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page 3 Q&A: Pruitt has AKLNG questions; wants to hear more project details

This week's Mining News

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page 8 Tangen advises miners to keep an eye on pending Alaska reg changes

www.MiningNewsNorth.com — *The weekly mining newspaper for Alaska and Canada's North* — Week of December 24, 2017

NEWS NUGGETS

Compiled by Shane Lasley

TRILOGY METALS INC.

With South32 committing to a US$10 million exploration program in 2018, the Bornite camp at the Upper Kobuk Mineral Projects will be a busy place during the upcoming field season.

South32 funds $10 million for Bornite

Trilogy Metals Inc. Dec. 14 announced that South32 Ltd. has committed US$10 million to fund the 2018 exploration program at the Bornite copper project in Northwest Alaska. This second tranche of US$10 million keeps South32's option to acquire 50 percent of the Upper Kobuk Mineral Projects in good standing. The 2018 program, which was recently approved by the Trilogy-South32 technical committee, will include in-fill and off-set drilling to better define and expand the high-grade copper resources at Bornite.

Bornite hosts an open-pit resource with roughly 2.7 billion pounds of copper in roughly 124.6 million metric tons of material averaging nearly 1 percent copper; and an underground resource with roughly 3.7 billion lb of copper in 57.8 million tons of material averaging 2.89 percent copper, according to a resource calculated in 2016. Going into the 2017 field season, the high-grade underground portion of this deposit remained open along a 1,000-meter wide front to the north.

To gain a better understanding of how far the copper mineralization at Bornite extends, this year's program included nine holes drilled at 300- and 400-meter step-outs to the north of the Bornite resource. The last two holes did not reach the targeted depth and will be finished in 2018.

With all seven holes that did reach target depth cutting high-grade copper, the 2017 drill program did not find the edges of the Bornite deposit. Highlights from the 2017 drilling include: RC17-0234 cut three high-grade copper intervals – 21 meters of 1.29 percent copper, 26.8 meters of 1.44 percent copper, and 36 meters of 0.72 percent copper; RC17-0236 cut two high-grade copper intervals from a depth of 720.8 meters – 27.1 meters of 0.8 percent copper, and 89.3 meters of 1.13 percent copper; RC17-238 cut four zones of copper from a depth of 579.7 meters – 10 meters of 0.61 percent copper, 4.9 meters of 2.11 percent copper, 5 meters of 0.55 percent copper, and 12.5 meters of 1.14 percent copper; and RC17-239 cut three copper zones – 16.2 meters of 1.04 percent copper, 8.2 meters of 1.67 percent copper, and 26.1 meters of 1.46 percent copper.

The results of the 2017 drilling program doubled the size of the known mineralized footprint and demonstrate that the high-grade Bornite copper resource system is open to further expansion. "We have essentially doubled the size of the mineralized footprint with an overall Bornite system now measuring 1,500 meters by 2,500 meters," Trilogy Metals President and CEO Rick Van Nieuwenhuyse said on Dec. 4.

see **NEWS NUGGETS** *page 10*

SHANE LASLEY

The extensive drilling completed at Pebble has outlined a massive porphyry deposit with roughly 56.8 billion pounds copper, 70.4 million ounces gold, 3.4 billion lb molybdenum and 343.6 million oz silver in the measured and indicated resource categories. First Quantum's involvement in the Pebble Partnership is helping to push this world-class asset towards development.

PEBBLE

Quantum Pebble leap

First Quantum enters $1.5B deal for half of Pebble; permitting begins

By SHANE LASLEY

Mining News

In a framework agreement announced on Dec. 18, First Quantum Minerals Ltd. was revealed as the major mining company that will complete the Pebble Limited Partnership.

"We have made good progress in the partnering process and are very pleased to be in advanced-stage discussions with First Quantum, an industry leader in mine development and management," Ron Thiessen, president and CEO, Northern Dynasty Minerals Ltd., currently the sole owner of the Pebble Partnership.

TOM COLLIER

While the final details of an agreement that will provide First Quantum the option to own half of the Pebble Partnership are being hammered out, the US$1.5 billion preliminary agreement announced on Monday includes a US$150 million investment by First Quantum the will involve four equal payments of US$37.5 million to fund the upcoming permitting process for Pebble.

As long as the option remains in good standing, the global miner has the right to acquire 50 percent interest in the world-class Pebble copper-gold mine project by investing another US$1.35 billion into the partnership at the end of the four-year option period.

"This initial investment by a well-established copper mining company speaks volumes about the economic opportunity Pebble represents to Alaska," said Pebble Partnership CEO Tom Collier. "Pebble development could make a significant contribution to Alaska's economy and provide year-round jobs for Southwest Alaska. Additionally, Pebble could provide important revenue to state and local governments."

This tentative option agreement laid the foundation for the Pebble Partnership to advance Pebble into the long-awaited permitting process on Dec. 22.

Enter First Quantum

With seven operating mines and five mineral exploration and development projects, First Quantum is a growing, diversified miner with a particular focus on copper. Its operating mines and development projects are located in Africa, Australia, Finland, Spain, Turkey and Latin America.

First Quantum's industry-leading mine development track record, technical expertise, financial wherewithal and global growth strategy makes the company ideally suited to take on a world-class copper-gold project like Pebble.

While none of the company's operations are in North America, First Quantum has been eying Alaska's copper and gold potential for a few years now.

First Quantum's early interest in Alaska came as part of its 2013 buy-out of copper rival, Inmet Mining Corp., a company that had an exploration agreement with Millrock Resources Inc. on some Alaska properties.

Instead of dropping the very early staged Alaska exploration programs initiated by Inmet, which often happens to such projects following a takeover, First Quantum expanded its partnership

see **FIRST QUANTUM** *page 10*

First Quantum enters $1.5B deal for half of Pebble; permitting begins. Read more in North of 60 Mining News, page 7.

Tax bill with language opening ANWR passed by the Congress

On Dec. 20 the House of Representatives passed a landmark tax bill that includes language to open the 1002 area of the Arctic National Wildlife Refuge for oil and gas exploration and development. And, having already been passed by the Senate, the bill went to President Trump for his signature. The opening of the 1002 area represents the culmination of decades of effort to allow oil and gas activities in the prospective eastern part of the coastal plain of the North Slope.

Sen. Lisa Murkowski, R-Alaska, the author of the ANWR opening language, has characterized the passage of the bill as a watershed moment for Alaska and all of America.

see **ANWR PROVISION** *page 16*

Walker proposes state bonds to pay outstanding O&G exploration credits

Alaska Gov. Bill Walker's budget, introduced Dec. 15, includes a three-year temporary payroll tax targeted to deferred maintenance, a slight overall decrease in spending and a proposal to move to a two-year budget cycle with penalties for legislators if it takes more than 90 days to produce a budget.

There are also two significant resource-related items, which would also require legislative approval: a proposal to pay off outstanding oil and gas exploration credits in fiscal year 2019 using bonds and a proposal to grant the Alaska Gasline Development Corp., currently state funded, the ability to accept non-state money.

see **CREDIT PAYOUT** *page 11*

PIPELINES & DOWNSTREAM

TAPS settlement reached

Issues: Strategic reconfiguration costs, deferred property tax recovery through rates

By ALAN BAILEY

Petroleum News

The state of Alaska has agreed to a settlement with the owners of the trans-Alaska pipeline system in a long-standing dispute revolving around the recovery from pipeline rates of the cost of strategic reconfiguration, a major upgrade to the system. The settlement also resolves an issue about the retrospective recovery from pipeline rates of property taxes incurred in an earlier year.

According to the Alaska Department of Law, the settlement will result in the state collecting $165 million in revenue, in addition to $224 million already collected as a consequence of the rate challenge.

> *According to the terms of the settlement, the settlement will be declared void if the regulatory agencies do not approve the settlement by May 1.*

Critical to economics

The pipeline rates are critical to the economics of North Slope oil production. Moreover, by impacting oil transportation costs and hence the value of the oil on the North Slope, the rates

see **TAPS SETTLEMENT** *page 16*

FINANCE & ECONOMY

Positive on oil & gas

Outlooks from Moody's, Platts, see capital investment growth, strong oil demand

By ALAN BAILEY

Petroleum News

As 2017 comes to an end, two prominent information services have published their outlooks for the oil and gas industry for the coming year.

Moody's Investor Service, in its Global Oil and Gas — 2018 Outlook, has presented a generally upbeat perspective on the industry. With volatile oil and gas prices gaining firmer footing and upstream capital expenditure growing, the upstream and midstream sectors of the industry appear on a generally positive trend, while the downstream refining and marketing sectors are stable, the credit rating and research company suggests.

> *"Planned capital investments across oil over the next couple of years of around $300 billion show that the industry is not underinvesting and is on target."*
> *—Chris Midgley, S&P Global Platts*

S&P Global Platts, in its 2018 Energy Outlook, anticipates growing global oil supplies, led by U.S. shale oil, with oil inventories continuing to decline despite supplies growing faster than demand. The

see **ENERGY OUTLOOK** *page 15*

EXPLORATION & PRODUCTION

New gas well possible

Prospective Nicolai Creek owner Aurora Exploration tentatively plans drilling

By ERIC LIDJI

For Petroleum News

Aurora Exploration LLC is tentatively planning a one-well development program at the Nicolai Creek unit this coming year, should its acquisition attempts succeed as planned.

The local company could potentially drill the Nicolai Creek No. 12 well in the Nicolai Creek North prospect to access deeper sands that are beyond the reach of existing wells.

As described in an annual plan of development submitted to the state Division of Oil and Gas on Dec. 8, Nicolai Creek No. 12 would be a directional well starting from a location south of the Nicolai Creek No. 10 and Nicolai Creek No. 3 wells and heading west-northwest to target the producing Beluga and Upper Tyonek intervals of those wells.

