Alaska LLC was the only bidder at an oil and gas lease sale held in Anchorage Sept. 19 by the Alaska Mental Health Trust Authority. The company took two tracts, 12,286 acres combined, out of the 10 tracts, 51,108 acres, offered in the sale.

Mike Franger, senior resource manager with the Trust Land Office, told Petroleum News in an email after the sale that Hilcorp bid $29.75 per acre for the tracts, 55 and 56, on the Kenai Peninsula, a bonus bid which totaled $365,501.95.

Franger noted that this was the Trust Land Office's ninth lease sale.

Income from Trust land is used to fund programs throughout Alaska that benefit people with mental illness, developmental disabilities, traumatic brain injuries, chronic alcoholism and Alzheimer's disease and related dementia, he said.

Tracts 55 and 56 are adjacent in township 5 north, range 8, Seward Meridian, east of Sterling. Tract 55 contains 6,914.88 acres; tract 56 contains 5,370.9 acres.

The Trust Land Office has income from natural gas production on its lands on the Kenai Peninsula. Its annual report for fiscal year 2013, which ended June 30, says Buccaneer Energy produced natural gas from the Kenai Loop field for the entire year, which production from the first well joined by a second well in the second half of the year, and royalties exceeding $2 million.

—KRISTEN NELSON

● GOVERNMENT

Calif.'s first fracking rules become law

By LAURA OLSON

Associated Press

California Gov. Jerry Brown signed legislation Sept. 20 that will establish the state's first rules detailing how oil drillers use a technique known as fracking.

The bill from Sen. Fran Pavley, D-Agoura Hills, requires drillers to disclose the chemicals used and acquire permits before they use hydraulic fracturing. That process involves injecting water, sand and chemicals into deep rock formations to release oil or natural gas.

Drilling companies have been exploring whether fracking could help them access oil in California's Monterey Shale.

Pavley's bill passed the Legislature the week ending Sept. 13 amid concerns from some conservation groups over last-minute changes affecting environmental reviews. Several groups urged Brown instead to temporarily halt fracking until officials can evaluate whether there are risks to public health.

Brown said in his signing message that SB4 "establishes strong environmental protections and transparency requirements," but that he will seek some additional changes next year to clarify the new requirements. His spokesman, Evan Westrup, declined to elaborate on what those amendments will attempt to address.

The governor added in his message that he will direct the state Department of Conservation to group drilling permits based on factors such as geologic conditions and environmental impacts when possible as a way to boost efficiency. He also said the department's permit-review system should allow for "more particularized review" of permit applications when necessary.

Other provisions of the legislation, which will take effect in January, will require oil companies to test groundwater and notify neighboring landowners before drilling. State officials will have to complete a study by January 2015 evaluating risks of fracking and other well-stimulation techniques, such as using acid to break apart oil-rich rocks.

All California oil wells have been subject to the same regulations, with no specific rules for those using hydraulic fracturing. The Department of Conservation also has been crafting fracking regulations that officials hope to finalize next year.

Tupper Hull, a spokesman for the Western States Petroleum Association, said Sept. 20 that the legislation will give the industry a framework for energy exploration in the Monterey Shale.

"There's no question that there is a great deal more reporting and permitting that will be required," Hull said. "This will add cost and time to bringing energy to market, and the industry will have to adapt to those regulations."

Brown also signed a bill from state Sen. Lois Wolk, D-Davis, which will increase the bonding amounts oil and gas drillers must post in case a well is abandoned or an operator is unable to pay for environmental damage. Those amounts have not been adjusted since 1998. ●

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THIRD STRIKE

ly prospective for oil and gas, and opening the zone to industry activity long has been a top economic development goal for the state.

The coastal plain currently is closed to oil and gas activity without an OK from Congress.

The Parnell administration, however, believes exploration is allowable under federal law, specifically the Alaska National Interest Lands Conservation Act of 1980.

Federal officials disagree with the state's interpretation of ANILCA, and say any authorization for exploration expired long ago.

The two sides have been swapping highly detailed legal interpretations, with Ashe's 10-page letter the latest shot.

His rejection drew praise from Cindy Shogan of the Alaska Wilderness League, a fervent ANWR protectionist.

The Obama administration has been clear that oil development in ANWR is "off the table," Shogan said in a Sept. 23 press release.

"It is time for the state of Alaska to take no for an answer and move on," she said.

