Petroleum news

page 5 Kawasaki: Obama visit productive, resource comments lacking

Vol. 20, No. 36 • www.PetroleumNews.com — *A weekly oil & gas newspaper based in Anchorage, Alaska* — Week of September 6, 2015 • $2.50

This week's Mining News

NORTH OF 60 MINING news

page 12 Dolly Varden outlines 42M ounces silver at Northwest B.C. project

www.MiningNewsNorth.com — *The weekly mining newspaper for Alaska and Canada's North* — Week of September 6, 2015

NEWS NUGGETS

Compiled by Shane Lasley

Northern Dynasty raises C$10M for Pebble

Northern Dynasty Minerals Ltd. Aug. 31 reported the closing of a C$10.2 million private placement that involved the issuance of 25,624,408 special warrants exercisable into the company's listed common shares at a price of C39.9 cents per warrant. The warrants will convert on exercise into common shares of Northern Dynasty on a one-for-one basis. Following the completion of the private placement, Northern Dynasty said it has reached a definitive agreement with Cannon Point Resources Ltd. to buy all of that company's outstanding shares. Under a preliminary agreement entered in August, Northern Dynasty would issue about 12.9 million common shares to buy Cannon Point. At the end of June, Cannon Point had C$4.7 million in cash and cash-equivalents, which is the most significant asset held by the company. During the merger process, Cannon Point has agreed to make a secured credit facility for C$4.25 million available to Northern Dynasty. The amounts borrowed would be repayable after 30 days if Northern Dynasty breaches the deal and 180 days from termination if the merger is not completed for any other reason. One of the conditions of the agreement was that at C$10 million of the warrants being sold during the private placement. The money raised will be used for working capital and to advance the Pebble copper-gold-molybdenum project in Southwest Alaska by implementing Northern Dynasty's legal and environmental strategies.

The money raised will be used for working capital and to advance the Pebble copper-gold-molybdenum project in Southwest Alaska by implementing Northern Dynasty's legal and environmental strategies.

New leadership for Alaska tin explorer

Strongbow Exploration Inc. Sept. 1 reported that Richard Williams has been appointed president and CEO of the company, replacing Kenneth Armstrong who stepped down from the position. Armstrong will remain a director of Strongbow. Williams serves as CEO of Helio Resource Corp., an exploration company with projects in Tanzania and Namibia. He has

see NEWS NUGGETS page 14

LITIGATION

Which way is North?

Court seeks missing EPA biologist at center of plan to stop Pebble Mine

By SHANE LASLEY

Mining News

Embattled federal employees conveniently losing emails that could bear witness to potentially negligent or illegal activities have become an increasingly frequent storyline. But seldom does the email's author disappear with the corrupted data.

This seems to be the case with Phillip North, a former U.S. Environmental Protection Agency biologist accused of secretly colluding with private sector activists to stop the development of a mine at the Pebble copper-gold-molybdenum project in Southwest Alaska.

Now, the Pebble Partnership has filed for a subpoena to bring North home to Alaska to fill in blanks left by several years of emails that are believed to contain details of his collaboration with anti-Pebble scientists, lawyers, and Native and environmental groups.

Documents that the Pebble Partnership has obtained through Freedom of Information Act requests provide compelling evidence that North was advocating for EPA to use its veto power under Section 404(c) of the Clean Water Act to prevent the Pebble Partnership from applying for permits to develop its world-class copper-gold-molybdenum deposit in the Bristol Bay region of Southwest Alaska as early as 2008, which predates the 2010 request by Alaska Native groups that EPA has claimed as its impetus to take such an action.

The scant emails made available to the Pebble Partnership also provide evidence that North was a key liaison between anti-Pebble activists and upper EPA officials in Washington D.C.; as well as recruiting the team utilized to build the Bristol Bay Assessment, and authoring sections of this report, which supports EPA's decision to severely restrict the development of the Pebble deposit.

"In short, North was instrumental in forming and utilizing the work of the de facto Federal Advisory Committees at issue in this case and in utilizing them to provide recommendations and advice for EPA to launch its unprecedented attack on Pebble Mine," the Pebble Partnership charges in its subpoena.

The subpoena comes in the discovery phase of a trial in which the Pebble Partnership asserts that behind-the-scenes collaboration between EPA and the anti-mine groups violates advisory committee law and taints the entire process for which the environmental agency is basing its Clean Water Act determination with regards to Pebble.

"Relying heavily on substantial input, advice, and recommendations from these unlawfully established advisory committees, EPA prepared a patently biased, anti-mine assessment of hypothetical mining activities in the Bristol Bay Watershed and then used that flawed assessment to commence administrative proceedings under the federal Clean Water Act that, if allowed to stand, will effectively put an end to mining before the permitting process ever gets off the ground," the Pebble Partnership summarizes in its complaint.

In addition to the agency emails that have surfaced as a result of FOIA requests, North is believed to have used private email accounts for

see MISSING BIOLOGIST page 14

Court seeks missing EPA biologist at center of alleged plan to stop Pebble Mine. Read more in North fo Mining News, page 11.

10% Conoco cuts to hit Alaska

ConocoPhillips is proposing to cut some 10 percent of its workforce.

The impact is expected to be within that 10 percent range in Alaska, ConocoPhillips Alaska spokeswoman Natalie Lowman told Petroleum News in a Sept. 1 email.

She said while the cut will be some 10 percent of the company's global workforce, the largest percentage cuts are expected to occur in North America.

see **CONOCO CUTS** *page 24*

Linc advancing Tyonek syngas plans

Linc Energy Ltd. plans to convert its exploration license in the Tyonek region into conventional leases and begin permitting a synthesized natural gas operation.

In financial filings from the end of August, the Australian independent said opportunities to produce and market synthetic natural gas to "existing and new participants" in the Cook Inlet region are "well progressed." Having confirmed a "commercial pathway," the company is now beginning the regula-

see **TYONEK SYNGAS** *page 24*

Conoco stakes 7 wells in NPR-A

ConocoPhillips Alaska Inc. recently staked seven potential well locations in the National Petroleum Reserve-Alaska, according to the U.S. Bureau of Land Management.

The federal agency posted the notices on its website on Aug. 24.

The seven locations — all for proposed oil wells — are spread across the western edge of the Greater Mooses Tooth unit and the area just beyond the western boundary of the unit:

see **POTENTIAL WELLS** *page 24*

EXPLORATION & PRODUCTION

Point Thomson plan

ExxonMobil argues for a major gas production field development route

By ALAN BAILEY

Petroleum News

In a Sept. 1 hearing of the Alaska Oil and Gas Conservation Commission, ExxonMobil executives explained to the commissioners why they favor gas production from the giant Point Thomson gas field on the North Slope, rather than expanding the gas cycling operation for condensate production that the company is currently developing. The company has asked the commission to approve pool rules for the field.

Natural gas from Point Thomson forms a critical component of planned gas supplies for the AKLNG project, a project targeting major North Slope gas exports, potentially starting in 2025. ExxonMobil is seeking AOGCC approval of Point Thomson gas production prior to a 2016 decision on whether to proceed to the hugely expensive front-end engineering and design phase of the AKLNG project.

ExxonMobil is seeking AOGCC approval of Point Thomson gas production prior to a 2016 decision on whether to proceed to the hugely expensive front-end engineering and design phase of the AKLNG project.

With about three quarters of the AKLNG gas supply slated to come from the Prudhoe Bay oil field, the Prudhoe Bay working interest owners have also applied to AOGCC for approval for the offtake of sufficient Prudhoe Bay gas. Gas offtake

see **THOMSON PLAN** *page 23*

EXPLORATION & PRODUCTION

Question of volumes

Prudhoe Bay interest owners make the gas offtake case for AKLNG project

By ALAN BAILEY

Petroleum News

During a public hearing of the Alaska Oil and Gas Conservation Commission on Aug. 27 the Prudhoe Bay oil field's working interest owners presented testimony for a request to increase the natural gas offtake limit for the field. The increased offtake is needed to supply gas to the AKLNG project, a project for major gas exports from the North Slope.

The commission, with a mandate to ensure maximum hydrocarbon recovery from Alaska petroleum resources, has to determine whether to allow an increase to the current cap of 2.7 billion cubic feet per day and, if so, by how much. Gas, recycled rather than exported, has value in enticing more oil from field reservoirs. And oil has a higher hydrocarbon content than gas.

But there is disagreement among the Prudhoe Bay working interest owners over how high the maximum permitted volume needs to be.

The AKLNG project needs commission approval for the required offtake volumes, prior to deciding in 2016 on whether to proceed to the

see **OFFTAKE LIMIT** *page 22*

GOVERNMENT

Quitting headlong dive

Alberta backs away from royalty decision this year, puts it off to end of 2016

By GARY PARK

For Petroleum News

RACHEL NOTLEY

Just days after Alberta Premier Rachel Notley refused to back away from fast-tracking a royalty review and corporate tax hike her government has done an about face.

After meeting with more than 1,000 industry leaders since it was elected four months ago, Notley's left-wing New Democratic Party administration decided to hold off making royalty changes until the end of 2016.

It also announced that any royalty increases it might introduce would be deposited in Alberta's Heritage Fund and not disappear into general revenues.

In what many observers described as a "minor" concession, Energy Minister Marg McCuaig-Boyd said companies and investors can "operate with certainty" for 16 months now that the government has delivered a "clear signal (that it wants to be) a reliable partner in supporting the success of our oil and gas industry."

Tim McMillan, president of the Canadian Association of Petroleum Producers, whose member companies account for about 90 percent of Alberta's oil and gas production, said he appreciates the promise to delay changes until 2017.

see **ROYALTY DECISION** *page 19*

contents

Petroleum News | *North America's source for oil and gas news*

Alaska - Mackenzie Rig Report

The Alaska - Mackenzie Rig Report as of September 3, 2015. Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations
CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve

Alaska Rig Status

North Slope - Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Prudhoe Bay PBU 14-26	BP
Dreco 1000 UE	16 (SCR/TD)	Prudhoe Bay PBU J-03	BP
Dreco D2000 Uebd	19 (SCR/TD)	Nanuq CD5-05	ConocoPhillips
AC Mobile	25	Kuparuk 1C-152	ConocoPhillips
OIME 2000	141 (SCR/TD)	Kuparuk 2S-10	ConocoPhillips
TSM 7000	Arctic Fox #1	Stacked	
Kuukpik	5	Prudhoe Bay	Available
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2	Kuparuk 2F-18	ConocoPhillips
Dreco 1000 UE	2-ES (SCR-TD)	Nabors yards completing demobilization procedures	
Mid-Continental U36A	3-S	Prudhoe Bay	Available
Oilwell 700 E	4-ES (SCR)	Prudhoe Bay	Available
Dreco 1000 UE	7-ES (SCR/TD)	Kuparuk	ConocoPhillips
Dreco 1000 UE	9-ES (SCR/TD)	Kuparuk	ConocoPhillips
Oilwell 2000 Hercules	14-E (SCR)	Prudhoe Bay	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Mustang location, Under contract to Brooks Range Petroleum	Brooks Range Petroleum
Emsco Electro-hoist-2	18-E (SCR)	Prudhoe Bay	Stacked
Emsco Electro-hoist Varco TDS3	22-E (SCR/TD)	Prudhoe Bay	Stacked
Emsco Electro-hoist Canrig 1050E	27-E (SCR-TD)	Deadhorse, under contract to ExxonMobil for 2015	
Emsco Electro-hoist	28-E (SCR)	Prudhoe Bay	Stacked
Oilwell 2000	33-E	Prudhoe Bay	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Nabors yards completing demobilization procedures	
OIME 2000	245-E (SCR-ACTD)	Oliktok Point	ENI
Academy AC electric CANRIG	105AC (AC-TD)	Nabors yards completing demobilization procedures	
Academy AC electric Heli-Rig	106-E (AC-TD)	Deadhorse Nabors yard	Available
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Prudhoe Bay Drill Site Y-21	BP
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Well Drill Site 14-11	BP
Ideco 900	3 (SCR/TD)	Milne Point MP-L Pad, Well 46	Hilcorp
Parker Drilling Arctic Operating Inc.			
NOV ADS-10SD	272	Prudhoe Bay DS 18	BP
NOV ADS-10SD	273	Prudhoe Bay DSW-59	BP

North Slope - Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
BP			
Top Drive, supersized	Liberty rig	Inactive	BP
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Spy Island SP28-NW3	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk ODSN-02	Caelus Alaska

Cook Inlet Basin – Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Miller Energy Resources			
Mesa 1000	Rig 37	Mobilized to North Fork to begin drilling this winter	Miller Energy Resources
All American Oilfield LLC			
IDECO H-37	AAO 111	In All American Oilfield's yard in Kenai, Alaska	Available
Aurora Well Services			
Franks 300 Srs. Explorer III	AWS 1	Sterling, Stacked out at D&D yard	Available
Nabors Alaska Drilling			
Continental Emsco E3000	273E	Kenai	Available
Franks	26	Kenai	Stacked
IDECO 2100 E	429E (SCR)	Kenai	Stacked
Saxon			
TSM-850	147	Ninilchik Unit, Bartolowits pad drilling Frances #1	Hilcorp Alaska
TSM-850	169	Swanson River	Hilcorp Alaska

Cook Inlet Basin – Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
XTO Energy			
National 110	C (TD)	Idle	XTO
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151 Upper Cook Inlet KLU#1	Furie
Cook Inlet Energy			
National 1320	35	Osprey Platform RU-1, workover	Cook Inlet Energy

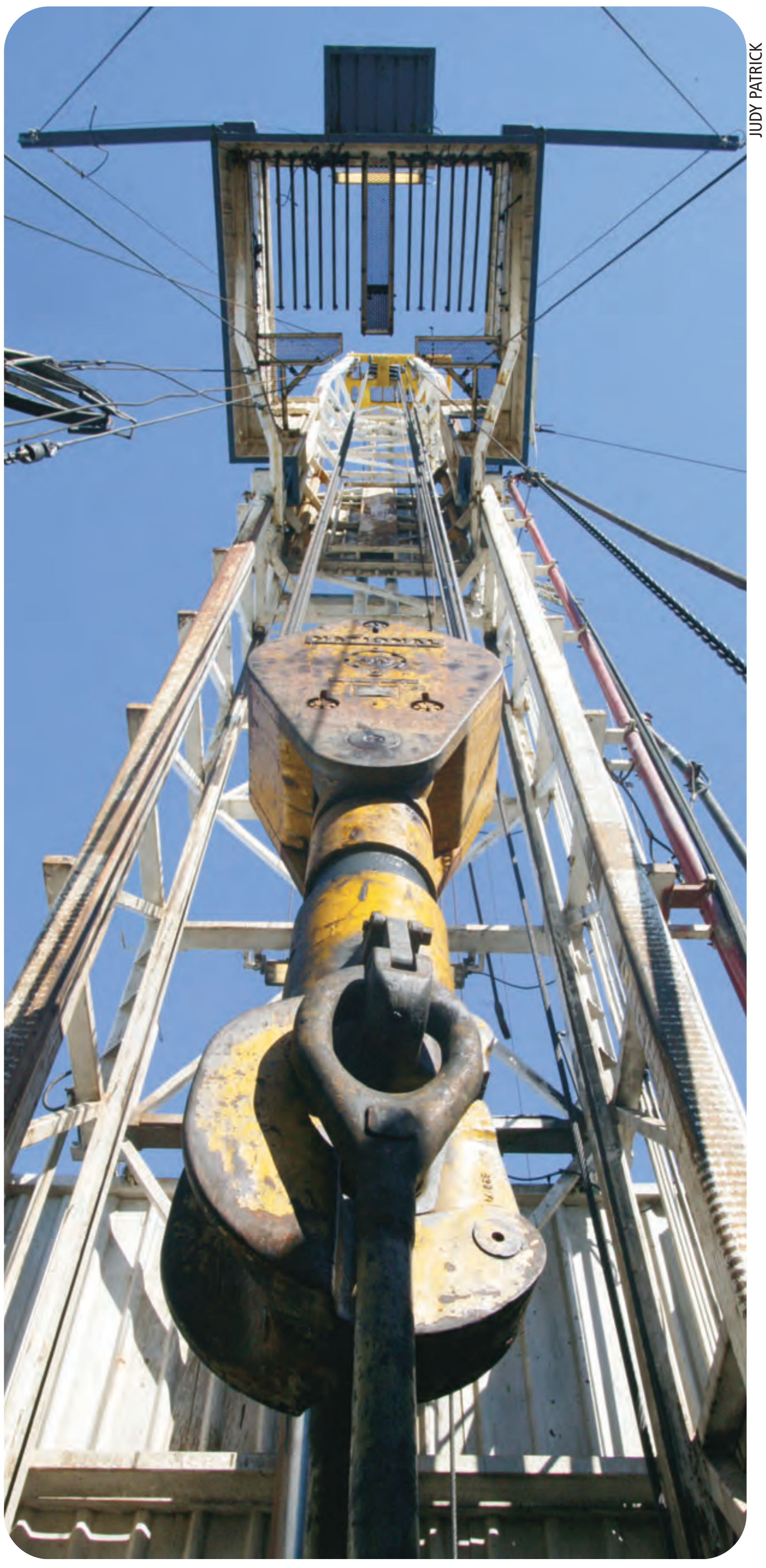
Mackenzie Rig Status

Canadian Beaufort Sea

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
SDC Drilling Inc.			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Available

