Petroleum news

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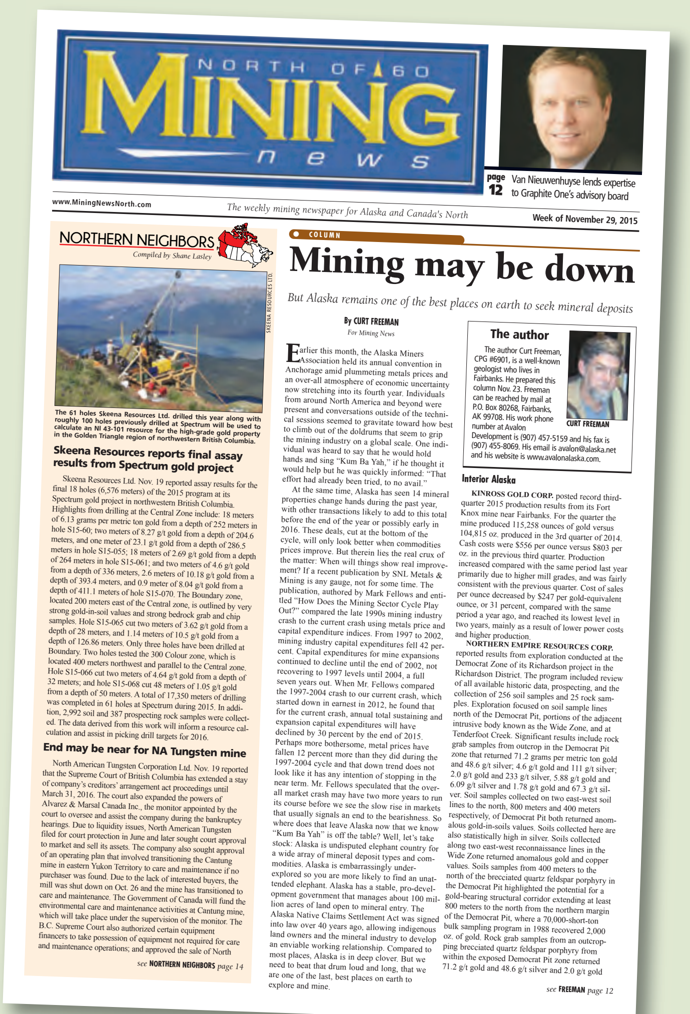
This week's Mining News



NORTH OF 60 MINING news

page 12 Van Nieuwenhuyse lends expertise to Graphite One's advisory board

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* Week of November 29, 2015

NORTHERN NEIGHBORS

Compiled by Shane Lasley

SKEENA RESOURCES LTD.

The 61 holes Skeena Resources Ltd. drilled this year along with roughly 100 holes previously drilled at Spectrum will be used to calculate an NI 43-101 resource for the high-grade gold property in the Golden Triangle region of northwestern British Columbia.

Skeena Resources reports final assay results from Spectrum gold project

Skeena Resources Ltd. Nov. 19 reported assay results for the final 18 holes (6,576 meters) of the 2015 program at its Spectrum gold project in northwestern British Columbia. Highlights from drilling at the Central Zone include: 18 meters of 6.13 grams per metric ton gold from a depth of 252 meters in hole S15-60; two meters of 8.27 g/t gold from a depth of 204.6 meters, and one meter of 23.1 g/t gold from a depth of 286.5 meters in hole S15-055; 18 meters of 2.69 g/t gold from a depth of 264 meters in hole S15-061; and two meters of 4.6 g/t gold from a depth of 336 meters, 2.6 meters of 10.18 g/t gold from a depth of 393.4 meters, and 0.9 meter of 8.04 g/t gold from a depth of 411.1 meters of hole S15-070. The Boundary zone, located 200 meters east of the Central zone, is outlined by very strong gold-in-soil values and strong bedrock grab and chip samples. Hole S15-065 cut two meters of 3.62 g/t gold from a depth of 28 meters, and 1.14 meters of 10.5 g/t gold from a depth of 126.86 meters. Only three holes have been drilled at Boundary. Two holes tested the 300 Colour zone, which is located 400 meters northwest and parallel to the Central zone. Hole S15-066 cut two meters of 4.64 g/t gold from a depth of 32 meters; and hole S15-068 cut 48 meters of 1.05 g/t gold from a depth of 50 meters. A total of 17,350 meters of drilling was completed in 61 holes at Spectrum during 2015. In addition, 2,992 soil and 387 prospecting rock samples were collected. The data derived from this work will inform a resource calculation and assist in picking drill targets for 2016.

End may be near for NA Tungsten mine

North American Tungsten Corporation Ltd. Nov. 19 reported that the Supreme Court of British Columbia has extended a stay of company's creditors' arrangement act proceedings until March 31, 2016. The court also expanded the powers of Alvarez & Marsal Canada Inc., the monitor appointed by the court to oversee and assist the company during the bankruptcy hearings. Due to liquidity issues, North American Tungsten filed for court protection in June and later sought court approval to market and sell its assets. The company also sought approval of an operating plan that involved transitioning the Cantung mine in eastern Yukon Territory to care and maintenance if no purchaser was found. Due to the lack of interested buyers, the mill was shut down on Oct. 26 and the mine has transitioned to care and maintenance. The Government of Canada will fund the environmental care and maintenance activities at Cantung mine, which will take place under the supervision of the monitor. The B.C. Supreme Court also authorized certain equipment financers to take possession of equipment not required for care and maintenance operations; and approved the sale of North

see NORTHERN NEIGHBORS page 14

COLUMN

Mining may be down

But Alaska remains one of the best places on earth to seek mineral deposits

By CURT FREEMAN

For Mining News

Earlier this month, the Alaska Miners Association held its annual convention in Anchorage amid plummeting metals prices and an over-all atmosphere of economic uncertainty now stretching into its fourth year. Individuals from around North America and beyond were present and conversations outside of the technical sessions seemed to gravitate toward how best to climb out of the doldrums that seem to grip the mining industry on a global scale. One individual was heard to say that he would hold hands and sing "Kum Ba Yah," if he thought it would help but he was quickly informed: "That effort had already been tried, to no avail."

At the same time, Alaska has seen 14 mineral properties change hands during the past year, with other transactions likely to add to this total before the end of the year or possibly early in 2016. These deals, cut at the bottom of the cycle, will only look better when commodities prices improve. But therein lies the real crux of the matter: When will things show real improvement? If a recent publication by SNL Metals & Mining is any gauge, not for some time. The publication, authored by Mark Fellows and entitled "How Does the Mining Sector Cycle Play Out?" compared the late 1990s mining industry crash to the current crash using metals price and capital expenditure indices. From 1997 to 2002, mining industry capital expenditures fell 42 percent. Capital expenditures for mine expansions continued to decline until the end of 2002, not recovering to 1997 levels until 2004, a full seven years out. When Mr. Fellows compared the 1997-2004 crash to our current crash, which started down in earnest in 2012, he found that for the current crash, annual total sustaining and expansion capital expenditures will have declined by 30 percent by the end of 2015. Perhaps more bothersome, metal prices have fallen 12 percent more than they did during the 1997-2004 cycle and that down trend does not look like it has any intention of stopping in the near term. Mr. Fellows speculated that the overall market crash may have two more years to run its course before we see the slow rise in markets that usually signals an end to the bearishness. So where does that leave Alaska now that we know "Kum Ba Yah" is off the table? Well, let's take stock: Alaska is undisputed elephant country for a wide array of mineral deposit types and commodities. Alaska is embarrassingly underexplored so you are more likely to find an unattended elephant. Alaska has a stable, pro-development government that manages about 100 million acres of land open to mineral entry. The Alaska Native Claims Settlement Act was signed into law over 40 years ago, allowing indigenous land owners and the mineral industry to develop an enviable working relationship. Compared to most places, Alaska is in deep clover. But we need to beat that drum loud and long, that we are one of the last, best places on earth to explore and mine.

The author

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column Nov. 23. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his website is www.avalonalaska.com.

CURT FREEMAN

Interior Alaska

KINROSS GOLD CORP. posted record third-quarter 2015 production results from its Fort Knox mine near Fairbanks. For the quarter the mine produced 115,258 ounces of gold versus 104,815 oz. produced in the 3rd quarter of 2014. Cash costs were $556 per ounce versus $803 per oz. in the previous third quarter. Production increased compared with the same period last year primarily due to higher mill grades, and was fairly consistent with the previous quarter. Cost of sales per ounce decreased by $247 per gold-equivalent ounce, or 31 percent, compared with the same period a year ago, and reached its lowest level in two years, mainly as a result of lower power costs and higher production.

NORTHERN EMPIRE RESOURCES CORP. reported results from exploration conducted at the Democrat Zone of its Richardson project in the Richardson District. The program included review of all available historic data, prospecting, and the collection of 256 soil samples and 25 rock samples. Exploration focused on soil sample lines north of the Democrat Pit, portions of the adjacent intrusive body known as the Wide Zone, and at Tenderfoot Creek. Significant results include rock grab samples from outcrop in the Democrat Pit zone that returned 71.2 grams per metric ton gold and 48.6 g/t silver; 4.6 g/t gold and 111 g/t silver; 2.0 g/t gold and 233 g/t silver, 5.88 g/t gold and 6.09 g/t silver and 1.78 g/t gold and 67.3 g/t silver. Soil samples collected on two east-west soil lines to the north, 800 meters and 400 meters respectively, of Democrat Pit both returned anomalous gold-in-soils values. Soils collected here are also statistically high in silver. Soils collected along two east-west reconnaissance lines in the Wide Zone returned anomalous gold and copper values. Soils samples from 400 meters to the north of the brecciated quartz feldspar porphyry in the Democrat Pit highlighted the potential for a gold-bearing structural corridor extending at least 800 meters to the north from the northern margin of the Democrat Pit, where a 70,000-short-ton bulk sampling program in 1988 recovered 2,000 oz. of gold. Rock grab samples from an outcropping brecciated quartz feldspar porphyry from within the exposed Democrat Pit zone returned 71.2 g/t gold and 48.6 g/t silver and 2.0 g/t gold

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Columnist says that while mining may be down, Alaska remains one of the best places on earth to seek mineral deposits. Page 11.

Kitchen Lights field goes on line; gas production is now ramping up

Natural gas production from Furie Operating Alaska's Kitchen Lights field, offshore in Cook Inlet, started on Nov. 22, Bruce Webb, Furie senior vice president, has told Petroleum News. Furie is selling its gas through an initial sales contract which will last until at least the end of the year — production will ramp up to 12 million cubic feet per day over the next month, Webb said in a Nov. 23 email. A gas supply agreement for 12.4 million cubic feet per day with Homer Electric Association comes into effect in April, he said.

Some of the initial gas production may be directed into the Cook Inlet Natural Gas Storage Alaska facility near the city of Kenai, where Furie has contracted storage space, to keep gas in reserve to cover any periods of interruption in gas production

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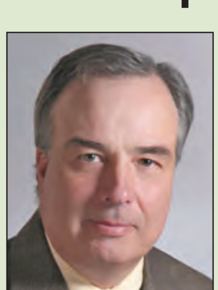
Conoco maintains Alaska spend despite low prices, workforce drop



JOE MARUSHACK

While commenting that the current oil price environment is extremely difficult, Joe Marushack, president of ConocoPhillips Alaska, said that his company is maintaining its capital spending program in Alaska, although the company has reduced operating costs through a cut in its workforce. In a situation like this it is important to take appropriate acts of caution, while also figuring out what can be done and what needs to be preserved, he said.

Marushack used his Resource Development Council annu-

see **CONOCO SPENDING** page 24

EXPLORATION & PRODUCTION

Furie scales back

Says market conditions don't warrant two additional Kitchen Lights wells

By **ERIC LIDJI**

For Petroleum News

Furie Operating Alaska LLC is scaling back its immediate development program at the Kitchen Lights unit, citing market constraints for natural gas in the Cook Inlet basin.

The independent had initially planned to drill two new development wells at the offshore Cook Inlet unit in 2016 to expand on production from the existing Kitchen Lights Unit No. 3 well, which recently started production.

According to a plan of development Furie filed with state oil and gas officials in early October, "market constraints have limited the volume of gas Furie needs to deliver in 2016, and probably until 2019. As a result, Furie is unlikely to initiate production from more than one additional development well in 2016, and two additional development wells are unwarranted by the market. One additional development well will provide a significant gas reserve that would be immediately available to the market, as needed."

The current proposal calls for drilling a development well into the Corsair block — one of four exploration blocks at the 83,394-acre unit — by Nov. 30, 2016.

The current proposal calls for drilling a development well into the Corsair block — one of four exploration blocks at the 83,394-acre unit — by

see **SCALING BACK** page 21

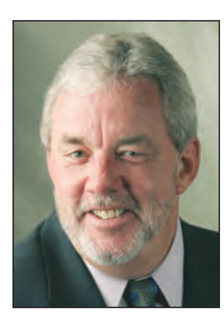
NATURAL GAS

Overturn at AGDC

Walker replaces 2 board members; board accepts Fauske's resignation

By **KRISTEN NELSON**

Petroleum News



DAN FAUSKE

GOV. BILL WALKER

The head of the Alaska Gasline Development Corp. and the head of its board are both out.

On Nov. 20 Alaska Gov. Bill Walker, citing a need for a municipal voice on the AGDC board, replaced John Burns.

On Nov. 21 the AGDC board, composed of six Walker appointees and one remaining appointee of former Gov. Sean Parnell, accepted the resignation of Dan Fauske, who has been president and CEO of AGDC.

Walker replaced three members of the AGDC board after he took office.

On Nov. 20 the governor said he was replacing Burns, who has served as AGDC board chair, with former Fairbanks North Star Borough Mayor Luke Hopkins. Burns had served as attorney general in the Parnell administration. Hopkins has been involved in the Alaska Gasline

see **AGDC CHANGES** page 22

EXPLORATION & PRODUCTION

Grim and grimmer

Canadian upstream heading for worst year since '85; drilling down 58%

By **GARY PARK**

For Petroleum News

Canada's upstream oil and natural gas sector is now "facing one of the most difficult times in a generation," said Mark Scholz, president of the Canadian Association of Oilwell Drilling Contractors.

He said the service sector expects to lose 28,485 jobs over the past two years, or 57 percent of its workforce, as drilling posts a 58 percent decline in 2016 to 4,728 wells, compared with 11,226 in 2014, while the rig fleet is estimated to shrink by 62 units to 696.

CAODC projects that the decline in rig utilization rates will continue through 2016 to average only 22 percent for the year, matching 1983, "one of the worst periods in our history."

*"There is incredible uncertainty for investors to put money into Alberta." —**Mark Scholz, president, Canadian Association of Oilwell Drilling Contractors***

The organization is stepping up its lobbying of the Canadian and provincial governments to delay increases in taxes and other costs, such as royalties and a carbon tax.

"There is incredible uncertainty for investors to

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● EXPLORATION & PRODUCTION

Caelus credits tax system for Alaska involvement

Says integrated tax policy under SB21 encouraged company to enter state, makes new exploration and development possible

By ALAN BAILEY
Petroleum News

Jim Musselman, president and CEO of Caelus Energy, and his colleagues only decided to enter the Alaska oil industry after the passage of Senate Bill 21, the law reforming Alaska's oil production tax system, Casey Sullivan, director of public affairs for Caelus Energy Alaska LLC, told the Resource Development Council's annual conference on Nov. 19. And, since entering the state, the company has followed up on a commitment to move swiftly ahead with its Alaska program, Sullivan said.

Smith Bay exploration

Sullivan told the conference attendees that Caelus' latest venture, a two-well exploration drilling project in Smith Bay, towards the western end of the North Slope, would not be happening without state tax credits.

"This project would not be possible without the partnership of the state of Alaska, through its oil tax credit program," Sullivan said.

Having during the summer acquired a 75 percent interest in NordAq's Smith Bay leases, known as the Tulimaniq leases, and having access to some modern 3-D seismic data for the lease area, Caelus has mobilized the Doyon Arctic Fox rig by barge for the drilling program.

"It's regarded as a potential, true 1 billion barrel field. We'll find out," Sullivan said.