'Head in the tundra'

Dan Sullivan, who finished his tenure as the state's natural resources commissioner on Sept. 24, said in an interview with Petroleum News the day before that he was disappointed to see Ashe's rejection letter.

"Overall, we're still reviewing it with the Department of Law and evaluating next steps," Sullivan said.

The only existing seismic data on the coastal plain is outdated, and a new 3-D survey would provide a much clearer picture of what's beneath the ground there, state officials say. They stress that the seismic survey could be done with almost no impact to the tundra or wildlife.

The only existing seismic data on the coastal plain is outdated, and a new 3-D survey would provide a much clearer picture of what's beneath the ground there, state officials say. They stress that the seismic survey could be done with almost no impact to the tundra or wildlife.

And Parnell has pledged to request at least $50 million from the Alaska Legislature to pay for the seismic work.

The Fish and Wildlife Service manages ANWR. Sullivan said federal land managers should want to learn more about what resources might exist subsurface.

"This continued head-in-the-tundra approach to resource development in Alaska is disappointing and disturbing," he said.

He added: "We think there's a lot of strange reading of federal law going on here."

Sullivan, who previously served as the state's attorney general, said the state's push for ANWR exploration isn't over. ●

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HEARING REQUEST

maximizing NGL production actually promotes maximum ultimate recovery, or if BP should be focused on production of miscible injectant for enhanced oil recovery project.

In scheduling the Sept. 19 hearing the commission said it was "considering whether changes in circumstances" since CO 360 was issued warrant revision of the conservation order, and said it would be considering whether findings and conclusions in CO 360 remain viable and the effect, "if any," of an annual average MI volume of less than 600 million cubic feet per day "on ultimate recovery from the Prudhoe Oil Pool."

At the Sept. 19 hearing, commission Chair Cathy Foerster said the hearing had been changed to a prehearing conference, as BP Exploration (Alaska) had requested clarification on what the commission was expecting to learn at a public hearing.

Foerster said she would be attempting to provide the clarity BP had requested so the company could prepare for a hearing and said her goal was to reschedule the hearing 60 days from Sept. 19.

Attorney Jeff Leppo, representing BP, said BP had asked in its correspondence with the commission on the issue to submit prefiled testimony on Dec. 6, citing complications of coordinating testimony among the Prudhoe working interest owners (primarily BP, ConocoPhillips, ExxonMobil and Chevron).

Foerster said she would discuss scheduling with the other commissions, but said her feeling was that the companies had engineers looking at reservoir management daily and it shouldn't take 120 days to answer the commission's questions.

When this issue of Petroleum News went to print the commission had yet to post a new hearing date.

The commission held a 2012 hearing and concluded BP was not wasting propane produced at Prudhoe Bay by using it for field operations.

Propane issue

Harold Heinze, a former head of ARCO Alaska and the Alaska Natural Gas Development Authority, representing himself, brought the propane issue to the commission's attention in late 2011. The commission held a 2012 hearing and concluded BP was not wasting propane produced at Prudhoe Bay by using it for field operations.

While the commission rejected the argument that because propane was not being sold today it would be trapped at the end of the field's life, constituting waste, Foerster told Petroleum News after the 2012 decision (Docket OTH-11-51, Other Order 75) was issued that based on the findings of the propane hearing, the 1995 decision under which the Prudhoe Bay owners sells NGLs into the trans-Alaska oil pipeline should be reevaluated.

That reevaluation was the purpose of the Sept. 19 hearing.

Heinze asked Forester at the Sept. 19 prehearing conference whether, based on testimony the commission receives, it would be willing to revisit some aspects of the propane decision.

Forester said that was correct and also told Heinze that public testimony would be allowed at the CO 360 hearing.

—KRISTEN NELSON

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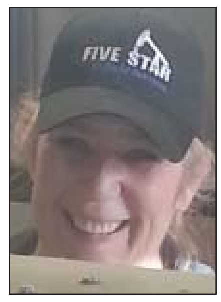
Petroleum news

Oil Patch Bits

Maddock is Five Star's September employee of the month



SHELLEY MADDOCK

Shelley Maddock is Five Star's employee of the month for September. Maddock was promoted by Five Star to head cook in April and she has been doing a fantastic job. She makes the best of any situation, is a very hard worker and an excellent cook. Maddock works hard to accommodate the client by cooking up their requests and always goes above and beyond. Five Star has received many compliments about her from clients. She has a positive attitude and is a huge asset to the Five Star team.

Employees of the month are based on client feedback and site visits performed by the operations manager of Five Star Oilfield Services.