Central Mackenzie Valley

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Akita			
TSM-7000	37	Racked in Norman Well, NT	Available



JUDY PATRICK

Baker Hughes North America rotary rig counts*

	Aug. 28	Aug. 21	Year Ago
US	877	885	1,914
Canada	196	208	409
Gulf	29	31	63

Highest/Lowest		
US/Highest	4530	December 1981
US/Lowest	488	April 1999
Canada/Highest	558	January 2000
Canada/Lowest	29	April 1992

*Issued by Baker Hughes since 1944

Petroleum news

www.PetroleumNews.com

Kay Cashman	PUBLISHER & EXECUTIVE EDITOR
Mary Mack	CEO & GENERAL MANAGER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
Bonnie Yonker	AK / NATL ADVERTISING SPECIALIST
Heather Yates	BOOKKEEPER
Shane Lasley	NORTH OF 60 MINING PUBLISHER
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Alan Bailey	SENIOR STAFF WRITER
Eric Lidji	CONTRIBUTING WRITER
Wesley Loy	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Steve Quinn	CONTRIBUTING WRITER
Rose Ragsdale	CONTRIBUTING WRITER
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Mapmakers Alaska	CARTOGRAPHY
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Renee Garbutt	CIRCULATION MANAGER
Ashley Lindly	RESEARCH ASSOCIATE

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

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals listed above work for independent companies that contract services to Petroleum Newspapers of Alaska LLC or are freelance writers.

OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 20, No. 36 • Week of September 6, 2015
Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518
(Please mail ALL correspondence to:
P.O. Box 231647 Anchorage, AK 99523-1647)
Subscription prices in U.S. — $118.00 1 year, $216.00 2 years
Canada — $206.00 1 year, $375.00 2 years
Overseas (sent air mail) — $240.00 1 year, $436.00 2 years
"Periodicals postage paid at Anchorage, AK 99502-9986."
POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.

● FINANCE & ECONOMY

Encana steps up natural gas retreat

By GARY PARK

For Petroleum News

Continuing its remake from a natural gas to a liquids company and desperate for ways to reduce its net debt, Calgary-based Encana has completed North America's largest energy land deal of 2015 by striking a deal to pull out of the Haynesville shale in northern Louisiana.

DOUG SUTTLES

The sale, which involves 112,000 acres of leased land and five fee-mineral lands and production of 217 million cubic feet per day from 300 wells, will deliver cash of US$850 million to Encana and a US$480 million reduction in gathering and midstream commitments.

Estimated proved reserves at the end of 2014 were 720 billion cubic feet equivalent of gas, which accounted for 9 percent of the company-wide production, but less than 2.5 percent of Encana's first half operating cash flow.

Encana Chief Executive Officer Doug Suttles said that "by further focusing our portfolio we are making Encana more efficient as we proceed through the second half of 2015 and into 2016."

Reduction of long-term debt

The total cash consideration will be used to reduce Encana's long-term debt, which stood at US$6.11 billion on June 30, down from US7.34 billion at the end of 2014.

Since he unveiled a new course for Encana two years ago, Suttles has concentrated on refocusing the company to just four oil and gas formations — the Duvernay and Montney in Western Canada, and the Permian and Eagle Ford, primarily concentrated in Texas.

The shifting balance was captured in the company's second quarter results, which showed liquids production of 127,300 barrels per day (up 87 percent from a year earlier), while gas was down 38 percent at 1.57 billion cubic feet per day.

But, as fast as it made headway in its strategic plan, Encana was sideswiped by dramatic changes in the demand for oil and the stock markets, which have seen its value drop below US$7 on the New York Stock Exchange from a 52-week high of US$23.40.

Lou Schizas, an equities analyst for the Canadian specialty channel Business New Network, said in the Globe and Mail that Encana's three-year stock chart "has all the patterns that should alert investors to the risks associated with bottom fishing," including an "inability to hold support at various levels and a series of lower highs and lower lows."

He said the aggressive decline that started more than four months ago "offered no signs that the stock was about to reverse the downtrend ... (with) no signals pointing to a trend reversal in the near term."

US$3,900 per mcf

Commenting on the Haynesville asset sale to a joint venture by two Houston-area companies, GeoSouthern Haynesville and GSO Capital Partners, Greg Pardy, an analyst with RBC Dominion Securities, said the transaction "appears to be in the ballpark with our expectation."

In a note to clients, he said Encana will receive US$3,900 per thousand cubic feet equivalent a day of production and US$1.18 per thousand cubic feet equivalent of reserves.

Kyle Preston, a National Bank Financial analyst, said the transaction is "marginally positive as it allows the company to pay down debt without having a material impact on operating cash flow."

Sources which have tracked the anticipated sale of the properties said it took Encana from April to close a deal.

An Encana spokesman would not say whether the company plans to unload more of its gas portfolio in coming months, but he observed that Haynesville is a dry gas play that Encana was not investing in. ●

Contact Gary Park through publisher@petroleumnews.com

GOVERNMENT

Kawasaki: Obama visit engaging, productive

Fairbanks Democrat says Obama listened to Alaskans, but could have provided more comments on state's resource development prospects

By STEVE QUINN
For Petroleum News

House Rep. Scott Kawasaki says he's grateful for President Obama's visit and enjoys reflecting on it, but he also believes it's time for the state to get back to business and that includes the Legislature.

The Fairbanks Democrat says there is plenty of heavy lifting ahead in a special session and next year's regular session as lawmakers address advancing the AKLNG project and reviewing the state's tax credit system.


REP. SCOTT KAWASAKI

Kawasaki, who spent eight years on the House Resources Committee and two years on House Finance, spoke to Petroleum News on what he believes lies ahead.

Petroleum News: What are your impressions of the president's visit to Alaska?

Kawasaki: I can tell you the things we've relayed to the administration these last few years, I think he's listened to. The one thing he announced (Tuesday) was the need for more icebreakers to really position ourselves as an Arctic nation, which the United States values because of Alaska. Someday I hope there is an announcement about a Nome naval station. I think it's bound to happen in my lifetime.

Petroleum News: What's been missing for you?

Kawasaki: He's kept very fairly quiet on the development issue. On climate change, the carbons are part of the problem. I don't think he's transitioned into how we can bridge the solution over the next 30 or 40 years. There is going to be a need for hydrocarbons for the foreseeable future. I think as more people drive cars in China that will drive up the demand. As we shift from coal to natural gas, that will shift from one energy source to another. He hasn't really mentioned how that will happen. Again, he definitely understands Alaska has a huge position in our nation's energy future, but he hasn't talked about the transition.

Petroleum News: Why has this trip to Alaska been so important to the state?

Kawasaki: Well, I think it's important to Alaska for one so that we as Alaskans can show the president what's happening here in the state as far as energy development, as far as resource development. Obviously the trip is primarily about the environment and we need to show him what's going on with the Arctic environment.

Petroleum News: He was pretty transparent about what his agenda would be: climate change. Most here also want discussions about Arctic policy to also be about economic development, too. Can be reconciled?

Kawasaki: I think part of this trip is about the concept with melting sea ice and with the fact that there are environmental and climate changes happening throughout the world that is something where Alaska can gain advantages with other Arctic nations.

We are poised to be the Arctic nation and Arctic state that is closest to where all the transportation is happening. That's something that is a great highlight and of great importance for not just Alaska as a state and for our economy but for a nation overall.

Petroleum News: So what, in talking to your colleagues who live in those Arctic towns, do you gain a sense would be priorities?

Q AND A

Kawasaki: In the next several decades we may see something like a Nome naval station as the routes for shipping and commerce and industry start to grow into the Arctic, clearing the way for transportation and goods to move back and forth by barge. I think protecting our shores are going to be important. Having naval presence and a Coast Guard presence within the Arctic is going to be important for our coastal communities within the state.

It's opening an entirely new picture globally for us when it comes to resource development particularly oil and gas. I don't think it's going to go anywhere; it will be here for the next 100 years, and I think this is a good opportunity to seize upon.

Petroleum News: The president visited Seward, Dillingham and Kotzebue. What do you think of his choices?

Kawasaki: Well, of course everybody wishes he would have come up to Fairbanks. We have the premier Arctic institution in the University of Alaska Fairbanks. Certainly he had to make some choices along the way. Those are great communities, too.

Petroleum News: So what would you like his takeaway to be from this visit?

Kawasaki: I want his takeaway to be that as a young sovereign state that Alaska can help the rest of the country when it comes to a lot of different needs. We've got fish, we've got gold, we've got timber, we've got a warehouse of oil for the rest of the country if we are allowed to develop our resources. I hope the president sees we can do a good job managing. If offered the chance, we will do a good job.

Petroleum News: So what would you like to see next from the president or his administration after he leaves Alaska?

Kawasaki: Again we are the big energy producing state. We are the storehouse for resources from fish to minerals to timber to oil and gas. I'd like to hear from the administration on how Alaska can help solve some of the deficits the rest of the United States has. Whether it's energy, timber or fish, we are the storehouse for the rest of the United States and I'd like to see a little more attention to this state when it comes to that. I think he's getting the picture, getting the idea.

Petroleum News: Do you think, as the governor has said, the president sees the AKLNG project as important. It didn't make his speech.

Kawasaki: I think the president noted the importance of AKLNG before it was named AKLNG back when he first ran in 2008. He was talking about Alaska and its importance to solve some of the energy problems in the Lower 48. Since then, of course, a lot of things have happened. Hydraulic fracking has happened in the Lower 48 resulting in a glut of hydrocarbons. He's had his eye on Alaska in the very beginning. I remember when he made an address talking about AKLNG but it was just a concept back then, talking about how Alaska had this wealth of hydrocarbons that can be part of the solution of energy issues within the United States. I think he's had his eye on it for a decade since before he was in office.

Petroleum News: So are you disappointed he hasn't talked about the gas line?

Kawasaki: Again, in 2008 when we were caucusing, he did send up a tape, he did mention a natural gas pipeline. He has talked about it before. In light of the fact there is such an energy glut in the rest of the Lower 48, it's not the most pressing issue for the chief executive in the country. I think he understands that Alaska is positioned very well when it comes to energy to help supply domestic needs and international needs as well.

Petroleum News: Still on AKLNG, a special session is anticipated and one of the governor's plans, something he's said more than once, is the prospect of buying out TransCanada. What are your thoughts on that?

Kawasaki: We had talked about buying out TransCanada when SB 138 passed. It was a concept that had been put in place and it had always been a notion that Alaska as a sovereign state that Alaska should have an ownership piece.

I think clearly it was conceived when the Legislature passed the Senate bill. I think the governor is right in at least offering that as a position at this point. We'll see if it makes economic sense for us, whether it makes financial sense for us, and whether we can get the money for it, but certainly it was laid up as a concept when the bill was passed.

Petroleum News: So what value would there be to doing this as you see it?

Kawasaki: I think the value has always been that Alaska's position at the table would be strengthened and as a sovereign we want to have the strongest position we can at the table when it comes to negotiating with the other entities that are there.

see KAWASAKI Q&A page 21

ENVIRONMENT & SAFETY

Fracking causes a rumble

Strongest earthquakes on record linked to hydraulic fracturing operations by Progress Energy in northeastern British Columbia

By GARY PARK

For Petroleum News

The British Columbia Oil and Gas Commission has injected some of the most authoritative backing yet to the spreading debate in Western Canada, Texas and Oklahoma that activities associated with hydraulic fracturing are triggering earthquakes.

The commission has raised the bar for energy regulators by unequivocally linking a 4.4-magnitude quake in northeastern British Columbia last year to gas exploration by Progress Energy, which is wholly owned by Malaysia's Petronas, the operator of the Pacific NorthWest LNG project.

The government agency confirmed to the Canadian Broadcasting Corp. that the 4.4 quake and an earlier 3.8 quake in the Fort St. John-Fort Nelson area were "triggered by fluid injection during hydraulic fracturing."

Both were listed among the largest on record that experts believe were induced by the fracking process and both were strong enough to force a temporary shutdown of operations until Progress implements measures to reduce seismic activity or eliminate the well operations causing the quakes.

The commission said the Progress operations, designed to establish gas reserves to back the LNG venture, were "associated with triggering this (4.4-magnitude) event."

> *In Texas, experts say it is not so much the act of drilling and fracking shales that contributes to earthquakes so much as the disposal wells, where drilling fluids are dumped.*

Before the commission's disclosure Progress had temporarily shut down another fracking site after a 4.6-magnitude quake occurred in the same vicinity, even though the company said it would take several weeks to determine whether there was a link.

Earlier this year, the Alberta Energy Regulator reported that fracking likely caused a 4.4-magnitude quake in that province's west-central town of Fox Creek, in a region that has only recently shown a pattern of quakes.

Scientists are uncertain whether relatively small quakes can trigger larger ones.

Call for more research

David Eaton, a geophysics professor at the University of Calgary, said more research is "urgently needed" and involves a large team of experts assigned to map fault lines near fracking wells to help better predict how large a fracking quake could be.

Just weeks before the Fox Creek quake, the B.C. commission established a definitive tie between fracking and 231 seismic events in a northeast B.C. gas field known as the Montney Trend.

A month after the Fox Creek event, the Alberta regulator introduced new rules for fracking in the gas-rich Duvernay formation, ordering the industry to assess the risk of causing quakes and to prepare plans for a response.

The AER said its directive could be expanded if quakes became a concern in other regions.

Honn Kao, a research scientist with the Geological Survey of Canada, said there is so much fracking taking place in British Columbia and Alberta that it is difficult, if not impossible, to pinpoint which project might have caused a quake, making research vital because of the public safety and economic issues at play.

Since the two British Columbia earthquakes, Progress has been ordered to lower the volume of fracking fluid it uses to dispose of drilling fluids.

Expert: Unlikely to exceed 6.0

John Clague, an earthquake expert at Vancouver's Simon Fraser University, said it is extremely unlikely that a fracking-related quake would register above 6.0, although 5.0 to 6.0 could result in damage to buildings or property, but for now there is no clear-cut answer.