Caelus has barged the equipment

see TAX SYSTEM page 9

● EXPLORATON & PRODUCTION

Aurora renewing Nicolai Creek focus

Possible plans for 2016 include new development well, studies into potential storage operation and seismic acquisition

By ERIC LIDJI
For Petroleum News

Aurora Gas LLC is again considering plans for a new development well at the Nicolai Creek unit to access deeper natural gas accumulations beyond the reach of existing wells.

The company is also looking into reviving a dormant storage operation.

If economically feasible, the Anchorage-based independent would drill the Nicolai Creek No. 12 well in the area south of the Nicolai Creek No. 3 and No. 10 wells. Earlier logging has indicated a fault separating those two wells, creating opportunities for a third well.

The well would be the first at Nicolai Creek since 2013, when the company drilled the Nicolai Creek No. 13 and No. 14 wells. The company has proposed Nicolai Creek No. 12 in previous plans of development for the Cook Inlet unit but deferred those plans.

This past year, Aurora performed limited maintenance activities described as "slickline work" on four existing development wells: Nicolai Creek No. 2, No. 3, No. 9 and No. 10.

In early 2014, the Alaska Oil and Gas Conservation Commission allowed unit-wide comingling at the Nicolai Creek unit, which impacted several wells this year.

In January, following the ruling, Aurora opened the middle completions in the Tyonek formation at the Nicolai Creek No. 2 well to co-mingle with the upper completions and Beluga completions. A lower completion from 2013 remains isolated for the time being.

Production from Nicolai Creek No. 9 increased five-fold following a second cleaning in May 2015, producing first at 200,000 cubic feet per day and doubling to more than 400,000 cubic feet per day in early October after silt and water was cleared from the well.

Aurora is also once again considering a long-planned gas storage operation at the Nicolai Creek unit. If approved, the program would operate from the NCU No. 2 and NCU No. 9 wells and would have a capacity in the range of 2.5 billion to 3 billion cubic feet.

The company said it intends to revive the project this coming year with a series of studies that will determine whether to proceed with leasing, permitting and implementation.

This coming year, Aurora is also considering a program to control sand build-up at the Nicolai Creek No. 10 well, including the possibility of a remedial workover.

Exploration

While the Nicolai Creek unit has been primarily a development property for many years, the opportunity for exploration into some deeper oil and natural gas prospects exists.

Several years ago, Apache Alaska Corp. acquired rights to some of these deeper opportunities. The company commissioned

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GOVERNMENT

Coghill likes SB 3001, pipeline progress

North Pole Republican says AKLNG project has promise, but says more cooperation from administration still needed

By STEVE QUINN
For Petroleum News

Sen. John Coghill has been in office since 1999, either as a member of the House or Senate. Now the North Pole Republican serves as the Senate Rules chairman and enjoys a seat on the Senate Resources Committee. While Resources did not hear Gov. Bill Walker's SB 3001, which approved the buyout of TransCanada, plus additional funding toward the AKLNG project, he and many others attended the hearings. Coghill shared his thoughts in a post session interview with Petroleum News. The following is an edited transcript of the conversation and follow-up email correspondence.


SEN. JOHN COGHILL

Petroleum News: You were among the 16 who voted yes, what drove that vote?

Coghill: There were some big questions. One was should we buy out TransCanada? It became abundantly clear to me that between the administration and its focus and TransCanada not being able to stay in that focus, it was just wise was to take that clean off ramp set up under SB138. Execute it now. There was an economic reason, but the real reason was what they call alignment.

It became apparent to me that they were separating. We could not force them to work together. So the best thing to do was take that off ramp. It was clean. All consultants said it was the best time to do it economically. Practically, the governor just chose a different direction.

He wants more say so with the one-quarter at the meetings. So the answer is yes to that. Then the question is do we give them wherewithal to get to the next decision points in the pre-FEED? The first and most critical being the work plan and budget which happens in December. That's where the attorney general's $10 million came into play.

Some people didn't want to give money to the attorney general because there were some unanswered questions — everything from confidentiality to confidence in the way he would do that work program. I think it would be unwise for us to shortchange him at this point because it would be a self fulfilling prophecy. I would rather see us go forward to that next question to see if we can answer it which is does everybody want to go past pre-FEED.

If we were to say no to the dollars now, we would have said we don't want you to do the legal contract work that is going to be required to get there. You can argue they had enough money now. But to me it was worth saying, "if you think that's what you need, we want the project to go to the next level, so we'll give it to you."

Petroleum News: There were some people who voted yes, but they were not happy with the attorney general during the special session, particularly for availability. Were among them?

Coghill: I share some of those concerns. There were three questions floating around with the attorney general. How deeply is he involved with all of these different projects? The confidentiality was another. When we found out all presentations for the Legislature had to go through him.

We didn't know if he was approving them legally or if he was approving them policy wise. He kept saying legally but anytime a policy question came up, people would say we've got to check (with Richards). So the credibility of that came under question. I guess the trust level was low.

The third one was attorney client privilege. If you are going to use attorney client privilege to keep policy questions away from the Legislature, are you really in the right place. Is that the best use of the attorney general? He gave some good answers but he didn't raise the comfort level for any of us, myself included.

Q AND A

I like this attorney general. Some people don't. I like a lot about him, but I also know he's put on a whole new suit of clothes that is very different from what he's had in his previous experience. Same with the governor. I want this governor to succeed. I'm willing to work with him and I suppose look at the best. Some people think that's naïve. Maybe that is somewhat. But I like him. I didn't vote for the governor, but he's here. I like a lot of what he says. We've got a long way to go. We're learning to work together.

Petroleum News: You folks have openly and publically given him the benefit of the doubt, sort of a honeymoon, for being new to his job and building a team to advance a gas line. With that came concerns about communication over his plan. When does that honeymoon come to an end?

Coghill: This next budget cycle is his. My guess is the honeymoon begins to end with this next budget cycle because he has had now one full year to live under a revised budget and now he has to make his own budget. That should at least give his team close enough to being veterans to make it work. I will say this, the governor has been very open to talking to Senate leadership. That has not changed some of the harder questions that we need to answer, so I want to keep that communication going. I think that's going to be the glue that keeps us together.

We were under the same problem the governor landed in: that is the steep decline into low oil prices happened to us all at the same time. During his campaign and during several other campaigns that expectation wasn't there. The market took us into a whole new level where really we have to paddle the same boat or the boat is going to capsize. We are forced to work together because of the tough circumstances we find ourselves in.

Petroleum News: Was there anything missing from the call that you had hoped might be there?

Coghill: We had an expectation of fiscal contracts and fiscal deals. That would have put a constitutional amendment in front of us. It couldn't and didn't happen. Some of it was the governor asking to look at a 48-inch line. That probably didn't help. But I don't think that was the main cause. The way I understand it, the three majors in the deal couldn't come to an agreement on the gas balancing. You have to get that figured out before you get to the fiscals. They just haven't gotten that far.

The governor probably kept that from happening in many ways. He kept bringing up the pipeline issue. Starting way back in September, he started talking about a reserve tax question.

He started inserting his view of a pipeline into a project that had solidified under the HOA (heads of agreement). He was kind of pushing on the edges of that. Way earlier in the summer, somewhere along the line, he started talking about 50 percent ownership, which was alarming. Even if he said, I didn't really mean it, once you say something like that it creates more questions. My guess is he had as much an effect about the question of fiscal issues as anybody because he created those ripple effects because he was thinking aloud when he probably should not have thought out loud.

Petroleum News: Did the reserves tax issue cause any pre session distraction?

Coghill: Yeah, because we went back we started researching the history of it. We started thinking about the impact it would have on people, like Exxon starting to cycle that field in Point Thomson. What impact would that have on investment in an already low price arena for capital in Alaska? We know that we were a prize winner in many ways because we got a capital investment where many other places in the world didn't. Would this begin to erode what has been committed for capital investment in our fields?

And so yeah, I think it had an impact on the prize oil and the second prize is a pipeline, and what that does to investors. As Alaskans, we have to not only stay close to what is the dynamic of the Alaska Inc.s — Conoco Alaska Inc and Exxon Alaska Inc. — but those people have to answer to a board who have to answer to shareholders. So when you have these conversations out loud the shareholders are the first ones who hear it. The reserves tax no doubt was heard by shareholders and how we handled it could have an impact in a volatile market time anyway.

Petroleum News: The day before session begins, he removes it from the call. Did that make this session easier as far as a focal point?

Coghill: First of all, we were bracing ourselves. That meant we had schedules that were probably going to be

see **COGHILL Q&A** page 16

● EXPLORATION & PRODUCTION

Hilcorp pushes on with Alaska program

While the oil price, market and fiscal uncertainty are causing concern the company also sees exciting opportunities in the state

By ALAN BAILEY

Petroleum News

Hilcorp is continuing to push ahead with its efforts to revitalize oil and gas fields in the Cook Inlet basin and on Alaska's North Slope, Greg Lalicker, president of Hilcorp Energy, told the Resource Development Council's annual conference on Nov. 19. The company is also pursuing some new development and exploration opportunities in the Cook Inlet region, and is entering the environmental review phase of the proposed development of the Liberty oil field in the Beaufort Sea. And the company has purchased the Cook Inlet Middle Ground Shoal field from XTO/ExxonMobil, Lalicker said.

But Lalicker also cautioned that projects need to make economic sense.

"There's plenty of places to spend your money in Alaska with good resource potential, as long as you have confidence you're going to get an adequate return on your investment," he said. "And that's what we're looking at and thinking about every day going forward."

Current uncertainties

Lalicker said that his company is still figuring out its Alaska plans for 2016 but is currently looking at a possible total spend of about $250 million in the state during that year. He commented that current commodity price uncertainty, local gas market uncertainty, the state fiscal situation and uncertainty over support services during the economic downturn are all eroding confidence in the ability to make adequate financial returns in Alaska, thus making it difficult to keep up the past rate of investment in the state. On the other hand, the state continues to present plenty of opportunity.

JUDY PATRICK

GREG LALICKER

"There's a lot of things I see in Alaska that in the long term that I'm very excited about," Lalicker said.

Lalicker said that Hilcorp had originally been attracted to Alaska because the company liked the state's fiscal system, including the tax system, royalty arrangements and tax credits. He declined to comment on the current debate over state tax credits other than saying that clarity is needed. He said that he would not offer an answer to the questions that have been raised.

"Just tell me what the answer is, and I'll tell you what I'm going to do next," Lalicker said.

Expanding in Alaska

After arriving in the state in 2011, Hilcorp purchased Chevron and Marathon's Cook Inlet oil and gas field assets, thus becoming the dominant oil and gas producer in the Cook Inlet basin. And in December 2014 the company entered the North Slope oil industry after purchasing interests in a number of North Slope assets from BP and, in the process, becoming operator of the Milne Point, Northstar and Endicott fields, as well as becoming operator for the proposed Liberty development. Hilcorp now has 520 employees working in Alaska, Lalicker said.

Hilcorp Energy also reached its latest five-year target of doubling in size, an achievement which resulted in a total payment of more than $110 million in bonuses to its employees, Lalicker said.

And, following the company's mantra of re-invigorating aging oil and gas fields, Hilcorp has been conducting an aggressive campaign to improve the performance of its Alaska assets.

Cook Inlet production

Cook Inlet oil production has risen steadily to a level of some 14,000 barrels of oil per day, Lalicker said. However, a production plateau in 2015 reflects the low oil price environment, with it becoming uneconomic to repair some wells that had broken down, he said.

And Hilcorp has spent a lot of money developing new Cook Inlet gas reserves, turning around a situation where the region's gas production was in decline while enabling the extension of gas supply contracts with Southcentral gas and power utilities. The company had been using two rigs for its gas related drilling, but is now down to one rig for proving out new gas reserves, Lalicker said.

Initially the company extended gas supply contracts with most of its customers by three or four years. Now, with increasing confidence in the gas reserves situation, the company has gone back to those customers, offering gas supply contracts through to 2023-24, Lalicker said.

"We've signed one of those (contracts) recently and a couple more are still in progress, but we remain very confident in our ability to deliver the gas supply to Southcentral Alaska," he said.

The North Slope

Oil production from Hilcorp's North Slope operations over the past year has not shown the upward trend that the company normally expects, although the production profile has been impacted by a normal softening of production levels during the summer, Lalicker said.

"We haven't put up the rate yet, which is what I always wanted to be doing, but we're remaining focused on that," he said.

Hilcorp's focus during its first year on the Slope has been working on field infrastructure, particularly at Milne Point, and the repair of a backlog of broken wells, Lalicker said. While the company has brought in a custom-built workover rig for the repair work, a Nordic Calista rig has also been doing a great job for the company, he said. Hilcorp is building a custom rig that it hopes to bring to the Slope by the end of next summer — that rig will enable more drilling at Milne Point as well as accommodating the very tight well spacing in the Northstar and Endicott fields, Lalicker said.

Operating costs

And Hilcorp has remained intent on an objective to bring down operating costs in its North Slope fields.

"On the Slope the first battle has been to get the cost structure to where it is sustainable," Lalicker said.

So far, the company has reduced operating costs for its fields from $16 million to $12.5 million per month. But, although the process of cost reduction has been painful for everyone involved, this cost reduction of 21 percent only partially compensates for the concurrent fall in the oil price.

"We have a long ways to go before we're coming anywhere close to making the money that we hoped to make when we originally made that investment a year and a half ago," Lalicker said, adding that his company was not counting on a price revival and was continuing to work the problem.

Future growth

And, having spent $3.2 billion so far on its Alaska ventures, Hilcorp expects future Alaska production growth. The Liberty field is an exciting prospect. And last summer the company acquired 3-D seismic across the McArthur River and Middle Ground Shoal fields in Cook Inlet — that seismic data will create more development opportunities, Lalicker said. The company continues to explore for new gas opportunities on the Kenai Peninsula and plans the drilling of an exploratory well at Happy Valley on the peninsula late this year or early in 2016, he said.

On the North Slope, the Milne Point field has plenty of resource remaining in the ground, ranging from light oil in deep reservoir rocks to heavy oil in the shallower Ugnu formation, Lalicker said. There are many opportunities to exploit, he said. ●

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● PIPELINES & DOWNSTREAM

TransCanada stop, go

Abandons application for Keystone XL; announces fourth stage of layoffs; remains upbeat on C$48 billion of projects in the works

Costs rise, hopes strong

Kinder Morgan is clinging to its business case for Canada's Trans Mountain pipeline expansion regardless of an upshoot in projected costs to C$6.8 billion from C$5.4 billion for the slow-moving project.

Ian Anderson, president of the company's Canadian unit, blamed the increase on three factors — the slump in the value of the Canadian dollar against its U.S. counterpart; scope changes to the pipeline; and delays in the regulatory process.

And a final calculation of the price tag won't be available until Kinder Morgan knows the full extent of conditions that would accompany any approval by the National Energy Board and the Canadian government.

So far, Canada's federal regulator has issued 145 draft conditions, which the company said are achievable.

A spokeswoman for the pipeline said Kinder Morgan retains strong backing from committed shippers, who have the option to abandon their contracts if the project cost exceeds C$6.8 billion or regulatory approval stretches past the end of 2017.

She also said demand remains high for the increase in pipeline capacity to 890,000 barrels per day from the existing 300,000 bpd on a system that connects the Alberta oil sands with a tanker terminal in Greater Vancouver and refineries in Washington state.

But the prospect of increased tanker traffic in a densely populated area underpins much of the opposition to Trans Mountain from regional jurisdictions, environmentalists and First Nations.

One of the leading sources of unease for the proponent is the prospect that

see **KINDER MORGAN** *page 9*

By **GARY PARK**

For Petroleum News

TransCanada's hopes of adding TransUS to its title got shelved with the rejection of Keystone XL, followed by the company's own decision to withdraw a disputed application to route the pipeline through Nebraska.

Although a TransCanada spokesman said the company has reserved the right to reapply, possibly under a new U.S. administration, Paul Miller, the executive in charge of liquids pipelines, has also estimated 40 percent of the US$2.4 billion sunk into Keystone XL so far could be recovered by using a stockpile of pipe on other projects.

Whatever happens to that venture, the Calgary-based pipeline said it is committed to completing the second leg of its Keystone system to deliver heavy and light crude to Texas Gulf Coast refineries.

