Petroleum news

page 5 US Senate confirms Joe Balash as Interior assistant secretary

Vol. 22, No. 51 • www.PetroleumNews.com A weekly oil & gas newspaper based in Anchorage, Alaska Week of December 17, 2017 • $2.50

This week's Mining News

MINING news NORTH OF 60

page 9 GT Gold discovers wide porphyry, second high-grade zone at Saddle

www.MiningNewsNorth.com The weekly mining newspaper for Alaska and Canada's North Week of December 17, 2017

NEWS NUGGETS

Compiled by Shane Lasley

Willie Hensley joins Trilogy board

Trilogy Metals Inc. Dec. 11 announced the appointment of renowned Alaska Native leader William Iggiagruk Hensley to its board of directors. Born in Kotzebue, Northwest Alaska, Hensley was a key player in the settlement of Alaska's Native claims with the United States government. He attended the University of Alaska in Fairbanks and graduated with a degree in Political Science from George Washington University in Washington, DC. While attending graduate school in Fairbanks, Hensley wrote a pivotal research paper for Judge Jay Rabinowitz titled "Alaska Native Land Claims: The Primary Issue", which outlined the historical land rights of Alaska Natives, arguing for a just settlement of the issue. This paper led to Native self-organization and the establishment of the Northwest Alaska Native Association in 1966 – a precursor to Maniilaq Association, a non-profit organization which advocates for all Native issues, including health, housing, and political rights. President Richard Nixon signed the Alaska Native Claims Settlement Act in December 1971 providing for the creation of 12 Alaska Native Regional Corporations which were capitalized nearly US$1 billion and transferred roughly 44 million acres of land to Alaska Natives through their corporate entities.

WILLIE HENSLEY

NANA Regional Corporation Inc., created as a result of ANCSA, received title to 2.28 million acres of lands in Northwest Alaska – now organized into the Northwest Arctic Borough. NANA is a for-profit US corporation with a mission to provide economic opportunities for its more than 14,000 Iñupiat shareholders as well as to protect and enhance NANA lands.

"Willie Hensley was a founding member of NANA Regional Corporation, Inc., and has been a pivotal figure in Alaska," said NANA President and CEO Wayne Westlake. "He led the movement that solidified Indigenous inclusion in projects on Alaska-Native owned lands, which has defined NANA's model for responsible resource development."

After graduation, Hensley was elected to the Alaska House of Representatives and then served four full terms in the Alaska Senate and two further terms through an appointment by Gov. Steve Cowper. Hensley served as president of NANA and as a director of the Northwest Alaska Native corporation for 20 years as a director of NANA. He also led NANA Development Corp., a NANA subsidiary that manages the Native corporation extensive business portfolio.

Hensley's distinguished career also includes playing a major role in the founding of the Alaska Federation of Natives, a statewide organization that aims to enhance the cultural, economic and political voice of the Alaska Native community. He has served as director, executive director, president and co-chair of AFN.

Hensley currently serves as chair of the First Alaskans Institute and is the Distinguished Visiting Professor in the Department of Business and Public Policy at the University of Alaska in Anchorage.

"We are honored and privileged to have Mr. Hensley serve on the company's board of directors," said Trilogy

see **NEWS NUGGETS** page 8

KINROSS GOLD CORP.

The mill at Fort Knox processes roughly 12.5 million metric tons of the higher grade ore mined at the Interior Alaska operation each year. The gold resources already identified at Gilmore will likely add years to the life of the mill at Fort Knox.

GOLD PRODUCTION

Expanding Fort Knox

Gilmore adds 2.4 million oz gold, potentially several more years, to mine

By SHANE LASLEY

Mining News

The mill at Fort Knox Mine in Interior Alaska will likely be churning out gold for several more years, thanks to Kinross Gold Corp. gaining mineral rights to the Gilmore land parcel immediately west of the current open-pit.

The long-lived gold mine was beginning to get to the end of its reserves, especially those of high enough grade to support keeping the mill in operation. This was not good news for the some 900 direct and contract workers who take home healthy paychecks from working at the mine, or the Fairbanks North Star Borough, which benefits from the tax revenue the 400,000-ounce-per-year gold operation generates.

With roughly 2.4 million oz of gold already identified at Gilmore, this expansion area could add roughly another five years to this iconic open-pit mine about 25 miles north of Fairbanks.

"Gilmore is a promising organic development opportunity that can potentially extend mine life at our Fort Knox Mine in Alaska, one of our top producing and high performing operations," said Kinross President and CEO J. Paul Rollinson.

Long-term growth

Extending the life of its existing operations by finding more gold around the mines is a key facet to Kinross' exploration strategy – a brownsfield growth plan that has proven to be successful at Fort Knox.

When Kinross opened the Fort Knox Mine in 1996, the deposit there had 4.1 million oz of gold in reserves, which was enough to last about eight years. Going into 2017, its 21st year of operation, the mine continued to boast 1.51 million oz of reserves.

While Kinross studies the viability of westward expansion at Fort Knox, the company has added nearly another year of reserves to the east side of the open-pit.

Kinross has long viewed Gilmore as an area that could further extend the life of the Fort Knox Mine. The only problem was, this potential expansion area extended onto National Oceanic and Atmospheric Administration land that hosts the Fairbanks Command and Data Acquisition Station, a facility about three miles southwest of the Fort Knox property more commonly known as the Gilmore Creek Satellite Tracking Station.