> *Aurora Exploration also acknowledged that it "is currently in discussions with several entities that could result in a sale of partial working interest" in the Nicolai Creek unit.*

Previous work at the unit on the west side of the

see **NICOLAI CREEK** *page 12*

● ALTERNATIVE ENERGY

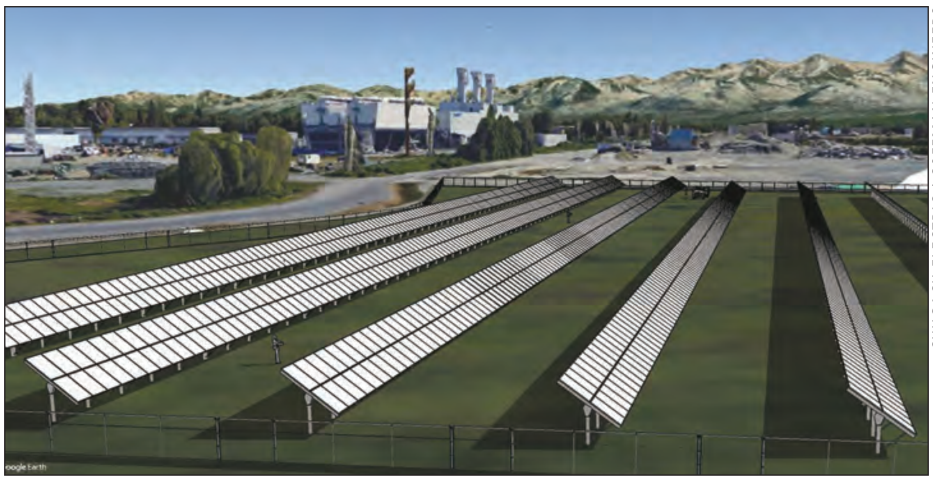
A community concept for solar power

Chugach Electric says a majority of its members surveyed expressed an interest in obtaining electricity from planned facility

By ALAN BAILEY
Petroleum News

A new solar power project that Chugach Electric Association is planning will have the solar system located in one place and centrally managed, so that people will be able to obtain solar power without the hassle or possible impracticalities of installing solar panels on their own roofs, Sean Skaling, manager of business and sustainable program development for Chugach Electric Association, has told Petroleum News.

"We've heard from our members that they're interested in solar and so we've responded to that by looking into installing a community solar project," Skaling said.



CHUGACH ELECTRIC / COFFMAN ENGINEERS

An artist's impression of Chugach Electric Association's planned solar energy facility, near the utility's headquarters and the Southcentral Power Project power generation facility on the east side of Minnesota Drive in Anchorage.

500-kilowatt facility

The project will involve the construction of a 500-kilowatt commercial scale solar energy farm on the east side of Minnesota Drive in Anchorage, near Chugach Electric's headquarters. The utility will invite its residential and commercial members to buy shares in the farm, with electricity from the farm being allocated to share owners in proportion to the number of shares owned. A total of 500 shares will be offered, with each share providing entitlement to one-five-hundredth of the facility's total output over a 25-year period.

Chugach Electric anticipates the solar farm producing about 550 megawatts of power annually, an amount roughly equivalent to 15 percent of the power consumption of 500 homes, Skaling said.

Net metered

The solar power will be net metered, in exactly the same way as would be a solar power installation on an individual house. Thus, a shareholder will receive a monthly electricity bill but will be credited for the amount of solar power arising that month from the share entitlement. And, although benefiting from solar

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● GOVERNMENT

Pruitt: AKLNG full of unanswered questions

Anchorage Republican says he would like more details to help him decide whether project should continue or be temporarily shelved

By STEVE QUINN
For Petroleum News

Rep. Lance Pruitt never served on the House Resources Committee, but, as a member of the Finance Committee, he still remains keenly engaged on resources development. Regardless of committee, the Anchorage Republican says his job simply as a representative calls for deep interest, the kind that had him recently attend a House Resources hearing to receive an update from the Alaska Gasline Development Corp. on the AKLNG project and a recent development agreement with several Chinese entities. Pruitt shared his thoughts on the hearing, the prospects of progress to develop the Arctic National Wildlife Refuge, and other resource development news.

Petroleum News: You've been pretty engaged on resource development issues, even when a bill doesn't come to your committee, though funding issues have been at the forefront for you. What drives your interest to attend hearings like the AKLNG update?

Pruitt: That last one we were invited, but what's driving it is this is a big deal. To me, it's that secondary piece as we've got to get our budget in line. At some point, you've got to ask yourself if we already commit ourselves to an $11 billion equity share, what are we backing it with? I know they said they didn't want to commit the Permanent Fund, but if we are backing it with the Permanent Fund, what effect does that have on the already potentially agreed upon long-term solution for our budget. It's important to make sure that I understand it fully. Resources are the backbone of where our state's budget comes from. I thought it was important that I was there and am aware of what's happening with it.

Petroleum News: You attended the AKLNG update hosted by House Resources. What is your big picture takeaway as things stand now?

Pruitt: There are still a lot of questions to be answered. One of the biggest ones will be the cost of gas from the wellhead. Is that something we can get agreement on from our partners in the industry? Is it the right thing for us to do with our royalty share and tax share of that. I think that is a big concern there. We are starting with the buyer. We haven't really had a conversation with the producers. That was my initial concern coming out of that meeting.

My other concern is we are putting a vast majority of our eggs into one particular basket and that would essentially be the Chinese government. There is concern when you have all your eggs in one basket, but there is also concern when that particular partner is — I don't know the best term to use — maybe the term rival, especially economically.

Whereas South Korea and Japan, we have a stronger and closer relationship with those two countries. While I'm not against China being a partner in some capacity or a customer, I think the diversification with countries we have closer relationships with is probably more of a prudent thing for us to consider.


LANCE PRUITT

It seems like they are pushing this really, really quickly in an effort to get something done. My question about what happened to FEED, I don't think I'm on the only person to recognize wait a minute, we spent all of this time with AGDC talking to us about this stage-gated approach and I come in here and you're — you, being AGDC — have changed the mechanism on going forward. As we went through that stage-gated approach, what we consistently heard was this is how you ensure that you keep your costs low, how you ensure that you're not getting into something that is not correct for you, and to skip those steps and say we are going forward. ...

Petroleum News: So what concerns you the most? The market? The lack of collaboration with the producers?

Pruitt: I think one of the other things I'm concerned about and it wasn't really talked about, it's that Russia built a fairly sizable LNG processing plant in the Arctic as well as ships ready to take it right off the Arctic. We are talking about a project we haven't analyzed at this point with a change in the ice structure up there. I recognize the continental shelf goes way out and it's pretty shallow for a ways on the North Slope. We haven't had a conversation about whether that's an option or if some other mechanism is the option that would allow us to get more for our gas.

The true long-term benefit for Alaska — which is why we want to build this in the first place — is how much of the value of gas remains in Alaska. At this point, there may be other options available there because natural gas is being demanded by so many new players out there. We are still stuck in the mode of "we've got to build a gas line and it's got to be down to tidewater." While that may be the case and maybe that is the best thing that we can do, if we see other countries be able to build in the Arctic environment and not go through the structure we're going through, maybe we should push pause for a second and make sure this is the right way.

If we can spend $10 billion as opposed to $45 billion — and I don't know for sure if $10 billion is the right number — but if we can spend a lot less and get a lot more value out of our gas, that's worth taking a moment and ensure we're doing the right thing.

Q AND A

Petroleum News: What do you still need to hear from the administration?

Pruitt: I still need to hear they have been talking to the producers. I need to hear that they have taken Alaska's interest into account. There are other smaller things I'm going need to hear. What is the actual financing structure? Where are we going to get the $11 billion in equity? What are the mechanisms to ensure we are not taking all this risk? They are saying AGDC wouldn't lose the tax-exempt status. I don't want to question them without fully understanding it. There are a lot of pieces that just make me want to hear from them to be assured that we're not going to get ourselves into something that in the long run is not the best for us or commits us to something we are going to have to pay for in the future.

Petroleum News: Do you see any upside that these agreements are with some pretty heavy-hitting entities plus the agreement was signed in front of the two presidents?

Pruitt: There is an upside that they were talking to large organizations. I recognize that it being signed in front of two presidents. That's a big deal. When the governor talked to us when we were up in his conference room, that's all the governor talked about: what it took to be able to sign that agreement in front of the two presidents. It was all about that. Keith Meyer went a little bit into the details of the deal — but the very surface — but the governor was about all about the agreement being signed in front of the president. I get it that the president wants to reduce the trade deficit.

How many of the $250 billion are ultimately going to come to fruition? I don't know.

Was dropping the $45 billion amount, did it help get to $250 billion, so it looks like a really large deal. I don't know. I'm not trying to cast dispersions on the president. Ultimately signing it in front of (Trump), who has to look at the national side of things and signing it in front of the Chinese president who has to look at his angle, still doesn't change the fact that Alaskans are the ones who are going to be on the hook.

We can sign things in front of fancy people and in fancy halls in other countries: if it's not good for Alaska, then it's not the right thing.

Petroleum News: At what point do you decide to either keep pursuing or decide to put it on the shelf, as some believe should have been done already?

see PRUITT Q&A page 14

● PIPELINES & DOWNSTREAM

New Slope pipeline tariffs mainly down

Operators of lines feeding trans-Alaska oil pipeline cite higher volumes, lower costs, for reductions; methodology for increases

By KRISTEN NELSON
Petroleum News

Of North Slope pipeline tariff revisions filed for 2018, more show a decrease from 2017, or are the same, than show an increase. Increased volumes, followed by reduced costs, are the most frequently cited reasons for lower rates. For two pipelines with higher rates, no generalized reasons were provided; those tariff filings referred to methodologies in settlement agreements reached with the state in the past.

These are tariffs for pipelines feeding crude oil from major North Slope fields into the trans-Alaska oil pipeline. Notices of pipeline carrier tariff filings by the Regulatory Commission of Alaska include lines moving crude oil from Alpine on the western side of the Slope to Badami on the eastern side.

Nutaaq Pipeline, which provides service from Badami to a tie-in point with the Endicott Pipeline, told RCA that it does not seek a revision of its current rate of $1.10 per barrel.

The line from Point Thomson to Badami, the most recent to be constructed, is not included in this group of tariff filings because that tariff does not currently require a year-end filing. The owners of the Point Thomson line, ExxonMobil Pipeline Co. and BP Transportation (Alaska) Inc., reached a settlement with the state in 2016 providing for an initial rate of $17.56 per barrel through March 31, 2017, and a rate of $12.09 per barrel from April 1, 2017, with a new rate to come into effect no later than July 1, 2019.

Alpine rate down

Alpine Transportation Co., which operates the pipeline which moves oil from the Alpine unit to an interconnection in the Kuparuk River unit, proposes to reduce its annual per-barrel tariff from 72 cents to 67 cents. In its filing with RCA the company said the reduction was "due primarily to projected throughput for 2018 being higher than 2017 projected throughput." Alpine field operator ConocoPhillips Alaska has added production from the new CD5 pad, which came online in October 2015, to existing production.