Its options include seeking a Presidential Permit for an alternative venture to ship oil sands crude across the Canada-U.S. border, or even mounting a legal challenge under the North American Free Trade Agreement.

Attention to smaller projects

But TransCanada has no intention of curling up in a corner to bemoan its fate.

Its attention has turned to smaller, less high profile projects, such as expansions to its existing natural gas networks, gas pipelines in Mexico, regional oil pipelines in Western Canada and power generation facilities.

TransCanada told investors it has C$35 billion in large-scale undertakings on the go and C$13 billion in small- to medium-sized developments that are scheduled to start service over the next three years.

That list includes a US$500 million natural gas pipeline in Mexico and a C$570 million expansion of gas pipelines in Western Canada by its Nova Gas Transmission subsidiary.

Chief Executive Officer Russ Girling left no doubt with investors that he is far from crushed.

"We're at the worst combined commodity cycle that I've seen in my career, yet our assets are performing exceedingly well," he said. "With our strong and growing cash flows as well as our industry-leading dividend coverage ratios, we're well positioned to grow that dividend" which TransCanada said in 2014 that it planned to at least double to an annual growth rate of 8-10 percent through 2017.

Hundreds of layoffs

That optimism is unlikely to find favor with the hundreds of TransCanada employees who have received layoff notices in the past five months — 189 from the major projects division in June; 20 percent of its leadership positions in September; 30 positions below the director level in October; and an unannounced number of jobs in November that are designed to "ensure the company stays competitive amid tough market conditions." Details of the latest round of cuts will not be disclosed until the process is completed.

On the growth front, TransCanada in October won the rights for its sixth pipeline in Mexico and plans to invest an additional C$3 billion in that country by 2017, said Robert Jones, president of Mexico operations.

"We see a number of short- and long-term opportunities," he said, referring to the Mexican government's plans to hold five pipeline auctions by the end of January.

With its latest contract, TransCanada has rights to develop and operate 1,400 miles of pipelines.

Those undertakings coincide with Mexico's overhaul of its energy industry that ended the state-run monopolies, which have opened the door to a 75 percent expansion of that country's pipeline infrastructure involving US$10 billion of investment on 24 projects.

What compounds the appeal of Mexico for TransCanada is the more straightforward approval process that the company faces in the U.S. and Canada and less push back once approvals are granted.

Project with less regulatory risk

John Kim, a Toronto-based fund manager, said he is looking for TransCanada to stabilize its cash flow through smaller projects that carry a lot less regulatory risk, especially when they involve expansions to or twinnings of existing lines.

Rebecca Hazan, a portfolio manager who holds TransCanada shares, said the company has the cash flow "right now to do these smaller projects. Then we'll wait and see what happens with the later ones."

The Nova expansion comes on top of C$7.5 billion of projects already announced for the subsidiary, of which C$2.8 billion worth has received regulatory approval.

Girling said the Nova system sits "on top of extensive natural gas supplies, making it well-positioned to unlock the resource and reliably and efficiently link it to growing markets."

TransCanada said transportation growth in northwestern Alberta and northeastern British Columbia is needed to meet signed contracts for 2.7 billion cubic feet per day of deliveries. ●

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TAX SYSTEM

needed to spud a well to Point Lonely, to the east of Smith Bay, for staging, in expectation of starting the first well in early February. According to the company's plan of operation, drilling of the second well is planned for March. The wells are located nearshore, in the southern part of Smith Bay. Sullivan has told Petroleum News that a primary focus of both wells will be the collection of rock samples for better clarifying the geology of the area.

Smith Bay is an extremely remote location, far from the nearest support infrastructure, but is thought to have high potential for a major oil find.

A busy year

Meanwhile, 2015 has been a very busy year for Caelus in Alaska, Sullivan said. The company operates the Oooguruk oil field, in the nearshore waters of the Beaufort Sea, off the central North Slope. Oooguruk has achieved its all-time oil production record of 25,000 barrels per day. And Caelus has sanctioned the Nuna project, involving the development of a new relatively shallow reservoir horizon at the field. The company has now acquired more than 400,000 exploration acres in leases across the North Slope and has shot more than 200 square miles of 3-D seismic. The last year has been the busiest in the past seven years, with the hiring of nearly 900 contractors for seismic and other work, Sullivan said.

Alaska production taxes involve a net profits tax system and Caelus has yet to see a profit from its investments in Oooguruk, Sullivan said. But the company has paid the state of Alaska more than $125 million in royalties and property taxes, he said.

"We've invested over $2 billion to date and we've produced around 23 million barrels of oil," he said. With about 100 million barrels of oil remaining in the field, Caelus anticipates an annual capital expenditure in the range of $200 million to $300 million, Sullivan said.

The Nuna development

Sullivan said that a royalty modification agreement with the state had enabled the Nuna project to move ahead. The Nuna reservoir has about 100 million barrels of oil in place. Caelus is hopeful to see first oil from the reservoir by October 2017. However, this is a very capital intensive project, with very tight reservoirs in Brookian turbidites, he commented.

"It will require us to put in some hydraulic fracturing, that will be some of the largest on the North Slope, in both the production and injection wells," Sullivan said.

This use of hydraulic fracturing in injection wells, a first on the Slope, will provide technology experience that could be used across the region, he said. But, with this challenging project being impacted both by global oil prices and current instability regarding state tax credits, Caelus is working hard to reduce the projected development costs, Sullivan said.

The company has also spent $24 million conducting a seismic survey program in its 350,000 acres of leases in the eastern North Slope, adjacent the Point Thomson and Badami fields. Flooding of the Dalton Highway during last winter rendered this project particularly challenging, Sullivan said.

"This type of activity is significant and it wouldn't happen without these tax credits, in particular the exploration tax credits," he said, adding that the Alaska Department of Natural Resources gains access to "reams of data," under the terms of the tax credit program.

A rebate, not a giveaway

Likening the state tax credit system to a store rebate, designed to attract customers, rather than a cash giveaway, Sullivan said that the credits are bringing economic benefits to Alaska in the form capital investments. The credits have to be earned, he said.

Caelus makes use of both types of credit currently available on the North Slope: loss carry forward credits and exploration credits. The exploration credits are due to sunset in mid-2016. Both types of credit form part of an integrated tax system — change the credits and you change the system, Sullivan said. And both types of credit involve exhaustive auditing by the Alaska Department of Revenue, in a process that takes 120 days after submittal of a tax return for the loss carry forward credit but that can take years to process for an exploration credit, he said.

With active exploration being critically important to future oil production, the exploration credits provide powerful incentives for the promotion of new oil development. And the loss carry forward credits are particularly important to small producers during the loss-inducing appraisal and development phases of an oil field project, Sullivan said.

"This particular credit works as a playing field leveler between the majors and the independents," he said.

Sullivan also cautioned that, more than ever, financial lenders and evaluators are becoming involved in Alaska's evolving oil industry.

"When our government sneezes about eliminating credits and making big changes to the taxes, that cold spreads all the way to Manhattan and beyond," he said.

Sullivan particularly cautioned about the very high dangers of making retroactive changes to the tax system. ●

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AURORA FOCUS

a 3-D seismic survey over the unit in 2012.

Aurora told the state that it is interested in purchasing this seismic package and expects to acquire a license sometime next year. The seismic could be used to plan future exploration and development drilling throughout the entire unit area. That said, the company is not planning to drill any exploration wells at the Nicolai Creek unit in 2016. ●

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KINDER MORGAN

Canada's new Liberal government could force Kinder Morgan back to the starting line, depending on what changes it makes to federal environmental reviews.

However, Natural Resources Minister Jim Carr has indicated that it's possible the Trans Mountain expansion and TransCanada's Atlantic-bound Energy East application will continue to move along their current paths.

—GARY PARK

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NATURAL GAS

Canada's sinking natural gas sector

By GARY PARK

For Petroleum News

Canada's natural gas sector is headed for its worst combined financial loss in six years, the Conference Board of Canada has predicted.

The precipitous fall in gas prices and the slump in byproducts such as propane and butane could result in layoffs next year as companies are forced to take cost-cutting measures, said board economist Carlos Murillo.

He expects gas producers will follow the lead of the upstream oil industry by reopening contracts with service providers, while rolling back other expenses, in a drive to regain profitability in 2016.

The board warns that domestic gas companies will post an aggregate pre-tax net loss of C$1.5 billion this year, making 2015 the least profitable year for the sector since a dramatic dive in gas prices in 2009.

And Murillo said the dependence of gas producers on natural gas liquids has taken a sharp setback, with the price of propane in negative territory for significant portions of 2015, with producers extracting so much unwanted propane that they need to pay midstream companies to take it away, rather than get paid for the commodity.

Murillo estimated that 30-40 percent of gas producers' revenues are being derived from NLGs.

Peyto Exploration & Development said in its third-quarter results that the price it received for NGLs had fallen sharply and was impacted "by negative propane prices in the quarter" which it expects to "persist for the remainder of the year and into 2016."

Role of NGLs changed

Murillo estimated that 30-40 percent of gas producers' revenues are being derived from NLGs.

The role of NGLs has changed over recent years because so many companies are working in shale gas formations, which yield a higher share of NGLs than conventional gas volumes, with many of the formations now referred to as "liquids-rich gas plays."

The board said the dismal cash flows will result in an investment pullback in the gas extraction industry as some of the largest gas producers — Encana, Enerplus and Tourmaline Oil — trim their capital budgets by an average 21 percent in 2016.

Canadian Natural Resources, Canada's largest gas producer, has issued a preliminary budget for next year of C$4.5 billion to C$5 billion, compared with this year's C$5.4 billion — with a large share of the spending allocated to oil and oil sands — and has left little doubt that it is prepared to reel in that program if the situation worsens. ●

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FINANCE & ECONOMY

Guesswork takes priority in latest IEA outlook

By GARY PARK

For Petroleum News

During more than 40 years of forecasting, the International Energy Agency has periodically caused head-scratching.

But seldom has the IEA baffled Canadian observers more than in its latest World Economic Outlook, projecting that Canada will increase its crude oil output by another 2.5 million barrels per day over the next 25 years.

The Paris-based independent organization, whose primary mandate is to ensure reliable, affordable and clean energy for its 29 member countries, including Canada and the United States, has a record of shot-in-the-dark forecasting which even it casually acknowledges.

With Canadian gas exports to the United States down by 20 percent as a result of growing U.S. self-sufficiency, the need for Canada to establish LNG export links to Asia has acquired an even more urgent dimension, the WEO said, without offering any specifics.

"It will be no surprise to find, in five or 25 years' time, that the outcome doesn't match (the latest WEO) figures," said IEA Executive Director Faith Birol, in the report forward.

"So why do we bother? I can answer this confidently: The reason that we look into the future is to trigger key policy changes in the present."

Having virtually undercut the basis of its own predictions, the IEA suggests that the world will continue using crude oil and natural gas for decades to come, regardless of how much progress is made in producing renewable energy that will challenge the fossil-fuel sector in attracting investment dollars.

The WEO predicts that Canada will be the third largest global source of new crude by raising its output to 6.8 million bpd by 2040. Although that is down 600,000 bpd from earlier WEO targets, it remains the third largest global source of production growth, trailing only Iraq's addition of 4.5 million bpd and Brazil's incremental gain of 3 million bpd.

Even so, the IEA warns that the province of Alberta, by far the largest source of any new volumes in Canada, will have difficulty accessing new global and domestic markets, adding to the constraints resulting from carbon taxes and a shortage of pipeline capacity that it says are likely to drive potential investors away from the oil sands.

In that context, the WEO fails to identify how Canada will find new markets to achieve a 37 percent rise in Canadian output by 2040.

On the LNG front, the WEO said new greenfield export terminals and pipelines will be challenged to proceed in the face of the current pricing and supply environment.

It said that means such projects are unlikely to reach "maturity until well into the 2020s" — a prediction that extends beyond the industry and British Columbia government belief that at least one major plant should come onstream by early next decade.

With Canadian gas exports to the United States down by 20 percent as a result of growing U.S. self-sufficiency, the need for Canada to establish LNG export links to Asia has acquired an even more urgent dimension, the WEO said, without offering any specifics.

Using the IEA's base-case scenario, the report said U.S. oil production should rise to 13.2 million bpd by 2020, up 1.4 million bpd from 2014, before slipping back to 11.7 million bpd within 15 years as tight oil output shrinks.

On the consumption side, the U.S. demand for oil is expected to contract by 4.2 percent over the next 25 years, with Europe declining by 4 percent and Japan by 1.8 percent, offset by fast growth in China, Japan and other emerging economies. ●

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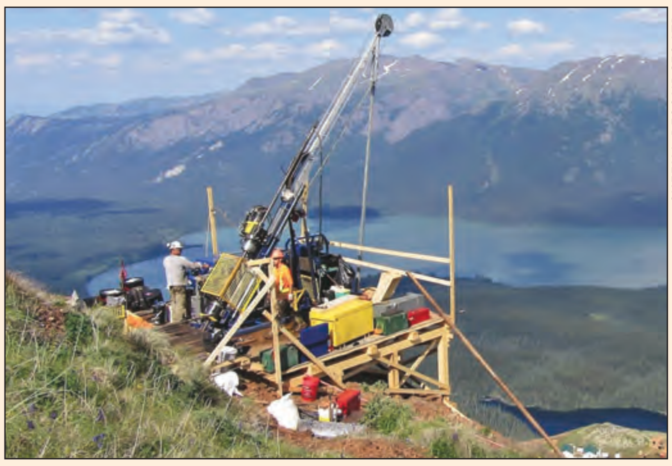
NORTH OF 60 MINING news

page 12 Van Nieuwenhuyse lends expertise to Graphite One's advisory board

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* Week of November 29, 2015

NORTHERN NEIGHBORS

Compiled by Shane Lasley



The 61 holes Skeena Resources Ltd. drilled this year along with roughly 100 holes previously drilled at Spectrum will be used to calculate an NI 43-101 resource for the high-grade gold property in the Golden Triangle region of northwestern British Columbia.

Skeena Resources reports final assay results from Spectrum gold project

Skeena Resources Ltd. Nov. 19 reported assay results for the final 18 holes (6,576 meters) of the 2015 program at its Spectrum gold project in northwestern British Columbia. Highlights from drilling at the Central Zone include: 18 meters of 6.13 grams per metric ton gold from a depth of 252 meters in hole S15-60; two meters of 8.27 g/t gold from a depth of 204.6 meters, and one meter of 23.1 g/t gold from a depth of 286.5 meters in hole S15-055; 18 meters of 2.69 g/t gold from a depth of 264 meters in hole S15-061; and two meters of 4.6 g/t gold from a depth of 336 meters, 2.6 meters of 10.18 g/t gold from a depth of 393.4 meters, and 0.9 meter of 8.04 g/t gold from a depth of 411.1 meters of hole S15-070. The Boundary zone, located 200 meters east of the Central zone, is outlined by very strong gold-in-soil values and strong bedrock grab and chip samples. Hole S15-065 cut two meters of 3.62 g/t gold from a depth of 28 meters, and 1.14 meters of 10.5 g/t gold from a depth of 126.86 meters. Only three holes have been drilled at Boundary. Two holes tested the 300 Colour zone, which is located 400 meters northwest and parallel to the Central zone. Hole S15-066 cut two meters of 4.64 g/t gold from a depth of 32 meters; and hole S15-068 cut 48 meters of 1.05 g/t gold from a depth of 50 meters. A total of 17,350 meters of drilling was completed in 61 holes at Spectrum during 2015. In addition, 2,992 soil and 387 prospecting rock samples were collected. The data derived from this work will inform a resource calculation and assist in picking drill targets for 2016.