In 2014, the U.S. Bureau of Land Management authorized Kinross to carry out exploration on this 709-acre prospective parcel just west of the pit. Over the ensuing years, Kinross completed 73,000 meters of drilling to evaluate the potential of expanding the pit westward.

While the drilling confirmed that Gilmore hosts potentially ore grade gold, this area was not open for mining.

Working in cooperation with Kinross, NOAA filed a notice of intent to relinquish this golden parcel of land to the state of Alaska, which would make it available for mining.

Following an environmental assessment under the National Environmental Policy Act, BLM determined that the land is suitable for return to the public domain and turned the Gilmore parcel over to the state on Dec. 11.

see **FORT KNOX** page 8

Gilmore land parcel adds 2.4 million ounces of gold, potentially several more years, to Fort Knox mine. Read more in Mining News, page 7.

AOGCC agrees to $200,000 bond for P&A of Nicolai Creek gas wells

The Alaska Oil and Gas Conservation Commission is allowing a $200,000 surety bond for the plugging and abandonment of the wells in the Nicolai Creek gas field on the west side of Cook Inlet, according to filings in federal bankruptcy court in Alaska. As part of the bankruptcy proceedings for Aurora Gas, the field's current owner, Aurora Exploration wants to buy the field and needs AOGCC approval of the change of field operator.

As a condition for the field operator change, AOGCC had ordered that Aurora Exploration post a $6 million bond with, as an alternative, the company posting a smaller bond but also

see **WELL BONDING** page 16

Stump Lake unit terminated; leases will be offered in Cook Inlet sale

Hilcorp Alaska has requested, and the Alaska Division of Oil and Gas has approved, termination of the Stump Lake unit. The division's goal is to get tracts which have been part of the unit into the 2018 Cook Inlet areawide lease sale. Stump Lake, on the west side of Cook Inlet northeast of Beluga, is a natural gas field. Hilcorp suspended production in 2012 when it encountered mechanical issues as it was attempting to add perforations to the SLU 41-33RD well.

By taking over operatorship of the Beluga River unit in early 2016, Hilcorp created an opportunity for four marginally economic fields it operated on the west side — Ivan River, Lewis

see **STUMP LAKE** page 16

UTILITIES

Pentex sale approved

AIDEA board decision opens path to consolidation of Fairbanks gas utilities

By **ALAN BAILEY**

Petroleum News

On Dec. 7 the board of the Alaska Industrial Development and Export Authority approved revised versions of the sale and financing agreements for the sale of Pentex Alaska Natural Gas Co. from AIDEA to the Interior Gas Utility. So, with the IGU board already having approved the sale documents during its Dec. 6 meeting, AIDEA and IGU can now proceed towards closing the sale, potentially before the end of May.

The result will be the consolidation of the two existing Fairbanks gas utilities, Fairbanks Natural Gas and IGU, into a single, locally controlled entity, thus enabling optimum efficiency in the delivery of gas to Fairbanks residents and businesses.

Therriault commented that during negotiations for a new gas supply for the Titan LNG plant, IGU had requested only a medium term commitment to the gas supply, to enable future flexibility in the gas supply arrangements.

see **PENTEX SALE** page 12

LAND & LEASING

Following some trends

Lease sale bids reflect recent North Slope exploration and discovery interests

By **ALAN BAILEY**

Petroleum News

Dec. 6 saw a robust state oil and gas lease sale for the North Slope and more modest sale results for state waters of the Beaufort Sea and for federal land in the National Petroleum Reserve-Alaska. The sale results appear to point to current oil company and investor attitudes towards oil and gas development in Arctic Alaska.

In many cases companies sought land access that fits within recent trends for oil discoveries on the North Slope. In the case of the state's North Slope sale, bids also addressed the relatively sparse areas of land that were not already leased in the more northerly part of the Slope — the result, once the lease purchases have been confirmed, will likely be fairly comprehensive lease coverage, at least in the more northerly sector of state lands.

Small investors dominated the Beaufort Sea lease sale.

Following the state sales Chantal Walsh, director of Alaska's Division of Oil and Gas, expressed her excitement at the extent of onshore state land that will now be under lease, following a lease sale that brought in the third highest bid amount in the

see **LEASE SALE BIDS** page 14

FINANCE & ECONOMY

Increase from October

Fall 2017 Revenue Sources Book shows $247 million increase in general fund

By **KRISTEN NELSON**

Petroleum News

The Alaska Department of Revenue released its fall 2017 Revenue Sources Book Dec. 12, with a final fall forecast of oil price, oil production and state revenue. The department issued a preliminary forecast in October, and the final has a $247 million increase in fiscal year 2018 general fund unrestricted revenue, attributable to unexpected prior-year production tax payments, an adjustment in royalties deposited to the general fund, an increase in the oil price forecast and what the department characterized as "general refinement of the estimate and modeling with completion of the final forecast."

"The fall 2017 forecast is based on the expectation that oil markets are likely to stabilize around the $60 per barrel range, in real terms, in the foreseeable future," the department said.