Matt Horn, the British Columbia regional director for the Pembina Institute, a clean energy think tank, said the quakes are a "warning sign" if the province "goes down the LNG road in a big way."

As LNG proposals get debates it is important that participants have their "eyes wide open to both the benefits and impacts," and include the pattern of earthquakes.

Michael Binnion, chief executive officer of Questerre Energy, which is fracking in the Montney Trend, acknowledged fracking is intended to create disturbances underground in order to release gas from shale formations.

"The whole idea is that we are trying to induce a seismic event and it would be a pretty poor frack job that didn't accomplish that," he said.

But he said it is reasonable to ask whether the industry is triggering bigger seismic events than intended.

CAPP says quakes rare

Neither British Columbia's Natural Gas Development Minister Rich Coleman, nor Progress reacted to the commission's findings.

However, the Canadian Association of Petroleum Producers insists that quakes in the Montney range are extremely rare and pose no threat to public safety.

The issue may be the most significant strike yet against hydraulic fracturing, which already faces growing opposition to its use of fresh water and toxic chemicals.

In Texas, experts say it is not so much the act of drilling and fracking shales that contributes to earthquakes so much as the disposal wells, where drilling fluids are dumped.

The technique includes pumping a water and sand mixture far below the surface, past the water table and freshwater aquifers, into dense shale rock and tight rock formations.

Scientists have said the process can cause very slight seismic activity — usually 10,000 to 1 million times lower than a 3.0 quake.

During the actual hydraulic fracturing, the micro-seismic events are generally less than a magnitude minus 2 or minus 3 on the Richter scale.

An English study found that the combination of geological factors needed to create a higher-than-normal seismic event was "extremely rare" and would be limited to about magnitude 3.

USGS: 'similar to a passing truck'

The U.S. Geological Survey said magnitude 3 quakes match "vibrations similar to a passing truck."

The waste wells are located thousands of feet below the surface and are encased in layers of concrete.

Texas has an estimated 50,000 such wells servicing more than 216,000 active drilling wells, according to the Texas Railroad Commission.

Each well uses about 4.5 million gallons of chemicals mixed with water.

Cliff Frolich, a scientist at the Institute for Geophysics at the University of Texas, has told reporters that if water is pumped into a fault line that can cause slippage, triggering an earthquake.

A University of Texas study last year

see FRACKING RUMBLE page 8

● PIPELINES & DOWNSTREAM

Trans-Alaska pipeline value upheld

State Supreme Court affirms lower court ruling that system was worth $8.9 billion to $9.6 billion in tax years 2007 to 2009

By WESLEY LOY
For Petroleum News

The Alaska Supreme Court has handed the owners of the trans-Alaska oil pipeline another major defeat regarding the system's value for property tax purposes.

The high court, in a 30-page opinion released Aug. 28, affirmed a state Superior Court decision "in all respects."

The lower court had determined the value of the pipeline system, or TAPS, was $8.9 billion in tax year 2007, $9.6 billion in 2008, and $9.2 billion in 2009.

Those values far exceed what the oil company owners of TAPS argued the asset was worth — little more than $1 billion.

The Supreme Court ruling means the pipeline owners will pay more than they would prefer in property tax, which is shared between the state and municipal governments.

The ruling also could bring an end to the long-running legal conflict over the taxable value of one of the nation's most important physical assets.

Essential tool

The 800-mile pipeline is the only practical means of moving Alaska North Slope crude oil south to market.

The high court opinion noted the pipeline was constructed between 1974 and 1977 at a cost of approximately $8 billion.

The owners include BP, ConocoPhillips, ExxonMobil, Koch and Unocal.

Although North Slope production declines mean the pipeline carries far less oil on a daily basis than it once did, it remains an indispensable tool to produce the considerable oil that remains on the Slope.

Thus, the pipeline has great value. But just how to assess that value has been the subject of intense legal wrangling.

All involved in setting the value — including the Alaska Department of Revenue, the State Assessment Review Board and the courts — plainly have struggled with the task, with estimates of pipeline value bouncing around like a tennis ball.

The Supreme Court in February 2014 issued a decision affirming a pipeline valuation of just under $10 billion for the 2006 tax year.

This latest ruling, covering three more tax years, further clarifies the matter.

Complex calculation

The essential conflict revolves around just how to assess the pipeline's worth.

Before 2001, there were no administrative or court challenges involving the value of TAPS, the Supreme Court opinion said.

The Department of Revenue had previously used a valuation method based on the pipeline's tariff income. This is the approach the owners favor.

Beginning with the 2005 tax year, the department began using a different method that considered pipeline replacement cost less depreciation.

That precipitated the protracted legal struggle.

In general, the municipalities have sought the highest levels of assessed value, arguing for about $14 billion for each of the years 2007 through 2009. The owners favored about $1 billion, with the Department of Revenue and the State Assessment Review Board somewhere in the middle.

Calculating the pipeline value is highly complex, involving considerations of how much oil remains to be produced on the North Slope, what sort of deductions should be taken and how long the pipeline could feasibly operate should oil flow drop much lower.

The lower court reviewed "enormous amounts of evidence" on oil field production forecasts, the Supreme Court said.

"While there appears to be legitimate debate regarding the methods used by each of the expert forecasters, no party has presented evidence sufficient to show that the superior court clearly erred in choosing the production forecast it relied on to predict TAPS's end of life," the Supreme Court opinion said.

The lower court determined that replacement cost less depreciation was the most accurate method for valuing the pipeline, and the Supreme Court affirmed. ●

Contact Wesley Loy at wloy@petroleumnews.com

ASSOCIATIONS

AOGA partners with IPAA on new website

The Alaska Oil and Gas Association is partnering with the Independent Petroleum Association of America on a new website, the Arctic Energy Center, which the organizations describe as a joint effort to advance greater public understanding of energy development in the American Arctic.

Kara Moriarty, AOGA president and chief executive officer, said in a statement that while the Arctic has been "extensively explored and studied for decades, much of that information can be difficult to find," and said the Arctic Energy Center "was created to serve as a hub of fact-based research, reports, news and analysis of Arctic energy development."

"The national discussion about energy development in the Arctic is often lacking in factual understanding of issues that ultimately have an impact on the rest of the country. The Arctic Energy Center is working to change this," said Barry Russell, president and chief executive officer of IPAA.

The center's website is www.arcticenergycenter.com.

—PETROLEUM NEWS

ENVIRONMENT & SAFETY

BLM completes Cape Simpson cleanup work

The federal Bureau of Land Management said Sept. 1 that it has completed cleanup of Cape Simpson legacy well sites in the National Petroleum Reserve-Alaska.

BLM said it facilitated removal of surface debris through an inter-agency agreement with the U.S. Army Corps of Engineers. The corps contracted with Alaska-owned Mahto Construction Inc.

BLM said the contractor collected 135 cubic yards of bentonite clay, concrete, oily debris, wood and scrap metal from the sites of Simpson Core Test 26, 30 and 30A. The waste was removed by air with a sling and a helicopter used to move it to an adjacent tug and barge for off-site transportation and disposal. BLM said some of the debris was in a natural oil seep, requiring crews to use winches, non-sparking axes, power tools, chest waters and even a canoe to gather debris.

"The fact that these test wells were drilled in natural oil seeps presented special challenges to this cleanup effort," BLM Alaska State Director Bud Cribley said in a statement. "The BLM continues work to address legacy wells across the NPR-A in order to protect the public and Alaska's environment," he said.

Legacy wells are the result of exploratory and scientific drilling the federal

see WELL CLEANUP *page 8*

● EXPLORATION & PRODUCTION

August ANS production down 11% from July

Production down substantially during Alyeska's second planned maintenance shutdown of summer; Cook Inlet July production up 1%

By KRISTEN NELSON
Petroleum News

Alaska North Slope production averaged 418,127 barrels per day in August, down 10.6 percent from a July average of 467,922, with all fields down substantially Aug. 21-22 during Alyeska Pipeline Service Co.'s second planned maintenance shutdown of the summer.

Alyeska spokeswoman Michelle Egan said work done during the shutdown included replacement of remote gate valve 40; complete power process and control system modifications at Pump Station 1 related to electrification and automation startup; and testing of nine mainline valves between Pump Station 3 and Pump Station 4.

All North Slope reported volumes dropped over the period of the shutdown, with Prudhoe Bay volumes beginning to drop Aug. 18 and only getting back into the prior-shutdown range Aug. 29.

In addition to Alyeska maintenance, seasonal work is done on North Slope fields over the summer, coinciding with Alyeska's planned maintenance and taking advantage of the warmer weather.

Prudhoe Bay, operated by BP Exploration (Alaska), had the largest month-over-month volume drop, averaging 210,942 bpd in August, down 39,157 bpd, 15.7 percent, from a July average of 250,099 bpd. Prudhoe Bay volumes include satellite production from Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff and Ugnu, as well as production from the Hilcorp Alaska-operated Milne Point and North Star fields.

August information is from the Alaska Department of Revenue's Tax Division which reports North Slope oil production consolidated by major production centers and provides daily production and monthly averages. July data, which is more detailed, including Cook Inlet and individual North Slope fields and pools, comes from the Alaska Oil and Gas Conservation Commission which reports on a month-delay basis.

Milne Point production averaged 19,063 bpd in July, up 7.4 percent from a June average of 17,752, while Northstar production averaged 6,513 bpd in July, up 13.1 percent from a June average of 5,757 bpd.

Largest percentage drop

The Hilcorp Alaska-operated Endicott field had the largest month-over-month percentage drop, 20.4 percent, averaging 7,423 bpd in August, down 1,907 bpd from a July average of 9,330 bpd. Endicott includes production from Eider, Minke and Sag Delta, as well as the Savant Alaska-operated Badami field. July volumes for Badami, as reported by AOGCC, show the field averaged 932 bpd, down 3 percent from a June average of 962 bpd.

The ConocoPhillips Alaska-operated Alpine field averaged 40,506 bpd in August, down 12.3 percent, 5,679 bpd, from a July average of 46,185 bpd. Alpine includes satellite production from Fiord, Nanuq and Qannik.

August production at the BP-operated Lisburne field, part of greater Prudhoe Bay, averaged 16,949 bpd in August, down 5.7 percent, 1,030 bpd, from a July average of 17,979 bpd. Lisburne includes production from Niakuk, Point McIntyre and Raven.

The ConocoPhillips-operated Kuparuk River field averaged 142,307 bpd in August, down 1.4 percent, 2,022 bpd, from a July average of 144,329 bpd. Kuparuk volumes include satellite production from Meltwater, Northeast West Sak, Tabasco, Tarn and West Sak, as well as from the Eni-operated Nikaitchuq field and the Caelus Alaska-operated Oooguruk field.

July volumes for Nikaitchuq, as reported by AOGCC, are 24,485 bpd, up 5.5 percent, 1,276 bpd, from a June average of 23,209 bpd. July volumes for Oooguruk were 11,503 bpd, down 17.4 percent, 2,422 bpd, from a June average of 13,925 bpd. In July, Nikaitchuq accounted for 17 percent of the total volume shown for Kuparuk; Oooguruk accounted for 8 percent.

Cook Inlet up 1.3 percent

Cook Inlet crude oil production averaged 18,585 bpd in July, up 1.3 percent from a June average of 18,346 bpd.

The Hilcorp Alaska-operated McArthur River field, Cook Inlet's largest, averaged 5,951 bpd in July, up 7 percent from a June average of 5,564 bpd.

Trading Bay, also Hilcorp operated, averaged 3,268 bpd in July, down 5.1 percent from a June average of 3,447 bpd.

Hilcorp's Swanson River field averaged 2,551 bpd in July, down 6.8 percent from a June average of 2,735 bpd.

Granite Point, also operated by Hilcorp, averaged 2,511 bpd in July, up 6.6 percent from a June average of 2,357 bpd.

The XTO-operated Middle Ground Shoal field, which Hilcorp is in the process of acquiring, averaged 1,924 bpd, up 0.5 percent from a June average of 1,914 bpd.

West McArthur River, operated by Cook Inlet Energy, averaged 1,300 bpd in July, up 7.8 percent from a June average of 1,206 bpd.

Redoubt Shoal, also operated by Cook Inlet Energy, averaged 963 bpd in July, down 3.7 percent from a June average of 999 bpd.

Hilcorp's Beaver Creek field, Cook Inlet's smallest, averaged 117 bpd in July, down 5 percent from a June average of 123 bpd.

ANS crude oil production peaked in 1988 at 2.1 million bpd; Cook Inlet crude oil production peaked in 1970 at more than 227,000 bpd. ●

Contact Kristen Nelson at knelson@petroleumnews.com

continued from page 6

FRACKING RUMBLE

linked the fracking process to quakes in the Barnett Shale in Texas, while researchers at the U.S. Geological Survey say they discovered years ago that they could turn earthquakes on and off by injecting liquid into the ground.

The debate in Oklahoma has gathered momentum as the number of quakes has climbed from an average of two a year over 3.0 magnitude in the 1975-2008 period to 538 in 2014, spurred on by oil and gas billionaire Harold Hamm, who is known as the father of the U.S. fracking boom through his Continental Resources.

State seismologist Austin Holland said Hamm expressed his "concern" at a meeting in late 2013 about the growing evidence Holland had been accumulating that quakes were the outcome of the fracking process.

Bloomberg News reported that Hamm urged Holland to "be careful when publicly discussing the possible connection," with Holland describing the meeting as "just a little bit intimidating." ●

Contact Gary Park through publisher@petroleumnews.com

continued from page 7

WELL CLEANUP

government conducted between 1944 and 1982; BLM said it has been assessing, plugging and remediating legacy wells since 1982.

Since 2002 BLM has plugged 21 wells and cleaned up the surface at priority legacy well sites at a cost of $99 million. The Helium Stewardship Act, passed in 2013, includes a provision to fund BLM's legacy well cleanup efforts with $50 million through fiscal year 2019.

The agency outlined its priorities in a 2013 Legacy Wells Strategic Plan.

—PETROLEUM NEWS


MOBILIZING
YOUR
WORLD℠
mobile communications wherever you need it
AT&T Remote Mobility Zone – critical communications for dark zones and disaster situations
When your organization needs cellular and Internet service and none is available, the AT&T Remote Mobility Zone can get you connected, typically in less than 30 minutes. It's a highly portable cellular communications site that links to the AT&T cellular network, providing service where you need it most.
att.com/armz
800.955.9556

PIPELINES & DOWNSTREAM

Nexen feeling regulator's wrath

The Alberta Energy Regulator has come down heavily a month after Nexen was involved in one of the largest on-land oil spills in North America by ordering the company to shut down 95 pipelines from its Long Lake oil sands project in northern Alberta.

Wholly owned by China National Offshore Oil Co., Nexen has been accused of violating pipeline maintenance and monitoring rules.

The regulator said it has received information that pointed to a failure to comply with the rules during its investigation of the July spill which released 31,500 barrels of emulsion, comprising a mixture of bitumen, water and sand, from Long Lake.

The AER is also delving into records to determine how far back operational problems extend.

"Given that this company has already had a pipeline failure at this site, the AER will not lift this suspension until Nexen can demonstrate that they can be operated safely and within all regulatory requirements," Alberta Energy Regulator President and Chief Executive Officer Jim Ellis said in a statement. "We will accept no less than concrete evidence."

Penalty harsh

There is no record of such a harsh and sweeping penalty being applied in the past by the government agency.

An AER spokesman said the regulator is aware the closures will have an impact on Long Lake production, but added that was "not a consideration when we issued an endorsement order."

He said the overriding purpose was to gain assurances that the pipelines were capable of operating in compliance with regulations.

The AER is also delving into records to determine how far back operational problems extend.