Five Star Oilfield Services specializes in providing remote sites with catering and cleaning services, solving the most challenging problems companies face when operating in remote parts of the world and in areas that lack sufficient accommodations.

Alaska West Express joins EPA's SmartWay Partnership

Alaska West Express, sister company of Lynden Transport, has joined the SmartWay Transport Partnership. SmartWay is a collaboration between the U.S. Environmental Protection Agency and transportation companies to voluntarily improve fuel efficiency and reduce air pollution from freight transport. Partners with high scores are already utilizing most of the commercially available fuel saving strategies and evaluating the latest emerging technologies. Lynden Transport became the first Alaska trucking company to join SmartWay in 2008. Lynden companies LTI Inc., Milky Way and Brown Line LLC joined in 2010.

"Alaska West Express has been focused on efficient operations for many years as part of Lynden's overall Green Initiative. We are extremely proud to be recognized by the EPA as a SmartWay Transport Partner," says Alaska West Express President Scott Hicks. "Although we operate in very tough and harsh conditions we remain committed and focused on energy efficiency and air quality. We also understand and appreciate that our customers share this same commitment. Alaska West Express will continue to strive for clean operations on the road and at all of our locations."

Alaska West Express provides truckload transportation throughout the United States and Canada, specializing in heavy haul and bulk shipments to and from Alaska, where it is a leader in transporting liquid- and dry-bulk products, hazardous and non-hazardous chemicals and petroleum products.

CH2M HILL announces CEO transition

CH2M HILL announced that its Chief Executive Officer and Chairman Lee McIntire will

see **OIL PATCH BITS** *page 18*

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

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

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STEDMAN Q&A

to be fixed: high progressivity and excess credit issues. My concern is that if SB 21 stands, when the people who own the resources see the gross value that's being extracted then see the net value coming to the state, they are not going to support that at all.

One of the things you need to remember, you can throw into the discussion North Dakota. They have a gross tax and we have a net. You can't compare those two. You have to have something that is fair to the industry and the sovereign. You can't have it one sided. It doesn't matter if you are on the west coast of Africa, or North Dakota or Alaska, people won't put up with it. I'm looking forward to getting into that debate next summer with the referendum.

Petroleum News: OK, so what about the issue of defining new oil? How do you think this will get done?

Stedman: I think it's going to be extremely difficult without a lot of stringent monitoring, I think it's going to be problematic. It's not surprising there's already heated debate going on with this subject.

Petroleum News: Does that debate play into the referendum discussion at all?

Stedman: Oh, I think it does. You'll be focusing on new oil versus old oil and how much of the old oil is magically converted to new oil. Depending on what side of the table you're on, you'll have a different opinion on that subject matter. If I were with the industry, I'd want all of the oil declared new. It's just business. The public shouldn't get down a public opinion path that Big Oil is somehow out to control and manipulate and somehow loot the state of its resources. They are doing what they are supposed to be doing: maximize its profits. We as the owner of the hydrocarbon should be doing the same. We also shouldn't get wrapped up in discussion that we want to get our resources to a specific entity so we can get some jobs. We're going to get jobs anyway. Only a fool trades jobs for resources.

Petroleum News: Do you have any other concerns about SB 21 that many others may not have brought to light?

Stedman: One of the concerns I have about the one sidedness of it — and you can look at it from the state side or the industry side — when you have another substantial project sitting in front of you like the gas line, it creates political baggage in the evaluation of it.

"I don't think we are much better off under SB 21 than we are under ACES. We've created an unstable policy and it needs to be rectified."

—Sen. Bert Stedman, R-Sitka

One of the concerns I have with the gas line — the export line either to Cook Inlet or Valdez — is the value chain of the gas is different from oil. Somehow we need to get the separation into different camps, one being oil, the other being gas. They are separate hydrocarbons and they shouldn't be mixed, or you will lose sight the economic value of gas.

If you net gas back to the wellhead like we do with oil and if we just take a portion of the wellhead, we will end up nothing in gas. The Legislature and the administration will look like we gave away the farm.

To avoid that, we need to have alignment with the industry, which we've talked about for a long time. That would include a conditioning plant on the North Slope, a pipeline and the liquefaction plant. To do that you need to have equity ownership. That's to be a negotiation. Maybe it's 15 percent. Maybe it's 20 percent. Maybe a little more.