End may be near for NA Tungsten mine

North American Tungsten Corporation Ltd. Nov. 19 reported that the Supreme Court of British Columbia has extended a stay of company's creditors' arrangement act proceedings until March 31, 2016. The court also expanded the powers of Alvarez & Marsal Canada Inc., the monitor appointed by the court to oversee and assist the company during the bankruptcy hearings. Due to liquidity issues, North American Tungsten filed for court protection in June and later sought court approval to market and sell its assets. The company also sought approval of an operating plan that involved transitioning the Cantung mine in eastern Yukon Territory to care and maintenance if no purchaser was found. Due to the lack of interested buyers, the mill was shut down on Oct. 26 and the mine has transitioned to care and maintenance. The Government of Canada will fund the environmental care and maintenance activities at Cantung mine, which will take place under the supervision of the monitor. The B.C. Supreme Court also authorized certain equipment financers to take possession of equipment not required for care and maintenance operations; and approved the sale of North

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COLUMN

Mining may be down

But Alaska remains one of the best places on earth to seek mineral deposits

By CURT FREEMAN

For Mining News

Earlier this month, the Alaska Miners Association held its annual convention in Anchorage amid plummeting metals prices and an over-all atmosphere of economic uncertainty now stretching into its fourth year. Individuals from around North America and beyond were present and conversations outside of the technical sessions seemed to gravitate toward how best to climb out of the doldrums that seem to grip the mining industry on a global scale. One individual was heard to say that he would hold hands and sing "Kum Ba Yah," if he thought it would help but he was quickly informed: "That effort had already been tried, to no avail."

At the same time, Alaska has seen 14 mineral properties change hands during the past year, with other transactions likely to add to this total before the end of the year or possibly early in 2016. These deals, cut at the bottom of the cycle, will only look better when commodities prices improve. But therein lies the real crux of the matter: When will things show real improvement? If a recent publication by SNL Metals & Mining is any gauge, not for some time. The publication, authored by Mark Fellows and entitled "How Does the Mining Sector Cycle Play Out?" compared the late 1990s mining industry crash to the current crash using metals price and capital expenditure indices. From 1997 to 2002, mining industry capital expenditures fell 42 percent. Capital expenditures for mine expansions continued to decline until the end of 2002, not recovering to 1997 levels until 2004, a full seven years out. When Mr. Fellows compared the 1997-2004 crash to our current crash, which started down in earnest in 2012, he found that for the current crash, annual total sustaining and expansion capital expenditures will have declined by 30 percent by the end of 2015. Perhaps more bothersome, metal prices have fallen 12 percent more than they did during the 1997-2004 cycle and that down trend does not look like it has any intention of stopping in the near term. Mr. Fellows speculated that the overall market crash may have two more years to run its course before we see the slow rise in markets that usually signals an end to the bearishness. So where does that leave Alaska now that we know "Kum Ba Yah" is off the table? Well, let's take stock: Alaska is undisputed elephant country for a wide array of mineral deposit types and commodities. Alaska is embarrassingly underexplored so you are more likely to find an untended elephant. Alaska has a stable, pro-development government that manages about 100 million acres of land open to mineral entry. The Alaska Native Claims Settlement Act was signed into law over 40 years ago, allowing indigenous land owners and the mineral industry to develop an enviable working relationship. Compared to most places, Alaska is in deep clover. But we need to beat that drum loud and long, that we are one of the last, best places on earth to explore and mine.

The author

CURT FREEMAN

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Interior Alaska

KINROSS GOLD CORP. posted record third-quarter 2015 production results from its Fort Knox mine near Fairbanks. For the quarter the mine produced 115,258 ounces of gold versus 104,815 oz. produced in the 3rd quarter of 2014. Cash costs were $556 per ounce versus $803 per oz. in the previous third quarter. Production increased compared with the same period last year primarily due to higher mill grades, and was fairly consistent with the previous quarter. Cost of sales per ounce decreased by $247 per gold-equivalent ounce, or 31 percent, compared with the same period a year ago, and reached its lowest level in two years, mainly as a result of lower power costs and higher production.

NORTHERN EMPIRE RESOURCES CORP. reported results from exploration conducted at the Democrat Zone of its Richardson project in the Richardson District. The program included review of all available historic data, prospecting, and the collection of 256 soil samples and 25 rock samples. Exploration focused on soil sample lines north of the Democrat Pit, portions of the adjacent intrusive body known as the Wide Zone, and at Tenderfoot Creek. Significant results include rock grab samples from outcrop in the Democrat Pit zone that returned 71.2 grams per metric ton gold and 48.6 g/t silver; 4.6 g/t gold and 111 g/t silver; 2.0 g/t gold and 233 g/t silver, 5.88 g/t gold and 6.09 g/t silver and 1.78 g/t gold and 67.3 g/t silver. Soil samples collected on two east-west soil lines to the north, 800 meters and 400 meters respectively, of Democrat Pit both returned anomalous gold-in-soils values. Soils collected here are also statistically high in silver. Soils collected along two east-west reconnaissance lines in the Wide Zone returned anomalous gold and copper values. Soils samples from 400 meters to the north of the brecciated quartz feldspar porphyry in the Democrat Pit highlighted the potential for a gold-bearing structural corridor extending at least 800 meters to the north from the northern margin of the Democrat Pit, where a 70,000-short-ton bulk sampling program in 1988 recovered 2,000 oz. of gold. Rock grab samples from an outcropping brecciated quartz feldspar porphyry from within the exposed Democrat Pit zone returned 71.2 g/t gold and 48.6 g/t silver and 2.0 g/t gold

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NEWS NUGGETS

Compiled by Shane Lasley

GRAPHITE ONE RESOURCES INC.

Graphite One Resources Inc. is investigating the viability of producing spherical graphite for use in lithium-ion batteries from the massive graphite tapped in drilling at its Graphite Creek project in western Alaska.

Graphite One focuses on spherical graphite

Graphite One Resources Inc. Nov. 23 said a C$2 million financing completed earlier this month will provide funds needed to advance its corporate objectives during 2016, including the anticipated completion of a preliminary economic assessment for the Graphite Creek project in western Alaska. "Our large-scale U.S. domestic project has captured the attention of various industry corporations as the market for battery materials, specifically graphite and lithium, has taken center stage in the alternative energy space," said Graphite One CEO Anthony Huston. Metallurgical work done by Tru Group Inc. – a technology metals consultant with expertise along the entire graphite-graphene supply chain – indicates that the graphite found at Graphite Creek may be uniquely qualified to fill many of the high-technology and green energy applications that are expected to drive the need for a U. S. source of graphite. In a report published in early April, TRU described these distinguishing as spheroidal, thin, aggregate and expanded – or STAX. "In the case of spherical graphite in particular, TRU confirmed that naturally occurring graphite in the shape of spheres – close to the size ranges of interest for lithium ion battery-grade graphite – was seen in all (Graphite Creek) drill-hole concentrate samples," explained Huston. Spherical graphite is used mainly in lithium ion batteries, the main demand driver being electrical and hybrid vehicles. According to data compiled and analyzed by Benchmark Mineral Intelligence, a London-based firm specializing in critical minerals and metals needed in the battery and high-technology sectors – the anode graphite market (natural and synthetic) is projected to grow from the current 80,000 short tons annually to at least 250,000 short tons per year by 2020. Graphite One has tasked TRU Group to produce trial spherical graphite lab-scale samples for internal assessment of electrochemical performance and for potential end-user evaluation. TRU expects to produce the spherical graphite from Graphite Creek material and complete the PEA during the first half of 2016. Additionally, Graphite One has appointed NovaCopper Inc. President and CEO Rick Van Nieuwenhuyse to its advisory board. Van Nieuwenhuyse has managed projects from grassroots discovery through to advanced feasibility studies, production and closure during his more than 30-year career. "Rick brings a wealth of knowledge in the natural resource sector, as well as years of working experience in Alaska," said Huston. ●

RICK VAN NIEUWENHUYSE

Petroleum news

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FREEMAN

and 233 g/t silver. Exploration targeting in 2016 will be based upon the 2015 results, supported by a compilation and review of historic results which includes data from a bulk sample and drilling at Democrat Pit, more than 2,000 soil, rock and stream samples collected in the Richardson gold district and trenching.

FREEGOLD VENTURES LTD. announced the results of its 2015 drilling program on its Shorty Creek copper-gold project south of Livengood. The 2015 drill program was designed to test a combination of geochemistry, geophysics (airborne and induced polarization surveys) as well as favorable geology based on the results of the 2014 program and previous work. Of particular interest are the large magnetic highs with coincident copper, gold and molybdenum soil chemistry. Drilling commenced in the area of the previous Asarco RC drilling and the presence of quartz feldspar porphyry was noted in holes SC-15-01, SC 15-02, and SC 15-03. Results suggest holes SC 15-01 and SC 15-02 were drilled in the pyritic halo. Hole SC 15-04 collared in high-gold chemistry was abandoned twice due to difficult ground conditions; however the presence of significant argillic and sericitic alteration was noted. Hole SC15-03 was collared within a distinct magnetic high at Hill 1835 which covers roughly a 750- by 1,000-meter area, and is located some 250 meters to the southwest of any previous drilling. This hole returned 91.4 meters grading 0.14 g/t gold, 7.02 g/t silver and 0.55 percent copper. A similar but undrilled magnetic and geochemical signature at target Hill 1710, which lies 2,500 meters northwest of Hill 1835. The geochemical anomaly there is 2,000 meters long and remains open along strike. It directly correlates with the magnetic anomaly, which is in excess of 6,000 meters in length and up to 1,500 meters in width.

ENDURANCE GOLD CORP. announced the final result from its summer 2015 exploration program on its 4,960-acre Elephant Mountain gold project near Manley Hot Springs. Exploration has confirmed an intrusive-hosted target area of at least 1,800 meters by 600 meters in size encompassing two soil and rock gold anomalies (the North and South zone targets) and an untested induced polarization chargeability anomaly at the Central Zone is located between the two soil anomalies. The 2015 program, focused on the South Zone Target, has expanded this soil anomaly to in excess 1,000 meters by about 250 meters in size, with values of greater than 100 parts per billion gold. The soil anomaly remains open for expansion. This soil anomaly is associated with grab samples of quartz vein material that assay up to 411.4 g/t gold.

CONTANGO ORE INC. announced additional results from it Tetlin project, a joint venture with a wholly owned subsidiary of **ROYAL GOLD INC.** The total amount spent during the 2015 exploration effort in 2015 is roughly US$7 million, which is under budget as a result of more efficient operations. The company released additional drill results from its recently completed phase 2 program. Significant results include hole 15167, which returned 7.76 meters grading 12.414 g/t gold, hole 15171, which returned 16.8 meters grading 17.939 g/t gold and 5.64 meters grading 3.76 g/t gold, hole 15174 which returned 5.54 meters grading 22.077 g/t gold and 11.28 meters grading 3.429 g/t gold and hole 15177 which returned 23.04 meters grading 19.859 g/t gold. Additional assays remain outstanding for 13 holes completed in phase 2. The company indicated that the size of the previously discovered Peak deposit will expand to the west. In addition, a separate zone of mineralization was discovered to the north of the Peak deposit. Both of these new areas will require more drilling and analysis to define potential resource size. Peak Gold refers to the areas with significant intercepts as North Peak and West Peak, as they are adjacent to the original Peak Zone. The 2015 drilling programs, consisting of 14,059 meters of core drilling in 61 holes, confirmed the presence of gold mineralization in previously untested zones up to 3.5 kilometers (2.2 miles) away from the Peak deposit.

Alaska Range

COVENTRY RESOURCES INC. reported additional diamond core drilling results from its Caribou Dome copper project in the Valdez Creek District. Multiple intervals of high-grade copper mineralization were intercepted in hole CD15-26, including 2.2 meters grading 7.8 percent copper from 112.8 meters, 1.8 meters grading 8.9 percent copper from 118.6 meters, 1.4 meters grading 1.8 percent copper from 138.7 meters, 1.1 meters grading 5.7 percent copper from 143.8 meters and 1.4 meters grading 1.4 percent copper from 202.8 meters. These intersections indicate that high-grade mineralization at Lenses 3 and 4 may be connected through the intervening 200-meter-long corridor. CD15-28 was drilled at the western end of the 500-meter-long Caribou South Target – a strong induced polarization anomaly that runs parallel to, and is immediately south of, the mineralization (and a coincident IP anomaly) at lenses 2, 5 and 6. Mineralization in hole CD15-28 revealed that a series of sedimentary rocks are interbedded with volcanic rocks in the tested area, a similar setting where high-grade copper mineralization occurs elsewhere on the project. The company also announced that results from a 600-plus sample soil sampling program revealed anomalous copper over a 2,000-meter distance, only 700 meters

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of which have been tested by drilling. Multiple undrilled copper anomalies have been identified within the 1,300-meter undrilled portion of the soil anomaly. This portion of the anomaly lies along strike of known copper mineralization and rock chip samples collected within the north-eastern extension of this soil anomaly, known as the Menel Trend, have returned assays up to 9.1 percent copper with coincident IP chargeability anomalies. The new soil sampling data also highlight very strong copper-in-soil results directly over the strong, undrilled Guardian IP geophysical target. Rock chip samples from this undrilled area have returned assays up to 16.5 percent copper.

MILLROCK RESOURCES INC. announced results from drilling at the Dry Creek prospect, Alaska Peninsula copper project, Alaska. Drilling was carried out in summer 2015 with funding from **FIRST QUANTUM MINERALS LTD.** Two holes were drilled on the Dry Creek prospect. Both holes tested a previously undrilled induced polarization chargeability anomaly thought to be associated with a mineralized intrusive body at depth. Hole BC15-10 encountered trace to weak chalcopyrite and more abundant molybdenite associated with porphyry-style veining and alteration hosted in upper Jurassic-aged sedimentary rocks. A 98.4-meter intercept of quartz-sericite-pyrite altered hornfelsed sediments averaged 0.19 percent copper, 88 parts per million molybdenum, and 42 parts per billion gold. Hole BC15-11, collared about 350 meters south of BC15-10, encountered similar but weaker vein-hosted copper-molybdenum mineralization and porphyry-style alteration.

Southeast Alaska

HECLA MINING CO. announced additional third quarter 2015 production results for its Greens Creek mine on Admiralty Island. The mine silver and gold production increased by 5.3 percent and 6.3 percent, respectively, over the year-previous period. The average grade of ore mined during the quarter was 12.68 oz. per short ton silver compared with 13.04 oz./t silver for the third quarter of 2014. Average by-product grades were 0.10 oz./t gold, 3.25 percent lead and 8.91 percent zinc. During the third quarter the mine produced 1,992,037 oz. silver, 14,376 oz. gold, 5,394 short tons of lead and 16,024 short tons of zinc. The cash cost per silver-ounce of US$4.82 increased from US$3.75 in the third quarter 2014. The higher silver and gold production resulted from higher recoveries and increased tonnage, partially offset by lower grades. Silver recoveries increased to 76.5 percent, up from 71.0 percent in the prior-year period as a result of a change implemented in late 2014 to the flotation circuit to more efficiently scalp additional lead concentrate directly to final concentrate, and by introducing carbon dioxide for pH control in the lead flotation circuit. The increased recoveries positively impacted the operation's revenues by US$1.8 million in the third quarter. Recoveries for the other three metals also increased period over period. The mill operated at an average of 2,233 short tons per day in the third quarter. The per-ounce cost was affected by lower by-product credits and slightly lower operating costs. Power costs were similar to the 2014 period due to higher precipitation levels in southeast Alaska in both cases resulting in availability of less expensive hydroelectric power, a condition that is expected to last through the fourth quarter. The mine is estimating 2015 production at 7.7 million to 8.0 million oz. of silver and 59,000 oz. of gold at cash costs of US$3.75/oz. silver. On the exploration front, definition drilling made progress in refining the resources of the lower NWW, Deep 200 South, Upper Southwest, and West Wall zones. Exploration drilling of the 9A Zone expanded the resource along the projected trend and mineralization has been intersected on the margins of Southwest Bench and East Ore zones. Recent drilling of the lower NWW Zone has generally confirmed and upgraded the resource model of the shared and upper limbs and assay results include 71.6 oz./t silver, 0.16 oz./t gold per ton, 8.2 percent zinc, and 4.6 percent lead over 5.4 feet and 36.2 oz./t silver, 1.0 oz./t gold per ton, 5.6 percent zinc, and 2.6 percent lead over 12.2 feet. Drilling has defined additional West Wall mineralization up to 240 feet down-dip from the current resource model. More base metal-rich intersections of the West Wall include 5.8 oz./t silver, 0.07 oz./t gold, 27.9 percent zinc, and 7.7 percent lead over 9.4 feet. Drilling of the Upper Southwest Zone has defined good continuity of multiple, flat-lying mineralized zones toward the northern end of Upper Southwest mineralization. Recent assay results include 25.4 oz./t silver, 0.11 oz./t gold, 8.8 percent zinc, and 4.5 percent lead over 18.2 feet and 24.0 oz./t silver, 0.12 oz./t gold, 13.2 percent zinc, and 7.4 percent lead over 13.5 feet. Intersections of Deep 200 South include 35.5 oz./t silver per ton, 0.09 oz./t gold, 1.2 percent zinc, and 0.7 percent lead over 16.1 feet and 34.5 oz./t silver, 0.05 oz./t gold, 1.0 percent zinc and 0.4 percent lead over 9.8 feet along the upper limb. The mineralization remains open to the south, and exploration drilling recently identified mineralization above and to the east of the bench mineralization. ●