Major ownership in the Alpine line is held by ConocoPhillips and Anadarko Petroleum; ASRC Pipeline Co. has a 15 percent interest and Kuukpik Corp. has a 1.67 percent interest.

In its fall Revenue Sources Book the Alaska Department of Revenue said fiscal year 2017 crude production (July 2016-June 2017) for Alpine averaged 58,900 barrels per day, with FY 2018 (July 2017-June 2018) projected to average 63,100 bpd.

As with other lines, the proposed annual tariff revision is based on a settlement agreement with the state. Alpine Transportation requested that the new rate be effective Jan. 1 and noted it had also submitted a filing with the Federal Energy Regulatory Commission. RCA regulates intrastate rates; FERC regulates rates for interstate volumes.

Badami

Nutaaq Pipeline, which provides service from Badami to a tie-in point with the Endicott Pipeline, told RCA that it does not seek a revision of its current rate of $1.10 per barrel. The Nutaaq operator is Glacier Oil and Gas, which operates the Badami field through its subsidiary Savant Alaska.

In its filing with RCA Glacier said the continuation of its current tariff is based on updated 2018 expenses, "including $646,379 less in maintenance projects planned for 2018" and "updated throughput anticipated in 2018 based on production estimates from Point Thomson."

In the fall forecast Revenue said Point Thomson volumes averaged 3,100 bpd for FY 2017 and were projected to average the same for FY 2018, increasing to 5,300 bpd in FY 2019 (beginning July 2018).

Endicott

Endicott, operated by Hilcorp subsidiary Harvest Alaska, filed two 2018 tariffs, one for the line from the Endicott main production island to Pump Station 1 and one for the line from the Badami connection to Pump Station 1.

Both rates decreased from 2017, with the Endicott to Pump 1 rate dropping from $2.19 per barrel to $1.97 per barrel, and the Badami connection to Pump Station 1 rate dropping from $1.39 per barrel to $1.25 per barrel. Those 2017 rates reflect a mid-year reduction: In December 2016 Endicott filed for rates of $3.27 (up from $2.22) for the main line and $2.08 per barrel (up from $1.41) for the Badami connection line.

In August the company filed for a midyear rate decrease, telling RCA that the revision was voluntary based on increased throughput from Point Thomson. The midyear reduction was from $3.27 to $2.19 per barrel for the main line and from $2.08 per barrel to $1.39 for the Badami connection line.

Kuparuk

The Kuparuk Transportation Co. filed two tariffs: One from the Kuparuk River unit origin and one from the Milne Point connection (there is a separate tariff from the Milne Point central facilities to Kuparuk, see below).

Both rates represent a decrease: the rate for Kuparuk-origin crude for 2018 will be 20 cents per barrel, down from 22.8 cents per barrel; the 2018 rate for Milne-origin crude will be 15.2 cents per barrel, down from 17.4 cents in 2017.

In its filing with RCA the company said: "The decrease is due primarily to 2018 projected operating expense being

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● ENVIRONMENT & SAFETY

NOAA reports continuing Arctic warming

Report card for 2017 emphasizes a new normal of reduced sea ice cover and shorter snow seasons despite near average temperatures

By ALAN BAILEY
Petroleum News

Although Arctic air temperatures last summer and fall were cooler than in recent years, long-term indicators continue to point to a "new normal" for the Arctic, with air temperatures rising at double the global rate, declining sea-ice cover, a declining extent and duration of snow cover, and the declining mass of glaciers and the Greenland ice sheet, according to the National Oceanic and Atmospheric Administration's Arctic Report Card for 2017.

"Arctic conditions in 2017 provide an excellent example of the need to assess observations in the context of longer-term records," the report card says. "After a very warm Arctic-wide autumn 2016, spring and summer 2017 had near average air temperatures relative to the 1981-2010 climatology."

The relatively cool conditions led to a rebound in the extent of the snow cover in May and June in Eurasia, the slowing of the rate of loss of sea ice, and a below-average extent of the melt of the Greenland ice sheet, the report card says. The spring snow cover extent over Eurasia was the second highest on record since 1967, the minimum sea ice extent in September was up a bit relative to the last couple of years, and the extent of the summer Greenland ice sheet melt was the lowest since 1996.

Long term trend

But the report card cautioned against using last summer's cool conditions as evidence that there may be some relaxation in the overall warming of the Arctic. In the longer term, surface temperatures in the Arctic Ocean are increasing, causing sea ice to form later in the fall. Onshore, temperatures in the permafrost have also been rising, the report card says.

"Arctic paleo-reconstructions, which extend back millions of years, indicate that the magnitude and pace of the 21st century sea-ice decline and surface ocean warming is unprecedented in at least the last 1,500 years and likely much longer," the report card says.

The consequence of the long term warming has been an increase in the biological productivity in the Arctic Ocean, a factor that impacts the web of marine life. And, on land, vegetation is expanding, with impacts on hydrology, on the cycling of carbon and nutrients, on the surface energy balance, and on plant eating wildlife and domestic animals.

"The unprecedented rate and global reach of these changes highlight the pressing need to prepare for and adapt to the new Arctic, enabled by more effective and timely communication of observations to scientists, policymaker and residents," the report card says.

Warm in Alaska and NW Canada

Despite relatively cool conditions across much of the Arctic during the sum-

see **REPORT CARD** *page 14*

EXPLORATION & PRODUCTION

State approves CD2 pad expansion

The Alaska Department of Natural Resources Division of Oil and Gas has approved an application from ConocoPhillips Alaska to expand the CD2 pad in the Colville River unit.

The company applied in October to place gravel to expand the west side of the CD2 pad, surface infrastructure which would allow drilling of 32 wells to develop the Fiord West prospect.

Activities are scheduled to begin during the winter of 2018 and continue through the spring of 2020.

Some 73,000 cubic yards of gravel will be placed to enlarge the pad, and vertical support members, pipe racks, lights and conductors will be installed in the expansion area.

The division said it received comments on the proposal from the Northern Regional Office of the Division of Mining, Land & Water, requesting that ConocoPhillips abide by the 2008 North Slope mitigation measure definition for secondary containment on state lands. A stipulation was added as a result of the comment, requiring an as-built survey within a year of gravel placement and storage of all associated hydrocarbon and hazardous substances tanks within lined and bermed secondary containment capable of holding 110 percent the volume of the largest container.

The approval expires Dec. 14, 2020, if activities have not commenced.

—PETROLEUM NEWS

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PIPELINE TARIFFS

lower than 2017 projected operating expense."

The company said that as required it notified the non-Kuparuk parties (the state and Anadarko Petroleum) in advance of the filing and neither has advised it of any dispute on the rate calculation under the Kuparuk settlement agreement. Anadarko oil comes through the Kuparuk system because that company is an owner in the Alpine field and that oil moves through the Kuparuk pipeline on its way to Pump Station 1.

Milne Point, Northstar

The Milne Point and Northstar pipelines were the only North Slope pipelines to file for year-over-year increases. Both filings were submitted by Harvest Alaska, which operates those lines.

The rate from Milne to its connection with Kuparuk will increase from 63 cents per barrel to $1.20 in 2018. In its filing the pipeline said the increase was in accordance with the Milne Point settlement methodology in the Milne Point settlement agreement approved by RCA in 1996.

The Northstar Pipeline Co. filed for an increase from $1.14 per barrel to $2.48 per barrel, citing a 2009 settlement agreement between the state and BP Transportation (Alaska). ●

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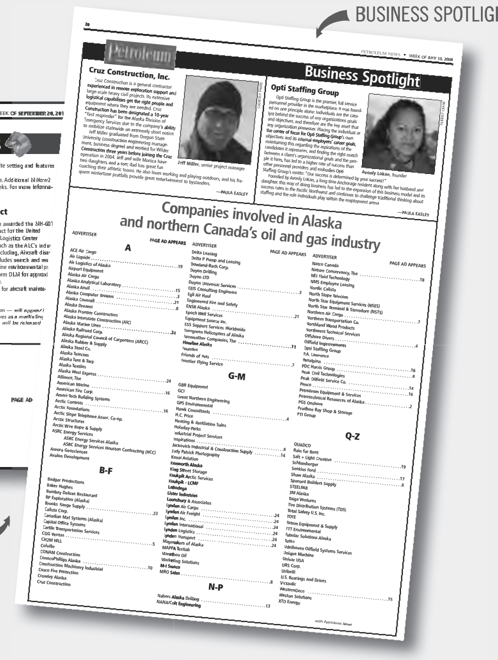

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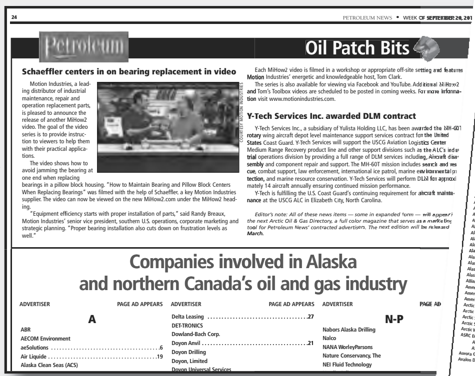

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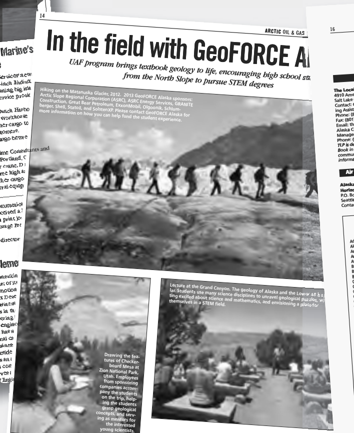

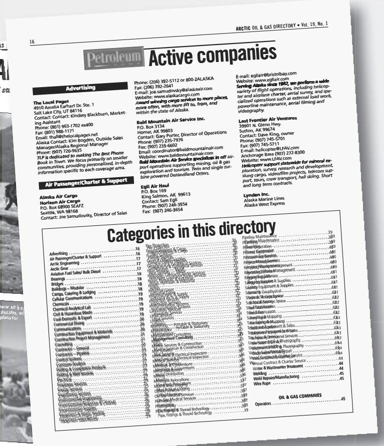

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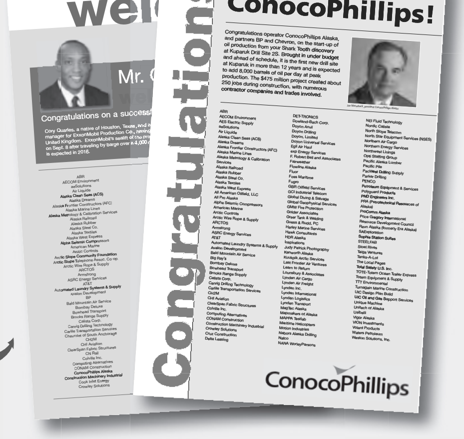