For FY 2017, general fund unrestricted revenue was $1.35 billion, the lowest since the late 1990s. GFUR is forecast at $2.1 billion for FY 2018 and $2 billion for FY 2019, and is expected to be at

see **SOURCES BOOK** page 15

FINANCE & ECONOMY

US expected to hit 10 million bpd in 2018

EIA forecasts domestic crude to average 9.7 million bpd this year, North Sea Brent to average $54 per barrel this year, $57 in 2018

By KRISTEN NELSON

Petroleum News

The U.S. Energy Information Administration said Dec. 12 in its December Short-Term Energy Outlook that crude oil prices traded at the highest levels in more than two years in November and early December.

"Average Brent crude oil spot prices climbed by $5 per barrel last month, rising from October's average of $58 to $63 per barrel in November," EIA Acting Administrator John Conti said following release of the outlook. "Our forecast, however, expects that average to retreat in 2018 to an annual average of $57 per barrel." The agency expects Brent to average $54 this year.

The Organization of the Petroleum Exporting Countries said Nov. 30 that it would extend its crude oil supply reduction agreement through the end of next year, a move which had been broadly expected, EIA said. And non-OPEC countries which had agreed to crude oil production cuts in 2017 agreed to continue through the end of 2018.

EIA said it estimates that OPEC crude oil production averaged 32.5 million barrels per day in 2017, down 200,000 bpd from 2015, and expected to increase to an average of 32.7 million bpd in 2018.

EIA said it estimates that OPEC crude oil production averaged 32.5 million barrels per day in 2017, down 200,000 bpd from 2015, and expected to increase to an average of 32.7 million bpd in 2018.

Inventories

EIA noted that commercial liquids inventories for countries in the Organization for Economic Cooperation and Development reached a record high of almost 3.09 billion barrels at the end of July 2016, falling by some 141 million barrels to less than 2.95 billion at the end of this November, while the surplus to the five-year average declined by 214 million barrels.

EIA said while it forecasts OECD inventories to increase by 51 million barrels from December through May, the level of inventories relative to the five-year average will decrease because of the increase in the five-year average.

"Despite the extension of the OPEC agreement, EIA forecasts higher output from non-OPEC countries to contribute to growth in total liquid fuels supply in 2018," the

see EIA FORECAST page 11

contents

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Congratulations

Hilcorp Alaska increases output, moves forward on several new developments

In addition to replacing all the natural gas it sold last year, in the Cook Inlet basin Hilcorp Alaska has upped oil production by increasing drilling. The company's exciting new developments are expected to yield tens of millions of barrels of oil each — upper West Foreland, King Salmon and Steelhead platforms, and Granite Point.

On the North Slope drilling at Milne Point drove up production and Northstar work replaced declining output by switching formations. Hilcorp's Moose pad will be the first new pad at Milne since 2002. Drilling is targeted to begin in fourth quarter 2018, with 50-70 wells and first production in November 2018, peaking at 16,000 bpd.

Also at Milne, Hilcorp plans the first ever polymer flood for the North Slope, estimated to increase recovery of viscous oil by 30-50 million barrels.

Hilcorp is pursuing regulatory approval for its $1 billion Liberty project, with peak production targeted at 70,000 bpd and a 20-30 year field life.

David Wilkins, senior vice president, Hilcorp Alaska

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● ENVIRONMENT & SAFETY

Interior delays regs on methane emissions

By MATTHEW DALY

Associated Press

The Interior Department said Dec. 7 it is delaying an Obama-era regulation aimed at restricting harmful methane emissions from oil and gas production on federal lands.

A rule being published in the Federal Register delays the methane regulation until January 2019, saying the previous rule is overly burdensome to industry. Officials said the delay will allow the federal Bureau of Land Management time to review the earlier rule while avoiding tens of millions of dollars in compliance costs to industry that may turn out to be unnecessary.

Officials said the delay will allow the federal Bureau of Land Management time to review the earlier rule while avoiding tens of millions of dollars in compliance costs to industry that may turn out to be unnecessary.

The action marks at least the third time the Trump administration has moved to delay or set aside the Obama-era rule, which was imposed last year. The rule forces energy companies to capture methane that's burned off or "flared" at drilling sites because it pollutes the environment.

An estimated $330 million a year in methane is wasted through leaks or intentional releases on federal lands, enough to power about 5 million homes a year.

Methane, the primary component of natural gas, is a leading contributor to global warming. It is far more potent at trapping heat than carbon dioxide but does not stay in the air as long.

Issue being litigated

A federal judge threw out an earlier bid to delay the rule.

U.S. Magistrate Judge Elizabeth Laporte of the U.S. District Court for the Northern District of California said Interior had failed to give a "reasoned explanation" for changing the Obama-era rule and had not offered details why an earlier analysis by the Obama administration was faulty.

Laporte's Oct. 4 order reinstated the 2016 rule. It was not clear Dec. 7 whether the court ruling affects the latest action by the Trump administration.

A BLM spokesman declined to comment Dec. 7, citing pending litigation.

The agency said in a statement that the delay gives officials sufficient time to review the 2016 rule and consider revising or rescinding its requirements. "Existing federal, state and tribal regulations will ensure energy development is done in an environmentally sound, safe and responsible manner," the statement said.

Chase Huntley, energy and climate program director for The Wilderness Society, called the BLM's actions "inexcusable" and a dereliction of duty.

"This is one more way President Trump and Interior Secretary Ryan Zinke are handing management of our public lands over to the special interests they consider their primary constituents," Huntley said. "It demonstrates the lengths to which they'll go to gut land, water and climate protections to help oil and gas companies make a quick buck."