> *"Well, let's take stock: Alaska is undisputed elephant country for a wide array of mineral deposit types and commodities."*
> ***—Curt Freeman, columnist***

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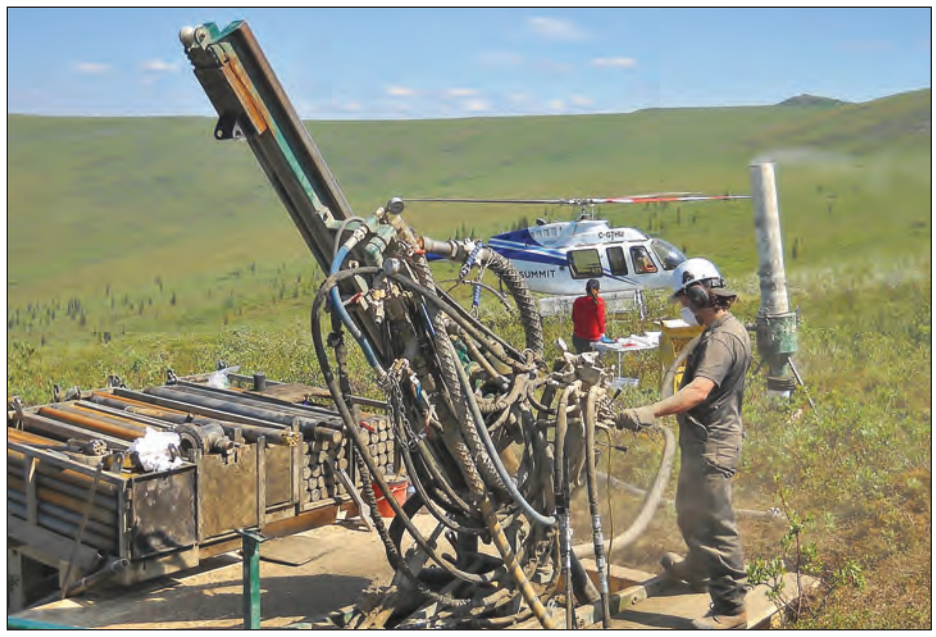
NORTHERN NEIGHBORS

American Tungsten property located in the Selwyn mountain range in an area straddling the territorial border between Yukon and the Northwest Territories to the Government of the Northwest Territories. Kurt Heikkila, Dennis Lindahl and Ronald Erickson have resigned from North American Tungsten's board of directors. Heikkila also has resigned as chief executive officer, and Dennis Lindahl has resigned as chief financial officer.


INDEPENDENCE GOLD CORP.

Independence Gold Corp. focused its 2015 drilling on the Sunset and Denali zones of its Boulevard gold project, which wraps the west and south sides of Kaminak Gold Corp.'s Coffee project in the Yukon Territory.

Banks Island, Homestake eye golden synergies

Homestake Resource Corp. and Banks Island Gold Ltd. Nov. 19 reported the signing of a letter of intent in which Banks Island has the option to earn 50 percent of the Homestake Ridge gold property in northwestern British Columbia by investing C$16.5 million in work and option payments over a three-year period. Exploration at Homestake Ridge has outlined 6.77 million metric tons of inferred resources averaging 4.2 grams per metric ton (911,000 ounces) gold and 93.6 g/t (20.37 million oz.) silver, and 604,000 metric tons of indicated resources averaging 6.4 g/t (124,000 oz.) gold and 48.3 g/t (939,000 oz.) silver. Banks Island will be operator during the earn-in period. In order to exercise the option, Banks Island also is required to deliver a preliminary economic assessment by Sept. 30, 2018 or within 30 days of completion of earn-in expenditures. Banks Island Gold is a gold producer with a mine on care and maintenance at its Yellow Giant Gold property about 320 kilometers (200 miles) south of Homestake Ridge. Banks Island President and CEO Benjamin Mossman said, "The Homestake Ridge property presents a unique opportunity to bring a significant deposit into production through the use of our existing process facilities, equipment, and staff at the Yellow Giant mine, which is currently on care and maintenance." As part of its overall strategy Banks Island plans to resume production at the Yellow Giant Mine to establish cash flow from to fund work commitments at Homestake Ridge.

Drilling clarifies zones at Yellowknife Gold

TerraX Minerals Inc. Nov. 18 provided results from an initial six holes (953 meters) testing near-surface replacement style mineralization in the Hebert-Brent Shear area of its Yellowknife City Gold Project, Northwest Territories. Highlights include: 10.36 meters of 3.61 grams per metric ton gold from a depth of 6.14 meter in hole TNB15-024; and 6.7 meters of 2.7 g/t gold from a depth of 11.5 meters in hole TNB15-025. Drilling of the Hebert-Brent Shear followed up on channel sampling at surface that included 11 meters of 7.55 g/t gold at the original Hebert-Brent zone; 17.86 meters of 2.21 g/t gold at the Hebert-Brent East zone; six meters of 10.26 g/t gold at the Hebert-Brent South zone; and four meters of 13.89 g/t gold at the Brent zone. Surface work indicated steeply dipping, northeasterly plunging zones of mineralization. The drill results and surface mapping, however, reveal that the mineralization plunges shallowly to the south. This new interpretation also shows that the mineralization in the H-B, Brent, and H-B East is the same zone of mineralization. Holes TNB15-024 and TNB15-025 at the H-B zone and TNB15-028 at the H-B East successfully intersected the targeted mineralization, albeit at different down-hole distances than anticipated. Holes TNB15-026 and 027 failed to intersect the zone as they were well below the actual plunge direction. TerraX said the shallow plunge directions on the zones make it ideal for follow-up drilling with short holes, which will be undertaken during a winter program in early 2016. Assay results for 42 holes drilled at Crestaurum this summer are pending.

Boulevard prospects continue to show promise

Independence Gold Corp. Nov. 18 reported results from an eight-hole (1,093 meters) reverse circulation drill program at the Sunrise zone of its Boulevard gold project located about 135 kilometers (85 miles) south of Dawson City, Yukon. The best intercepts were 3.05 meters of 15 g/t gold from a depth of 24.4 meters in hole BV15-40; and 22.9 meters of 0.94 g/t gold from a depth of 45.7 meters in hole BV15-35. The fall 2015 RC drill program was designed to extend gold mineralization at the Sunrise zone, a 2,200-meter-long gold-in-soil anomaly located nine kilometers (5.6 miles) southwest of Kaminak Gold Corp.'s Coffee deposit. BV15-31, the discovery hole at Sunrise, cut 7.23 g/t gold across 12.2 meters during the summer 2015 drill program. The fall program tested one of several northeast-trending multi-element soil geochemical anomalies coincident with magnetic low features. Independence Gold said further drilling is required to better understand the character and orientation of multiple mineralized structures identified at Sunrise. The company said the Denali zone, located 13 kilometers (eight miles) northwest of Sunrise, is a high-priority drill target. One hole drilled at Denali during the summer 2015 program cut 4.25 g/t gold over 6.1 meters. ●

● GOVERNMENT

Alberta targets increased carbon tax

Notley rolls out strategy to put province in forefront of 'progressive, forward-looking energy producers'; industry endorsement

By GARY PARK

For Petroleum News

It was a scene that would have been unthinkable six months ago before Albertans elected a socialist New Democratic Party that was seen as an enemy of the petroleum industry by pledging aggressive measures to combat climate change.

But the unthinkable happened in Edmonton on Nov. 22 when Premier Rachel Notley unveiled a strategy that is underpinned by an economy-wide carbon tax and a cap on greenhouse gas emissions from the oil sands.

As she delivered the plan from a podium, Notley was backed symbolically and actually on the stage by the most powerful leaders of Canada's crude producers — Murray Edwards of Canadian Natural Resources, Steve Williams of Suncor Energy, Lorraine Mitchelmore of Shell Canada and Brian Ferguson of Cenovus Energy — all of them key players in the oil sands sector.

To nods of assent from his peers, Edwards said the plan showed "we will do our part to address climate change," while Williams said the plan will "make one of the world's largest oil-producing regions a leader in addressing the climate change challenge.

"This is a sensible, reasonable balance," he said, in a complete about-face from years of industry warnings that new taxes could cripple the industry. "It's literally a game changer ... it will create a wealth of opportunities and jobs for future generations."

Not a passive role

The sub-text is that Alberta will no longer take a passive role while others, notably President Barack Obama, tar the oil sands as the "dirtiest" source of crude on the planet, ignoring what the industry has already accomplished over more than 20 years in lowering per-barrel carbon emissions.

Notley said Alberta got a "wake-up call" earlier in November "in the form of a kick in the teeth" when Obama rejected the Keystone XL pipeline, declaring that the United States would not be a party to importing "dirtier" oil.

She said her government is "turning the page on the mistaken policies of the past. Our goal is to become one of the world's most progressive and forward-looking energy producers."

The strategy includes a tax of 4.7 cents per liter of gasoline and a rise in average home-heating costs of C$320 per year by 2017 and C$470 by 2018.

Those carbon penalties are projected to raise C$3 billion a year, which Alberta will reinvest in renewable energy sectors and provide some consumer rebates to offset the increases.

Multiple steps

Other steps include:

•A phasing out of coal-fired power plants by 2030, replacing them with renewable energy — primarily wind power — and natural gas, with renewable sources accounting for 30 percent of Alberta's electricity production within 15 years.

•An increase in the current carbon tax of C$15 per metric ton for major industrial emitters to C$20 across the economy by January 2017 and C$30 by January 2018. At C$30, the levy will add an estimated C$2.25 per barrel to costs for oil sands producers.

RACHEL NOTLEY

•An overall oil sands emissions limit of 100 million metric tons, up from the current 70 million metric tons, with provisions for new upgrading and co-generation plants. The cap is in line with National Energy Board forecasts.

•A methane reduction strategy to lower emissions by 45 percent from 2014 levels by 2025.

Provincial, territorial premiers

The strategy was presented Nov. 23 to a meeting of Canada's 10 provincial and three territorial premiers in advance of the Nov. 30 start of the United Nations climate change summit in Paris.

Tim McMillan, president of the Canadian Association of Petroleum Producers, said the strategy will allow the oil and natural gas industry to grow, further enhance its environmental performance through technological innovation, and improve Canada's ability to reach more markets beyond North America.

But he cautioned the Alberta government to move carefully as it puts the strategy into practice by recognizing that "our sector can only become a global supplier of responsible produced oil and natural gas if we are competitive on the world stage."

Mike Hudema, a spokesman for Greenpeace, praised Notley's "historic step," while insisting that "much bigger emission reductions will be needed for Alberta to do its part to keep (the increase in global temperatures) below 2 degrees Celsius."

Imperial a no show

The only significant no show among the companies was Imperial Oil, 69.6 percent owned by ExxonMobil.

Its most important holdings in Alberta are the huge heavy oil complex at Cold Lake and its recently started Kearl oil sands mine, plus a 25 percent stake in the Syncrude consortium.

A company spokesman told the Canadian Press news agency that the company needs time to determine how the policy will affect its existing operations and possible future projects.

He said Imperial believes any greenhouse gas policy should protest the competitiveness of Alberta's oil and gas industry. ●

Contact Gary Park through publisher@petroleumnews.com

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COGHILL Q&A

a little more intense. The good news — we sighed a sigh of relief that we weren't going to have to do it. The bad news is we set in motion many schedules, called many people and had them lined up, had done a lot of legal research.

So it would have been nice if we had known two or three weeks ahead because we could have then focused our efforts just on what he was asking at this point, which might have been easy to answer. To be fair, pulling it at the last moment left the question is there any surprises?

So you're kind of braced for, is there another surprise coming, which ups the level of distrust. So when you heard the questioning, who is in charge? What's going on here? I don't know that was ever really satisfactorily answered but we began to kind of get the picture of who was in charge of what piece and the governor was in charge but how. I don't think that part was answered.

Petroleum News: You folks approved, 16-3; House, 39-0. On the surface, it looks like overwhelming backing of the governor.

Coghill: On this question probably, yes. Because what we did was when he first came to us he said, give me all this money, we've got this decision. Take TransCanada out of it. I want the vote. We said, OK here's the deal if the (Dec. 4) goes south, the money comes back to us.

We put the next decision point right in front of him, the Dec. 4 work plan and budget. We said we don't know how you're going to handle it but this is how we think it should be handled. If you're going to say no to the project then we want the money back because now we have to rethink the whole thing. If the state says no, then what's the next plan if you say you want a gas line?

So it created suspicions that there was something else out there, though it doesn't look like there was. But the suspicions were huge when we first went into it because he was asking for all the effort without any commitments to the project. Even though it came out as a final agreement, what we said was, "we will go to the next decision point with you then we want to know after that what to do."

He laid out a few things that were comforting to us. We finally got the role of DNR a little more solidified. We finally got the role of AGDC a little more solidified. We didn't get a lot of comfort from the Department of Revenue just yet. And then the Department of Law is probably the next big question. I think some of the no votes were the confidence level in did they need that much money for just the next month. That's a legitimate question. We didn't want to tie his hands to say he couldn't go get the kind of consultant work he needed to get to the next decision point.

So it really was a confidence that says, "OK we are going to December with you. Once we know what that looks like then we can go on to other things."

Petroleum News: You mentioned capital investment in Alaska. When you consider the projects around the globe being shelved, or just flat out shuttered, does it give you confidence that the three partners are still moving forward?

Coghill: absolutely. The fact that there is investments on the AKLNG side, that they think there is enough market to continue with significant investment and probably what some people keep characterizing as A-teams. In other words, they are putting real careers into this. Some of the best careers are being coalesced around this project.

Gas is probably one prize, but that's an oil field up there, too. If you get two pipelines coming off that field, then you have both oil and gas that can be proved upon and brought up. At this point the oil line has probably several small fields you can get oil and gas off of, but if you can't do anything with that gas and have to recycle it, then the cost benefit goes away. So we are hoping that it creates a bigger exploration field because you can sell all the products that you get.

For Alaska we want our small portion. The more we understand natural gas pipelines, the more we understand Alaska is a very small consumer. But we still want it. We don't want to let the energy go out of Alaska with no benefit to energizing Alaska.

So having it come back in the form of cash so we can build schools and have public safety is one thing. But having it light our small communities with heat and transportation is another benefit that we want. So yeah, I'm greatly encouraged that the majors see that as a real project and we should reciprocate.

Petroleum News: Do you believe that the Legislature has really advanced this project by passing SB 3001?

Coghill: We moved it to the next question, which is can we go into the final stages of the front end engineering and design stage. Once that decision is made, we are talking about some pretty big change, some big dollars. I think at that point we are going to find out how committed the majors are and whether the state is capable because at that point you are staring at the real honest to goodness cash outlays.

As has been said, for every one dollar we put in someone else is putting in three dollars. We still should have our dollar ready but the confidence level should go up at that point. Then the people of Alaska are going to be asked, can we do a long-term contract with them, what is our work plan. Then from here to the final investment decision is a lot more intense.

So what we did was we moved it to the next decision in saying can we look down that road. That looks for 2016 to be those decision points, probably still with way too many questions. Are we going to get gas? No — not yet. Are we going to get to looking at a project? Yes. Is it still 50-50, probably. We know we have gas. We know there is a market out there. What we don't know is can we create a mechanism that allows us to move that gas to market and still make money and serve customers at a good price. We don't know that yet. We all said to the governor yeah, we want to take a good hard look at this, and we gave him the wherewithal to do that.