If you don't have an equity position in it, there is going to be little value to the treasury. The jobs created aren't going to be much different no matter who owns the pipeline. Normally the industry side, the state would want to have 80 percent debt and 20 percent equity or 70-30. Well the state is a different animal.

The state needs to have all equity in its portion. In this case, if it was a $50 billion project, you use $10 billion as a number. That would spin off $1.2 billion if there was 12 percent return on equity. Hopefully we will have the industry take the state's portion of gas and sell it; I don't want to see the state in the gas business for several reasons. There is no reason why Exxon, BP and Conoco couldn't split up the state's portion and wrap it up in their product line to sell it.

In order for the state to have an equity position that's meaningful and protects the alignment of the project and protects the interest of the people of Alaska, we need to be the fourth player, not TransCanada.

I personally don't believe this project qualified under the AGIA reimbursement. It's a different project. I would question if the AGIA mechanism for buying out TransCanada is even applicable. There isn't room for TransCanada and the state of Alaska to be in this project. If TransCanada comes in, as far as the value chain, my fear is all of TransCanada's share comes out of the state of Alaska

This isn't anything derogatory against TransCanada because they are a good company. This is strictly business. I don't believe AGIA reimbursements qualify for this project.

Petroleum News: So who should own the pipeline?

Stedman: You want to align your ownership to your gas volume. If Exxon, BP and Conoco, that leaves us with our royalty share at roughly 12.5. If TransCanada comes in, we get zero. The state of Alaska needs to own not only a portion of the pipe commensurate of the gas, they need to own the same percent in the conditioning plant and same percent of the liquefaction plant. Then stay out of the marine transportation arena and concentrate on the state borders. When that gas leaves, it's gone.

Petroleum News: Still on the gas line, you attended the LNG symposium a while back what was your take on that?

Stedman: The stranded gas act under Murkowski was a heck of a lot closer to putting a project forward than AGIA ever was and the project that comes out is going to look a heck of a lot more like the Stranded Gas Act than most people will imagine. Keep in mind that process is more beneficial and viable to moving a project forward than AGIA ever was. It's going to be difficult for a lot of people to stay out of the political washing machine to recognize that. The window of opportunity we have in the Pacific is open today and it's not going to stay open forever. You have Russia looking to get into the game. You have Australia already in the game. You've got Canada is rushing to the coast. We need to consolidate behind one project and that one project in my opinion is the LNG line. It's not the in-state line. That's a fallback measure if everything goes to Hell in a hand basket, including Cook Inlet. We have an opportunity and we need to move forward. I think it's going to surprise a lot of people. It's going to look real similar to the Stranded Gas Act and the reason it is, it's just the basic economics in the value chain of the gas.

One of the concerns I have with the gas line — the export line either to Cook Inlet or Valdez — is the value chain of the gas is different from oil. Somehow we need to get the separation into different camps, one being oil, the other being gas.

Petroleum News: So what should the next step be?

Stedman: We need to come up with fiscal terms that have stability between the industry and the state. Oil is going to be an obstacle. How do you move forward with SB 21 or ACES and expect the industry to spend $50 billion knowing people are going to wake up one morning and know that the ships are leaving and there's nothing in the treasury. You've got a political problem. ●

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LNG HEAT

coast and two for the Atlantic coast.

> *"There is a window of opportunity and that window is closing."*
> **—Jim Prentice, vice chairman, CIBC**

Hanging in balance

For British Columbia, the chances of bonanza returns from LNG hang in the balance. The Conference Board of Canada estimates that LNG-related investment in the province could top C$180 billion between 2012 and 2035, while the government of Premier Christy Clark has been holding out hopes of five LNG plants generating C$130 billion to C$260 billion in revenues over three decades.

Four of those proposals are aimed at startup by 2018, followed by three more beyond 2021, but so far the three that have been approved for British Columbia have yet to disclose their off-take contracts or their projected capital costs.

The Canadian Energy Research Institute estimated last year that the cost of building a greenfield LNG project in British Columbia would be about C$1,000 per metric ton, but Derek Thomas, a senior executive with AG&P, a Manila-based modular construction company, said that figure has changed.

He said costs are likely now in the range of C$1,200-C$1,500 per ton, noting that Australian LNG exporters have already absorbed a tough lesson with their final bills coming in close to C$2,000 per ton.

Thomas said the rising costs of steel and concrete are driving costs higher, while municipal officials at Kitimat — the proposed site of three LNG terminals — are doubtful that their region can provide the 3,000 construction workers that might be required in 2015.