Industry partnership announced

The BLM rule comes as the oil and natural gas industry announced a voluntary partnership to reduce methane emissions at drilling sites nationwide.

The program includes 26 large companies that produce a major portion of U.S. oil and natural gas. The companies said they will find and fix leaks, replace controllers that vent and reduce the natural gas liquids that escape into the atmosphere during drilling operations.

The American Petroleum Institute, the top lobbying group for the oil and gas industry, announced the program Dec. 5. Energy giants Shell, Chevron, BP, Chesapeake Energy, ConocoPhillips and ExxonMobil subsidiary XTO Energy are among companies participating in the program, which is set to begin Jan. 1.

Jack Gerard, API's president and CEO, said methane emissions have fallen over the past decade as technology improves. The new partnership "seeks to accelerate emissions reductions and we're headed in the right direction," Gerard said.

Interior's action delaying the methane regulation follows a defeat in Congress, when the Senate unexpectedly turned back a bid to overturn the rule in May. Three Republicans joined Democrats in voting to uphold the rule.

The vote prompted the Trump administration to promise to suspend, revise or rescind the methane rule as part of a wider effort to unravel what it calls burdensome regulations imposed by former President Barack Obama. ●

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CORRECTION

Leases on eastern side of NPR-A

In a story in the Dec. 10 issue of Petroleum News on the Dec. 6 lease sales the location of leases held by ConocoPhillips Alaska and Anadarko was incorrectly described. The leases are on the eastern side of the National Petroleum Reserve-Alaska, not the western side.

Petroleum News apologizes for the error.

Incorrect name in Dec. 10 story

A story about the Alaska Gasline Development Corp. in the Dec. 10 issue of Petroleum News incorrectly named the president of AGDC, who is Keith Meyer.

Petroleum News apologizes for the error.

● GOVERNMENT

Balash confirmed to Interior post

By **KRISTEN NELSON**

Petroleum News

Joe Balash was confirmed 61-38 on Dec. 7 by the U.S. Senate as assistant secretary for Land and Minerals Management at the U.S. Department of the Interior.

Balash, then chief of staff to U.S. Sen. Dan Sullivan, R-Alaska, was named to the post by President Trump in July.

JOE BALASH

In a statement on the confirmation Interior Secretary Ryan Zinke noted that the department had been without an assistant secretary for a while, said Balash has worked with the department on a number of Alaska projects, and that he looked "forward to his experience being brought to the table at our next meeting."

Balash said the U.S. was "blessed with tremendous public lands and resources that give our people unparalleled opportunities for recreation and job creation for generations to come," and said he looked forward to working with Zinke and the Interior team "to seize on those opportunities and deliver on President Trump's America First Energy Plan."

Balash is a former commissioner of the Alaska Department of Natural Resources and was deputy DNR commissioner from 2010 to 2013. From 2006 to 2010 he served as an advisor to two Alaska governors on natural resources policy, permitting and energy. From 1998 to 2006, he served in a variety of positions in the Alaska Legislature, including chief of staff to the president of the Senate.

Balash, a native of North Pole, fives in Washington, D.C. He is married with two children.

Pro and Con

Alaska's congressional delegation said in a Dec. 7 statement that they were pleased with the confirmation. "Today I'm pleased to see that after weeks of partisan gridlock, Joe Balash was finally confirmed," Sullivan said, adding that Balash "understands how to build consensus, how to navigate state and federal interests, and importantly, how to work to develop our resources," and said he also understands the importance of "stringent environmental safeguards."

Sen. Lisa Murkowski, R-Alaska, said Balash "has demonstrated that he is both capable and willing to work with everyone, from hunters and tribes to environmentalists and conservationists, on the stewardship of our public lands."

Congressman Don Young, R-Alaska, called Balash "a true public servant with a proven track record of advocating for responsible resource development."

Environmentalists have objected to the appointment and the Alaska Wilderness League said in a statement that as Alaska DNR commissioner Balash "asserted state ownership over leases at the Arctic National Wildlife Refuge's boundary and pushed for seismic studies in the Arctic Refuge," and also supported expedited drilling in the National Petroleum Reserve-Alaska.

"Now that Balash has been confirmed he will have a responsibility to follow the letter of the law and act in the national interest," said Adam Kolton, executive

see **BALASH CONFIRMED** *page 6*

NATURAL GAS

Exports start from Yamal LNG project

On Dec. 8 President Vladimir Putin officially triggered the start of liquefied natural gas exports from Novatek's new LNG facility at Sabetta on Russia's Yamal Peninsula in the Kara Sea. Product from the Yamal LNG project was loaded onto the Christophe de Margerie, the first of 15 ice-capable LNG carriers to be built for the project. The 299-foot vessel, which is capable of cutting through 1.5-meter sea ice, has already demonstrated its capabilities by carrying an LNG cargo from the Barents Sea around Russia's Northern Sea Route to South Korea. Apparently the LNG carriers will be able to operate year round, without icebreaker support.