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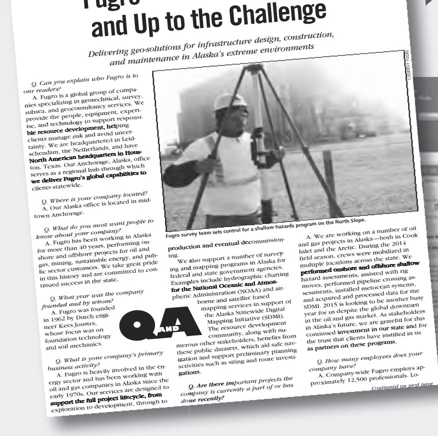

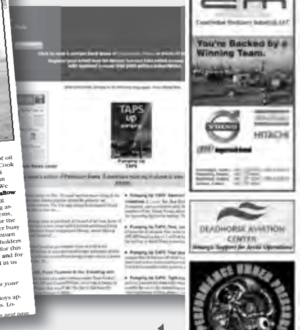

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WEB ADS

NORTH OF 60 MINING news

page 8 Tangen advises miners to keep an eye on pending Alaska reg changes

www.MiningNewsNorth.com The weekly mining newspaper for Alaska and Canada's North Week of December 24, 2017

NEWS NUGGETS

Compiled by Shane Lasley

TRILOGY METALS INC.

With South32 committing to a US$10 million exploration program in 2018, the Bornite camp at the Upper Kobuk Mineral Projects will be a busy place during the upcoming field season.

South32 funds $10 million for Bornite

Trilogy Metals Inc. Dec. 14 announced that South32 Ltd. has committed US$10 million to fund the 2018 exploration program at the Bornite copper project in Northwest Alaska. This second tranche of US$10 million keeps South32's option to acquire 50 percent of the Upper Kobuk Mineral Projects in good standing. The 2018 program, which was recently approved by the Trilogy-South32 technical committee, will include in-fill and off-set drilling to better define and expand the high-grade copper resources at Bornite.

Bornite hosts an open-pit resource with roughly 2.7 billion pounds of copper in roughly 124.6 million metric tons of material averaging nearly 1 percent copper; and an underground resource with roughly 3.7 billion lb of copper in 57.8 million tons of material averaging 2.89 percent copper, according to a resource calculated in 2016. Going into the 2017 field season, the high-grade underground portion of this deposit remained open along a 1,000-meter wide front to the north.

To gain a better understanding of how far the copper mineralization at Bornite extends, this year's program included nine holes drilled at 300- and 400-meter step-outs to the north of the Bornite resource. The last two holes did not reach the targeted depth and will be finished in 2018.

With all seven holes that did reach target depth cutting high-grade copper, the 2017 drill program did not find the edges of the Bornite deposit. Highlights from the 2017 drilling include: RC17-0234 cut three high-grade copper intervals – 21 meters of 1.29 percent copper, 26.8 meters of 1.44 percent copper, and 36 meters of 0.72 percent copper; RC17-0236 cut two high-grade copper intervals from a depth of 720.8 meters – 27.1 meters of 0.8 percent copper, and 89.3 meters of 1.13 percent copper; RC17-238 cut four zones of copper from a depth of 579.7 meters – 10 meters of 0.61 percent copper, 4.9 meters of 2.11 percent copper, 5 meters of 0.55 percent copper, and 12.5 meters of 1.14 percent copper; and RC17-239 cut three copper zones – 16.2 meters of 1.04 percent copper, 8.2 meters of 1.67 percent copper, and 26.1 meters of 1.46 percent copper.

The results of the 2017 drilling program doubled the size of the known mineralized footprint and demonstrate that the high-grade Bornite copper resource system is open to further expansion. "We have essentially doubled the size of the mineralized footprint with an overall Bornite system now measuring 1,500 meters by 2,500 meters," Trilogy Metals President and CEO Rick Van Nieuwenhuyse said on Dec. 4.

see **NEWS NUGGETS** *page 10*

SHANE LASLEY

The extensive drilling completed at Pebble has outlined a massive porphyry deposit with roughly 56.8 billion pounds copper, 70.4 million ounces gold, 3.4 billion lb molybdenum and 343.6 million oz silver in the measured and indicated resource categories. First Quantum's involvement in the Pebble Partnership is helping to push this world-class asset towards development.

PEBBLE

Quantum Pebble leap

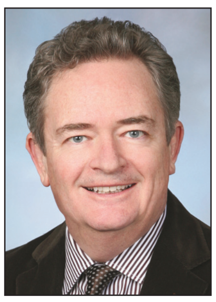
First Quantum enters $1.5B deal for half of Pebble; permitting begins

By SHANE LASLEY

Mining News

In a framework agreement announced on Dec. 18, First Quantum Minerals Ltd. was revealed as the major mining company that will complete the Pebble Limited Partnership.

"We have made good progress in the partnering process and are very pleased to be in advanced-stage discussions with First Quantum, an industry leader in mine development and management," Ron Thiessen, president and CEO, Northern Dynasty Minerals Ltd., currently the sole owner of the Pebble Partnership.



TOM COLLIER

While the final details of an agreement that will provide First Quantum the option to own half of the Pebble Partnership are being hammered out, the US$1.5 billion preliminary agreement announced on Monday includes a US$150 million investment by First Quantum the will involve four equal payments of US$37.5 million to fund the upcoming permitting process for Pebble.

As long as the option remains in good standing, the global miner has the right to acquire 50 percent interest in the world-class Pebble copper-gold mine project by investing another US$1.35 billion into the partnership at the end of the four-year option period.

"This initial investment by a well-established copper mining company speaks volumes about the economic opportunity Pebble represents to Alaska," said Pebble Partnership CEO Tom Collier. "Pebble development could make a significant contribution to Alaska's economy and provide year-round jobs for Southwest Alaska. Additionally, Pebble could provide important revenue to state and local governments."

This tentative option agreement laid the foundation for the Pebble Partnership to advance Pebble into the long-awaited permitting process on Dec. 22.

Enter First Quantum

With seven operating mines and five mineral exploration and development projects, First Quantum is a growing, diversified miner with a particular focus on copper. Its operating mines and development projects are located in Africa, Australia, Finland, Spain, Turkey and Latin America.

First Quantum's industry-leading mine development track record, technical expertise, financial wherewithal and global growth strategy makes the company ideally suited to take on a world-class copper-gold project like Pebble.

While none of the company's operations are in North America, First Quantum has been eying Alaska's copper and gold potential for a few years now.

First Quantum's early interest in Alaska came as part of its 2013 buy-out of copper rival, Inmet Mining Corp., a company that had an exploration agreement with Millrock Resources Inc. on some Alaska properties.

Instead of dropping the very early staged Alaska exploration programs initiated by Inmet, which often happens to such projects following a takeover, First Quantum expanded its partnership

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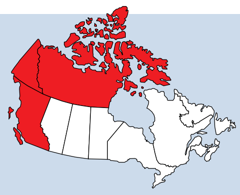
NORTHERN NEIGHBORS



Compiled by Shane Lasley

Skeena cuts deal for historic Eskay Creek

Skeena Resources Ltd. Dec. 18 cut a deal with Barrick Gold Corp. to acquire all of the major's interest in the Eskay Creek gold mine property in the Golden Triangle region of northwest British Columbia. Barrick has also agreed to make a C$1 million strategic investment in Skeena.

Discovered in 1988, the former Eskay Creek mine produced roughly 3.3 million ounces of gold and 160 million oz of silver at average grades of 45 grams per metric ton gold and 2,224 g/t, which at the time made it the world's highest-grade gold mine and fifth-largest silver mine by volume.

"Eskay Creek was a remarkable discovery that became an extraordinary mine," said Skeena CEO Walter Coles Jr. "It produced 3.3 million ounces of gold and 160 million oz of silver from 2.2 million tonnes (metric tons) of ore from 1994 until closure in 2008. We are honored that Barrick has given us an opportunity to investigate and potentially revitalize one of Canada's highest-grade past-producing mines."

WALTER COLES JR.

To acquire Barrick's ownership of Eskay Creek, Skeena has agreed to: invest C$3.5 million in exploration on the property over the next three years; pay Barrick C$10 million once the exploration requirement has been met, all regulatory approvals have been received, and all permit transfers and underlying agreement consents have been obtained; and reimburse Barrick for reclamation expenditures incurred during the option period and assume the bond amount on the property, collectively up to a maximum amount of C$7.7 million. Anything over the C$7.7 million in reclamation and bond costs would be subtracted from the C$10 million purchase price.

Barrick will retain a 1 percent net smelter return royalty on all parts of the property not already subject to royalties. In addition, Barrick will maintain a back-in right to purchase a 51 percent interest in Eskay Creek for a 12-month period following Skeena's completion of an NI 43-101 resource of at least 1.5 million oz gold-equivalent. To exercise the back-in right, Barrick will pay Skeena up to three times its cumulative expense on the property. As part of the back-in Barrick would also reimburse to Skeena the purchase price and assume any bonding requirement for its proportionate interest, following which the parties will form a joint venture.

The C$1 million strategic investment will involve Skeena issuing 1.25 million flow-through shares at a price of C80 cents per share. The net proceeds of the financing will be used to incur Canadian exploration expenses.

Canarc Resource Corp. retains a 33.3 percent carried interest in certain mining claims adjacent to the past-producing Eskay Creek Mine. Canarc said it is pleased to see the renewed interest in this property and will benefit from any future exploration success and development that may occur on these claims.

In addition to Eskay Creek, Skeena owns the historic Snip gold mine property, another historic gold mine property acquired from Barrick; and Spectrum-GJ, a large gold-copper property the company is exploring. All three properties are located in British Columbia's Golden Triangle.