Petroleum News: What would your priority be for the first four months of next year, which pretty much covers session?

Coghill: Let's call it the next 20 weeks because then it shows you it's really not that long of a time. When you take 20 weeks, we have to cut our budget, and reorganize government to do that. We are at the level now where you don't just say, you don't get the money. Now we have to say we have to change the way we are doing it. That has to happen in a 12-week session.

So we have to then look at other financing mechanisms, and earnings from the Permanent Fund are probably the first target. We are already in a recession type economy already.

Take the tax credits for our oil and gas industry. You've got tax credits for Cook Inlet; you've got tax credits for the North Slope; and you've got tax credits for an area called Middle Earth. We did that because at one point the tax credits were trying to help an underutilized field in Cook Inlet. They said they were going to import gas because nobody would explore.

Well, the way things changed through the credits, we found that we do have gas down there. We do have a tax group that is talking about those kinds of credits. They should be coming back with recommendations saying these are working, these don't work anymore and these need modifying because these are too generous.

On the North Slope, same question. For example, we know we have this floor, but we could owe more because of the loss carry forward. That is going to have to be a real honest question: can we afford to pay somebody to produce oil under these very, very low price conditions? Would the companies expect us to pay for that? Does our law reflect really what we call a decent management style? That's tougher yet.

Then I've got the Nenana basin and

see **COGHILL Q&A** *page 18*

● NATURAL GAS

Aboriginal plans for British Columbia LNG

Tsawwassen First Nation looks at building terminal capable of handling up to six tankers a month; no costs or gas feedstock source

By GARY PARK

For Petroleum News

British Columbia aboriginals have their sights fixed on another entry point into the LNG industry.

The Tsawwassen First Nation, a community of 286 south of Vancouver, is exploring the prospect of building a terminal capable of loading up to six tankers a month and exporting 3 million to 5 million metric tons a year of LNG.

It is counting on up to 1,000 jobs during construction and 50 to 100 permanent workers to operate the facility.

Beyond aiming for a startup in 2022, the Tsawwassen have given no estimates of capital costs, where the gas feedstock would be sourced and what markets it has in mind.

However, it has indicated some of the LNG could be used to fuel vehicles accessing the port and as a gas distribution facility for Tsawwassen members.

The First Nation said gas would be delivered to the liquefaction plant through a six-mile extension of an existing pipeline.

In 2009, the Tsawwassen ratified the first urban First Nation Treaty in Canada, obtaining self-government jurisdiction and landownership on a renewed lease land base.

The announcement coincides with the start of construction on an expanded Tilbury LNG facility 11 miles away by FortisBC. ...

The First Nation pledged to uphold the strictest environmental practices from the extraction of natural gas to the lading of LNG on to tankers.

Tilbury construction

The announcement coincides with the start of construction on an expanded Tilbury LNG facility 11 miles away by FortisBC, which has committed more than C$50 million of the C$400 million project to local contractors, generating more than 65,000 hours of employment and offering apprenticeship training to First Nations.

A year ago, the Malahat First Nation on Vancouver Island endorsed plans by Steelhead LNG to build a 75-mile pipeline from Washington state, 45 miles running under Puget Sound to a floating LNG facility.

Steelhead has retained Williams Cos. to seek approval from the U.S. Federal Energy Regulatory Commission and Canada's National Energy Board for the pipeline.

Steelhead Chief Executive Officer Nigel Kuzemko said his company is striving to strengthen ties with First Nations along the pipeline route, giving them a chance to "share in the economic benefits of the Canadian portion of the project."

The company plans to send fuel supplies from the plant to a separate project planned for Vancouver Island by the Huu-ay-aht First Nations.

The other major First Nation player in LNG is the Haisla community, which hopes to use land earmarked for the stalled Enbridge Northern Gateway crude bitumen export scheme to build an LNG terminal, using its rights and title to the property.

The Haisla hope to acquire up to five floating LNG terminals near Kitimat.

Enbridge said it is open to holding discussions with the Haisla on LNG projects related to its proposed marine terminal, but nothing more has been heard about the venture. ●

Contact Gary Park through publisher@petroleumnews.com

● PIPELINES & DOWNSTREAM

Pursuing an exit for oil sands crude

Three plans look for ways to bypass barriers to export from British Columbia; Kitimat Clean owner 'never thought' he'd explore rail

By GARY PARK

For Petroleum News

Believers and backers of proposals to refine oil sands bitumen on the British Columbia coast and in Alberta to overcome a barrier to selling the crude in the Asia-Pacific region have yet to abandon their dreams.

There are three plans in the works — Kitimat Clean, which is proposing a 550,000 barrels per day facility; Pacific Future Energy, which has a first-phase refinery project of 200,000 bpd; and Eagle Spirit Energy, which hopes to convert 1 million bpd of oil sands bitumen for shipment to the coast.

If they can deliver refined or upgraded crude to the tanker ports, along with offering equity stakes to First Nations, the proponents are confident they have a chance to get around Canadian government plans to ban tanker movements of heavy crude and raw bitumen in British Columbia's northern waters.

Kitimat Clean

David Black, the owner of Kitimat Clean as well as his Black Press Group, is adamant that his plan for a C$22 billion refinery makes even more sense now that Enbridge's Northern Gateway and TransCanada's Keystone XL have effectively been sidelined.

"You're going to have to focus on what it takes to get a West Coast exit for your oil," which is "far more lucrative" than building pipelines to U.S. Gulf Coast refineries or to a tanker port in Atlantic Canada, he told the Financial Post.

The toughest selling job Black currently faces is negotiating contracts with major oil sands producers, without which he will be unable to obtaining project financing.

Although Black has yet to meet with cabinet ministers in the new Canadian government, he is certain a moratorium on crude oil tanker traffic in the challenging waters off northern British Columbia would not extend to refined fuels.

In addition, he said Kitimat Clean is reconfiguring its proposal to eliminate pipeline shipments of oil sands bitumen to the refinery, to "go where I never thought I would" by starting talks with Canadian National Railway, which has lines connecting the oil sands region with the deepwater port at Kitimat.

The strangest twist involves First Nations' communities, many of whom were responsible for prolonging regulatory hearings, while many others have an economic stake in the project that they don't want to lose.

He said the discussions with CN Rail and terminal operators in Alberta have involved moving 100 percent bitumen by rail, thus avoiding the cost of blending the bitumen with diluents to facilitate its shipment by pipeline.

Black said that unlike Bakken crude from southern Saskatchewan and North Dakota, oil sands bitumen without diluents has a low flash point, which makes an explosion unlikely in a train derailment.

He said that if Kitimat Clean can win over oil sands producers and secure financing, the project could be operating within eight years, assuming the regulatory process would take two years followed by six years of construction.

Seven years ago, CN Rail, having acquired Athabasca Northern Railway that links the oil sands with Edmonton, estimated it could ship 4 million bpd of oil sands production to the British Columbia coast and southern U.S. for less than the pipeline tolls.

CN estimated it could handle 2.6 million bpd from Edmonton to Kitimat by adding 20,000 tanker cars to its fleet, adding up to 36 unit trains per day to access the Pacific Coast, in addition to the 130 trains a day it moves in Western Canada.

Pacific Future, Eagle Spirit

Pacific Future has also been exploring the possibility of moving crude by rail, while Eagle Spirit's concept involves twin pipelines — one to move refined crude and one to deliver natural gas to communities in British Columbia or to provide feedstock for LNG plants.

Both are understood to be engaged in negotiations with First Nations on possible equity stakes or economic benefits.

But, despite the view among many observers that Northern Gateway will never happen, others are not prepared to consign the twin pipeline system to the scrap heap.

First Nations

The strangest twist involves First Nations' communities, many of whom were responsible for prolonging regulatory hearings, while many others have an economic stake in the project that they don't want to lose.

Enbridge — which claims aboriginal communities could share C$1 billion if the project goes ahead — has claimed that more than 40 First Nations along the pipeline right of way have given tentative endorsement to the venture, with 28 signing equity agreements giving them a 10 percent share of the profits and other incentives. Enbridge is expected to soon announce it has reached equity accords with 10 or more other native communities.

It is also in the process of working with First Nations, local communities and the British Columbia government to address 209 conditions set out in National Energy Board and Canadian government approval of the project last year.

Enbridge has indicated its total investment in Northern Gateway is now about C$500 million.

That represents a risk to the Canadian government of Prime Minister Justin Trudeau if Enbridge seeks legal recourse to recover what it has spent based on its "good faith" participation in the regulatory process. ●

Contact Gary Park through publisher@petroleumnews.com

EXPLORATION & PRODUCTION

AOGCC updates Milne well requirements

Wells with electrical submersible pumps will be evaluated for packer installation case-by-case based on ability to flow to surface

By KRISTEN NELSON
Petroleum News

The Alaska Oil and Gas Conservation Commission has amended, rather than rescinding, a 1997 order which allowed wells at the Milne Point unit with electrical submersible pumps to be completed without a packer regardless of the potential of the wells to flow to surface.

BP Exploration (Alaska), which was the Milne Point field operator until Hilcorp Alaska became operator in 2014, had asked for and received an exemption from a packer requirement for wells completed at Milne Point with electrical submersible pumps.

Earlier this year the commission decided to review that exemption, Conservation Order 390; Hilcorp Alaska requested a hearing, which was held in September.

The commission issued Conservation Order No. 390A on Nov. 19, amending the original order.

In CO 390A the commission noted that under CO 390, Milne Point was the only operating field in Alaska with a field-wide waiver of the packer requirement for ESP equipped flow to surface wells.

In a Sept. 24 post-hearing response, answering some questions raised at the hearing, Hilcorp said the commission "has specific concerns about packerless ESP completions on certain Milne Point Wells within the Kuparuk Oil Pool, particularly wells that exhibit 'quite high surface pressures' relative to other ESP wells throughout the state."

Hilcorp said it plans to manage the issue of wells which are estimated to be capable of unassisted flow by "actively reducing overall reservoir pressure."

"Overall," the company said, "AOGCC's objective is to ensure safe operation of all wells, and to regulate consistently across the state." Hilcorp also noted the commission's concern that assumptions made in 1997 when CO 390 was issued may no longer be true.

Unassisted flow

In the post-hearing letter Hilcorp provided the commission with information on the ability of ESP wells at Milne Point to flow unassisted to the surface, based on static bottom-hole pressure and water cut data. Hilcorp said it "conservatively predicts that 22 out of 84 active ESP production wells at Milne Point Field are capable of unassisted flow to the surface," 22 in the Kuparuk oil pool and one in the Schrader Bluff oil pool.

The commission was also concerned about monobore wells at Milne Point, all of which are completed in the Schrader Bluff, Hilcorp said, telling the commission that no monobore wells at the field are capable of flowing unassisted to the surface.

Hilcorp said it is "committed to aggressively reducing overall reservoir pressures" at the Milne Point field, and has target pressures of 3,260 psi for the Kuparuk oil pool and 1,860 psi for the Schrader Bluff pool. These, the company told the commission, are the pressures at which a well can be killed with seawater.

Hilcorp said it plans to manage the issue of wells which are estimated to be capable of unassisted flow by "actively reducing overall reservoir pressure."

Only Milne

In its findings in CO 390A the commission said Milne Point is the only operating field in Alaska with a field-wide waiver of the packer requirement for ESP equipped flow to surface wells.

Milne Point ESP wells are either monobore wells, with single string casing, or conventional completions with multiple string casing. Of the 10 monobore ESP wells at Milne, only two are active and neither is capable of flowing to surface, the commission said.

"All packerless ESP completions in the Kuparuk River Oil Pool have multiple casing strings providing two mechanical barriers to flow," the commission said.

Issues with packers

The commission noted that Hilcorp testimony documented advantages and disadvantages of ESP with packers, and said while the installation of packers in ESP wells "provides an extra measure of safety" it also adds

see **WELL REGS** *page 23*

INTERNATIONAL

Russia says bombing cuts IS oil income

By VLADIMIR ISACHENKOV
Associated Press

The Russian military has destroyed numerous oil facilities and tankers controlled by the Islamic State group in Syria, sharply cutting its income, Russia's defense minister said Nov. 20.

Minister Sergei Shoigu reported to President Vladimir Putin on Nov. 20 that Russian warplanes destroyed 15 oil refining and storage facilities in Syria and 525 trucks carrying oil during the week's bombing blitz. He said this deprived IS of $1.5 million in daily income from oil sales.

Russia, which has conducted an air campaign in Syria since Sept. 30, sharply raised the intensity starting Nov. 17 following confirmation that the Russian Metrojet plane in Egypt was downed by a bomb, which the Islamic State group said it had planted. All 224 people aboard the plane, mostly Russian tourists, were killed.

Putin has discussed cooperating on fighting IS during his meetings with President Barack Obama and other Western leaders at the sidelines of the Group of 20 rich and developing nations in Turkey the week of Nov. 16.

Hollande to DC, Moscow

French President Francois Hollande is set to travel to Washington and Moscow the week of Nov. 23 for talks on joint military action against IS, and Putin already has ordered the military to cooperate with the French.

Russian state TV on Nov. 20 showed Russian air force ground crew writing "For Ours!" and "For Paris!" on bombs being attached to Russian warplanes.

According to Shoigu, Russian warplanes have flown 522 sorties and destroyed over 800 targets over the four days ending Nov. 20. Russian long-range bombers and navy ships have launched 101 cruise missiles in four days, including 18 fired Nov. 20 by Russian navy ships from the Caspian Sea.

Shoigu said the strikes the week ending Nov. 20 inflicted significant casualties on IS, including more than 600 militants killed in just one strike in the province of Deir el-Zour. The claim could not be independently confirmed.

U.S. and French planes have also struck at oil targets in Deir el-Zour and elsewhere.

No Russian ground action

Putin hailed the military's performance, but added that "there is still a lot of work to do ... to rid Syria of militants and terrorists and protect Russia from possible terror attacks." Putin has ruled out Russian ground action in Syria, a position reaffirmed Nov. 20 by his spokesman, Dmitry Peskov.

The Kremlin has used the air campaign in Syria to showcase an array of new weapons, including state-of-the art cruise missiles.

On Nov. 20, a pair of Russian Tu-160 strategic bombers flew from a base on the Kola Peninsula over the Norwegian Sea, the North Atlantic and the Strait of Gibraltar and into the Mediterranean to launch long-range cruise missiles on targets in Syria, demonstrating the Russian military's global reach.

Officials at the airport in the Lebanese capital of Beirut said the airport would close for three days as of Nov. 20 midnight due to Russian military drills in the Mediterranean Sea. The Russian military hasn't yet commented on the exercise. ●

PIPELINES & DOWNSTREAM

Tesoro acquires Flint marketing, logistics

Tesoro Corp. said Nov. 23 that its affiliate Tesoro Alaska Co. LLC will be acquiring Flint Hills Resources' wholesale marketing and logistics assets in Anchorage and Fairbanks.

The former Flint Hills Resources North Pole refinery is not part of the acquisition.

Tesoro Corp. Chairman, President and CEO Greg Goff said the "investment represents our commitment to efficiently and reliably service customers" in Alaska and also said the company has invested more than $300 million in its Alaska operations over the last five years.

The value of this transaction was not released.

Tesoro said the transaction includes all FHR wholesale fuel marketing contracts in Alaska; a terminal in Anchorage with 580,000 barrels of in-service storage capacity, a truck rack and rail loading capacity; a Fairbanks airport terminal that includes 22,500 barrels of in-service jet fuel storage and truck rack; and a multiyear terminal agreement at FHR's North Pole terminal, which will provide efficient rail offload capabilities and provide Tesoro access to Alaska's Interior.

Tesoro said the transaction is expected to close within 60 days, pending completion of transition, planning and requested consents and approvals.

—PETROLEUM NEWS

continued from page 16

COGHILL Q&A

the basin in Kotzebue and the basin in Glennallen that we've tried to say if you do something we'll join in with cash. If we pull the credit capacity does that leave them languishing? I think Doyon has made the most investment at this point.

They think there is oil and gas there, but they are having a hard time getting investors in this low-cost investment world. So does the state want to be the only investor? That's the question. Can we afford to? We'll see.