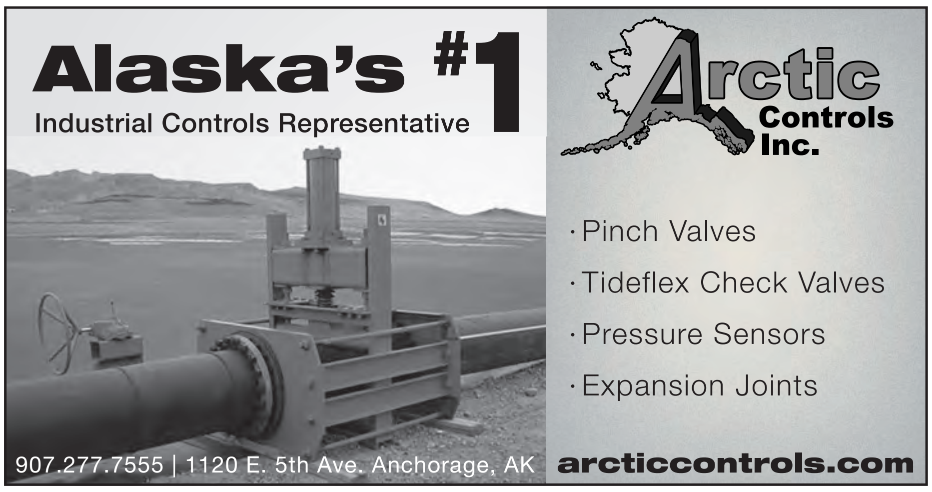
Product from the Yamal LNG project was loaded onto the Christophe de Margerie, the first of 15 ice-capable LNG carriers to be built for the project.

The gas for the Yamal LNG project comes from the South Tambey gas field. Oil company Total is a partner in the project. Project startup involved bringing on line the first of three LNG trains planned for the facility. The train has a 5.5 million tons per year capacity, according to the Yamal LNG website.

"Obtaining permission to commission the first LNG train is the cumulative result of many months of hard work and dedication by thousands of construction workers, installers, and engineers who have worked and continue to work in Sabetta," said Evgeniy Kot, general director, Yamal LNG. "We not only maintained our strict project deadlines, but we also expect to launch the second and third LNG trains ahead of schedule."

Curiously, the Financial Times has reported that the first cargo of LNG from Yamal is being diverted from Asia to the United Kingdom, in response to a pending shortage of natural gas in the UK. Apparently, the Forties pipeline that transports crude oil from various offshore North Sea fields to the Grangemouth refinery in Scotland has shut down following the discovery of a crack in the onshore segment of the 42-year-old pipeline. The resulting shutdown of several oil fields has caused a 12 percent fall in the supply of natural gas to the UK from the North Sea, the Financial Times said.

—ALAN BAILEY



ENVIRONMENT & SAFETY

Lowest ice on record for Chukchi Sea

November saw the lowest sea ice extent recorded for that month in the Chukchi Sea since satellite sea-ice observations began in 1979, the National Snow and Ice Data Center has reported. On the other hand, the Beaufort Sea had completely iced over by the end of the month, NSIDC said.

The various factors that have contributed to the extent of Chukchi Sea open water this November probably extend back into last year, when warm conditions resulted in persistent open water in the Chukchi into December. Then, strong winds in late March and early April broke up the winter sea ice, driving the ice southward, with some of the ice even entering the Bering Sea through the Bering Strait. During the summer a researcher operating on a research vessel found evidence for the early flow of warm water north through the strait — this early flow resulted in ocean temperatures in June 5 degrees F above average, NSIDC said.

The ocean temperature plays a critical role in the timing of the formation of winter sea ice, because heat remaining in the top layer of the ocean needs to be lost to the atmosphere and outer space before the winter ice cover can complete, NSIDC said. Hence, presumably, this year's late freezeup in the Chukchi. Across the Arctic Ocean as a whole, the November sea ice cover was the third lowest recorded for that month. At an average of 3.65 million square miles, the ice extent area was consistent with a continuing downward trend of 5.14 percent per decade, NSIDC said.

—ALAN BAILEY

● ALTERNATIVE ENERGY

AEA OKs financing for Battle Creek

Creek diversion project will increase the capacity of the Bradley Lake hydroelectric facility in the southern Kenai Peninsula

By ALAN BAILEY

Petroleum News

The board of the Alaska Energy Authority has authorized the issue and sale of bonds for up to $47 million in financing for a project involving the diversion of some water from Battle Creek into Bradley Lake, to increase the power production capacity of the Bradley Lake powerhouse in the southern Kenai Peninsula by about 10 percent. In addition to being a significant source of renewable energy, the Bradley Lake facility is one of the cheapest sources of power on the Alaska Railbelt electricity grid. AEA owns the facility, which is operated under contract by Homer Electric Association and managed by a committee, the Bradley Project Management Committee, or BPMC, consisting of representatives of the Railbelt electricity utilities.

Prior to the AEA board's Dec. 7 decision over the financing arrangements, the BPMC had approved the financing package.

"We moved this great project forward," said AEA board Chair Russell Dick following the board decision. "The Battle Creek Diversion Project is a perfect example of efficient, practical development of local renewable energy resources that will reduce ratepayer energy costs."

Low cost bonding

AEA is able to reduce the bonding cost through its issuance of new Clean Renewable Energy Bonds, or CREBs, a form of bonding that qualifies for tax credits and is authorized by the Internal Revenue Service. In October the IRS allocated $40 million in CREBs to AEA. AEA says that it will also apply $1.2 million of a state allocation of qualified energy conservation bonds to the Battle Creek diversion project. The remainder of the financing will presumably come from the issuance of regular revenue bonds.