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● OPINION

Miners should follow pending reg changes

Rules concerning mining locations on state land and state-selected land as well as maintenance requirements are up for change

By J. P. TANGEN

Special to Mining News

For the past 20 months or so, the Department of Natural Resources (DNR) has been wrestling with some proposed changes to the regulations concerning the location and maintenance of State of Alaska mining claims. This effort has been driven by some substantial issues that have arisen with the interpretation of the regs over the past several years as well as some significant open questions. The current proposed changes can be obtained from the DNR's website, but the process is still in the scoping phase, so additional changes may be forthcoming. DNR has held public hearings in Anchorage and Fairbanks this month to solicit input. Hopefully many readers of this column have already participated and will continue to participate in the process going forward.

The subject of the proposed changes so far has been tightly focused on six topics: location of mining claims on state-selected land; locations on state land; qualification of locators; annual rent; annual labor; and abandonment. There is not sufficient space in this column to go into details with regard to each of the proposed changes, but it is appropriate to throw some flags on the field for the benefit of individuals and entities that will have to live under these regulations for many years to come. It has been over a decade since the mining regs have been amended. It may be another ten or fifteen years before any corrections can be made again.

Two principles need to be on the table in any discussion of regulatory changes – the modifications must follow the statutes and case law that is already on the books and is binding on the Department, and the modifications must do no harm. Administrative law in general is a trap for the unwary. Mom and Pop placer miners working in the field during the 100 odd days between break-up and freeze-up are poorly positioned to study regulations closely as they work their claims. To the extent that they rely on what they are told the regs require or what they happen to remember, they are destined for disappointment. Slight changes made for the benefit of "efficiency" are almost guaranteed to bite someone on the backside sooner or later.

Mining & the law

J.P. TANGEN

The author, J.P. Tangen has been practicing mining law in Alaska since 1975. He can be reached at jpt@jptangen.com or visit his Web site at www.jptangen.com. His opinions do not necessarily reflect those of the publishers of Mining News and Petroleum News.

For instance, the Mining Year has been set to begin at noon on September 1 and end at noon on the following September 1 for a very long time. The proposed regs would change that tradition by making the mining year begin immediately after midnight on August 31 and end at midnight the following August 31. Although the existing mining year makes no particular objective sense, it is such a subtle change as to be likely to be overlooked by someone, somewhere, sometime.

Apparently, there is confusion with regard to claims located on state-selected but unpatented or not tentatively approved for patent to the state. Almost no one is confused by the fact that until the land is conveyed to the state, the state doesn't own it, so the state cannot authorize mining on it. The real problem is that it dawned on some clever fellow that where Miner A has a federal mining claim on

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MILLROCK RESOURCES INC.

Geologists Janine Calder, Greg Beischer and Jeff Kyba investigate an outcrop at the Waterfall prospect on the Todd Creek property in northwestern British Columbia.

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NORTHERN NEIGHBORS

Millrock identifies new Todd Creek prospects

Millrock Resources Inc. Dec. 18 said stream sediment sampling has identified new multi-metal prospects on its Todd Creek project in the Golden Triangle region of northwestern British Columbia.

The survey, which covered a 6-kilometer- (3.7 miles) by 16-kilometer- (10 miles) area, affirmed multi-element anomalies in areas of known base and precious metal mineralization that extend for 10 kilometers (6.2 miles) along the Todd Creek valley. This valley reflects a major faults system that appears to control and localize base and precious metal mineralization. The area around the previously documented Falls Creek, Orange Mountain and Yellow Bowl occurrences in this area were found to be anomalous in gold, silver, copper, lead and zinc over an area measuring about 1,500 meters in diameter. Millrock said pathfinder elements of cadmium, barium, phosphorous and antimony were strong, and tellurium, a mineral frequently found in association with gold, was particularly anomalous in seven samples collected from a 1,000-meter-area.

Additionally, two new prospect areas – Survey and MJ – were identified.

The Surveyor area is anomalous in gold, silver, copper, molybdenum, lead, zinc, and pathfinder elements cadmium, antimony, tungsten, sulfur and phosphorous. Millrock also noted strong nickel anomalism encountered in this area. A Versatile Time Domain Electro Magnetics (VTEM) survey and magnetic survey completed by a previous operator in 2011 were examined by Millrock. The company said several conductive zones with a strong magnetic disruption response were noted in the vicinity of the Surveyor geochemical anomaly, and are potentially indicative of porphyry-style mineralization. The coincident VTEM, magnetic and stream sediment anomalies that comprise the Surveyor prospect will be a priority for follow-up exploration in 2018.

MJ is anomalous in gold, copper, molybdenum, lead, zinc, and pathfinder elements barium, germanium, tellurium, tungsten, uranium, and niobium. Millrock said geophysical surveys also indicate possible porphyry-style mineralization at MJ. Millrock consultants familiar with historic work on the Todd Creek project report that this valley was filled with snow and ice in 2008, the last time which exploration crews were active on this project. This portion of the project is largely covered by the Todd Icefield. Millrock said the MJ area will also be a high priority for follow up in 2018.

Situated about midway between the Brucejack gold mine and the town of

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TANGEN

land surrounded by state land, Miner B can locate some "at risk" state claims on top of Miner A's claims and defeat Miner A's ability to convert his federal claims to state claims. This is probably contrary to established law; however, the proposed regulation fails to make that clear.

Another perpetual problem that the revisions attempt to resolve relates to what happens with regard to affidavits of annual labor where the affidavit does not comply with the regulations but the DNR after many years still regards the claims as "active"? Should DNR, upon discovery of a deficiency just declare the claims abandoned retrospectively? Should the miner who has been diligently mining his ground, paying his rent and filing his albeit defective affidavits each and every year for the past decade be euchred out of his livelihood by the stroke of a bureaucratic pen? As the Bard noted, "the quality of mercy is not strained."

DNR, in its proposed draft regulations, goes to great length to resolve the issues posed by deficient affidavits; and, for better or for worse, in the few cases in which the Supreme Court has weighed in, their opinions have not been helpful. Nowadays, there seems to be a routine committee of vultures waiting at the recorder's office to prey upon the miner who gets it wrong.

DNR steadfastly declines to adjudicate disputes among conflicting claimholders, customarily sending them to the courthouse, insensitive to the cost of litigation. On the other hand predatory practices are often rewarded because there is no reasonable remedy for small miners to pursue when victimized. The proposed revised regulations simply do not mete out justice in such cases, just more complexity.

Alaska's miners need to pay attention to these regulations as they go forward. They are deceivingly complex and are likely to affect everyone in the industry, one way or the other. ●

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NEWS NUGGETS

Additionally, Trilogy Metals Dec. 19 announced that a wholly-owned subsidiary of South32 has become a significant new shareholder by acquiring roughly 6.5 million Trilogy shares, which is approximately 6 percent of the outstanding common shares. CEO Van Nieuwenhuyse also increased his Trilogy Metals shareholdings by approximately 1.7 million shares, bringing his total ownership of the company to 2.8 million shares or approximately 2.6 percent. South32 and Van Nieuwenhuyse purchased these shares from a previous shareholder.

Trilogy Metals has granted South32 the right to participate between 20 percent and 40 percent in future financings, private or public, to a maximum ownership of 19.9 percent of Trilogy.

"We are excited to have South32 as a significant shareholder and joining our other large shareholders: Electrum, Paulson and Baupost. Together with our strong supportive shareholders the company expects to advance development of the Arctic and Bornite projects in the Ambler mining district. It is an exciting time to be a Trilogy shareholder and I am pleased to personally be all-in on Ambler!" said Van Nieuwenhuyse. ●

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NORTHERN NEIGHBORS

Stewart, Todd Creek is one of three large projects Millrock owns in British Columbia's Golden Triangle. Highway 37A passes through the property.

Golden Predator eyes new 3 Aces gold target

Golden Predator Mining Corp. Dec. 14 reported that results from 36 reverse circulation holes drilled at the 3 Aces Project in southeast Yukon have extended the mineralization has extended the Spades zone and confirmed the potential for near surface bulk tonnage type gold mineralization there.

Highlights from this batch of drill results include: 1.5 meters of 36.33 grams per metric ton gold from a depth of 32 meters in hole 3A17-175, drilled in the North-Central Spades (formerly known as the Queen of Spades) zone; 14.5 meters of 1.06 g/t gold from a depth 16.8 meters in hole 3A17-266, drilled in the Southern Spades (formerly Nine of Spades) zone; 14.5 meters of 3.4 g/t gold from a depth of 40.4 meters in hole 3A17-275, drilled in the Southern Spades zone; and 47.3 meters of 1.11 g/t gold from a depth of 5.3 meters in hole 3A17-144, also at Southern Spades.

Golden Predator said the latest batch of results extend the Spades zone by more than 20 meters to the south and confirm the high-grade gold mineralization and near surface bulk tonnage type mineralization. Drilling on the northern extent of the Spades zone, roughly 1,000 meters northwest of the step-out drilling, has encountered significant near surface bulk type mineralization.

Gold grades in the northern and north-central portions of the Spades Zone are thought to represent leakage into the hanging wall from a major northwest trending shear zone that controls mineralization in the Spades, Clubs and Hearts zones. This mineralization is in the form of higher angle, higher grade gold in quartz veins typical of the central Spades Zone, as well as potentially bulk minable grades. Based on the evolving geological model, Golden Predator said the holes along the northern and north-central Spades trend should be extended 50 to 150 meter to reach and properly test this identified northwest trending shear zone target which appears to underlie most of the Spades Zone. This interpretation opens up a new target for exploration. The company also believes the shear zone accounting for the Spades Zone may be one of several such structures controlling gold deposition at 3 Aces.

"This drilling has opened our eyes to the very significant potential for disseminated mineralization in tandem with high grade veins in specific, repeating structures," said Golden Predator CEO Janet Lee-Sheriff. "With these new results from the southern end of the Spades which contain significant gold, you can see that we have successfully increased the known mineralization footprint by over 200 meters along strike to the south. The total strike of the Spades Zone is now approximately one kilometer." ●

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FIRST QUANTUM

with Millrock to include reconnaissance copper and gold exploration on a 1.6-million-acre tract of mineral land owned by Bristol Bay Native Corp.

The miner also partnered with Kiska Metals Corp. to explore Copper Joe, another prospective porphyry copper-gold property about 160 miles northeast of Pebble.

Long-term growth

While neither of First Quantum's early staged Alaska copper-gold exploration projects panned out, they established a foothold in the state that eventually led the company to cut a deal on Pebble – a permit-ready exploration project that hosts roughly 56.8 billion pounds copper, 70.4 million ounces gold, 3.4 billion lb molybdenum and 343.6 million oz silver in the measured and indicated resource categories.