The three Kitimat-based operations — BC LNG Co-operative, Kitimat (operated by Chevron) and LNG Canada (operated by Shell) — are designed to export a combined 23.9 million metric tons a year.

Mergers likely required

But Thomas suggested that some projects are never likely to get off the ground unless mergers take place.

Jim Brittain, vice president of operations with the engineering firm Fluor, said most LNG projects currently involve capital outlays of US$20 billion to US$30 billion, making risk mitigation a vital consideration for any proponent.

Prentice repeatedly emphasized that if Canada is to be a player in the LNG export field it is facing a "critical period and must do the hard, urgent work of reorienting ourselves to serve the demand of tomorrow and frankly, we need to get on with the jobs because there are others who are equally determined to get into this marketplace."

He said the U.S. is eager to enter the LNG business "in a big and aggressive way," noting that the U.S. has increased its LNG approvals to four from just one in a short time period.

Location not only thing

Prentice said that Canada's advantage of being closer to the Asian markets than any of the U.S. schemes is no longer the only consideration.

"If we continue to move slowly, we may well wake up to discover that our competitive advantage has slipped away," he warned.

"The world has a lot of natural gas, but it doesn't have an ample supply of reliable, dependable nation states capable of fulfilling their contractual obligations to export that gas over 25 years or more and do so without political, territorial or legal conflict," Prentice said.

A lawyer with considerable experience in aboriginal law and First Nations issues, he said LNG development in British Columbia would likely need a coastal management regime bringing together the Canadian and British Columbia governments and First Nations.

Just as vital, Prentice noted, is the need for an LNG royalty regime to which the British Columbia government is tying its hopes of a revenue windfall.

But Prentice suggested the province may be counting its chickens before they are hatched.

"In difficult economic times, it's understandable to celebrate potentially good news, but the key driver of any of these projects should be the overall benefits to the local, provincial and national economy, not simply the potential taxation base," he said.

Prentice said it is important that the taxes levied on Canadian LNG do not undermine the creation or growth of the sector at a time when the industry is having trouble justifying its financial commitments and is now putting its emphasis on establishing partnerships to share pipeline and terminal costs.

BC's role questioned

The British Columbia government's supreme confidence that it will become a major player on the global LNG market has been dented by a report from the International Gas Union, a Norwegian-based agency speaking for most of the world's gas producers.

> *Prentice repeatedly emphasized that if Canada is to be a player in the LNG export field it is facing a "critical period and must do the hard, urgent work of reorienting ourselves to serve the demand of tomorrow and frankly, we need to get on with the jobs because there are others who are equally determined to get into this marketplace."*

"Project costs in Canada far exceed counterpart projects in the United States," the union said.

The more time drags without a final commitment to the largest projects the more storm clouds gather over long-term LNG prices.

At a September Tokyo conference, Japan's Economic, Trade and Industry Minister Toshimitsu Motegi said his country aims to cut its LNG procurement costs by 30 percent from current levels starting in 2017 when its imports from the U.S. alone could total 15 million metric tons a year from three projects, or 20 percent of Japan's needs.

He said the age of "competition has come to suppliers, who have to compete by providing more attractive pricing and trading conditions."

Henry Hub-linked prices

Michael Smith, chief executive officer of Freeport LNG, affirmed that outlook by noting that his three customers — Osaka Gas, Chubu Electric and Toshiba — are all working to obtain Henry Hub-linked prices, replacing "very high oil-linked" prices that are hurting the Japanese economy.

He said Freeport LNG could deliver LNG to Asia for US$7 per million British thermal units on top of the U.S. price, which would be well below the US$16 Japan currently pays.

The pricing debate is already raging in Asia, where Mohammed Bin Saleh al-Sada, the oil minister in Qatar, the world's biggest LNG producer, said suppliers "find it difficult to take a price list that is associated with remote market indexes, which affects fundamentals and policies that have no relevance whatsoever for the Asian market."

But India's Energy Minister M. Veerappa Molly said a move away from oil-indexed prices "is a necessary precondition for a competitive LNG market to evolve in the Asia-Pacific region."

To that end, India and Japan have established a regional multilateral group of LNG buyers to push for lower prices.

On the brighter side, China's quest for hydrocarbon resources in Canada, including LNG, is building.

Dong Ren, international legal director for ENN Group, an independent gas distributor, said there could be an early result from efforts her group is making to acquire an equity stake in upstream and midstream LNG sectors.