The latest order applies to pipelines that carry fresh water, salt water, crude oil, bitumen and natural gas for the steam-assisted process of extracting raw bitumen at Long Lake.

Nexen, which apologized for the July spill, has yet to disclose how much its production will be affected.

It said only that the company is "preparing to comply with the AER's order as we work to compile the necessary information and documentation."

Nexen said it "voluntarily disclosed all non-compliances primarily related to documentation of maintenance activities."

Greenpeace spokesman Mike Hudema said the enforcement order shows the Alberta government is finally "getting tough" on breaches of pipeline regulations.

"We hope this is just a first government step into a much longer look into Alberta's mounting pipeline problems. Our communities deserve no less," he said.

—GARY PARK

● NATURAL GAS

Pacific NorthWest LNG project headed for showdown

By GARY PARK

For Petroleum News

The Pacific NorthWest LNG project, headed by Malaysia's Petronas, is becoming even more deeply mired in its dispute with a northwest British Columbia aboriginal community over the proposed site for a liquefaction and tanker terminal.

Members of the Lax Kw'alaams First Nation, representing about 3,200 members and seven allied tribes, has established a protest camp on Lelu Island near Prince Rupert to protect a fish habitat.

A Facebook message from the First Nation said a "protocol has been established to do investigative drilling in aid of determining an alternative site" for the shipment of any LNG from the Prince Rupert harbor.

Joey Wesley, a Lax Kw'alaams member, said his community decided to intervene because Pacific NorthWest was preparing to drill on the island.

"We are exercising our aboriginal rights and title," he said. "Our intention is to make our presence felt and for however long it takes."

Wesley said the First Nation has learned that the LNG consortium intends to remove eelgrass from a salmon-rearing habitat to determine if it could be planted elsewhere in the Skeen River estuary.

"If you take away the fish then you take away the people," said Hereditary Chief Donny Wesley. "It's as simple as that."

Lax Kw'alaams Mayor Garry Reece was not available to disclose who has participated in the protocol agreement and British Columbia Natural Gas Development Minister Rich Coleman made no comment.

A Pacific NorthWest spokesman agreed that the partnership has hired two restoration scientists and presented a concept to the region's First Nations and the federal Department of Fisheries and Oceans to transplant eelgrass to partly offset the impact on fish habitat.

The proposed C$36 billion project is the most advanced of 19 LNG ventures currently being floated for British Columbia. Project partners include China's Sinopec, JAPEX, Indian Oil Corp. and Petroleum Brunei.

A spokesman for the Prince Rupert Port Authority, which administers land in Lelu Island, said drilling is needed to provide information for engineering of the project and has been sanctioned by the elected leadership of the Lax Kw'alaams and other First Nations in the area.

Although the British Columbia government has approved Pacific NorthWest, the project is bogged down in a federal review that is focused on concerns about its environmental impact on the area.

The Lax Kw'alaams leadership told its members that if a new site can be found that could remove a significant barrier to the project, but nothing will happen without "extensive community meetings, consultation and a referendum in which all eligible Lax Kw'alaams may vote by secret ballot to approve or reject such a project."

The First Nation had previously rejected a C$1.15 billion benefits package from Pacific NorthWest and the British Columbia government.

Pacific NorthWest President Michael Culbert told Business in Vancouver in late July that the company was exploring modifications to its Lelu Island site, but not an alternative location.

A SkeenaWild spokesman said Lelu is the worst place for an LNG plant, noting that of the 18 LNG projects proposed for the province's north coast Pacific NorthWest is the only one opposed by the environmental group.

A spokesman for the Prince Rupert Port Authority, which administers land in Lelu Island, said drilling is needed to provide information for engineering of the project and has been sanctioned by the elected leadership of the Lax Kw'alaams and other First Nations in the area.

He said that work is expected to continue over the next two months. ●

Contact Gary Park through publisher@petroleumnews.com

NORTH OF 60 MINING news

page 12 Dolly Varden outlines 42M ounces silver at northwestern B.C. project

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* Week of September 6, 2015

NEWS NUGGETS

Compiled by Shane Lasley

Northern Dynasty raises C$10M for Pebble

Northern Dynasty Minerals Ltd. Aug. 31 reported the closing of a C$10.2 million private placement that involved the issuance of 25,624,408 special warrants exercisable into the company's listed common shares at a price of C39.9 cents per warrant. The warrants will convert on exercise into common shares of Northern Dynasty on a one-for-one basis. Following the completion of the private placement, Northern Dynasty said it has reached a definitive agreement with Cannon Point Resources Ltd. to buy all of that company's outstanding shares. Under a preliminary agreement entered in August, Northern Dynasty would issue about 12.9 million common shares to buy Cannon Point. At the end of June, Cannon Point had C$4.7 million in cash and cash-equivalents, which is the most significant asset held by the company. During the merger process, Cannon Point has agreed to make a secured credit facility for C$4.25 million available to Northern Dynasty. The amounts borrowed would be repayable after 30 days if Northern Dynasty breaches the deal and 180 days from termination if the merger is not completed for any other reason. One of the conditions of the agreement was that at C$10 million of the warrants being sold during the private placement. The money raised will be used for working capital and to advance the Pebble copper-gold-molybdenum project in Southwest Alaska by implementing Northern Dynasty's legal and environmental strategies.

The money raised will be used for working capital and to advance the Pebble copper-gold-molybdenum project in Southwest Alaska by implementing Northern Dynasty's legal and environmental strategies.

New leadership for Alaska tin explorer

Strongbow Exploration Inc. Sept. 1 reported that Richard Williams has been appointed president and CEO of the company, replacing Kenneth Armstrong who stepped down from the position. Armstrong will remain a director of Strongbow. Williams serves as CEO of Helio Resource Corp., an exploration company with projects in Tanzania and Namibia. He has

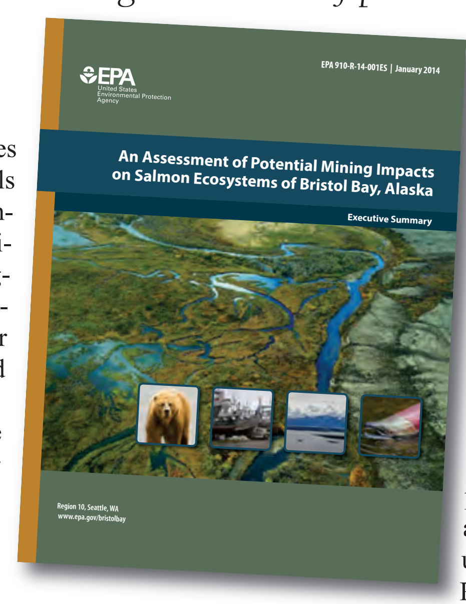
see **NEWS NUGGETS** *page 14*

LITIGATION

Which way is North?

Court seeks missing EPA biologist at center of plan to stop Pebble Mine

By SHANE LASLEY
Mining News



Embattled federal employees conveniently losing emails that could bear witness to potentially negligent or illegal activities have become an increasingly frequent storyline. But seldom does the email's author disappear with the corrupted data.

This seems to be the case with Phillip North, a former U.S. Environmental Protection Agency biologist accused of secretly colluding with private sector activists to stop the development of a mine at the Pebble copper-gold-molybdenum project in Southwest Alaska.

Now, the Pebble Partnership has filed for a subpoena to bring North home to Alaska to fill in blanks left by several years of emails that are believed to contain details of his collaboration with anti-Pebble scientists, lawyers, and Native and environmental groups.

Documents that the Pebble Partnership has obtained through Freedom of Information Act requests provide compelling evidence that North was advocating for EPA to use its veto power under Section 404(c) of the Clean Water Act to prevent the Pebble Partnership from applying for permits to develop its world-class copper-gold-molybdenum deposit in the Bristol Bay region of Southwest Alaska as early as 2008, which predates the 2010 request by Alaska Native groups that EPA has claimed as its impetus to take such an action.

The scant emails made available to the Pebble Partnership also provide evidence that North was a key liaison between anti-Pebble activists and upper EPA officials in Washington D.C.; as well as recruiting the team utilized to build the Bristol Bay Assessment, and authoring sections of this report, which supports EPA's decision to severely restrict the development of the Pebble deposit.

"In short, North was instrumental in forming and utilizing the work of the de facto Federal Advisory Committees at issue in this case and in utilizing them to provide recommendations and advice for EPA to launch its unprecedented attack on Pebble Mine," the Pebble Partnership charges in its subpoena.

The subpoena comes in the discovery phase of a trial in which the Pebble Partnership asserts that behind-the-scenes collaboration between EPA and the anti-mine groups violates advisory committee law and taints the entire process for which the environmental agency is basing its Clean Water Act determination with regards to Pebble.

"Relying heavily on substantial input, advice, and recommendations from these unlawfully established advisory committees, EPA prepared a patently biased, anti-mine assessment of hypothetical mining activities in the Bristol Bay Watershed and then used that flawed assessment to commence administrative proceedings under the federal Clean Water Act that, if allowed to stand, will effectively put an end to mining before the permitting process ever gets off the ground," the Pebble Partnership summarizes in its complaint.

In addition to the agency emails that have surfaced as a result of FOIA requests, North is believed to have used private email accounts for

see **MISSING BIOLOGIST** *page 14*

NORTHERN NEIGHBORS

Compiled by Shane Lasley

DOLLY VARDEN SILVER CORP.

The highest grades of the maiden resource for the Dolly Varden project in northwestern B.C. – 522,000 metric tons averaging 20.1 ounces per metric ton silver – are found in the area of the historic Dolly Varden Mine.

Dolly Varden resource tops 42M oz silver

Dolly Varden Silver Corp. Aug. 27 reported a maiden indicated resource of 31.8 million ounces of silver contained within 3.07 million metric tons of material averaging 321.6 grams per metric ton (10.34 ounces) silver for the Dolly Varden, North Star, Torbrit, and Wolf deposits at its Dolly Varden property in northwestern British Columbia. Dolly Varden, the highest grade of these deposits, hosts 10.5 million oz silver in 522,000 metric tons averaging 625.1 g/t (20.1 oz/t) silver. Dolly Varden Interim President and CEO Rosie Moore said the robust mineral resource "means that this project warrants attention even at today's metal prices." The four deposits also host 10.8 million oz of silver at a grade of 373.3 g/t silver in the inferred category. Due to the lack of assay results from historical drilling, zinc and lead were not included in the estimate and is expected to enhance the value of the deposit." This estimate

see **NORTHERN NEIGHBORS** *page 13*

Contact North of 60 Mining News:

Publisher: Shane Lasley • e-mail: publisher@MiningNewsNorth.com
Phone: 907.229.6289 • Fax: 907.522.9583

Petroleum news

North of 60 Mining News is a weekly supplement of the weekly newspaper, Petroleum News.

Shane Lasley	PUBLISHER & NEWS EDITOR
Rose Ragsdale	CONTRIBUTING EDITOR
Mary Mack	CEO & GENERAL MANAGER
Susan Crane	ADVERTISING DIRECTOR
Heather Yates	BOOKKEEPER
Bonnie Yonker	AK / INTERNATIONAL ADVERTISING
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Curt Freeman	COLUMNIST
J.P. Tangen	COLUMNIST
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Renee Garbutt	CIRCULATION MANAGER
Mapmakers Alaska	CARTOGRAPHY

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

NEWS • 907.229.6289
publisher@miningnewsnorth.com

CIRCULATION • 907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com
Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

Several of the individuals listed above are independent contractors

NORTH OF 60 MINING NEWS is a weekly supplement of Petroleum News, a weekly newspaper.
To subscribe to North of 60 Mining News,
call (907) 522-9469 or sign-up online at www.miningnewsnorth.com.

U.S. DEPARTMENT OF STATE

Flanked by U.S. Secretary of State John Kerry and U.S. Interior Secretary Sally Jewell, President Obama delivers a dire message on the impacts of climate change during his address at the Global Leadership in the Arctic conference in Anchorage. Following the GLACIER conference, Obama traveled around Alaska, including visits to two rural communities with contrasting views on mining in Alaska.

● PUBLIC POLICY

Obama hears mixed views of Alaska mining

Dillingham residents worry large mines could hurt salmon; Northwest Alaskans see balance between mineral development, nature

By SHANE LASLEY
Mining News

On the final leg of his three-day tour of Alaska, President Barack Obama visited Dillingham and Kotzebue, two remote Alaska communities with starkly different views on the development of Alaska's rich mineral endowment.

On Sept. 2, Obama travelled to Dillingham, the largest community in the Bristol Bay region of Southwest Alaska and ground zero of the movement to prevent the development of Pebble, a world-class mineral deposit that contains an estimated 81 billion pounds of copper, 107.6 million ounces of gold, 5.6 billion lb. of molybdenum and 481 million oz of silver.

In December, the president permanently barred leases for oil and gas drilling in the North Aleutian Basin, including Bristol Bay off the coast of southwestern Alaska.

Interior Secretary Sally Jewell said Obama's action caps decades of work by the community to protect the region's economic and cultural heritage.

"With its pristine waters, rich fisheries and strong tourist economy, Bristol Bay is a treasure that should be off limits for oil and gas development," Jewell added in a statement.

Anticipating Obama's arrival in the Bristol Bay region, anti-Pebble advocacy groups made fresh appeals for the President to "protect Bristol Bay from the Pebble mine proposal."

"We're thankful for his commitment to protecting our salmon from off-shore drilling, but we still need his help to protect the salmon's Bristol Bay spawning grounds from the Pebble Mine," Nunamta Aulukestai Executive Director Kimberly Williams said in a statement coordinated with the arrival of Obama in Dillingham.

Under the Obama Administration, the U.S. Environmental Protection Agency has taken strides towards using a special provision under the Clean Water Act, Section 404(c), to severely restrict or even outright ban the permits needed to develop a mine at Pebble.

To support such a decision, the EPA commissioned the Bristol Bay Assessment, a study that investigates the potential impacts large-scale mining would have on salmon and other ecological resources in the Bristol Bay Watershed.

In a lawsuit filed a year ago, the Pebble Partnership alleges EPA secretly collaborated with private anti-Pebble environmental and tribal groups to complete the assessment with the ultimate aim of stopping development of the enormous store of copper, gold and molybdenum.

"We are convinced the EPA has pursued a biased process against our project that then drove their actions toward a predetermined outcome," said Pebble Partnership CEO Tom Collier.

U.S. District Court Judge H. Russel Holland believed Pebble's allegations have enough merit to issue a preliminary injunction that prevents EPA from advancing it plans to restrict or pre-emptively veto permits to develop Pebble until the case runs its course.

Obama, whose visit to Dillingham was more focused on the effects of climate change on the coastal community, did not wade into the contentious Pebble issue. He did, however, indicate that he read the anti-Pebble signs hanging around town.

"There are other threats to this environment that we've always got to be alert to," Obama said while he was in the Southwest Alaska community.

Upon leaving Dillingham, Obama flew to Kotzebue, making him the first sitting president to travel to Alaska's Arctic.

While coastal erosion and other climate-related issues are similar farther north, the Native peoples of Northwest Alaska largely embrace the economic benefits responsible mining brings to remote regions.

In a speech at the opening of the Conference on Global Leadership in the Arctic (GLACIER conference) in Anchorage, which marked the start of Obama's Alaska visit, Northwest Arctic Borough Mayor Reggie Joule said the Inupiat people of Northwest Alaska "have learned with diligence and oversight that you can balance resource development and still have the animals and the fish and the

see **OBAMA VISIT** *page 13*

continued from page 12

NORTHERN NEIGHBORS

will guide further work by identifying locations where tonnage and grade may be increased or where mineralization may be upgraded to higher confidence resource categories," explained Moore. "We also look forward to using this information to explore for similar high-grade deposits on the remainder of the property where the same lithology, alteration and mineral occurrences exist." Dolly Varden's site work in 2014 and 2015 has focused on applying the known alteration, structural and lithologic signatures observed at these historic deposits to exploring for similar deposits across the 8,800-hectare (21,745 acres) property.