Considered both the largest undeveloped copper and undeveloped gold resource on the planet, Pebble provides First Quantum with a project that potentially could provide the company the ability to supply these metals, along with the healthy portions of molybdenum and silver, for more than a century.

"This is indeed an investment in the long-term future of our company and it is sustainable growth through the next decade," said First Quantum President and CEO Philip Pascall.

In addition to robust exploration, the more than US$762 million invested in Pebble over the past 16 years has collected all of the environmental, engineering and other studies needed to prepare the mine project for permitting.

"We consider the option on Pebble effective as an extension of our exploration program but given the geological work done it already, it requires no further geological search," Pascall added.

Long-awaited permitting

The agreement with First Quantum opens the door for a long-awaited and major milestone for the Pebble Partnership – submitting the applications that kick off the permitting process for developing a mine at Pebble.

Pebble Partnership CEO Collier challenged his technical team to come up with an economically viable mine with a footprint of around 4.7 square miles, which is the size the U.S. Environmental Protection Agency said would be acceptable under its proposed restrictions on Pebble.

"My target was to get us in the ballpark of what the Obama Administration EPA said is something that could be built in the Bristol Bay Watershed," the Pebble Partnership CEO told Mining News. "I figure that if your strongest critics say your project could be environmentally sound then you are in the right place."

With a footprint of 5.9 square miles, which is smaller than the Ted Stevens International Airport in Anchorage, the project the Pebble Partnership is taking into permitting lands in the ballpark.

Collier said that the Pebble Partnership team is proud of the work it has done to balance economics and environment.

"We have put forward a project that is financially sound but is very reasonable," he said.

Pascall said First Quantum believes the project being submitted to the U.S. Army Corps of Engineers, the lead agency for the Pebble permitting process under the National Environmental Policy Act, will show that a mine at Pebble can be developed in an environmentally sound manner.

"It is our belief that the Army Corp's findings will provide an important, objective and scientific validation that Pebble can be developed to meet the rigorous environmental standards enforced in the United States and Alaska," he said.

The First Quantum CEO, however, said his company is not taking lightly the high standards this project will need to meet to convince Bristol Bay residents and fisherman, as well as Alaskans at large, that Pebble can be safely developed.

"I am not underestimating the effort required to make sure that any permits received from federal and state regulatory agencies are defensible, and will give comfort to communities and industry," he said. "However, I believe this project can be developed and operate safely; can co-exist with the important fisheries resources; and will make a positive contribution to the region and the state." ●

PIPELINES & DOWNSTREAM

Judge dismisses effort to stop pipeline

A federal judge has delivered a blow to some Ohio property owners' efforts to stop construction of a high-pressure natural gas pipeline.

U.S. District Judge John Adams in Akron on Dec. 19 dismissed a lawsuit filed in May by more than 60 property owners. They want the Federal Energy Regulatory Commission prevented from approving construction plans for the 250-mile-long NEXUS pipeline.

The judge accepted a magistrate's recommendation that the court in northern Ohio lacks jurisdiction to consider the challenge.

The $2 billion project is designed to carry 1.5 billion cubic feet of gas daily from the Utica and Marcellus shale fields in Appalachia across northern Ohio into Michigan and Ontario, Canada.

—ASSOCIATED PRESS

Crude in Washington tops 1M barrels/week

Figures show railroads ship more than 1 million barrels of crude oil across Washington each week. The Spokesman-Review reports information from October 2016 through September of this year indicate railroads shipped nearly 56 million barrels of crude oil across Washington in 82,000 rail cars. Most of the oil trains enter the state from Idaho, transporting light crude from North Dakota.

The state last year began requiring facilities that receive crude oil by rail to notify the state officials in advance of shipments. The information is shared with emergency managers along the rail route. The Department of Ecology later publishes quarterly reports summarizing the volumes.

The state says railroads began shipping crude oil through Washington in 2012, and volumes have increased over time. Washington's reporting rule also applies to pipelines, which must report information about crude oil volumes twice per year.

—ASSOCIATED PRESS

PIPELINES & DOWNSTREAM

Contingency plan response deadline extended

Alaska's Office of Administrative Hearings has granted an extension of the time period within which Alaska's Division of Spill Prevention and Response must respond to a challenge to the approval of Alyeska Pipeline Service Co.'s new Oil Discharge Prevention and Contingency Plan. The new deadline for responses to the challenge by SPAR or members of the public is Jan. 12.

As previously reported by Petroleum News, Prince William Sound Regional Citizens Advisory Council, Prince William Sound Aquaculture Corp, the City of Valdez and Valdez Fisheries Development Association have questioned the new contingency plan, claiming that the plan has unacceptably weakened the standard of protection for the Valdez Duck Flats and the Solomon Gulch Hatchery in Port Valdez near the marine terminal. The organizations have said that the new plan unacceptably extends the time within which protections must be put in place following an oil spill, and weakens the criteria for determining situations in which protections must be implemented.

Alyeska Corporate Communications Director Michelle Egan has told Petroleum News that Alyeska has not weakened its commitment to protect sensitive areas in Port Valdez.

"Over the course of a work group process, Alyeska worked with the state, federal, and other stakeholders to revise a decision-making matrix that is intended to assist initial responders in the early hours of an incident," Egan wrote in a Dec. 8 email. "The updated matrix is a more effective tool and guides initial responders to make sure they send response resources where they are most needed."

Egan commented that during the September response to an on-water oil spill at Berth 5 of the terminal, response crews started protecting the hatchery and Duck Flats within six hours of the incident. The response actions were based on conditions specific to this particular incident, including the weather and the tide, Egan said.

—ALAN BAILEY

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CREDIT PAYOUT

In its packet of information on the proposed budget the administration said that after House Bill 111 ended the cash credit program, the governor asked the Department of Revenue to explore further options for expediting payments of outstanding oil and gas exploration tax credits.

"As part of the Alaska Economic Recovery Plan, we propose to pay off the remainder of our outstanding future obligations to independent oil and gas exploration companies at a modest discount rate in fiscal year 2019," the administration said. It proposes to issue bonds to pay off the credits, and said credit holders would be paid "at a discount that covers the cost of borrowing."

About a billion dollars

Revenue Commissioner Sheldon Fisher, speaking at a Dec. 15 press conference on the budget release, said there is a formula in statute for the amount of credits the state must pay each year, and the administration estimates that by the time all the credit programs expire there will be about a billion dollars in credits. It is estimated that some $100 million of those credits will be sold to other oil companies to offset taxes, leaving just under $900 million. Based on current revenue, Fisher said, those credits would be paid off over the next six to seven years.

The administration is proposing to pay off the credits immediately, which would require legislation, he said. The proposal is to offer the holders of credits a discount to the face amount, depending on where the credits fall in the queue and how quickly they would be paid off.

Fisher said the proposal recognizes the time value of money, with the notion that the state will discount the amount to the credit holders to cover the state's cost of issuing debt or bonds to pay them off and said the state believes the discount would be substantially below what the companies' cost of capital would be and would allow them to receive money to use in operations.

Payment details

Details from the Office of Management and Budget show the estimated required payments under statute as $206 million in FY2019, $167 million in FY2020, $119 million in FY 2021, $132 million in FY 2022, $135 million in FY2023, $139 million in FY2024 and $1 million in FY2025.

OMB said the Fall 2017 Revenue Forecast estimates that $711 million in tax credit certificates will be available for purchase by early in FY2019, with an estimated $188 million additional over the next three years.

The proposed legislation for bond financing would include authority for Revenue to "negotiate discounted tax credit certificate purchases"; authority to issue bonds to finance the cost of the purchase; and appropriation for debt service for the FY2019 operating budget, with $27 million in the budget for the estimated bond payment.

OMB said that under the proposal bonds would be issued beginning in FY2019 to pay off the discounted present value of the $711 million in existing tax credit certificates, with bonds issued later to cover the remaining certificates.

The proposed base discount rate is 10 percent, which OMB said is believed to be less than the weighted average cost of capital for the credit holders. There would be an option for credit holders to receive a reduced discount rate equal to the state's breakeven cost in exchange for an overriding royalty interest to be defined by the Department of Natural Resources.

—KRISTEN NELSON

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NICOLAI CREEK

Cook Inlet basin suggested the Nicolai Creek No. 10 well is fault separated from the Nicolai Creek No. 3 well, which creates the opportunity to access additional reserves in the known producing formations. The company plans to review existing data to determine the economics of the project.

Aurora Exploration is in the process of acquiring the Nicolai Creek unit from Aurora Gas LLC out of bankruptcy and expects to resolve all outstanding administrative issues for the purchase in January 2018. (The two companies have similar origins but are not affiliated.) The Nicolai Creek unit was the most prolific unit in the Aurora Gas portfolio.

The current plan of development is the first submitted by Aurora Exploration.

Aurora Exploration also acknowledged that it "is currently in discussions with several entities that could result in a sale of partial working interest" in the Nicolai Creek unit.

The five currently producing wells at the unit produced 213 million cubic feet of natural gas between Nov. 1, 2016, and Oct. 31, 2017, according to the company. The most productive of the five was the Nicolai Creek No. 9 well at 113.4 million cubic feet and the least productive was the Nicolai Creek No. 2 well at 3.5 million cubic feet.

Workover program

In addition to the proposed development well, Aurora Exploration is also evaluating a workover program that would include several producing wells at the Nicolai Creek units.

The company would like to clean sand from the shut-in Nicolai Creek No. 3 well. But the proper coiled tubing tool "is not readily available in the Cook Inlet area at this time."

The company is evaluating the merits of performing coil tubing cleanouts of the Nicolai Creek No. 9, Nicolai Creek No. 10 and Nicolai Creek No. 11 wells in the first quarter of 2018. All three wells have sand fill but not enough to significantly restrict production.

Aurora Exploration is also evaluating a plan to add gas storage to the unit.

If the company can acquire the appropriate lease, it would consider converting the Nicolai Creek No. 2 and Nicolai Creek No. 9 wells to storage. The project would have 2.5 billion to 3 billion cubic feet of estimated storage capacity and potentially a new well.

According to the company, "feasibility studies, leasing, permitting, and implementation are all possible" during the coming year but have not yet started and are not planned.