The modifications to the hydropower system will involve constructing a new diversion on the west fork of upper Battle Creek, and laying a 1.7-mile buried pipeline and 1,000-foot canal to carry the diverted water to Bradley Lake. A diversion management plan will ensure an adequate flow of water in Battle Creek below the Bradley Lake diversion, once the diversion is in operation. The Federal Energy Regulatory Commission

see BATTLE CREEK page 11

continued from page 5

BALASH CONFIRMED

director of the Alaska Wilderness League.

The assistant secretary heads Interior's management of all federal lands and waters, and mineral and non-mineral resources on those lands, as well as the regulation of surface coal mining and as one of six assistant secretaries at Interior oversees the Bureau of Land Management, the Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement and the Office of Surface Mining Reclamation and Enforcement. ●

Contact Kristen Nelson at knelson@petroleumnews.com

NORTH OF 60 MINING news

page 9 GT Gold discovers wide porphyry, second high-grade zone at Saddle

www.MiningNewsNorth.com | *The weekly mining newspaper for Alaska and Canada's North* | Week of December 17, 2017

NEWS NUGGETS

Compiled by Shane Lasley

Willie Hensley joins Trilogy board

Trilogy Metals Inc. Dec. 11 announced the appointment of renowned Alaska Native leader William Iggiagruk Hensley to its board of directors. Born in Kotzebue, Northwest Alaska, Hensley was a key player in the settlement of Alaska's Native claims with the United States government. He attended the University of Alaska in Fairbanks and graduated with a degree in Political Science from George Washington University in Washington, DC. While attending graduate school in Fairbanks, Hensley wrote a pivotal research paper for Judge Jay Rabinowitz titled "Alaska Native Land Claims: The Primary Issue", which outlined the historical land rights of Alaska Natives, arguing for a just settlement of the issue. This paper led to Native self-organization and the establishment of the Northwest Alaska Native Association in 1966 – a precursor to Maniilaq Association, a non-profit organization which advocates for all Native issues, including health, housing, and political rights. President Richard Nixon signed the Alaska Native Claims Settlement Act in December 1971 providing for the creation of 12 Alaska Native Regional Corporations which were capitalized nearly US$1 billion and transferred roughly 44 million acres of land to Alaska Natives through their corporate entities.

WILLIE HENSLEY

NANA Regional Corporation Inc., created as a result of ANCSA, received title to 2.28 million acres of lands in Northwest Alaska – now organized into the Northwest Arctic Borough. NANA is a for-profit US corporation with a mission to provide economic opportunities for its more than 14,000 Iñupiat shareholders as well as to protect and enhance NANA lands.

"Willie Hensley was a founding member of NANA Regional Corporation, Inc., and has been a pivotal figure in Alaska," said NANA President and CEO Wayne Westlake. "He led the movement that solidified Indigenous inclusion in projects on Alaska-Native owned lands, which has defined NANA's model for responsible resource development."

After graduation, Hensley was elected to the Alaska House of Representatives and then served four full terms in the Alaska Senate and two further terms through an appointment by Gov. Steve Cowper. Hensley served as president of NANA and as a director of the Northwest Alaska Native corporation for 20 years as a director of NANA. He also led NANA Development Corp., a NANA subsidiary that manages the Native corporation extensive business portfolio.

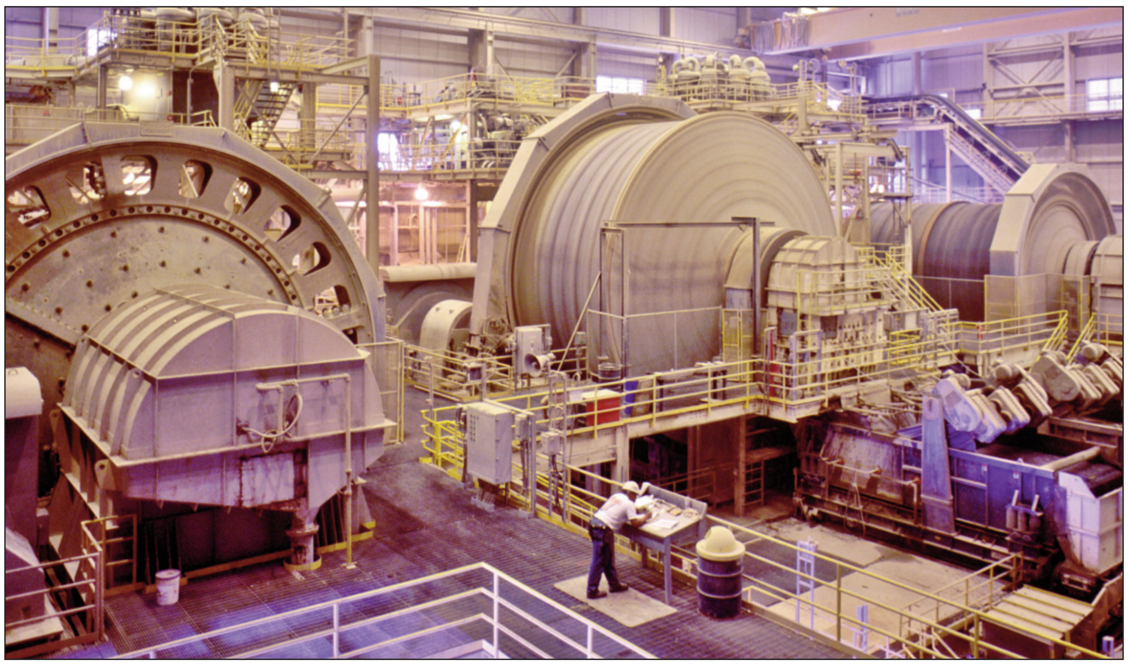
Hensley's distinguished career also includes playing a major role in the founding of the Alaska Federation of Natives, a statewide organization that aims to enhance the cultural, economic and political voice of the Alaska Native community. He has served as director, executive director, president and co-chair of AFN.