Dolly Varden rejects Skeena merger bid

Skeena Resources Ltd. Aug. 27 reported that Dolly Varden Silver Corp. has turned down offers for a merger. Skeena confirmed that it recently proposed to acquire all of the shares of Dolly Varden in an exchange valued at roughly C$4.2 million. Under the proposal, each Dolly Varden share would be exchanged for 2.763 Skeena shares, which values each Dolly Varden Share at about C22.1 cents, representing a premium of 50.9 percent to the 10-day volume weighted average price of both companies' shares. Skeena said it considers a counter-offer made by Dolly Varden unrealistic. Skeena had made a separate offer in July that Dolly Varden let expire. Skeena said it is discontinuing its current efforts to combine with Dolly Varden. Skeena believes that there are meaningful synergies that could result from the combination of junior exploration companies with resources in British Columbia, including the reduction in duplicative overhead costs. Unlike many junior exploration companies, Skeena has been able to raise funds in the current difficult capital markets. Skeena remains willing to consider any reasonable proposal from Dolly Varden and to work with the board of directors and management to negotiate a business combination transaction that would benefit the shareholders of both companies.

In a Sept. 1 response, Dolly Varden said Skeena's offer did not reflect the value of the maiden resource for Dolly Varden, which was published just hours before the merger offer was delivered. "The timing of the Skeena offer was highly opportunistic, given that it was made less than nine hours after the company publicly disclosed its resource estimate," Dolly Varden contended in its press release. "The company's board viewed the Skeena offer as an attempt to exploit the lower market price of Dolly Varden's shares before the market could fully consider and reflect the resource estimate issued earlier that same day." Dolly Varden argues that Skeena's offer would have been highly dilutive to shareholders based on the roughly 42.6 million oz of silver in the maiden resource, compared with the non-NI 43-101-compliant 18.9 million silver-equivalent oz (243,600 oz gold) in the resource Skeena has on its books. Dolly Varden said it expects that an alternative superior to the Skeena offer will emerge.

Brucejack gets greenlight for development

Pretium Resources Inc. Sept. 1 reported that it has been issued all of the major regulatory permits required to begin development work at its Brucejack gold project located in Northwest British Columbia. The British Columbia Ministry of Energy and Mines has issued a Mines Act Permit that allows Pretium to build a 2,700-metric-ton-per-day doré and flotation plant, develop an underground mine, and construct associated facilities and other infrastructure. The BC Ministry of Environment also as issued an Environmental Management Act permit for Brucejack, which governs effluent discharge during construction and operation. Based on the results of a feasibility study completed in 2014, Brucejack is expected to produce an average of 404,000 ounces of gold annually over an 18-year mine life. Commercial production is targeted for 2017.

Canada Zinc expands Cardiac Creek core

Canada Zinc Metals Corp. reported high-grade zinc results from the first two holes of a planned 5,000-meter drill program focused on resource expansion down-dip of the current indicated resource and expansion of the robust and high-grade zinc-lead-silver system in the central core of the Cardiac Creek deposit at its Akie project in northern British Columbia. The first hole of the program, A-15-121, targeted the down-dip extension of the core zone at Cardiac Creek. From a depth of 419.2 meters, this hole cut 64.3 meters (true width) averaging 6.1 percent zinc, 1.3 percent lead and 14.24 grams per metric ton silver, including 28.5 meters averaging 10.2 percent zinc, 2.3 percent lead and 20.45 g/t silver. Targeting the lateral extension of the core zone, hole A-15-122 cut 39.2 meters (true width) averaging 5.8 percent zinc, 1.1 percent lead and 11.16 g/t silver, including 23.4 meters averaging 8.6 percent zinc, 1.7 percent lead and 14.64 g/t silver. "Assays from the first two holes of the 2015 exploration drill program continue to confirm our understanding that the high grade core of the deposit continues laterally and at depth," said Canada Zinc President and CEO Peeyush Varshney.

Jaxon agrees to Hot Bath copper option

Jaxon Minerals Ltd. Aug. 31 reported signing a letter of intent to enter into an option to earn up to 75 percent interest in DeCoors Mining Corp.'s Hot Bath copper-gold project, located in northwestern British Columbia about 15 kilometers (nine miles) south of the Tanzilla porphyry property being explored by Kaizen Discovery Inc. and Freeport-McMoRan of Canada Ltd. Under the terms of the letter of intent, Jaxon can earn the 75 percent interest in Hot Bath by issuing 6.75 million common shares and spending C$1.7 million in exploration expenditures by the end of 2017. DeCoors will retain a two percent net smelter return royalty on the Hot Bath property. Jaxon will have the option at any time to acquire one percent of the NSR for C$1 million. Results from recently completed soil sampling over a high-priority mineralized area of the Hot Bath property are expected shortly. Jaxson said an induced polarization survey at the property will start soon.

Kennady North resource due by year's end

Kennady Diamonds Inc. reported the completion of a 2015 infill drill program at the Kelvin kimberlite of the Kennady North diamond project in Northwest Territories. "The Kelvin infill drilling has been very successful, and we expect the results to add to our previous Kelvin tonnage estimate. Preparation of the maiden resource statement is underway and expected to be completed before the end of the year," said Kennady Diamonds President and CEO Patrick Evans. Exploration drilling has helped define the MZ kimberlite, which is located 25 kilometers (16 miles) west of the Kelvin camp, over a strike length of more than 1,800 meters. Based on results to date, the MZ kimberlite appears to be a roughly three-meter-wide sheet dipping at roughly 15 degrees to the northeast. In addition, the final two geotechnical holes at the Kelvin kimberlite are expected to be completed by mid-September. "On completion of the geotechnical drilling at Kelvin a drill rig will be moved to the diamond-bearing Doyle kimberlite to test a number of new geophysical targets. The Doyle kimberlite is located about 20 kilometers (12 miles) to the southwest Kelvin camp on the same northeast-to-southwest structural feature that hosts the Faraday, Kelvin and Gahcho Kué kimberlites," Evans said. With the mobilization to site of a larger fourth drill rig, further delineation drilling at the north lobe of the Kelvin kimberlite has begun.

More drilling for Sunrise gold discovery

Independence Gold Corp. Sept. 1 reported the start of a C$600,000 exploration program at the Sunrise zone of its owned Boulevard gold project, located adjacent to Kaminak Gold Corp.'s Coffee gold project. Independence is currently carrying out detailed ground magnetic surveying and geological mapping, to better define drill targets. The company intends to drill about 1,400 meters to further delineate the newly discovered Sunrise Zone, where RC drill hole BV15-31 recently cut 12.2 meters averaging 7.23 grams per metric ton gold. Hole 31, which was reported in August, ended in mineralization at a depth of 70.1 meters. ●

continued from page 12

OBAMA VISIT

plants flourish."

"We have the Red Dog Mine, where we have worked to ensure the subsistence renewable resources are not sacrificed as we develop these non-renewable resources," the Kotzebue resident observed.

Located on Native-owned lands about 90 miles north of Kotzebue, Red Dog is among the world's largest producers of zinc, accounting for roughly four percent of the global supply of the galvanizing metal.

Joule characterized Alaska's rich stores of renewable and non-renewable and human resources as a gift and a responsibility that should be developed to the benefit of the people who have lived in Alaska for more than 10,000 years.

"Our message is quite simple: 'Development of our resources must include food, cultural, energy and economic security for Alaska's First People,' " the Inupiat leader told to the GLACIER delegates. ●

continued from page 11

MISSING BIOLOGIST

much of the coordination and implementation of this plan and according to the EPA, the hard drive on his work computer failed, rendering the missing communications unobtainable.

The U.S. House Oversight Committee got the same response from EPA when it attempted to track down the missing emails in 2013. To fill in the information gap left by the computer crash and loss of emails, the federal watchdog committee sent a request for North to come to Washington D.C. to testify.

Instead of testifying before the oversight committee, North embarked on a "yearlong family activity in which he and his wife have taken their children out of school," North's lawyer, Billie Garde, informed the requesting lawmakers.

This yearlong vacation appears to have been extended.

"For almost two years, he has remained outside the U.S., communicating with U.S. government investigators only through his lawyer," lawyers for Pebble Partnership told the court.

Adding to the intrigue is an encrypted thumb drive created by North that EPA says it has yet to decode to determine what documents it may hold.

Judge H. Russel Holland, who is presiding over the case that Pebble has brought against EPA in U. S. District Court for the District of Alaska, said that given the inability to obtain the missing emails and unlock the encrypted data, North's testimony before the court is necessary and issued the requested subpoena.

"Indeed, the court would be surprised if the EPA were not as anxious as Pebble to obtain testimony and access to documents controlled by Mr. North," Holland said in his order.

"It appears to the court that Mr. North may be the only person within the EPA capable of shedding meaningful light upon whether or not unauthorized advisory committees were created or utilized in connection with preparation of the Bristol Bay water assessment," he added.

North is believed to be somewhere in Australia. ●

continued from page 11

NEWS NUGGETS

spent the past 12 years in public company corporate management, and has developed a wide network of business and financial contacts that will be beneficial to the growth of Strongbow. Strongbow also announced the addition of John Burzynski to its board of directors. Burzynski is the president and CEO of Oban Mining Corp., a company that recently acquired three Canada junior exploration companies. He is also the senior vice-president, new business development and director with Osisko Gold Royalties Ltd., which owns 19.9 percent of Oban's shares. Burzynski has more than 25 years of experience as a professional geologist on international mining and development projects, including work from acquisition to production on Canadian Malartic. He was one of the three founding members of Osisko Mining Corp. John was a co-winner of the Prospectors and Developers Association of Canada's "Prospector of the Year Award" for 2007. Strongbow recently completed the acquisition of the Coal Creek and Sleitat tin projects in Alaska as well as a C$1 million private placement financing. As a result of these transactions, Osisko Gold Royalties is now the company's largest shareholder, controlling 27.3 percent of the issued and outstanding share capital of Strongbow.

Another safety milestone reached at Pogo

"Underground mining presents unique challenges and the Pogo team has successfully developed a safety culture that defines safety as a core value that will not be compromised, regardless of any change in priority during the work day."
—Steve Steel, Pogo mine

Sumitomo Metal Mining Pogo Aug. 31 reported that the employees at the Pogo gold mine in Interior Alaska have worked more than two years without a lost-time incident. Mine management said this milestone, reached on Aug. 28, reflects the dedication and commitment to safety among the more than 300 employees at Alaska's largest underground gold mine. "We have reason to celebrate," said Pogo General Manager Chris Kennedy said. "Every single person at Pogo has focused on safety every single day for the past two years. I'm proud to be part of such a conscientious team." Steve Steel, mine health, safety and loss control manager at Pogo said the safety milestone is something for every mine employee to take pride in. "In any industry, two years with zero LTI's is a significant achievement," Steel said. "Underground mining presents unique challenges and the Pogo team has successfully developed a safety culture that defines safety as a core value that will not be compromised, regardless of any change in priority during the work day." ●

● NATURAL GAS

CINGSA settlement proposed, opposed

Issue is native gas discovered at Cannery Loop after field converted to natural gas storage; RAPA, Tesoro are not in agreement

By KRISTEN NELSON
Petroleum News

Cook Inlet Natural Gas Storage Alaska and customers with firm storage service contracts — Chugach Electric Association, Enstar Natural Gas and Homer Electric Association — have told the Regulatory Commission of Alaska they have agreed to settle all issues raised by a proposed CINGSA tariff revision.

The parties to the agreement have requested that RCA accept the stipulation, telling the commission they believe it "is in the public interest and consistent with controlling law."

However, two parties to the proceeding — the Office of the Attorney General, Regulatory Affairs and Public Advocacy Section and Tesoro Alaska — have not agreed to the stipulation, and the commission is thus requested to accept the stipulation "as a contested settlement."

> *CINGSA has told the commission that most of the native gas will be required to maintain contractual injection and withdrawal rates, but that it will be able to sell up to 2 bcf of the native gas.*

CINGSA and the FSS customers who are partners to the settlement told RCA it has the authority to accept a contested settlement after holding a hearing to determine if the contested settlement is in the public interest and consistent with controlling law.

Municipal Light and Power, another FSS customer, has not taken a final position.

The issue arose when CINGSA, in the course of drilling a well at the storage facility, found natural gas not developed when Marathon was producing from the Cannery Loop field.

This gas, referred to as "native gas" to distinguish it from the natural gas pumped into the reservoir for storage, is estimated to amount to 14.5 billion cubic feet.

CINGSA has told the commission that most of the native gas will be required to maintain contractual injection and withdrawal rates, but that it will be able to sell up to 2 bcf of the native gas.

At issue is who benefits from that sale.

The agreement

The stipulation submitted to the commission by CINGSA provides for the sale of 2 bcf of gas in place to Chugach, Enstar, Homer Electric — and ML&P if it so elects. That would allow "these customers an immediate increase in their gas in storage while avoiding transportation and injection charges." The stipulation also provides what it describes as "an equitable division of sales proceeds from any CINGSA gas sales," including a 50 percent sharing of proceeds from the sale of the 2 bcf between CINGSA and its FSS customers. The FSS customers would also get a total increase in storage capacity of 2 bcf. There would be "a clear and transparent procedure to govern any further sales" of excess native gas by CINGSA and a commitment from CINGSA to seek oversight by RCA should it discover any additional native gas.

The stipulation requests that the commission accept it as a contested settlement, noting that the parties have considered their positions, "the risk and expense associated with further litigation" and the public interest, and "believe it is in the public interest to resolve the narrower questions contemplated by this contested settlement rather than the broader questions raised by the proposed tariff changes" which CINGSA submitted.

The stipulating parties request that any hearing on the stipulation be limited to the terms of the stipulation and say they believe rights of the non-settling parties are protected by a hearing on the stipulation. If the stipulation is accepted, CINGSA will withdraw its proposed tariff revision. If the commission rejects the stipulation the rights of non-settling parties will be protected because procedures on the proposed tariff revisions will go forward.

RAPA objections

The Office of the Attorney General, Regulatory Affairs and Public Advocacy Section, has petitioned the commission to allow it to conduct discovery and for a RAPA witness to present response to the contested settlement agreement. RAPA has also asked that a hearing date be rescheduled and the statutory deadline extended.

RAPA told the commission that the proposed settlement "raises issues and claimed facts that are beyond" the scope of the docket and are not addressed in any prefiled testimony, such as an increase in the contracted maximum storage quantity from 11 bcf to 13 bcf and the use of 2 bcf of that maximum storage quantity by Enstar, Chugach, ML&P and Homer Electric. Those issues were raised for the first time in the contested settlement agreement, RAPA said, and RAPA has not had the opportunity "to test these claimed facts and issues in discovery or prefiled testimony."

Tesoro objections

Tesoro has told the commission that the found native gas was already paid for by the FSS customers because the well which found the native gas was "designed and drilled as an integrated component of CINGSA's development of the storage service facilities for the purpose of providing gas storage capacity with injection and withdrawal deliverability," a well which CINGSA continues to use for ongoing storage services.

Tesoro also said the drilling costs for the well were borne by the FSS customers and are included as part of CINGSA's capital investment in its existing rate base. The company argues that discovery of the native gas was incidental to CINGSA's development of its storage facilities and is a part of its gas utility operations, the costs of which "are paid for by the FSS Customers and have been included in CINGSA's cost of service." ●

Contact Kristen Nelson at knelson@petroleumnews.com

● GOVERNMENT

North Dakota judge blocks WOTUS rule

ASSOCIATED PRESS

A federal judge in North Dakota on Aug. 27 blocked a new Obama administration rule that would give the federal government jurisdiction over some smaller waterways just hours before it was set to go into effect.