She said any deal in Canada "would be on a delivered basis and it will be up to the producer to supply the gas to us in China. We do not intend to charter vessels to transport LNG from Canada."

Ren said that although ENN has withdrawn from negotiations with Cheniere it is open to talks with other U.S. producers, but, because of shipping distances, its first preference is to source LNG from Canada. ●

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OIL PATCH BITS

step down as CEO effective Jan. 1, 2014. McIntire, 64, will continue to serve as chairman of the board. The board has appointed Jacqueline Hinman, 52, to serve as CEO also effective Jan. 1, 2014. She most recently served as president, CH2M HILL International and is presently a member of the board of directors. McIntire has been CEO since Jan. 1, 2009.

"Lee's leadership and vision has guided CH2M HILL from 15,000 employees with $3 billion in annual revenues when he joined the company to a firm with 28,000 employees and $7 billion of revenue today," said Chad Holliday, lead outside director. "I think this growth to a truly global firm while preserving their core values is the greatest compliment to Lee's capabilities."

During McIntire's tenure, the company has been recognized by Ethisphere as one of the World's Most Ethical Companies and repeatedly named to the FORTUNE 100 Best Companies to Work For list. "The Board is delighted that Lee will continue as Chairman and will focus on strategic business development and international strategies. The firm stands to benefit from Lee's extensive industry knowledge and global experience," continued Holliday.

Hinman joined the firm in 1988. She has held numerous management positions during her tenure and has been involved as a key executive in many of CH2M HILL's highest profile projects, such as the London 2012 Olympic and Paralympic Games construction program.

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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UTILITY SPARKS

of natural gas could reduce residents' heating bills and improve air quality in a region where the high cost of heating fuel has driven people to increasingly use wood stoves to heat their homes during those frigid winter months.

Different utilities

Fairbanks Natural Gas, or FNG, has been supplying gas to a limited number of customers in central Fairbanks since 1997 using liquefied natural gas, LNG, manufactured at a small plant at Point MacKenzie on the northern coast of Cook Inlet and transported to Fairbanks by truck. The utility wants to expand its operations into the new service area. Interior Alaska Natural Gas Utility, or IGU, was established by Fairbanks North Star Borough in 2012 as a municipal-owned utility, with a stated objective of bringing gas to as many Fairbanks residents as possible in as short as possible a time.

With both utilities applying for certificates to provide gas distribution services in Fairbanks, RCA must either select one of the utilities to provide service in the entire area, or allow each utility to operate within its own separate service area within the city.

Few gas consumers

During opening statements at the RCA hearing Robin Brena, attorney for IGU, blasted what his client views as FNG's failure to adequately expand its gas supply services since going into operation 16 years ago. With gas not available to 98.2 percent of homes in Fairbanks and with only 5 percent of homes in FNG's service area being connected to gas supplies, Fairbanks residents have to rely on firewood and diesel fuel for heating, Brena said. And one consequence of this is significant health problems resulting from particulates in the air, he said.

"We should be ashamed, all of us collectively, without attaching blame, that our second largest city is living the way the Bush lived 50 years ago," he said.

Gas supply needed

For his part, Mark Figura, attorney for FNG, accused IGU of presenting an application based on improbable financial assumptions and without a credible gas supply to feed into its proposed distribution network. A system of gas distribution pipelines can only be built out to the extent that there is an adequate supply of gas to fill those lines, he said.

IGU does not have gas, does not have an LNG plant and does not have trucks to transport the LNG to Fairbanks, Figura said. And rather than selling gas to customers at a price of $15 per thousand cubic feet, as IGU proposes, a more realistic price based on IGU's financial assumptions would be $24, he said.

Integrated system

While IGU, with its focus on just the Fairbanks distribution network, has a limited perspective of what is involved in being a gas utility, FNG views the supply of gas to its customers as an integrated system involving the acquisition of gas from suppliers, the production of LNG, the transportation of that LNG to Fairbanks and the distribution of gas to consumers, Figura said. And at various times in its history FNG has seen "pinch points" develop in different components of that system, he said. Those pinch points have constrained FNG's ability to expand its gas deliveries in Fairbanks, he said.

Fairbanks Natural Gas, or FNG, has been supplying gas to a limited number of customers in central Fairbanks since 1997 using liquefied natural gas, LNG, manufactured at a small plant at Point MacKenzie on the northern coast of Cook Inlet and transported to Fairbanks by truck. The utility wants to expand its operations into the new service area. Interior Alaska Natural Gas Utility, or IGU, was established by Fairbanks North Star Borough in 2012 as a municipal-owned utility, with a stated objective of bringing gas to as many Fairbanks residents as possible in as short as possible a time.