Aurora Exploration is also not planning any exploration activity at the Nicolai Creek unit in the coming year but told the state it remains "interested in acquiring and/or accessing this new seismic with plans to interpret and evaluate; and along with other geologic data, determine possible exploration, development, and extension drilling targets at all depths."

In its plan, Aurora Exploration reiterated statements by Aurora Gas that the Nicolai Creek unit will become uneconomic by 2022 without new drilling or gas storage investment. ●

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Petroleum news

Oil Patch Bits

Fluor named one of America's most just companies

Fluor Corp. recently announced that it was named to the JUST 100 list by Forbes and JUST Capital for the second straight year. Fluor was also ranked as the most just company in the industrial goods category and in the top 25 across all categories.

"Fluor believes in conducting business in a socially, economically and environmentally responsible manner to benefit current and future generations," said David Seaton, chairman and CEO of Fluor. "We are honored to once again have the actions of our 60,000 employees be recognized by Forbes and JUST Capital."

AMERICA'S MOST JUST COMPANIES Forbes 2017

For the second annual listing, Forbes and JUST Capital ranked America's 1,000 largest publicly traded companies on the issues that Americans care most about. Companies are ranked on specific themes such as worker compensation and well-being, customer treatment, product impacts, environmental footprint, supporting communities, generating jobs, behaving responsibly in sourcing and supply chains and more.

The rankings are based on a survey on public attitudes toward corporate behavior that involved more than 72,000 Americans over the past three years. The JUST 100 list features the top 100 companies across all industries. The complete 2017 JUST 100 list can be found at www.forbes.com/just100. The list will also be featured in the December 26 issue of Forbes magazine.

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

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PRUITT Q&A

Pruitt: Honestly I have a lot of constituents getting a hold of me saying stop with this project. If I just went with the email I've gotten and the people who stopped me in stores, it would be, all right let's stop this thing. I have to make sure I'm taking into account the big picture, do my research and come to my own understanding. I'm willing to give them some time. They also have to show us they are not going to go through and just do it no matter what we say. Last year I submitted an amendment to pull the money. There were some people who said, hey, don't do that. But part of the reason was they weren't talking to us. I think they finally got the message that they need to talk to the Legislature.

There are still a lot of holes. I think the Legislature will be asking questions. I know a few who will be asking more than I have a chance to ask. I think we will understand coming out of this session whether or not this is a project we should continue going forward with, whether or not we should stop. If we are going forward, is it something we need to say you need to go through the FEED process, you need to slow it down a little. While we are OK with going forward and analyzing it, we also don't want to commit ourselves to the $11 billion in equity that we need until we are 100 percent sure. We'd rather invest a smaller amount to be sure it's the right thing before we go ahead and commit ourselves to the whole shooting match.

> *"A gas line in 10 years is a different story from whether or not we can fill our $2 billion — or whatever it's going to end up being — budget gap this year."*
> *—Rep. Lance Pruitt, R-Anchorage*

Petroleum News: Against the backdrop of budget, how much of a priority is getting the kind of resolution you just spoke of either next session or next calendar year.

Pruitt: The budget right now is our No. 1 thing. It's above the gas line. I know the gas line, particularly with this administration, is potentially seen as the savior in the future. The truth is because it's still in progress, we need to focus and make sure we get our house in order right now.

A gas line in 10 years is a different story from whether or not we can fill our $2 billion — or whatever it's going to end up being — budget gap this year. The question is can we give the stability to current businesses and investors in Alaska? Right now, they are struggling to invest because they are not certain of the decisions we are going to make. So the budget should be and needs to be a priority. I'm not even saying fill in the entire thing, but at least finding the key mechanism, which I think everyone understands it has to be the earnings reserve and coming up with a structure. But they have to set down their various "I'll do that but you have to add X." It's the "this and." They need to stop the, "this ands." We have to settle on the thing we know can fix the majority of our challenges.

That right there is the best thing and the most important thing we can do this year. The gas line takes second stage to whether or not we are going to be able to afford to live here in three, four or five years. If we can't figure this out, we choose not to reduce spending, we choose not to use the earnings reserve and we instead to decide to pull it out in taxes, we are going to run so many people out of this state that we won't have a state for a gas line to benefit. So we've got to figure out the budget first before we turn around and take a look at the secondary things, which I consider to be the gas line.

Petroleum News: Speaking of the governor's budget, one of the provisions he is including for the recent rollout was a way to pay off the tax credits, which would be issuing bonds. You wanted more money in the capital budget ($25 million) last year to pay down the credits. How do you feel about this approach?

Pruitt: I tried to look at something like this last year. I had a former revenue commissioner and he said he thought we should look into something like this. He mentioned a program from the past he thought we could use. As we looked into it, I couldn't figure out how to make program work, so I wasn't able to put anything together at the time. I think there is potential to what the governor has put out there. I'll have to talk to the benefactors and see what he wants to do. I am no way ready to throw that out. I had looked at the same thing myself. It very much could be a mechanism to ensure we get that off our plate, we come up with something that is a manageable number for the next 10 or 20 years, as well as it fulfills our commitments. It can also ensure that the people who were looking to those credits helping them continue to invest in the North Slope. I'm actually optimistic. I hope what the put together is something they can work with. I think it's promising.

Petroleum News: What do you think something like this could do to assist with the state's investment climate?

Pruitt: I think it will be huge. When we turn around and fulfill the commitments that we've made — and that's essentially what paying those credits are — especially the last couple of years we haven't been. I think it says, they (state of Alaska) made a commitment and decided to come up with a mechanism to fulfill it and now we're more comfortable going up there and investing; and this is a more stable fiscal regime to go back up there and invest.

Petroleum News: Speaking of investment climate, the state is inching closer and closer to developing the 1002 area of ANWR. What are your thoughts on that?

Pruitt: I think it's awesome. The first resolution I got passed was an ANWR resolution, which every Legislature does, but I had the opportunity to do it my first Legislature, the 27th Legislature. We've been saying for years that this is the right thing to do. It's an incredible opportunity for us, not just because there is a wealth of oil over there. I think it will show Alaskans that when we stick together — even if it's 30 years — when we do, we can accomplish some good things. If we are patient, we can succeed. There is a lot of hard work behind this, going back to the mid-'90s like (former House Speaker) Gail Phillips and (former Senate President) Drue Pearce when as presiding officers we were going to educate the rest of the nation. They all deserve credit for staying the course over 30 years and not giving up. Now we have something that could be potentially a huge boom that would not only bring money to Alaska, but keeping the pipeline open, putting people to work and benefitting our Arctic Slope communities. Our delegation should be cheered for finding a mechanism to getting it passed.

Petroleum News: Another development in Washington was the appointment of Joe Balash (assistant secretary of Land and Minerals Management). What are your thoughts on that appointment?

Pruitt: Having a friend who is essentially the head of BLM is a really good thing. Having a friend who clearly understands Alaska and very much understands resource development — obviously he was our DNR commissioner — so having that person in charge of BLM, that is huge for Alaska. Joe is a steady guy, understands the issues, it's actually be a big deal. Alaskans should be proud that we have someone who has shown themselves of a caliber that the administration would put them at the head of BLM. ●

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REPORT CARD

mer of 2017, Alaska and northwestern Canada saw above average surface air temperatures, with some locations in interior Alaska experiencing their warmest conditions on record for July.

And in August 2017 surface sea temperatures in parts of the Barents and Chukchi seas reached levels 4 C higher than the 1982 to 2010 mean for that month. These surface temperatures, set mainly by the absorption of solar radiation, are impacted by a number of factors, including the distribution of sea ice and cloud cover, the report card says.

Sea ice conditions

March 2017 saw the lowest winter maximum sea ice extent since satellite observations began in 1979. Then, following the relatively cool conditions that persisted through the summer, the September minimum ice extent was the eighth lowest on record. However, this extent remained consistent with a long-term downward trend of 13.2 percent per decade. And the high surface temperatures in the Chukchi and Barents seas in August delayed fall sea ice formation in these regions. Moreover, the proportion of thicker and more durable multiyear ice in the overall Arctic ice pack has been falling steadily, with the amount of ice at least four years old dwindling to particularly low levels. ●

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SOLAR POWER

power in a similar manner to having an individual house-top set of solar panels, a shareholder will gain from the economies of scale of a commercial facility.

Based on current pricing, the solar power will be more expensive than the power from the traditional power sources, but the cost of the solar power will be constant over the 25-year life of the solar shares. And the maintenance costs of the solar system will be minimal relative to those of a conventional power station.

Chugach Electric members who opt not to purchase shares in the solar system will not bear any of the costs associated with the system, Skaling said.

A survey of a large group of the utility's members found that 63 percent of those surveyed supported the solar project, while 61 percent expressed a willingness to pay more for the solar power, he said.

Skaling also commented the project fits well with Chugach Electric's sustainable business philosophy, adopted earlier this year. The philosophy says that the utility will make business decisions based on people, the planet and performance. People are asking for renewable energy, the solar energy will result in zero carbon emissions, and customers will have the choice of whether to pay for the solar project, Skaling said.

Two methods of payment

There will actually be two methods for purchasing shares in the project: either an upfront payment for a 25-year share, or a monthly subscription with a minimum commitment of one year. The subscription arrangement will be convenient for people who rent accommodation, for example. On the other hand, someone who pays up front will be able to assign shares to another member or sell them back to Chugach Electric at a predetermined price, in the event of a circumstance such as a house move, Skaling explained.

The utility has issued a request for proposals, inviting bids for construction of the solar facility. An evaluation of the bids will enable the cost of the facility to be firmed up. Then, following approval of the program by the Regulatory Commission of Alaska, the hope is to start selling shares around March 1. Chugach Electric will require the sale of at least 80 percent of the shares on offer before making a commitment to construct the facility.

Benefits in Alaska

People may wonder about the benefit of using solar power in Alaska, a region where days are very short during the coldest time of the year. But those short winter days are counterbalanced by the long days of summer. And any use of solar energy displaces the burning of fuel for power generation.

"Any way you slice it, when solar is producing it's offsetting natural gas," Skaling said.

Also, people will presumably scale the number of solar shares that they purchase to fit within their summer power needs, to avoid committing to more power than needed during summer months, he commented.

One issue that will arise in the winter is the accumulation of snow in the solar farm, with the potential for snow and ice on the solar panels blocking sunlight from reaching the solar cells. However, the panels will be mounted at an angle to the horizontal, a few feet above ground level. Thus, although snow can be expected to degrade performance to some extent, sunlight hitting the dark snow-covered panels will tend to cause the snow to slough off. And, with the snow cover occurring at times of the year when the amount of solar energy is relatively low, project economics favor allowing this natural sloughing process to happen, rather than actively clearing snow from the panels, Skaling explained.