U.S. District Judge Ralph Erickson in Fargo issued a temporary injunction requested by North Dakota and 12 other states halting the U.S. Environmental Protection Agency and Army Corps of Engineers from regulating some small streams, tributaries and wetlands under the Clean Water Act. The rule, which has prompted fierce criticism from farmers among others, was scheduled to take effect Aug. 28.

North Dakota Attorney General Wayne Stenehjem, who filed the injunction request, said his reading of the ruling was that it applied to all 50 states, not just the 13 that sued. But the EPA said in a statement that it applied only to the 13 and it would be enforced beginning Aug. 28 in all other states.

The 13 states exempted for now are Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota and Wyoming.

Erickson, who was appointed by President George W. Bush in 2003, said the EPA had exceeded its authority in issuing the regulation.

"The risk of irreparable harm to the states is both imminent and likely," Erickson said in granting the request from the 13 states. The judge said that among other things, the rule would require "jurisdictional studies" of every proposed natural gas, oil or water pipeline project in North Dakota, a state which is at the center of an energy exploration boom.

"While the exact amount of land that would be subject to the increase is hotly disputed, the agencies admit to an increase in control over those traditional state-regulated waters of between 2.84 to 4.65 percent," the judge wrote.

The 13 states say the regulation is unnecessary and infringes on their sovereignty. The federal government says the new rule clarifies ambiguity in the law and actually makes it easier for the states to manage some waterways

"This is a victory in the first skirmish, but it is only the first," North Dakota's Stenehjem said in a statement. "There is much more to do to prevent this widely unpopular rule from ever taking effect."

The agriculture industry has been particularly concerned about the regulation, saying that it could apply to drainage ditches on farmland. The EPA and Army Corps said the only ditches that would be covered under the rule are those that look, act and function like tributaries and carry pollution downstream. A tributary would be regulated if it shows evidence of flowing water such as a bank or high water mark, the EPA said.

The new rules would have forced landowners to get a permit if they took steps that would pollute or destroy the regulated waters connected to larger bodies of water downstream.

The judge said the rule appears to be too broad in some cases. He said the definition of tributary, for example, could include many waters that are unlikely to have a significant connection to larger waters downstream. He also said the rules are "arbitrary and capricious," and would cover some waters that are "remote and intermittent."

The 13 states exempted for now are Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota and Wyoming.

For example, the judge said Wyoming would have to bear the cost of issuing permits and has no way of avoiding the increased expenses under the regulation.

State officials in North Dakota said the new rule will cost the state millions of dollars and take away from more important programs.

Stenehjem — along with attorneys general and officials from 30 other states — wrote to the EPA and the Army Corps in July asking that the law be postponed at least nine months. Lawyers for the states said they heard nothing back from the government, so they filed a request for the preliminary injunction.

The federal government said the request for an injunction was better suited to be heard by the 6th U.S. Circuit Court of Appeals rather than a federal judge, but Erickson rejected that notion. ●

GOVERNMENT

Obama pledges more icebreakers

During a three-day trip to Alaska, Aug. 31-Sept. 2, President Barack Obama said he would take steps to accelerate acquisition of additional icebreakers to ensure the United States can operate safely in the Arctic.

BARACK OBAMA

The U.S. currently has three icebreakers, only two fully operational, compared to a Russian icebreaker fleet of 40. The U.S. has a new icebreaker planned, but it wasn't scheduled to go into service until 2022. The president said he would take action to advance that in-service date to 2020.

The president said the administration would also begin planning for construction of additional icebreakers, calling on Congress to provide resources to fund the investment.

The administration also said the National Oceanic and Atmospheric Administration and the U.S. Coast Guard will begin mapping and charting efforts in the Bering, Chukchi and Beaufort seas, including a joint NOAA-USCG survey of a transit route through the Aleutians and Bering Strait, and a joint effort among NOAA, the U.S., Geological Survey and the state of Alaska to use satellite data for shoreline and near-shoreline coastal mapping.

Ports are also an issue, with no deepwater ports in U.S. Arctic waters north of Dutch Harbor on the Aleutian Chain.

The administration said the U.S. Army Corps of Engineers began evaluating the feasibility of deepening the harbor at Nome and extending that harbor's capabilities in February.

The goal would be to enhance the region's ability to shelter ships from Arctic weather and also to serve as a safe standby location for vessels involved in operations farther north.

The administration also said that in the near future NOAA will modernize and install additional instrumentation on the Arctic coast to monitor climate change and enable safe marine operations and transportation. This will include a permanent National Water Level Observing Network station to monitor sea-level rise and as many as six temporary water-level stations.

Prior to the president's Alaska trip, Secretary of the Interior Sally Jewell used her authority to rename Mount McKinley, the highest peak in North America. The mountain is now officially known as Denali, the traditional Athabascan name for the mountain. The state adopted Denali as the name for the mountain in 1975.

In 1896 a prospector named the mountain after William McKinley, in recognition of McKinley's nomination to be president. McKinley became the 25th president, but never visited Alaska.

—KRISTEN NELSON

● NATURAL GAS

Imperial keeping Arctic gas hope alive

Files with Canada's NEB to extend Mackenzie Gas Project sunset clause by 7 years; requirement now for construction to start in 2015

By GARY PARK

For Petroleum News

Imperial Oil, as lead partner in the Mackenzie Gas Project, has taken a formal step to keep the venture alive for at least another seven years in hopes that there will be a market for Canada's Arctic gas, including for export as LNG.

The company has applied to Canada's National Energy Board to extend a sunset clause attached to regulatory approval of the MGP that was granted in 2011.

That condition requires Imperial and its partners — ExxonMobil, Shell Canada and ConocoPhillips Canada — to start construction by the end of 2015.

But with gas prices about half what they were when the initial regulatory application was filed in 2004, the project is no longer commercially viable.

In a letter to the NEB, Imperial Senior Vice President Bart Cahir said that an extension would allow a four-year construction phase to start in 2022, with gas coming on stream in 2026.

The company said it now needs three years to reassess potential changes to the gas market.

Imperial said the extension to the sunset clause would help Imperial avoid "the cost and time required to begin again" which it said would be a "significant deterrent" to developing the Delta resources, which include 6.2 trillion cubic feet of established reserves held by the four partners.

The MGP partners "continue to believe that, despite current natural gas market-driven delays, the approved basin-opening project remains in the interest of northerners and Canadians," Imperial wrote.

No material changes

Other than the timing change, Cahir said Imperial does not "envision any material changes" to the proposed operation, which would carry gas from the Mackenzie Delta over about 720 miles to connect with major pipelines in Alberta.

There has also been talk of the gas being used as feedstock for a joint LNG project by Imperial and its parent company ExxonMobil.

Northwest Territories Premier Bob McLeod said in a supporting letter said that "in light of the significant investments already made in order to acquire (the NEB approval) I also believe that the proponents have much to gain and nothing to lose by continuing to hold" the approval.

Nellie Cournoyea, chief executive officer of the Inuvialuit Regional Corp. and a former NWT premier, also endorsed the extension in hopes of resulting in Canada's and possibly the world's first venture "where aboriginal people have significant ownership and meaningful participation."

An Aboriginal Pipeline Group, representing Native communities in the NWT, has secured rights to own one-third of the pipeline provided it is able to able to negotiate matching gas volumes.

Imperial did not offer any revised cost estimates for the MGP, which has been projected to reach C$20 billion, or say how much the partnership has spent so far.

Bringing the MGP to the start of construction would still require thousands of permits. ●

Contact Gary Park through publisher@petroleumnews.com

● NATURAL GAS

Nova Scotia LNG projects hinge on US

Two projects need US natural gas feedstock, approval from US Department of Energy to export to non-Free Trade Agreement countries

By GARY PARK

For Petroleum News

Two LNG projects planned for Nova Scotia are in the unusual position of relying on the United States to secure both feedstock natural gas and export markets.

And two more proposals for Canada's Maritime region are equally dependent on the U.S. — one by Spain's Repsol to add export capacity to its Canaport LNG import facility in New Brunswick and one by India's H-Energy, which has plans for an export terminal in Nova Scotia that will eventually export 13.5 million metric tons a year.

Fred Bergman, senior policy analyst with the Atlantic Provinces Economic Council, said the big unresolved question is where the gas will come from and how will it be delivered to the LNG plants.

Transportation plans from the U.S. are counting on Spectra Energy, which is planning to build a new gas pipeline from the Marcellus field in Pennsylvania to New England, where it would connect with Spectra's Maritime & Northeast Pipeline, which carries Nova Scotia's gas exports to the U.S. and is now pegged for reversal.

> ***Both companies say they anticipate making final investment decisions in 2016, depending on how successful they are in locking up U.S. gas supplies.***

In addition to receiving export permits from Canada's National Energy Board, both Pieridae Energy and Bear Head LNG have received a go-ahead from the U.S. Department of Energy to re-export U.S. gas to countries with which the U.S. has free trade agreements.

They are now awaiting a U.S. decision on whether they can sell to non-FTS countries.

Both companies say they anticipate making final investment decisions in 2016, depending on how successful they are in locking up U.S. gas supplies.

Pieridae

Pieridae Chief Executive Officer Alfred Sorensen said he is the verge of deals arranging enough gas to support his startup LNG shipments of 10 million metric tons a year which would satisfy the company's contract with German utility giant E.On, which has agreed to buy LNG for the European market.

He told the Globe and Mail that the German company is "very solidly behind" the project, which he said places Pieridae in a "unique" position among Canadian LNG developers.

Sorensen said he is hoping the U.S. DOE will issue a re-export permit for European sales, although he is uneasy that tensions between the Harper government and Obama administration could stall a decision until after Canada's Oct. 19 election to see who forms the next government.

For many years, Nova Scotia has exported gas from its offshore field to the U.S. Northeast, but those supplies will start a steep decline over the next five years unless companies develop gas resources that have been discovered but were not considered commercial.

Bear Head

Bear Head project director John Godbold said his company is evaluating various gas sources, including the U.S., offshore Nova Scotia and Western Canadian gas.

He said Bear Head — which was acquired by Australia's Liquefied Natural Gas Ltd. last year — was the first Canadian project on either coast to receive all of the necessary regulatory approvals, targeting an initial 8 million metric tons a year in 2019, building to 12 million metric tons in 2024.

The company has the permits it needs to start construction and is now negotiating with prospective customers, but a non-FTA clearance is essential to sign contracts with European and other buyers, Godbold said.

To date, the NEB has approved more than 20 billion cubic feet per day of Canadian exports, almost double Canada's production in 2014, but the NEB said it doubts that all of the export projects will proceed. ●

Contact Gary Park through publisher@petroleumnews.com

continued from page 1

ROYALTY DECISION

But he urged the government to waste no time in conducting a "timely, open and transparent" review by the end of 2015.

McMillan called for the royalty review panel to move quickly and focus on "how to re-establish Alberta as a province that is competitive with other jurisdictions" by attracting investment, creating jobs and generating government revenues.

He said the panel should take into account the Notley government's decision to raise corporate taxes to 12 percent from 10 percent and its commitment to double the province's carbon levy over two years.

Mark Scholz, president of the Canadian Association of Oilwell Drilling Contractors, said delaying the royalty decision was a "good olive branch to calm some uncertainty," but argued that so long as commodity prices remain where they are, industry activity could decline further in 2016.

Dave Mowat, the panel chairman, said this is a "great time" to do a review.

"One of the things we want (is a royalty regime) that works as well at $30 a barrel as it does at $100 a barrel," he said.

Current royalties vary

Alberta's current royalties vary from 5 percent to 40 percent, depending on factors such as the type of development, oil prices, crude volumes, well depths and the time needed to extract the resources.

In a recent speech, Notley insisted Alberta "still has by far the most competitive tax regime (in Canada) and so when times get tough those who are profitable should be paying just a little bit more."

Even more tellingly a Climate Leadership Discussion Document, designed to inform citizens about climate change and prepare them for a public opinion survey, suggests that Notley sees a reduced role for the oil sands in Alberta's future.

The document says Alberta "has much more to offer Canada and the world than its energy products" and that the province can "transition to a knowledge-based, lower-carbon economy."

Continuing on that theme, the government said its vision for Alberta is one of "sustained" economic growth and "steady" job creation — a far cry from the province's recent pride in leading Canada's economic growth.

In fact, an entire section on "Alberta's Vision" makes no mention of the oil sands, although the document insists that reducing greenhouse gas emissions "does not mean halting all economic activity."

Achieving this idealistic state could require "much higher" carbon pricing, technology initiatives and subsidies for green technology.

Alberta could also introduce feed-in tariffs to help finance wind and solar power, tax credits and subsidies to producers of "green" energy; government-backed loan guarantees and power purchase agreements — a strategy that has widely been scorned in Ontario.

Transportation sector

To tackle the transportation sector, rated as the leading source of GHGs, the Notley government would target an increased use of public transit, car-pooling, fuel taxes, clean vehicle technology and minimize use of private vehicles.

The document also tells Albertans that gains in energy efficiency "can be one of the most cost-effective ways to improve the affordability and reduce the environmental impact of energy consumption."

Kenneth Green, senior director, natural resource studies, at the conservative Fraser Institute, said the document overlooked a recent U.S. study of a residential energy efficiency program on 30,000 households that found up-front costs "came out twice as high as predicted and the energy savings were 2.5 times smaller than predicted."

He said that despite Notley's talk about continued development of the oil sands "the plans offered in the document call for a wrenching change in Alberta's economy, away from energy development."

Green suggested Notley should be more honest about "where she plans to take Alberta so that, at the very least, Alberta's energy sector can start checking the rents in Saskatchewan and British Columbia."

Clash with CERI report

The document release clashes with a Canadian Energy Research Institute report that GHGs generated by the oil sands can be curbed without affecting the sector's growth.

Allan Fogwill, president of the Calgary-based independent organization, said it is possible to "have greater economic activity in hydrocarbons" while at the same time meeting GHG targets.

The CERI report based its conclusions on GHG emissions associated with energy use by the oil sands industry, including fuel used to generate electricity to meet production needs.

It estimated that whether production doubles to 4.9 million barrels per day over the next 35 years, or virtually flattens at 2.9 million bpd, the sector will generate a consistent 1.3 gigajoules per barrel of emissions, but projects that increasing energy efficiency through technology could reduce the industry's carbon footprint to 0.9 gigajoules.

A climate-change panel has been appointed by the government to address the issues of energy efficiency, the price on carbon, sustainable electricity policies and strategies to grow the renewable energy sector.

Oil sands operators have already launched their own efforts to reduce their environmental footprint, notably through an alliance that allows rival companies to share environmentally friendly technologies that have cost C$1 billion to develop.

But Simon Dyer, associate director of Pembina Institute, an advocacy organization, said the industry's record of lowering its energy intensity levels based on the CERI report has not been good since 2007.

However, the Canadian Association of Petroleum Producers, said last year that intensity levels have risen due to increased oil sands production and depleting conventional oil and gas reservoirs as the industry seeks to maximize the extraction of oil and gas. ●

Contact Gary Park through publisher@petroleumnews.com

Alberta sets water limits

With Alberta is the grip of extreme drought conditions, the Alberta Energy Regulator has imposed limits on applications by oil and natural gas operators to draw water from the Athabasca River, the main waterway through the province's oil sands region.

Restrictions on temporary diversion licenses have also been placed on three other key rivers along with a call for voluntary limits on water consumption by existing operators.

Drought conditions have been so severe that the Alberta government is preparing to pay C$1 billion in compensation to stricken farmers.