Between around 2000 and 2006 the utility had access to a supply of gas from the Cook Inlet basin that exceeded its capacity to manufacture LNG at Point MacKenzie, Figura said. During that time FNG responded by incrementally improving its Point MacKenzie facility, he said.

Gas shortage

But 2006 saw a crash in the Cook Inlet gas market, with FNG struggling to obtain sufficient gas and having to establish some short-term gas supply contracts to maintain service to its Fairbanks customers. At this point the utility found itself in a situation where it had overbuilt its distribution system in Fairbanks and where it had an insufficient gas supply to expand its customer base.

"No customer was ever denied service," Figura said. "No-one was cut off, but there was no opportunity to expand."

Currently FNG has 1,100 customers and could serve an additional 900 customers through the distribution pipeline system if sufficient gas were available, he said. Apparently FNG has recently signed a new gas supply contract with Hilcorp Alaska for continuing Cook Inlet gas supplies.

But, with insufficient gas to justify the cost of installing additional distribution pipelines, FNG has had to curtail expansion of the distribution system since 2006, Figura said.

"We would have just a whole bunch of pipe in the ground that wasn't doing anybody any good," he said.

North Slope gas

Meantime FNG has been trying to move forward on a proposal to obtain gas from the North Slope, trucking LNG from a proposed LNG plant on the Slope. Polar Liquefied Natural Gas, an FNG affiliate, has entered into a gas supply contract with ExxonMobil, has leased a pad on the North Slope to site a plant and has obtained a state right of way for a gas pipeline to that plant, Figura said.

But following the enactment earlier this year by the state Legislature of a statute to provide state funding assistance for the North Slope LNG plant, the Alaska Industrial Development and Export Authority has taken a lead in the development of the North Slope plant, Figura explained.

However, with FNG confident that construction of the plant will move ahead, the utility now sees its distribution network in Fairbanks as the future pinch point in its system. Consequently, in April FNG applied to the RCA to expand its Fairbanks service area, Figura said.

Dissatisfaction

Brena said that IGU was formed because of dissatisfaction with what he characterized as FNG's slow incremental approach to expanding its distribution network, an approach that he said does not work for the Fairbanks community. And Brena accused FNG of not trying hard enough to obtain additional gas after 2006, saying that, given the high fuel prices in Fairbanks, FNG could have outbid other gas users in the Cook Inlet gas market.

At its current rate of progress it will take FNG 260 years to build out its distribution system, Brena said.

Brena claimed that FNG's business model of making money from buying and selling gas, rather than from the transportation of the gas, provides a disincentive for the company to buy high priced gas from gas suppliers and, hence, a disincentive to expand its services when gas supplies are tight.

12,000 customers

IGU's objective is to build out its service area to somewhere in excess of 12,000 customers, he said. And during testimony at the hearing an IGU witness said that the utility anticipates obtaining its gas from the same source as FNG, that is, from the proposed LNG plant on the North Slope. IGU's assumed gas price of $15 was based on Gov. Parnell's target price for Fairbanks gas — the utility assumes that state financing would be structured to support that price level, Brena said.

Figura said that FNG proposes maintaining reasonable gas prices for its Fairbanks customers by first securing a contract to supply gas to a large industrial customer in the city. But Brena challenged this model, saying that the customer that FNG has in mind is electric utility Golden Valley Electric Association and that Golden Valley does not in fact want FNG's gas.

Ownership changes

FNG is in the process of moving ownership of its Point MacKenzie gas liquefaction plant to an affiliate company called Titan LLC. Thus, with Polar LNG obtaining North Slope gas and Titan obtaining Cook Inlet gas, FNG will end up buying all of its gas from affiliate companies, rather than directly from gas suppliers. Brena accused FNG of engineering this arrangement to move as much of FNG's business out of the utility's future regulatory fence. However, a witness for FNG denied this motivation, pointing out that gas prices set by either Polar or Titan would be regulated by RCA as part of RCA oversight of FNG's supply contracts.

Other bones of contention debated in the hearing include disparities in estimates of how much gas distribution pipeline needs to be installed in Fairbanks; the relative merits of operating a utility as a private company versus a subcontracted business managed and owned by a municipality; and disparities between the utilities in cost estimates and financing assumptions. ●

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KENAI LOOP ISSUES

Buccaneer was required to apply for the exceptions because the proposed gas wells were within 1,500 feet of a property line where the owner and landowner are not the same on both sides of the line and within 3,000 feet of a well producing, or that may be capable of producing, from the same pool.