Petroleum News: In light of concerns over who is in charge and who is running the show, what are your thoughts or concerns on the departures of John Burns and Dan Fauske?

Coghill: First of all, I have the highest respect for John Burns and Dan Fauske. I am sorry to see them go. The timing couldn't be worse. However, it appears the governor is in control and his port authority looks like his model.

The law, SB 138, set in order a process that looks like it may be problematic to the governor. The industry likely sees a significant shift in policy from the governor. I am hopeful a partnership solidifies to move the project forward. ●

Contact Steve Quinn at squinnwrite@gmail.com

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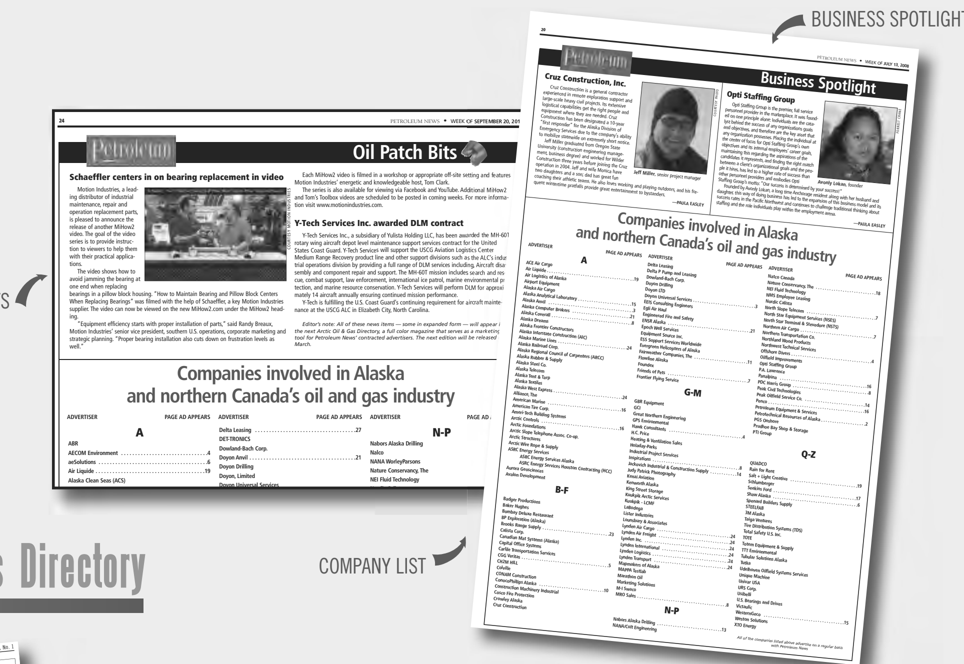

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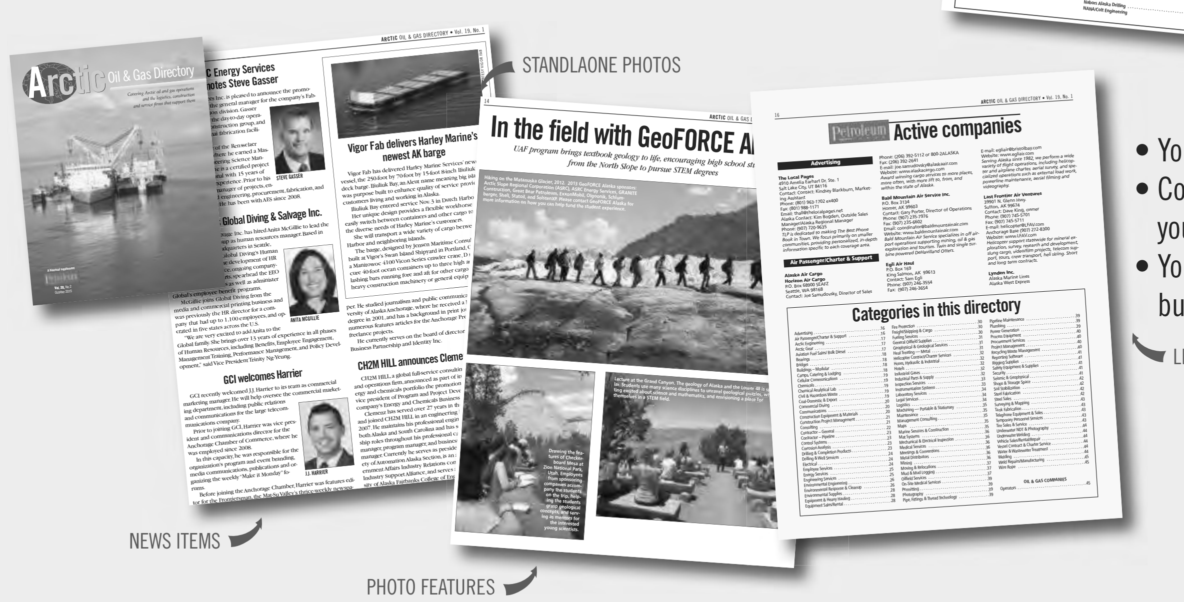

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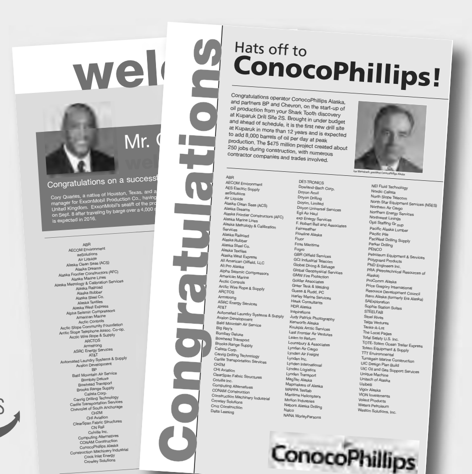

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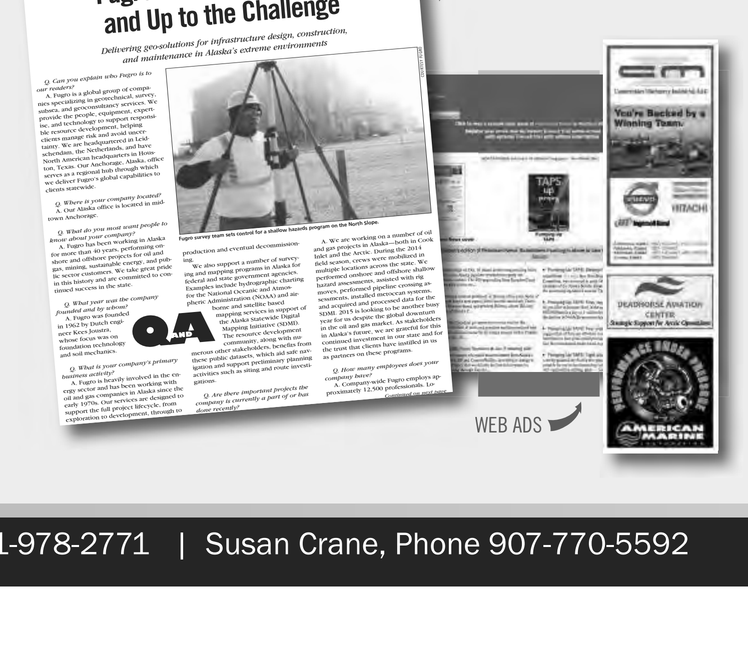

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Oil Patch Bits

Eutelsat and Futaris deliver satellite services

Futaris Inc. announces it is investing in a new C-Band antenna for its Anchorage teleport to provide services in Alaska using Eutelsat Communications' new-generation Eutelsat 115 West B satellite. This investment complements Futaris' Colorado based antennas connected to Eutelsat 115 West B, supporting internet, broadcast, VoIP, and disaster recovery and business continuity solutions from the most advantageously positioned hub for Alaska, including the most remote locations.

Eutelsat 115 West B is the first all-electric satellite of Eutelsat's global fleet with 24 C-band and 41 Ku-band equivalent transponders connected to specific service areas including Alaska, Canada, Mexico and South America. The satellite's C-Band footprint offers exceptional power levels over Alaska to provide cost-effective capabilities for clients providing services that include video broadcasting, broadband access, cellular backhaul, VSAT solutions and social connectivity.

Futaris is continuing its build-out in the heart of mid-town Anchorage, positioned right next to the city's Alaska Communications' AKORN fiber vault. All of Futaris' earth stations are designed with fully redundant fiber, power, and RF infrastructure armed for collocating commercial, government, and telco primary operations. Futaris' full coverage of Alaska includes locations such as the far reaching Aleutian chain, Southeast Alaska, and north of Barrow's offshore. With Eutelsat 115 West B, With Eutelsat 115 West B, Futaris can provide direct or mesh connectivity on a single hop between Alaska and South America.

Local car dealership shares the love with CSS

As part of the national 2015 Subaru Share the Love program, Continental Subaru has chosen Clare House and Charlie Elder House as their "hometown charity" to participate in this year's holiday event.

From Nov. 19, 2015 to Jan. 2, 2016, customers who purchase or lease a new Subaru vehicle can select from a list of charities to receive a donation of $250 from Subaru of America. Last year, Subaru of America, Inc. donated $15 million to participating charities nationwide. SOA has selected four national charities: ASPCA, Make-A-Wish, Meals on Wheels Association of America and National Park Foundation.

In addition to the four national charities selected by Subaru of America, Continental Subaru has elected to add two "hometown" charities; the Clare House and Charlie Elder House — both organizations of Anchorage's Catholic Social Services.

Clare House provides temporary, emergency 24-hour shelter for women with children and expectant mothers over 18. Residents receive daily meals and referrals for child care, substance abuse and mental health, affordable permanent housing, employment and continuing educational opportunities. Case management services are an integral part of the program to help women in their transition from homelessness to independent living.

Charlie Elder House provides housing for homeless, teenage boys. At Charlie Elder House, boys learn to live independently, achieve academic success, maintain positive relationships, and contribute to the community. Charlie Elder House provides a therapeutic environment, case management services and counseling services in cooperation with AK Child & Family.

Last March, Continental Subaru presented a total of $48,091 to the 2014 Share the Love recipient's; the Eva Foundation and the Nordic Skiing Association of Anchorage.

Fluor awarded PMI's 2015 Project of the Year

Fluor Corp. said that the Project Management Institute has selected Chevron's El Segundo refinery coke drum reliability project as its 2015 Project of the Year. Fluor served as the engineering, procurement and construction management contractor, in addition to

see OIL PATCH BITS page 22

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

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SCALING BACK

Nov. 30, 2016. The well would target a zone equivalent to the producing zone of KLU No. 3 well, the company said.

In a March 2015 plan of exploration, Furie had said it would complete KLU No. 3 as a development well and drill two additional development wells into the Corsair block by the end of the current drilling season but would postpone completion activities until 2016.

Demand and supply

While the major utilities in the region have contracts with many producers, Hilcorp Alaska LLC is supplying much of the demand for natural gas in the Southcentral region through medium-term contracts. A contract with Enstar Natural Gas Co. expires in early 2018 and a contract with Chugach Electric Association Inc. expires in early 2023.

(The 2019 date referred in the plan of development likely refers to an earlier Chugach contract. As the plan of development was coming together, Chugach negotiated an extension of its Hilcorp contract until 2023, from an earlier timeline of early 2019.)

These contracts have been a doubled-edged sword.

After longstanding concerns about adequate supplies, and conversations about potential short-term imports, utilities were relieved to have several years of breathing room.

Smaller producers worried they would be shut out of the market. When Hilcorp and Enstar sought approval for their contract in mid-2013, Furie, Buccaneer Alaska LLC, Cook Inlet Energy LLC questioned the wisdom of fully satisfying local demand.

"Considering the significance of the local space heating market, Enstar's decision not to reserve room in its gas portfolio for diversification in natural gas sources until after the first quarter of 2018 may reduce the number of active explorers and producers in Cook Inlet," former Furie President Damon Kade told the Regulatory Commission of Alaska.

When Enstar had been soliciting interest in supply contracts throughout the region, Furie offered to provide gas by late 2014, about six months after date Enstar was looking to start receiving supplies. At the time, Furie was still early in the process of developing the Kitchen Lights unit. The company said it offered to show Enstar "confidential well flow test data" from existing wells and its plans for the facilities it intended to install in the coming year, Kade wrote. But "when Furie followed up with Enstar just over a month later, Enstar stated that it had already contracted for all of the volumes it required."

The development timeline later changed and the company recently started production from the field.

Even without a multi-year Enstar contract, Furie has been able to find buyers in the region. The company has a contract with Homer Electric Association Inc. which begins in April and runs through the end of 2018, with options to extend through the end of 2020. The agreement calls for Homer Electric to buy between 4 billion and 6.2 billion cubic feet of natural gas annually starting March 31.

What about exports?

State officials had hoped that the Kenai liquefied natural gas facility would ease market constraints in the Southcentral region by creating an overseas market for small producers.

In September 2013, after ConocoPhillips allowed its federal export license for the facility to expire, acting Natural Resources Commissioner Joe Balash asked the company to apply for a new three-year license. "Without market opportunities for gas discoveries, companies lack the incentive to invest in continued exploration activities," Balash wrote in a letter to the company. "In addition to the economic challenges this would present for those employed in the Cook Inlet energy industry, a lack of healthy exploration now may lead to supply contractions in the future as existing wells' production levels decline."

ConocoPhillips partially obliged, requesting and receive a license to export as much as 40 billion cubic feet over two years. The plan worked, to some degree: some 60 percent of the volumes shipped in six cargoes last year came from other producers, according to ConocoPhillips. The company also shipped six cargoes from the terminal this year.

ConocoPhillips is currently in the process of requesting an extension of its federal LNG export license. The extension would allow the company to export as much as 40 billion cubic feet of natural gas over a two-year period starting Feb. 19, 2016. The license would allow the company to export LNG supplies on behalf of other producers in the region.

Exploration changes

Furie is also requesting a change to its proposed exploration program.

Instead of drilling a new exploration well or commissioning a second development at one of the other exploration blocks within the unit boundaries, as proposed in earlier filings with the state, the company is now proposing to deepen the existing Kitchen Lights Unit No. 4 well to penetrate the Sunfish Channel of the lower Tyonek formation.

Furie started drilling the KLU No. 4 well in the Northern block of the unit in 2013 and completed the well in 2014. The company has said that the well "encountered potential oil and gas reserves," but has yet to publicly provide more thorough drilling results. ●

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KITCHEN LIGHTS

from the offshore field. However, the company has a contract with Cook Inlet Energy through to the end of this year to provide gas for an initial storage reserve, Webb explained.

Initial gas production comes from the Kitchen Lights Unit No. 3 well, although Furie plans to drill an additional development well in 2016. (See story on page 1 of this issue of Petroleum News.) The subsea gas pipeline from the Julius R. platform, the offshore production platform for the Kitchen Lights field, has a throughput capacity of 100 million cubic feet per day, but Furie has yet to secure sufficient contracted gas sales to meet a targeted production level of 85 million cubic feet per day.

Initial gas production comes from the Kitchen Lights Unit No. 3 well...

—ALAN BAILEY

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AGDC CHANGES

Port Authority, a project to take a pipeline to Valdez and ship LNG to the Far East with which Walker was involved for many years.

Fauske resigns

At a Nov. 21 meeting the AGDC board, under acting board Chair Dave Cruz, voted to accept the resignation of AGDC President and CEO Dan Fauske. Under Fauske's lead AGDC developed the in-state Alaska Stand Alone Pipeline project, and represented the state on the liquefied natural gas plant portion of the Alaska LNG project. AKLNG is designed, in concert with the major North Slope producers, to take Prudhoe Bay and Point Thomson natural gas to Nikiski for liquefaction and shipment to the Far East as LNG.

The board said in a statement after the meeting that Fauske had tendered his resignation prior to the start of the morning's meeting. It also said it had "directed its governance committee to engage an executive recruitment firm to initiate a worldwide search for a new corporate president" and would appoint an interim president to facilitate an orderly transition between Fauske and his successor. "Until then, Mr. Cruz will perform those responsibilities," the board said.