Hensley currently serves as chair of the First Alaskans Institute and is the Distinguished Visiting Professor in the Department of Business and Public Policy at the University of Alaska in Anchorage.

"We are honored and privileged to have Mr. Hensley serve on the company's board of directors," said Trilogy

see NEWS NUGGETS page 8

KINROSS GOLD CORP.



The mill at Fort Knox processes roughly 12.5 million metric tons of the higher grade ore mined at the Interior Alaska operation each year. The gold resources already identified at Gilmore will likely add years to the life of the mill at Fort Knox.

GOLD PRODUCTION

Expanding Fort Knox

Gilmore adds 2.4 million oz gold, potentially several more years, to mine

By SHANE LASLEY

Mining News

While Kinross studies the viability of westward expansion at Fort Knox, the company has added nearly another year of reserves to the east side of the open-pit.

The mill at Fort Knox Mine in Interior Alaska will likely be churning out gold for several more years, thanks to Kinross Gold Corp. gaining mineral rights to the Gilmore land parcel immediately west of the current open-pit.

The long-lived gold mine was beginning to get to the end of its reserves, especially those of high enough grade to support keeping the mill in operation. This was not good news for the some 900 direct and contract workers who take home healthy paychecks from working at the mine, or the Fairbanks North Star Borough, which benefits from the tax revenue the 400,000-ounce-per-year gold operation generates.

With roughly 2.4 million oz of gold already identified at Gilmore, this expansion area could add roughly another five years to this iconic open-pit mine about 25 miles north of Fairbanks.

"Gilmore is a promising organic development opportunity that can potentially extend mine life at our Fort Knox Mine in Alaska, one of our top producing and high performing operations," said Kinross President and CEO J. Paul Rollinson.

Long-term growth

Extending the life of its existing operations by finding more gold around the mines is a key facet to Kinross' exploration strategy – a brownsfield growth plan that has proven to be successful at Fort Knox.

When Kinross opened the Fort Knox Mine in 1996, the deposit there had 4.1 million oz of gold in reserves, which was enough to last about eight years. Going into 2017, its 21st year of operation, the mine continued to boast 1.51 million oz of reserves.

Kinross has long viewed Gilmore as an area that could further extend the life of the Fort Knox Mine. The only problem was, this potential expansion area extended onto National Oceanic and Atmospheric Administration land that hosts the Fairbanks Command and Data Acquisition Station, a facility about three miles southwest of the Fort Knox property more commonly known as the Gilmore Creek Satellite Tracking Station.

In 2014, the U.S. Bureau of Land Management authorized Kinross to carry out exploration on this 709-acre prospective parcel just west of the pit. Over the ensuing years, Kinross completed 73,000 meters of drilling to evaluate the potential of expanding the pit westward.

While the drilling confirmed that Gilmore hosts potentially ore grade gold, this area was not open for mining.

Working in cooperation with Kinross, NOAA filed a notice of intent to relinquish this golden parcel of land to the state of Alaska, which would make it available for mining.

Following an environmental assessment under the National Environmental Policy Act, BLM determined that the land is suitable for return to the public domain and turned the Gilmore parcel over to the state on Dec. 11.

see FORT KNOX page 8

NORTHERN NEIGHBORS

Compiled by Shane Lasley

GOVERNMENT OF YUKON

Bonanza, a previously undrilled high-grade gold zone, was among the targets drilled during the first exploration program since Newmont cut a deal to earn up to a 75 percent interest in the Plateau property.

Newmont takes helm at Plateau gold project, YU

Goldstrike Resources Ltd. Dec. 11 reported that Newmont Mining Corp. plans to complete up to 10,000 meters of drilling during the 2018 program at the Plateau gold property in the Yukon. In March, Newmont cut a C$53 million deal to earn up to a 75 percent stake in the expansive and gold-rich Plateau property by paying Goldstrike C$8 million and investing C$38.8 million to explore the gold property over the next decade. The agreement included a C$6 million private placement financing under which the gold-focused major purchased 12.71 million Goldstrike shares at C47.4 cents each.

Goldstrike completed a C$6 million exploration program that included drilling focused on understanding and modeling the controls of the high-grade gold mineralization present at surface and in core from previous drill campaigns. The company said this program identified multiple key target areas and new surface gold mineralization along the 70-kilometer- (43 miles) long Yellow Giant trend, confirming a district-scale gold mineralized system. Goldstrike also had the benefit of the use of a number of Newmont's proprietary exploration techniques and technologies. The resulting data, together with results from previous exploration, is currently being compiled and used for modeling. Given the success of the 2017 program, Goldstrike is preparing for the official handover of Plateau project to Newmont. "Our collaboration with Goldstrike in the exploration of the Plateau Property during the 2017 field season laid a solid foundation for Newmont to further advance the Plateau project," said Wayne Trudel, North America exploration executive, Newmont.