When the commission published a notice providing for a public hearing if there were protests, it received protests from Cook Inlet Region Inc. Others with interests within 3,000 feet include the Mental Health Trust — from whose acreage Buccaneer is producing under lease — and the Alaska Department of Natural Resources. State lease ADL 391094 is the proposed site of the 1-4ST well, although state records show a termination date of Sept. 30, 2012, for that lease, held by Buccaneer Alaska.

Buccaneer is appealing a March decision by DNR's Division of Oil and Gas denying an application for a unit at Kenai Loop. Buccaneer told the commission it has appealed the denial, which DNR said was on the basis that it appeared to be for

> *"No production may begin from the Kenai Loop 1-4ST well absent prior written approval of the AOGCC and the filing of a pooling agreement that is properly executed by Buccaneer, CIRI, DNR and the MHT."* **—Alaska Oil and Gas Conservation Commission**

"lease extension and not the efficient development of the unit area."

Protection of correlative rights

In a Sept. 3 order on the Kenai Loop 1-4 wells, the commission noted its statutory obligation to protect correlative rights, i.e. production rights of adjacent owners, and said Buccaneer was authorized to continue drilling the Kenai Loop 1-4 well, but was not allowed to test the well without the commission's prior written approval after the company provides notice to CIRI, DNR and MHT. "Any approval shall be contingent upon Buccaneer's agreement to provide all data obtained as a result of the test to both CIRI and DNR," the commission said, adding that production cannot begin from the Kenai Loop 1-4 well without prior written agreement by AOGCC and the filing of a pooling agreement.

Following the Aug. 13 hearing, DNR on Aug. 26 submitted an objection, telling the commission the spacing exception for the Kenai Loop 1-4 well should not be granted because Buccaneer is in violation of DNR regulations for failure to submit a plan of operations "and because the absence of pool rules jeopardizes DNR's correlative rights."

In an Aug. 27 response to DNR's protest, the commission said Buccaneer set forth "its disagreement with DNR's interpretation of DNR's regulations, its disagreement with DNR's unwillingness to unitize leases, and its claim that 'concerns related to pooling and correlative rights are ... being addressed by Buccaneer, the Division and the Mental Health Trust.'"

The Kenai Loop 1-4 well is on a Mental Health Trust lease held by Buccaneer. In denying the spacing exception the commission said "Buccaneer did not present convincing evidence that potentially gas-bearing reservoirs targeted by Kenai Loop 1-4 will not drain adjacent leases ADL-391094 and C-061167," respectively the adjacent state and CIRI leases.

Second denial similar

In a Sept. 20 denial of Buccaneer's spacing exception application for the Kenai Loop No. 1-4ST, the commission reviewed similar facts, although the 1-4ST has a surface location on ADL 391094, the state lease, and a proposed bottomhole location on Mental Health Trust land lease MHT 9300082.

As with the 1-4 well, CIRI objected based on violation of its correlative rights and DNR objected based on Buccaneer's failure to submit a plan of operations and "because the absence of pool rules jeopardizes DNR's correlative rights."

In denying the application "without prejudice" the commission said Buccaneer cannot drill without an AOGCC drilling permit and cannot test without AOGCC's prior written agreement "after Buccaneer has provided notice to CIRI, DNR and the MHT." As with the first denial, the commission said approval would be contingent on Buccaneer's agreement to provide all data from a test to CIRI and DNR.

"No production may begin from the Kenai Loop 1-4ST well absent prior written approval of the AOGCC and the filing of a pooling agreement that is properly executed by Buccaneer, CIRI, DNR and the MHT," the commission said.

Other issues also surfaced. According to the transcript of the Aug. 13 hearing, Buccaneer and CIRI are in dispute over CIRI lease C-061167, which CIRI told the commission had been terminated and Buccaneer maintained was still in effect.

CIRI also questioned whether Conservation Order No. 231, for the Cannery Loop unit, is still in effect for sections 33 and 34, north of Cannery Loop, where Buccaneer is now developing Kenai Loop.

The commission said Sept. 20 that CO 231 "remains in effect" but also said "Buccaneer bears the burden of proof that this well will not impact the correlative rights of adjacent owners and landowners."

—KRISTEN NELSON

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