The Athabasca, which is fed by glaciers and streams in the Rocky Mountains, needs about 31,800 cubic feet per second of water in the summer to maintain a healthy ecosystem, the Alberta environment ministry said. A month ago that flow was down to 19,670 cubic feet per second.

Oil sands miners, who use water to process raw bitumen, have pledged to lower by half the volume of water they use to counter growing criticism that they pollute too much.

The Canadian Oil Sands Innovation Alliance, whose 13 members include the dominant oil sands producers — Suncor Energy, Cenovus Energy, Imperial Oil, Royal Dutch Shell, Nexen, Canadian Natural Resources — has set its own goal of lowering the amount of fresh water used to process bitumen to 0.2 barrels per barrel of bitumen by 2022 from the current 0.4 barrels.

Imperial is removing water from the Athabasca during normal flow periods and storing it on site for times when river levels are down. That provides enough water to cover three months of operations at the company's Kearl facility.

Suncor estimates it has reduced its withdrawals by about 57 percent since 2007 despite more than tripling production.

But scientists warn that even the current restrictions on withdrawing water from the Athabasca are only a taste of what is to come under climate change.

Simon Donner, a geography professor at the University of British Columbia, forecast that by mid-century lower summer water levels could be costing the oil sands sector billions of dollars in lost production.

Researchers say that flow disruptions in the Athabasca will result in a 22 percent increase in interruptions at oil sands operations, equivalent to more than two years of lost production every decade.

Donner said these projections "just point to how long-term planning for the industry cannot ignore that the climate is changing."

—GARY PARK

EXPLORATION & PRODUCTION

Shell continues drilling after storm

Shell has been continuing the drilling of its Burger J well in the Chukchi Sea following an interruption in the drilling operation for two or three days as a result of a storm, company spokeswoman Megan Baldino told Petroleum News on Sept. 2. The semi-submersible drilling rig Transocean Polar Pioneer is drilling the well, seeking oil in the Burger prospect, about 70 miles northwest of the coastal village of Wainwright.

The company ordered a cessation of drilling on Aug. 26, given that a storm was forecast for the following day, Baldino said. Drilling restarted on Aug. 29, she said. A storm also impacted Shell's logistical support operations in the North Slope town of Barrow, when flooding closed one lane of a road used for access to a camp housing personnel involved in Shell's drilling project. Shell diverted some people to Deadhorse and Anchorage, Baldino said.

The company ordered a cessation of drilling on Aug. 26, given that a storm was forecast for the following day, Baldino said. Drilling restarted on Aug. 29, she said.

Meanwhile, in Seattle, a group of environmental organizations, opposed to Shell's Arctic offshore drilling, have continued to pursue a challenge to the permitting of Shell's use of the Port of Seattle for staging vessels involved in the Chukchi project. On Aug. 27 the organizations launched an appeal in the Washington State Court of Appeals against a superior court decision, affirming that an environmental review is not needed for Shell's use of the port.

Further protests anticipated

According to a Sept. 1 Associated Press report, Marvin Odum, president of Shell Oil Co., told the AP that Shell anticipates further protests against its Arctic offshore activities. Marvin said that Shell is "110 percent ready" to work with people interested in finding ways of improving drilling and criticized those who use illegal means or create safety risks when protesting.

"It's probably fair to say, this is the most scrutinized, analyzed project — oil and gas project — probably anywhere in the world. I'm actually sure of that," Odum told the AP.

Odum also commented that he expects oil to be needed for a long time into the future.

"Let's take a really close look at developing our own resources, control how it's done and get all the benefits that go along with it," he said.

—ALAN BAILEY

Petroleum news

Oil Patch Bits

STEELFAB acquires the Messer MPC200

STEELFAB

STEELFAB said its new Messer MPC 2000 is one of the most advanced, heavy-duty, high-precision steel-cutting systems on the planet and is the first of its kind in Alaska. This multi-process steel fabricator can perform jobs that were previously sent out of state for customers in the oil and gas, mining, marine and construction industries.

This bad boy of the steel industry can do bevel edges on a 3.5-inch piece of steel, pierce and edge cut steel, drill and thread large-diameter holes and cut custom shapes with surgical precision for undeniably superior cut quality.

This American-made machine is in Alaska, putting Alaskans to work. Locally owned, STEELFAB continually invests in heavy-grade, high-tech machinery that gives STEELFAB the same capabilities as shops in the Lower 48.

For more information on the MPC 2000, or for a demonstration at the warehouse, please contact Richard Faulkner, president, STEELFAB 907-276-4303 or rfaulkner@STEELFABak.com.

North Slope Telecom celebrates 35th anniversary

Thirty-five years ago, Alaska needed a telecommunications contractor that not only understood the conventions of the oil industry but could also effectively engineer, install and configure mission critical communication systems to operate reliably in the face of the world's harshest environments and most remote locations. William "Bill" Laxson recognized that demand and accepted the challenge by founding North Slope Telecom with the stated intent of serving the developing oilfield communications market.

NSTI quickly became the recognized authority for ruggedized telecommunication systems in the Alaska oil fields; a position they proudly maintain. However, this reputation has not been isolated to the borders of Alaska or to the oilfield industry in general.

With the NSTI brand on the rise, its services have been requested and rendered in many other parts of the country. The company has since expanded into other markets such as mining, government, state and federal, public utilities, emergency response and public safety that demand its unique suite of qualifications.

In 2013, NSTI became a channel partner for Motorola Solutions making them a true "one stop shop" for industrial communications. In less than two years, they have become one of the largest Motorola dealers in the state.

North Slope Telecom Inc. is a contracting and consulting firm specialized in the design, construction and maintenance of telecommunications systems. NSTI's capabilities include system design and integration of local and wide area networks via satellite, terrestrial microwave, VHF/UHF radio, fiber optics and copper.

see **OIL PATCH BITS** *page 22*

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

continued from page 5

KAWASAKI Q&A

Petroleum News: Can a sovereign, in this case the state of Alaska, be both an owner and a regulator? How do you strike that balance?

Kawasaki: That was of course the rub with the Senate bill that passed, how can we be both an owner and a regulator? What happens when we compromise one over the other? But we are both an owner and a regulator currently. We are an ownership state now. We also regulate and own when it comes to our natural resources. When it comes to fish and game, we own and regulate.

There are lots of circumstances where we have been both owner and a regulator it's worked out. In this case there is no difference. It will take some heavy analysis and it's going to take some decision making for how that works out. I think it's worthy of having a debate and worthy of having a vote.

Petroleum News: One of the other discussions is a constitutional amendment that would enable the state lock in taxes for decades.

Kawasaki: Well this is where the public is going to have a shot at weighing in on this. I guess what I can say is it will be done in a transparent manner. The public will see what's going on. The Legislature will understand what commitments will be made today and how those commitments will be played through 20 years from now.

I think Alaskans for too long have been waiting for a pipeline to happen. I think Alaskans for too long have been waiting for a pipeline to happen. I think Alaskans are waiting for work to begin. If this carries that notion to the point where we can make a good decision, I think the public will support it. That said, there are a number of nuances on number of years it would take. The financial challenges that will have to be met during that 20-year timeframe would have to be known. How small communities are treated within the context of AKLNG and ultimately what our budget outlook is going to be are all moving pieces within the puzzle.

Petroleum News: would all of that be tied to a vote for a constitutional amendment?

Kawasaki: The constitutional amendment will be just yes or no. But getting to a point where we agree this is the best way moving forward — and the Legislature will have to agree — it's going to take for all of those to be known items basically. We in the Legislature have debated one-word amendments for hours and hours. This is infinitely more complex. But I think the ramifications are infinitely more important so at some point we are going to have to take this up sooner rather than later. It will be all-consuming when we discuss what the wording is.

Petroleum News: Do you think there would have to be a backup plan if it were to fail with the voters?

Kawasaki: I think if you can get two-thirds of both houses to agree on the wording, then I think the two-thirds majority in the Legislature will have their work cut out for them to convince the public and the constituency they serve that this is the right thing to do. I think the harder part will come earlier and that's getting something passed by the Legislature.

Petroleum News: If there is a special session, what do you think the priorities would be? What would you like to see accomplished in those 30 days.

Kawasaki: I think we have to talk about the revenue picture, the revenue outlook and continue some of the discussions we've had in this last legislative cycle about how we make ends meet in terms of our budget. The discussion never really ended when the special session ended. I know the governor is pushing that discussion that way. The budget is going to be one of the big issues coming into January. Revenue solutions have to be discussed in tandem with AKLNG because that's something that ultimately will be a cost in the budget, either tax certainty for a long period of time or other things. It will be a costly discussion.

Petroleum News: Looking ahead to the regular session, there is thought that the Legislature will need to review the tax credits formula. What are your thoughts on that?

Kawasaki: The regular session will be about the budget and about some of those things that are costly to the budget. One of the big cost drivers has been I think oil and gas tax credits. The oil and gas tax credits have grown from almost zero when I started to almost $600 million. That's a capital cost that has quite an outlay to it. We are going to have to figure this out. The amount of money we are paying out in credits and deductions is going to be so large, I don't know how the budget can hold that.

Petroleum News: Some of these credits come from tax regimes that you supported, specifically ACES. How do you go about creating something that is perhaps a little more durable?

Kawasaki: I've been through three major tax codes since I've been in office and that's only been 10 years. I think we did a good job when we introduced ACES. Some of the parts of ACES did what it needed to do. Others didn't. The plan that was before that, the PPT model, did some things that were good. Others needed to be revised by ACES. This new plan we've got in place does some good things. But I think we have to constantly refine some things when we know it's not working. I think we know as far as a revenue generator this is not working at all in the state's favor.

Petroleum News: Let's get a little closer to home, the Interior. The gas line has often come with the promise of off-take points to help Alaskans. Energy costs in the Interior have long been a concern for Interior lawmakers. Do you see AKLNG as being a solution Interior folks believed a gas line might be?

Kawasaki: There is not a lot said about what the off-take points would be for AKLNG particularly for the Fairbanks area. Whether an off-take is even a workable solution isn't as clear now because it would probably require a billion dollars worth of investment into a plant, which is not currently in the proposal. And so I don't think there is a lot of promise for some sort of energy solution just because we built a pipeline through our backyard. We have TAPS line in our backyard. That doesn't mean we get cheap gasoline in our backyard that can be refined locally. So an off-take would be a great thing. An off-take would be something that would be especially welcome here within the city, but with the time horizon for how long this would get built, not only the pipeline but the plant, I just don't see it as a real near-term solution for Fairbanks.

Petroleum News: The Legislature passed the IEP bill during regular session, even if it was a bit of a slog. Are you seeing anything good come from the bill yet in the early stages? Could it be a start to a quicker solution?

Kawasaki: all summer long in my neighborhood, they have been dropping lines local. Fairbanks Natural Gas, of course, had a fairly aggressive plan for build out. I think they did 80 miles of pipe last year, and I think they are pretty close to the same amount this year.

The North Pole area, which is going to be the first of the Interior Gas Utility service area, I think they have 60 miles of pipe put out this year. So it's something that's very aggressive we've never seen before. I think we are hopeful to see that this combination between Fairbanks Natural Gas and IGU actually does go somewhere where we can offer, not only within the city of Fairbanks, but outside of the city of Fairbanks to the lower populated areas, some sort of solution to the high cost of heating. I think people see this as really promising because they see the construction going on, and are supportive of it.

Petroleum News: Also, in your backyard is a company we don't always hear a lot of because it's the majors in the news. That's Doyon. Its drilling program has to give you optimism.

Kawasaki: The big thing about Doyon as opposed to say a major for-profit company is that Doyon is primarily trying to serve its own shareholders, many of whom are from the local community. It's like when a Native corporation from the Copper Valley area wanted to do their own work and Doyon is positioned and poised to do the same thing. They don't have to have the same high return for their investors that most major developers do. Their idea is doing something for the region. I'm definitely looking forward to seeing how their prospect looks at the end of the drill season. ●

Contact Steve Quinn at squinnwrite@gmail.com

continued from page 1

OFFTAKE LIMIT

hugely expensive front-end engineering and design phase of the project. The project involves the construction of a gas treatment plant on the Slope, a major gas pipeline to Southcentral Alaska, and a liquefied natural gas facility on the Cook Inlet.

Maximum of 4.1 bcf

BP, supported by ExxonMobil, has asked the commission to raise the gas extraction limit to 4.1 billion cubic feet per day, a volume that the company says would cover the amount of gas required for export and for North Slope gas uses, plus an additional volume that would be available as a contingency, should other gas sources earmarked for export become subject to some form of production glitch. But there is disagreement among the Prudhoe Bay working interest owners over how high the maximum permitted volume needs to be. ConocoPhillips, supported by Chevron, has told the commission that a daily limit of 3.6 bcf would sufficient.

In pre-filed testimony BP told the commission that the AKLNG project is being designed to intake North Slope gas at an average daily rate of 3.5 bcf. Of that volume, 2.7 bcf would come from Prudhoe Bay, and the remaining 0.8 bcf from the Point Thomson field, a major gas-condensate field that ExxonMobil is currently developing. With a further 0.6 bcf needed as fuel to power North Slope facilities, for field operations and for minor local gas sales, the total gas offtake from Prudhoe Bay under normal circumstances would average some 3.3 bcf per day, once gas exporting starts, BP says.

But, should the supply from Point Thomson go offline, Prudhoe Bay would need to supply 3.6 bcf per day to the LNG project, after taking into account the fact that Prudhoe Bay gas contains a significant amount of carbon dioxide that would need to be removed from the LNG supply stream. Adding in another 0.5 bcf for fuel gas and other needs leads to that 4.1 bcf per day of maximum gas extraction that BP and ExxonMobil have requested, BP has told the commission.

"This is all built upon a strong and viable continued oil development and production in the Prudhoe Bay oil field," Bruce Laughlin, BP reservoir management team lead, told the AOGCC commissioners during the Aug. 27 hearing.

David Van Tuyl, BP regional manager and lead for the AKLNG project, told the commissioners that having an adequate contingency volume within the permitted offtake volume would give potential investors in the AKLNG project and buyers of LNG greater confidence in the project.

"In a sense it's like insurance. You hope you don't need it but if, in the event, one of these things happens, it's a wonderful thing to have," Van Tuyl said.

ConocoPhillips: 3.6 bcf is enough

ConocoPhillips, however, argues that its recommended maximum offtake of 3.6 bcf per day would more than cover any contingencies that might arise, while also ensuring minimization of the impact of gas production on liquids production from the Prudhoe Bay field.

"We do believe that it's prudent not to pull the field any harder than is necessary," Eric Reinbold, ConocoPhillips manager of subsurface development for Prudhoe Bay, told the commissioners.

Reinbold said that ConocoPhillips' analysis has indicated that the contingency volume within the 3.6 bcf per day amount would cover worst case scenarios for gas supply interruptions. The maximum daily offtake figure represents an annual average; it is possible to temporarily exceed that daily limit, even up to 4.1 bcf, provided that the annual average is not exceeded, Reinbold commented.

Besides, should a problem occur that would require the Prudhoe Bay field to supply all of the gas for the AKLNG project, there would be sufficient advance notice of a setback of this scale to allow AOGCC to consider a further increase to the gas offtake limit, he said.

Commission Chair Cathy Foerster commented that the commission's concern is purely ensuring the maximum recovery of hydrocarbons and the minimization of waste, and that, in its deliberations, the commission does not consider companies' needs for commercial flexibility.

But BP argues that the question of whether to allow a 4.1 bcf versus a 3.6 bcf limit would make very little difference to ultimate hydrocarbon recovery from Prudhoe Bay.