In his resignation letter Fauske said he had a lot of personal leave and requested that his resignation take effect Jan. 1. "In the meantime," he said, "I will take my leave so that my successor can begin his or her term."

Walker's role

Asked at a press availability the afternoon of the board meeting if Fauske was asked to submit his resignation, Walker said he wasn't sure of the exact process, but said he'd made no secret that he wanted someone in that position who's done many major pipeline projects.

He said Fauske had done a good job, but the state is moving into a new stage with the acquisition of TransCanada's share.

Walker also said he communicated with the board and let them know he thought they needed a person with different qualifications to head AGDC. He said he didn't give a directive that they must do that, but said board members knew his belief that they needed to thank Fauske and get to the next step.

Board changes

Walker said in the press availability Nov. 21 that he had long felt that vertical alignment was needed on the AGDC board, with someone at the table with a strong municipal connection. Hopkins, Walker said, brings that strong municipal experience.

"As the mayor of the Fairbanks Borough, Luke was instrumental in creating a new municipal gas utility for the Borough, and directing major funds to develop lower cost natural gas supply for Fairbanks residents," Walker said in a Nov. 20 statement announcing the board changes.

Hopkins has served on the Municipal Advisory Gas Project Review Board, the Association of Defense Communities, the Alaska Municipal League and the Alaska Gasline Port Authority.

The governor also replaced Commissioner Chris Hladick of the Alaska Department of Commerce, Community and Economic Development with Commissioner Marc Luiken of the Alaska Department of Transportation and Public Facilities.

On the replacement of Hladick with Luiken, Walker gave two explanations. He said Hladick served on 22 boards, Luiken on only one, the Alaska Railroad board. He also said that for a large infrastructure project it was appropriate for DOT&PF to be represented.

Frustration

Burns told legislators at the recent special session that he was frustrated by lack of administration leadership on AKLNG, a sentiment in which Fauske concurred.

Legislators, called to Juneau to vote monies for the state to buy out TransCanada's share in AKLNG, asked AGDC presenters why Dan Fauske was not making the presentation and were told he wasn't invited to present.

While Fauske wasn't part of the original AGDC group presenting to legislators, but he and Burns later testified by phone.

The administration organized the presentations on the proposal to buy out TransCanada, something for which Walker has been pushing. The governor has long argued for the state having a stronger voice in the project, and the elimination of TransCanada provides the state a 25 percent share of voting power on the entire project. TransCanada had provided funding and held the state's share — and its vote — on the North Slope gas treatment plant and on the pipeline, while AGDC held the state's share in the liquefied natural gas plant. The state had an opportunity to buy out TransCanada by the end of the year. If TransCanada had continued to provide funding on the midstream portion the state would have repaid the company's investment in a tariff when gas was shipped.

Walker said in the press availability Nov. 21 that he had long felt that vertical alignment was needed on the AGDC board, with someone at the table with a strong municipal connection. Hopkins, Walker said, brings that strong municipal experience.

Vote delayed

At its Nov. 21 meeting the AGDC board also voted to delay a vote on approval of the 2016 AKLNG work plan and budget. An AKLNG meeting scheduled for Dec. 4 requires a unanimous vote of the four partners — the state, BP, ConocoPhillips and ExxonMobil — in order for the project to continue work in 2016.

The AGDC board said it would hold a meeting Dec. 3 on the work plan and budget vote.

Asked why the vote was delayed, Walker attributed the delay to leverage.

The governor noted that he had included a gas reserves tax on the call for the special session, but removed that item after BP and ConocoPhillips in writing, and ExxonMobil verbally, agreed to meet the governor's demand for a commitment that their gas would be available for a project even if they withdrew.

The governor is waiting for final commitments from the companies, and said if the vote had taken place at the Nov. 21 meeting there would have been no incentive for the state to receive those assurances.

Legislators concerned

The Alaska Senate Majority said in a Nov. 21 statement that senators "remain optimistic but vigilant" following the vote of the AGDC board on TransCanada.

Sen. Cathy Giessel, R-Anchorage, chair of Senate Resources, said the Legislature's direction was clear — "they want a yes vote to approve the project's program and funding for next year."

Sen. Anna MacKinnon, R-Eagle River, co-chair of Senate Finance, said that after speaking with Walker and seeing the actions of the AGDC board, she continues "to have great concern with the leadership of the state's ownership of the AKLNG project."

Senate President Kevin Meyer, R-Anchorage, said that while it was the governor's prerogative to appoint new board members, "six of seven board members have been replaced just this year, and the turnover rate is somewhat disconcerting."

House Speaker Mike Chenault, R-Nikiski, said he was worried about the project after the governor's actions on the AGDC board and on Fauske.

"It's a dark day in Alaska history when we replace the president of a corporation and two more board members who were doing critical work to ensure we make the best decisions on a huge cash call, when we are getting closer to a FEED decision," he said.

Chenault also said he was worried that Walker's "recent moves and indecisiveness had jeopardized our relationships with our partners and is bringing a real cloudy outlook as to whether the project will continue after Dec. 4."

House Majority Leader Charisse Millett, R-Anchorage, called the shakeup at AGDC "significant," said the project was "dangerously veering from the successful path" established by the Legislature and said she was "quite frankly, nervous" about Walker's next move. ●

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OIL PATCH BITS

performing initial studies and front-end design work.

The project replaced six coke drums and incorporated seismic upgrades to the coker structure at Chevron's El Segundo refinery in California. The vertical project required extensive scaffolding and 15 major lifts that ranged from 166 tons to 500-plus tons, and took place at heights of more than 250 feet. The project was completed four months ahead of schedule, $7 million under budget, with no serious injuries and with no disruption to the plant's operations.

The project team developed an innovative logistics plan to transport the new drums to the site — reducing the distance from 22 miles to 4.5 miles to minimize inconveniences to the community. Once at the site, old drums were removed and the new 95-foot-tall drums, which are three times as heavy as the Space Shuttle Endeavor, were installed. The project also removed a 1 million pound, six-derrick structure and cutting deck that covered the coke drums. The removal took place in one lift, with a 400-foot tall crane, the largest ever brought to Southern California.

The project used interactive planning sessions, safety commitment workshops, cutting-edge technology and strict scaffolding safety guidelines to complete with no serious incidents or lost-time injuries.

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UPSTREAM SECTOR

put money into Alberta," said Scholz. "We've seen corporate tax hikes, it's unclear what type of royalty increases we'll see, and (the industry will have a better understanding) of environmental taxes in the next couple of months."

Outlook 'grim'

Brian Krausert, with Beaver Drilling, said the 2016 outlook is "grim, or as we call it in our office, butt ugly. But I know the industry is resilient enough and hopefully we'll be around next year."

Greg Ward, with Remote Waste, which treats wastewater for well sites and work camps, admitted "it's pretty depressing. People are losing their homes, people are losing their livelihoods, people are going to get desperate."

An early hint of the fallout came from the credit agency TransUnion, which reported a credit and loan delinquency rate of 2.63 percent in the third quarter as Alberta (whose average per head debt load stands at C$27,599) surpassed the Canadian average (of C$24,414).

The only glimmer of hope from major producers came from Suncor Energy, which set a capital budget of C$6.7 billion to C$7.3 billion for 2016, compared with C$5.8 billion-C$6.4 billion in 2015, although its production outlook was cut to 525,000-565,000 barrels of oil equivalent per day from 550,000-595,000 boe per day this year, largely because of maintenance at one of its plants that upgrades oil sands bitumen to synthetic crude.

Canadian Natural Resources expects to lower its capital spending by C$1.5 billion and Royal Dutch Shell, whose Canadian President Lorraine Mitchelmore announced her resignation, has mothballed a major oil sands project and put expansion plans on hold indefinitely while it focuses on cutting operating costs.

Chris Feltin, an analyst at Macquarie Group, said at current oil prices "many plays don't actually make economic sense, so I think holding production flat with limited capital is probably the best course of action."

Outside the high-cost oil sands sector, spending is poised to fall by 18 percent in 2016 after dropping by about 35 percent this year, while aggregate spending among the largest oil sands producers could drop by 7 percent next year, he said.

ARC Financial said the price rout has already halted 17 projects that have represented 1.3 million barrels per day of incremental output.

Jackie Forrest, vice president at ARC, said that unless the economics of finishing active projects make sense companies are "just going to hibernate. It's very hard to live within your cash flow at these prices."

Looking for 'sweet spot'

Canada's Natural Resources Minister Jim Carr said his government is committed to finding a "sweet spot" between advancing its environmental priorities and the concerns of oil and gas producers over prices and pending regulatory changes.

He said the industry has "human dimensions and human consequences, that people are fearful for jobs, investors are looking cautiously at opportunities. But I am hopeful ... we will find the sweet spot that will enable us to move forward in a sustainable way."

The newly elected Liberal government of Prime Minister Justin Trudeau has already shown its concern by backing away from an earlier pledge to present a national climate change program at the United Nations conference which starts in Paris on Nov. 30.

Environment Minister Catherine McKenna said "the real hard work" of tackling carbon emissions will start 90 days after the Paris talks.

"Everyone realizes we're all in this together," she said. "We're going to figure out what's a credible plan."

That will not be easy, based on the findings of a report by the University of Calgary's School of Public Policy which said the current oil price has more in common with the prolonged slump in the 1980s than more recent crude price stumbles.

The report warned that the economic engine in Alberta could be stalled for "a long time," with little prospect of a price recovery before the end of this decade.

It said the faltering oil prices of 1997 and 2008 were "demand-driven," unlike the collapse which started in 1985 and was primarily supply-driven. ●

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WELL REGS

cost to the completion and "makes some routine well servicing procedures difficult or impossible."

Hilcorp told the commission in its September testimony that use of a packer increases well complexity and shortens ESP life, and provided an economic analysis plotting economic limit vs. ESP life.

Based on an average run life for an ESP of 2.7 years, Hilcorp said the economic limit — the point at which if a well breaks Hilcorp won't fix it — is 95 barrels per day. Packers may degrade the run life of ESPs, increasing cost and decreasing economic life, the company said, noting that if ESP life degraded to 1.7 years and workover costs increased 33 percent, the economic limit would rise to 145 bpd, which could reduce field recovery efficiency by 1 percent.

Commission decision

The commission said that Hilcorp, in its September letter, voluntarily agreed to manage reservoir pressures at Milne Point by reducing injection rates in offset service wells where needed. Of 21 flow-to-surface Kuparuk River oil pool ESP completions, 11 have pressures greater than seawater gradient. For those wells, the commission said, Hilcorp committed to either run an ESP with a packer when workovers are needed or wait until the bottomhole pressure is reduced enough not to require a packer.

The commission also said monobore ESP completions should be phased out at Milne Point as those wells have only one mechanical barrier to flow, and said more frequent casing pressure tests are warranted for those wells.

While multi-casing packerless ESP wells are required to have production casing pressure tested at least every 8 years, monobore packerless ESP wells will be pressure tested at least every 4 years.

The commission also said no monobore ESP completions will be approved unless a suitable monitoring annulus is provided as part of well construction.

And, wells covered by CO 390 must be brought into compliance with commission regulations the next time a workover that requires pulling the tubing/ESP is performed. "Requirement for ESP packer installation will be made on a case by case basis," the commission said, with ESP wells having a pressure gradient greater than seawater gradient at the time of the workover will require installation of a packer as part of the completion hardware. ●

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CONOCO SPENDING

al conference talk Nov. 18 as an opportunity to announce funding approval by ConocoPhillips and Anadarko for the Greater Mooses Tooth 1 development in the National Petroleum Reserve-Alaska, with field startup expected around 2018 and anticipated oil production of about 30,000 barrels per day (see brief in Nov. 22 issue).

"It's a great, great project for us, another of these projects that are going to help us continue to build out NPR-A in the Alpine area," Marushack said, referencing the Alpine oil field in the Colville River Delta.

ConocoPhillips is also seeking partner approval for two to three wells farther west in NPR-A, and about two months ago submitted initial permits for a Greater Mooses Tooth 2 development, he said. GMT-2 sits to the west of GMT-1.

Strong Alaska program

ConocoPhillips' budget worldwide has been cut by some $4 billion or $5 billion in response to the oil price situation but, although the Alaska budget has dropped a bit, that drop reflects deflation in costs rather than a reduction in business activity, Marushack said.

"Our capital program here is strong," he said. "The reason it is strong is because the projects we do up here are really what ConocoPhillips does really, really well."

Currently ConocoPhillips has six drilling rigs operating on the North Slope, with some new rigs expected to be mobilized. One new rig, the Doyon 142, is already on its way to the Slope, while a new coiled tubing rig will arrive in 2016, Marushack said.

"We brought on a Nabors rig in 2013. It's the most rig activity we've had since 1985," he said.

Recent developments include the startup of Drill Site 2S on the west side of the Kuparuk River unit, and the CD5 drill site in NPR-A, which has also recently come on line. The NEWS 1H, a viscous oil development in the Kuparuk River unit, will go into production in 2017, Marushack said.

In total these project amount to a capital spend around $3 billion and new oil production of about 30,000 barrels per day, he said.

Marushack also commented on his company's safety record.

"This will be the safest year ConocoPhillips has had in Alaska and probably the safest year that ConocoPhillips has ever had on a recordable basis," he said, thanking the company's employees and contractors who had made this possible.

Planned for $60

Marushack said that some time ago ConocoPhillips had planned for the possibility of an oil price drop but had planned on $60 oil, not the price level of about $43, $44 that has been seen recently. In addition, the oil price has stayed low longer than expected, he said.

In response to what he characterized as a tidal wave of low oil prices and an economic downturn, ConocoPhillips in Alaska formed what it calls its Margin Improvement Team, a team consisting of all of the company's employees and contractors.

"Everybody rolled up their shirt sleeves, came up with new ideas, better ways of doing this stuff, even though they knew it might reduce some individuals' jobs," Marushack said, commenting that the state might want to consider a similar approach in addressing its economic woes.

In the event, ConocoPhillips has reduced its Alaska workforce by 120 people, with about half of these people being volunteers who were ready to retire, he said.

Marushack said that, if current economic growth continues, some of the excess oil capacity should come off the market in 2017 and 2018, although 2016 looks like proving to be really difficult. Most things that need to be done in Alaska can be done at a $70 price level, he said. However, with the possibility of cranking Lower 48 shale oil production up and down, it is necessary to plan for oil price volatility, even although prices may go higher, he suggested.

The AKLNG project

Marushack also commented on the need to take a long term view of the AKLNG project, the project targeting the construction of a gas treatment plant, gas pipeline and Cook Inlet liquefied natural gas facility for the export of North Slope gas. The linkage between LNG prices and oil prices is currently leading to an LNG price of $7 per thousand cubic feet, a price at which not too many LNG projects will work, he commented. So, a current focus of AKLNG, which is in the pre-front-end engineering and design phase, is to bring costs down, he said.

However, with a final investment decision not expected until about 2020 and the project not expected to go on line until 2025, there is time for the global LNG market to absorb excess LNG production from places such as Australia. And a future rebound in the oil price would help the Alaska project.

"It's an important project for ConocoPhillips," Marushack said. "This would be the equivalent of around 120,000 barrels a day of production on a BOE (barrels of oil equivalent) basis … there aren't many projects of that size in our portfolio."

But the huge $60 billion scale of the project brings new areas of risk. ConocoPhillips is currently considering a number of issues, including Gov. Bill Walker's question about building a 48-inch line, rather than a 42-inch line; and alignment on commercial agreements, Marushack said, adding that it is necessary to move forward with confidence with a fiscal security package that makes sense.

And everyone in the AKLNG project needs to pull in the same direction.

"We need to stay the course with AKLNG. … I absolutely support the state having participation," Marushack said, adding that it is critical that the state knows how the project works and how the market works.

Marushack commented that, while his company does not tell governments how to carry out tax policies, his company does comment on the impacts of those policies. There needs to be a rational discussion on the state's fiscal challenges, with an understanding that, with oil prices where they are, the oil companies cannot provide a solution, he said.

"We need a stable investment climate," Marushack said.

Marushack also commented on the need for more alignment with the federal government, with the need for regulatory rules that make sense and that would enable the various projects in NPR-A to move forward faster.

—ALAN BAILEY

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