Given that installing any kind of tracking mechanism, to have the panels continuously rotate toward the sun, would add to up-front and maintenance costs for the project, while potentially impacting system reliability, the solar panels will be fixed in an optimum position for capturing sunlight, probably facing south at about a 35 degree angle to the horizontal, Skaling said.

People interested in the community solar project can sign up to an email notification list on the Chugach Electric website.

"That will keep folks updated on the project and eventually announce when shares will be sold," Skaling said. ●

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ENERGY OUTLOOK

company says that strong oil demand growth coupled with OPEC-led production quotas are key factors in the decline in inventories.

Moody's oil price expectation

Moody's also commented on oil inventory levels, saying that the levels remain high but have started to decline, and that oil prices should remain within a band ranging from $40 to $60 per barrel. Key oil price risks consist of non-compliance with OPEC-led production quotas, the softening of global oil demand and the growth of North American oil production.

The Moody's report suggests that earnings from exploration and production will grow by more than 10 percent through 2018, as production volumes increase thanks to higher capital spending, with capital markets supporting this sector of the industry. While the global drilling rig count should continue to rise, drilling and service companies should see their best margin opportunities in U.S. and Canadian onshore markets. On the other hand, service-cost inflation should be contained but could rise in some markets. With upstream production set to rise in 2018, the midstream oil industry should experience increases in capital expenditure. And continued robust demand for refined products should maintain a stable outlook for refining and marketing, the report suggests.

Moody's commented that U.S. natural gas production has been growing but that price levels in 2018 will benefit from demand resulting from increased liquefied natural gas exports, gas exports to Mexico and gas usage by Gulf Coast petrochemical plants. But, with U.S. gas storage at relatively high levels, Moody's anticipates gas prices remaining within a range $2.50 to $3.50 per million Btu.

Prices for natural gas liquids have stabilized along with oil prices, Moody's added.

Lead time on new production

In conjunction with S&P Global Platts' report, Chris Midgley, the company's global head of analytics, commented on the robust level of investment in oil and gas development while also cautioning about the lead time required to bring new production on line.

S&P Global Platts says there has been a resurgence in coal demand, not because of the U.S. president's pro-coal stance, but because of changing dynamics in global coal markets.

"Planned capital investments across oil over the next couple of years of around $300 billion show that the industry is not underinvesting and is on target," Midgley said. "However these new projects will not emerge until well into the 2020s, and in the short term (2019-2021) it would appear that we might be heading towards a period of supply tightness and will be relying on U.S. onshore shale to respond to fill the gap."

S&P Global Platts also expects a sustained strong demand for refined products, and U.S. crude oil exports continuing to increase. The company sees the demand for petrochemical feedstocks outpacing the growth of demand for other hydrocarbons.

The Platts report also comments on the growing interest in electric vehicles, saying that fears about oil demand destruction by these vehicles is misplaced in the short term. The surge in electric car production to likely annual sales of more than 1 million vehicles needs to be viewed in the perspective of the 80 million new cars that are sold every year, Midgley said. On the other hand, the price of car batteries continues to fall; there have been strong policy statements by various governments and car manufacturers on moves towards electric vehicle production; and there is a strong push towards the use of electrically powered buses.

Natural gas market

Midgley commented that new natural gas production, especially in the Permian basin, is pushing down U.S. gas prices, while growing exports of LNG from the U.S. connect pricing in Asia with U.S. pricing. From a worldwide perspective China's moves towards achieving improved air quality are driving a major uptick in seasonal liquefied natural gas buying patterns, "where price is no object," Platts says.

At the same time there is continuing tension between liquefied natural gas producers and LNG consumers: the producers want long-term supply contracts to enable the securing of financing for facility construction while consumers do not want to make long-term commitments. On the other hand, Japan has greatly increased its LNG contract commitments, thus raising some interesting questions over whether some power generation will need to switch to gas, whether there may be further delays in the re-start of nuclear facilities, or whether unsold gas will be pushed back onto the spot market, the Platts report says.

The situation in Qatar is also raising some interesting questions, with the lifting of a gas development moratorium signaling the possibility of competition to lower the price of LNG, Platts says.

Coal resurgence

S&P Global Platts says there has been a resurgence in coal demand, not because of the U.S. president's pro-coal stance, but because of changing dynamics in global coal markets. In 2017 a combination of the unwinding of coal-to-gas switching in the United States, a high growth in energy demand in China, and the underperformance of nuclear generation pushed up coal demand — coal has been the fuel of choice to meet incremental fossil fuel demand outside Europe, Platts says.

However, Platts expects to see coal demand decelerating in 2018, in particular with China's clean air policy and the country's surging renewables production. Platts suggests that 2018 may prove to be the first year of coal-to-gas switching in Asia, supported by LNG supplies from the United States and Australia, and with significant growth in contracted LNG supplies for Japan and South Korea. ●

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TAPS SETTLEMENT

impact state oil royalties and production taxes — the higher the rates, the lower the state revenues. The rates also impact the cost of transporting the state's royalty oil, obtained from North Slope oil producers.

"This settlement is a great result for the state," said Alaska Attorney General Jahna Lindemuth. "It creates certainty going forward, avoids future litigation, and will provide additional taxes and royalties — bringing needed money to the state treasury."

Regulation of TAPS is the responsibility of both the Federal Energy Regulatory Commission and the Regulatory Commission of Alaska. FERC regulates the carriage of interstate oil, oil that is exported from Alaska; the RCA regulates intrastate oil, oil for delivery to in-state businesses. The Department of Law said that settlement documents would be delivered to FERC and the RCA on Dec. 15 for approval. According to the terms of the settlement, the settlement will be declared void if the regulatory agencies do not approve the settlement by May 1.

Strategic reconfiguration

The strategic reconfiguration project involved the replacement of the original turbine-powered pumps that drove oil through the trans-Alaska pipeline with electrically powered pumps, together with the implementation of a more automated pipeline control system. Alyeska Pipeline Service Co., the company that operates the pipeline on behalf of its owners, has said that the electric pumps enable efficient operation over a wide range of pipeline throughputs, thus better accommodating the low flow rates of oil through the line as North Slope oil production declines.

However, the project took much longer to execute than had been planned and suffered from major cost overruns.

Following a massive investigation over the extent to which the project costs could reasonably be recovered from pipeline rates, in November 2015 FERC issued a ruling stating that the project had been imprudent. The agency cited poor project planning and management, while also concluding that the pipeline pump system upgrade had not actually been necessary. The Regulatory Commission of Alaska concurred with FERC's findings.

The pipeline owners challenged the FERC findings in an appeal case that has ended up in the U.S. Court of Appeals for the D.C. Circuit. In October the parties in the case requested a suspension of court proceedings, pending regulatory approval of a settlement. This was presumably the settlement that the state has now agreed to.

There are actually three documents involved: the settlement agreement itself; an agreement for a new methodology for determining rates in the future; and a settlement for intrastate rates. The first two documents will require FERC approval while the third document is directed at the RCA. Intrastate rates are particularly important for the state's royalty oil, since this oil is typically sold to in-state refineries.

Interstate tariffs

The first document sets out a table of agreed pipeline interstate tariff rates that apply during a tariff refund period starting at the end of May 2011 and continuing to the end of December 2015. There is a table of tariffs to be applied during this period, together with procedures under which the pipeline owners will issue refunds for fees charged in excess of these tariffs. These refunds presumably reflect agreed overcharging as a consequence of strategic reconfiguration. There are also rules for how to recover the cost of pipeline system property tax payments relating to years prior to a current tariff.

The second document specifies the variable tariff methodology, or VTM, that will be used for determining interstate pipeline tariffs, starting July 1, 2018. Under this agreement, each pipeline owner will determine a maximum allowable rate, based on actual pipeline costs and pipeline throughput for the preceding calendar year. Each owner may assess a tariff at or below that maximum level. During the period Jan. 1, 2016, to June 30, 2018, after which the VTM goes into effect, the pipeline owners will pay refunds on rates charged in excess of maximum tariffs calculated from costs of service in 2016 and 2017.

The tariffs and throughput for TAPS, although it is a single pipeline, are managed as if there is a separate line for each TAPS owner, with each owner's "line" scaled in proportion that owner's interest in the complete pipeline. Thus, each owner can compete on price for use of its portion of the line, a situation that could presumably provide an incentive for setting a tariff below the maximum permitted amount.

The VTM allows $300 million of the $707 million cost of the strategic reconfiguration project to be amortized as a component of the pipeline operating costs, when calculating the maximum tariff. However, the owners are not allowed to add any of the strategic reconfiguration costs to the pipeline's rate base that is used to determine the return on the owners' investment in the line. The originally estimated cost of strategic reconfiguration was $242 million.

Intrastate rates

The third document, the document relating to intrastate rates, sets out specific per barrel refunds to be paid to shippers for the transportation of oil by the various pipeline owners to specific instate locations over various date ranges in the period June 2011 through December 2016. The document specifies rules for maximum rates that can be applied from Jan. 1, 2017, and financial parameters for determining subsequent rates. As in the interstate settlement, the pipeline owners, when determining rates, will be able to amortize $300 million in strategic reconfiguration costs as part of their costs of service but the strategic reconfiguration costs cannot be added to the pipeline rate base. ●

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ANWR PROVISION

"I think this is a big day for Alaska. This is a big day for the country," Murkowski said during a press conference convened by herself, Sen. Dan Sullivan, R-Alaska, and Rep. Don Young, R-Alaska. "I think that what we have seen out of the Senate and now the House, and soon to be signed by the president, is an opportunity for Alaskans that will bring many bright days into the future. This is a proud moment for Alaskans. I'm proud to be here with my friends and colleagues as the Alaska delegation."

The legislation requires the secretary of the interior to hold at least two areawide lease sales within 10 years, with the first sale taking place within four years of the legislation being enacted and the second within seven years. The idea is that federal revenues from leasing and oil production in the 1002 area will offset some of the impact of tax reductions enacted in the bill. The legislation limits surface development in the 1002 area of ANWR to a maximum of 2,000 acres, the assumption being that modern directional drilling can enable access to extensive areas of the subsurface using a minimal surface footprint.

—ALAN BAILEY

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