The company has used its computer-based field model to run a series of theoretical future scenarios, ranging from business-as-usual oil production through the "gas reference case" involving 3.3 bcf per day of gas offtake, through to the 4.1 bcf per day required in the "sensitivity case," the company said in a pre-hearing filing. In each scenario the BP analysts assumed a continuation of development drilling in the field, albeit with, in the gas export scenarios, some gas injection wells being converted to gas producers later in field life.

Increased recovery of 3.6 billion boe

The model indicated that, in the gas reference case, the export of gas from the field would cause a loss of total oil production of some 200 million barrels. However, the export of large volumes of gas would increase the total hydrocarbon recovery by 3.6 billion barrels of oil equivalent, net of that 200 million barrel loss of oil. Approximately 22 trillion cubic feet of gas would be recovered from the field. In the 4.1 bcf per day case, increased gas production would more than offset a further reduction in total oil production, resulting in a slight increase of 0.1 billion barrels of total oil equivalent produced, BP says.

Laughlin said that gas exports are projected to start in 2025.

Reinbold said that although the field modeling is robust, the modeling contains uncertainties, especially in regard to the impacts of different gas offtake rates on total gas production. ConocoPhillips would prefer to keep the offtake rate lower until there is more confidence in the outcomes of higher rates, he said. The

see **OFFTAKE LIMIT** *page 23*

What to do with carbon dioxide at Prudhoe Bay

With natural gas from the Prudhoe Bay field containing as much as 12 percent carbon dioxide that carbon dioxide must be stripped from the gas in a gas treatment plant on the North Slope, as part of a project for the major export of gas from the Slope. Consequently, in an application for amendments to injection orders for the field, filed with the Alaska Oil and Gas Conservation Commission, the field working interest owners are asking for permission to re-inject the carbon dioxide into the field reservoir, if gas exports come to fruition.

During an Aug. 27 AOGCC public hearing Bruce Laughlin, BP reservoir management team lead, said that his company has yet to determine where in the field to inject the carbon dioxide, but that the Eileen West End, in the western part of the field, seems the most promising option. The injection of carbon dioxide can be an effective means of enhancing oil recovery from an oil field. However, ConocoPhillips, on behalf of itself and Chevron, another Prudhoe Bay working interest owner, asked that the commission also allow the possibility of disposing carbon dioxide through a disposal well, in case it turns out that there are no opportunities for carbon dioxide enhanced oil recovery.

Eric Reinbold, ConocoPhillips manager of subsurface development for Prudhoe Bay, told the commissioners that, although the use of carbon dioxide might provide another enhanced oil recovery option at Prudhoe Bay, capital and operating costs, including the cost of accommodating the potential corrosion causing impact of carbon dioxide, would be challenging.

—ALAN BAILEY

continued from page 20

OIL PATCH BITS

AECOM hires Cogger as an environmental scientist

CORINNE COGGER

Corinne Cogger has joined AECOM's Anchorage, Alaska, office as an environmental scientist. Her responsibilities at AECOM include contributing to project documents, field work support and coordination, as well as the collection, analysis and documentation of field data. Cogger has approximately two years of experience in contaminated sites field work and document production. During her career, Cogger has held the position of field lead for groundwater sampling and supply well sampling, for which she coordinated site logistics and field personnel. She also has experience with the coordination of a military munitions response program.

Prior to her position at AECOM, Cogger also wrote and edited a range of deliverable documents, including site assessments, work plans and site characterization reports. Along with writing and formatting documents, Cogger's contributions to deliverables regularly involved creating and editing geographic information system figures. Cogger has assisted in the update of a client's health, safety and environment program by performing a worksite analysis, conducting a chemical inventory, implementing an online safety data sheet database, and working towards a stronger "safety culture." She has a Bachelor of Arts degree in geography from Humboldt State University.

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.

continued from page 1

THOMSON PLAN

from Point Thomson for the project would average 820 million cubic feet per day, peaking at 920 million cubic feet per day in winter, ExxonMobil says. To allow for operational and design flexibility for the Point Thomson field, the company has requested authorization for an average annual offtake rate of up to 1,100 million cubic feet per day.

Gas and condensate

The Point Thomson field, at a remote location on the North Slope coast, to the east of current operating oil fields, contains both natural gas and condensate, a mixture of low-density hydrocarbons, all at exceptionally high pressure. The field contains an estimated 8 trillion cubic feet of natural gas in place. Although the condensate is a richer form of hydrocarbon than the gas, and the condensate, as a liquid, could be delivered to market through the existing North Slope oil pipeline infrastructure, maximizing condensate production from Point Thomson would be very challenging. Essentially, to extract as much condensate as possible, gas would have to be recycled through the field reservoir to maintain reservoir pressure, an operation requiring expensive compression equipment and uniformity in the geologic characteristics of the underground reservoir.

In the absence of a means of bringing Point Thomson gas to market and amid an on-going debate over the merits of producing condensate from the field, the field lay fallow for many years. Then, as part of a settlement with the state of Alaska over the status of the leases containing the field, ExxonMobil undertook a modest-scale condensate development, using a gas cycling approach to produce some 10,000 barrels of condensate per day for export through a newly built pipeline from the central Point Thomson pad.

This initial Point Thomson development, dubbed the Initial Production System, or IPS, by ExxonMobil, is expected to come on line in early 2016.

Now, rather than expanding the IPS into a larger scale gas cycling system, ExxonMobil wants to proceed to what it refers to as gas expansion, or GE, a major development aimed at maximizing gas production while also producing some condensate along with the gas.

Development plan

The IPS project involves two gas injection wells in a central pad at Point Thomson and a single production well on a western pad. Condensate is separated from produced gas for export, before the gas is compressed to 10,000 pounds per square inch for re-injection into the field reservoir. ExxonMobil reservoir engineer George Eleftheriou told the AOGCC commissioners that the proposed GE project would involve the drilling of seven additional wells, with all 10 of the wells, including the three IPS wells, being used for gas and condensate production. The new wells would be drilled from three pads: the existing central and west pads and a yet-to-be-constructed east pad, Eleftheriou explained.

Reservoir modeling indicates that the Point Thomson field could sustain the required natural gas production rate in excess of 800 million cubic feet per day for 15 to 16 years, with production declining thereafter. Condensate produced along with the gas, on the other hand, would start to flow at a peak rate of 57,000 barrels per day and immediately go into a continuous decline. Total natural gas production over a 30-year project life is estimated at some 6 trillion cubic feet, with about 200 million barrels of condensate being produced over that same timeframe, ExxonMobil says.

Gas separation

Gas would be separated from condensate in a surface facility, with the gas being decompressed to 1,060 pounds per square inch for export through a 32-inch diameter pipeline, planned as part of the AKLNG project. The condensate would be exported through the existing Point Thomson pipeline. The use of the gas compressors that form part of the IPS infrastructure would be discontinued. However, ExxonMobil's development plan includes the possible future installation of new gas compression units, to boost gas production as the field goes into decline. The GE project would also require the construction of new gas gathering pipelines from the east and the west pads, ExxonMobil says.

The GE facilities at Point Thomson would initially require 8 million cubic feet per day of fuel gas, with that fuel consumption rising to 28 million cubic feet per day if compression is installed, ExxonMobil says.

Commission Chair Cathy Foerster confirmed that, given the amount of condensate mixed with the gas at Point Thomson, the commission would view any production well at Point Thomson as an oil well rather than a gas well. Given the projected declines in condensate production under the GE plan, ExxonMobil is asking the commission for an exemption from regulations setting gas-oil ratio limits for oil well production.

Expanded gas cycling

Eleftheriou said that ExxonMobil had done significant reservoir simulation and engineering design work for the alternative Point Thomson option of expanded gas cycling, with a focus on condensate production. The company had assessed this option as recently as 2002, and has concluded that gas cycling is not economically viable, with the reservoir pressure and low condensate yield being the main constraints, Eleftheriou said.

"The major challenges of large-scale gas cycling at Point Thomson are that the reservoir pressure is very high and requires large, expensive compression to re-inject the gas," Eleftheriou said. "And the overall amount of condensate that is produced from the gas is not sufficient to make a viable, standalone project."

In 2006 ExxonMobil conducted a survey of 230 gas condensate fields worldwide and found that, with none of the fields operating at reservoir pressures comparable to Point Thomson, gas production was the primary means of achieving condensate production, Eleftheriou said. And the condensate to gas ratio in the Point Thomson reservoir is far outside the range needed for gas cycling viability, he said.

Keith Breiner, ConocoPhillips technical manager for Point Thomson gas expansion, said that reservoir modeling indicated that gas cycling at Point Thomson for 10 or 20 years before initiating major gas sales from the field might result in 2 to 3 percent of additional hydrocarbon recovery. But that would involve spending a substantial amount of money up front for a potential small gain some distance in the future. Moreover, this evaluation disregards the risks associated with the field, including assumptions about a homogeneous reservoir, no premature breakthrough of injected gas into production wells, and no reservoir compartmentalization. And then there is the possibility of putting the AKLNG project at jeopardy, Breiner said.

Oil rim

The existence of a 37-foot thick oil rim below the gas pool at Point Thomson presents a concept for oil development in the field reservoir. But with the oil in this relatively thin rim being heavy and viscous, computer simulations have indicated that the water and gas below and above the oil would tend to "cone" towards production wells soon after oil production started, Eleftheriou said. As a consequence, immediate water and gas breakthrough into wells would render development uneconomic, he said.

The AOGCC commissioners have raised the question of setting expiry dates for their orders relating to gas offtake for both the Prudhoe Bay and the Point Thomson fields. Breiner told the commissioners that this would be problematic for the Point Thomson pool rules because it would introduce gas offtake uncertainty into a project where gas contract and development decisions commit to timeframes of 25 to 30 years. ●

Contact Alan Bailey
at abailey@petroleumnews.com

continued from page 22

OFFTAKE LIMIT

working interest owners have been discussing this issue for several months but have been unable to come to an agreement, he said.

Impact on other fields?

One concern is the potential impact of the export of Prudhoe Bay gas on other North Slope fields where gas is used for enhanced oil recovery. Asked by Foerster about potential oil production losses at fields such as Alpine and Kuparuk River that currently use natural gas, Reinbold said that Prudhoe Bay is currently only exporting gas to Kuparuk River and that those exports would continue, regardless of major gas exports from Prudhoe Bay.

Foerster asked what would happen, should someone develop a new gas field on the North Slope to develop some of the estimated 150 trillion cubic feet of undiscovered gas under the Slope. Van Tuyl said that the AKLNG project would be expandable to accommodate additional gas, should the need arise.

Foerster also said that the order that the commission issues in response to the Prudhoe Bay offtake request may include an expiry date for the offtake authorization. "Sunset clauses" of this type have become standard practice in commission orders, she said. Van Tuyl responded that AOGCC approval of gas offtake volumes would underpin gas sales and purchase agreements for the AKLNG project. Shortening the duration of the offtake authorization would be viewed by prospective LNG buyers as an additional contract risk — LNG purchase contracts typically have durations of as much as 30 years, he said. ●

Contact Alan Bailey
at abailey@petroleumnews.com

continued from page 1

TYONEK SYNGAS

tory process for bringing an operation online.

While Linc is best known in Alaska for drilling a conventional onshore natural gas well in the northern end of Cook Inlet and for reviving a long-dormant exploration program at the Umiat oil field in the foothills of the Brooks Range, the company originally came to Alaska in early 2010 to pursue an underground coal gasification program.

The process is a method of synthesizing gas in underground coal seams too deep to mine traditionally. By injecting air and water into an ignited coal seam, an operator can prompt a chemical reaction that rearranges the carbon and oxygen into methane, or natural gas.

Over the past year, Linc has claimed to be advancing early engineering and permitting for Umiat development, which would require a massive infrastructure investment to bring to market.

In February 2011, Linc received an underground coal gasification exploration license from the Alaska Mental Health Trust Land Office covering 181,414 acres across three areas of the state: near Tyonek, in the Interior region near Healy and on the Kenai Peninsula. Of those three areas, Linc has spent the majority of its resources on the Tyonek parcel.

In the filings, Linc also provided an update on Umiat. The company said it "remains in discussion with interested parties" to sell the oil field as well as oil properties in Wyoming. "While progress has been slow as a result of the recent oil and gas market downturn, the Company remains confident in the long-term value of both the Umiat and Wyoming oil assets and will continue to engage with interested parties whilst prudently progressing with permitting and development plans for the fields," the company said.

In September 2014, after receiving "unsolicited expressions of interest" for Umiat and the Wyoming properties, Linc launched "a formal process to work with additional parties who have expressed an interest in the potential acquisition of the company's entire USA based oil and gas portfolio." The company said it would make a decision about a sale by the end of 2014, but the rapid decline in global oil prices has upended that timeline. The current financial filing is the first time the company provided a reason for the delay.

Over the past year, Linc has claimed to be advancing early engineering and permitting for Umiat development, which would require a massive infrastructure investment to bring to market.

—ERIC LIDJI

Contact Eric Lidji at ericlidji@mac.com

continued from page 1

POTENTIAL WELLS

•The Tinmiaq B South well on AA90707, which is just beyond the southwest corner of Greater Mooses Tooth. The lease is scheduled to expire at the end of 2018.

•The Tinmiaq C, Tinmiaq E and Tinmiaq Q Central wells on AA81787, northwest of AA90707. The lease is currently held by the Hunter No. 1 well drilled by Phillips Alaska.

•The Tinmiaq K North well on AA81807, which is a little farther north, inside the Greater Mooses Tooth unit, near the Grandview No. 1 well drilled by ConocoPhillips.

•The Tinmiaq P North 2 on AA93932 and Tinmiaq R North on AA93232. While the former of those two leases is much farther to the north and the latter is not listed among the active leases in the NPR-A, the proposed locations of each suggest those lease numbers are typos and that the wells are either proposed for AA81807 or a nearby lease.

Well staking is a very preliminary phase in the exploration process, as ConocoPhillips explained Petroleum News in previous years: "Filing notice of staking forms is a routine action to provide flexibility as we evaluate and try to obtain regulatory approvals for possible activity in those areas, but it is not a given that anything will move forward."

That said, the company has been exploring the region for nearly 15 years and has recently expressed a desire to pursue development — so long as economics and regulations allow.

The current notices follow up on some earlier work. After announcing discoveries from the Spark No. 1, Spark No. 1A, Moose's Tooth C, Lookout No. 1, Rendezvous A and Rendezvous No. 2 wells in May 2001, Phillips Alaska Inc. staked 13 wells in the NPR-A in August 2013. Those proposed locations included Grandview No. 1 on AA81807 and Hunter No. 2 on AA81787 — two of the leases currently being considered for drilling.

While ConocoPhillips is considering exploration at the western edge of the unit, it is considering development at the eastern edge. On Aug. 25, BLM posted notice of a ConocoPhillips drilling application for a GMT2-R112 oil well on AA81800. The application is the first for GMT2, which ConocoPhillips has suggested would be the second pad in the Greater Mooses Tooth unit. The company is permitting a GMT1 pad but recently slowed the pace of the project and has yet to sanction development.

—ERIC LIDJI

—A copyrighted oil and gas lease map from Mapmakers Alaska was a research tool used in preparing this story.

Contact Eric Lidji at ericlidji@mac.com

continued from page 1

CONOCO CUTS

More will be known in the next several weeks as the company works through its formal process.

"Our industry is undergoing a dramatic downturn, which has caused us to look at our future workforce needs," the company said.

ConocoPhillips said it has taken several steps to strengthen its position, including reducing capital spending and its future deepwater exploration program, but said "workforce reductions are necessary to become a stronger, more competitive company."

The company said it was "committed to treating all our employees with respect and fairness during this process."

ConocoPhillips Alaska employs some 1,200 people.

—PETROLEUM NEWS