Based on the data obtained from the 2017 program and interpretations of that data, Newmont has confirmed that the 2018 drill program will consist of up to 10,000 meters utilizing multiple drill rigs to test multiple key target areas. With drill results now in hand, Newmont is planning that program and plans to begin drilling as early in 2018 as possible. "We are pleased to have a partner in Newmont Mining that has the proprietary technologies, depth and experience to move the Plateau project forward," said Goldstrike President and CEO Terrence

see **NORTHERN NEIGHBORS** *page 9*

KINROSS GOLD CORP.

Truck drivers wait to be loaded in the pit at the Fort Knox gold mine in Interior Alaska. This operation directly employs around 650 workers and is the source of roughly 250 additional jobs through on-site contractors, making it an important source of wages in the Fairbanks area.

continued from page 7

FORT KNOX

With Kinross' state mining claims over this area now activated, the company was able to add 2.1 million oz of gold to Fort Knox's measured and indicated resources and another 300,000 oz to the lower confidence inferred resource category.

Kinross is now carrying out a feasibility study for Gilmore. If the assessment shows that mining this area is economic, it is expected that a large portion of the measured and indicated resources will be converted into reserves that will further extend the life of Fort Knox.

"With the Gilmore project, we continue to deliver on our strategy of pursuing low-risk, high-potential brownfield projects that can contribute to the long-term future growth of our company," said Rollinson.

Added reserves

While Kinross studies the viability of westward expansion at Fort Knox, the company has added nearly another year of reserves to the east side of the open-pit.

Drilling had recently encountered minable gold in the East and South Wall regions of the pit at Fort Knox, including 35 meters averaging 0.9 grams per metric ton gold; 13.7 meters of 1.7 g/t gold; and 24.4 meters of 1.8 g/t gold.

While recalculating the Fort Knox resources to include Gilmore, Kinross converted 260,000 oz of gold resources along the east side of the pit to reserves.

These added reserves replaced much of the gold mined at the Interior Alaska mine this year.

According to the updated calculation, effective Nov. 30, Fort Knox now has 1.32 million oz of gold in 92.17 million metric tons of proven and probable reserves averaging 0.44 g/t gold.

This is enough ore to last more than two years, providing time to complete the feasibility study, expected by mid-2018 and permitting for Gilmore.

During the first nine months of 2017, Fort Knox produced 285,933 oz of gold, putting the Interior Alaska mine on pace to produce just under 400,000 oz of the precious metal this year. ●

continued from page 7

NEWS NUGGETS

Metals Chairman Gerry McConnell. "His experience and insights will be invaluable to the Company as we advance our projects in the Ambler Mining District."

Trilogy Metals projects in the Ambler Mining District, collectively known as the Upper Kobuk Mineral Projects, are being advanced in partnership with NANA. The most advanced of these are Arctic, a high-grade copper-gold-zinc-lead-silver deposit on Alaska mining claims, and Bornite, a high-grade copper deposit on NANA lands.

Fall drilling expands Shumagin

Redstar Gold Corp. Dec. 11 reported that all 13 holes drilled during the 2017 fall exploration program at its Unga gold project on the Alaska Peninsula cut gold and silver. Most of this drilling, 11 holes, tested the Shumagin Gold zone, expanding this epithermal gold structure to 1,750 meters. The Shumagin Gold zone has four main areas of mineralization on the basis of location and geology – SW Extension, Main Breccia, Bunker Hill and East Zone. The fall drill program tested a 750-meter area surrounding Bunker Hill and along strike northeast through East Zone. Continuity of mineralization occurs between the Main Breccia and Bunker Hill was indicated by drill hole. "Shumagin is a structurally complex high-grade epithermal system, as highlighted by high-grade zones, or shoots to depth, and indicates continuity at shallow depths ranging from 240 meters to 330 meters below surface," said Redstar President and CEO Peter Ball. "The strong continuity of mineralization identified, and our updated geological model developed, will assist in vectoring future drilling for higher grade mineralization and widths at depth, as seen in previous drilling on the Main Breccia."

Redstar also drilled two holes at Rising Sun, a prospect about 300 meters east of the historic Apollo Mine. These holes were designed to test breccias and stockwork at shallow depths below surface exposures to constrain the dip and textures of the vein breccias and stockwork system. Low grade gold and silver were encountered in both holes. Redstar said additional work is required to vector in to the higher grade zones, as seen at the historic Apollo-Sitka mine. ●

Petroleum news

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continued from page 8

NORTHERN NEIGHBORS

King. "The Goldstrike team will continue to work closely with its partner going forward to assist where we can, in order to unlock the full value of the Plateau district-scale gold system."

Saddle excitement grows with porphyry discovery

GT Gold Corp. has discovered more high-grade gold plus porphyry copper-gold-silver mineralization at Saddle North, a target about 500 meters north of the high-grade Saddle South gold discovery on the company's Tatogga property in northwestern British Columbia. High-grade vein-hosted gold was intersected in two holes, TTD057 and TTD063, drilled near the west end of the Saddle North trend. TTD057 cut 2.58 meters averaging 13.55 grams per metric ton gold starting at a depth of 240 meters; TTD063 cut 0.6 meters averaging 7.59 g/t gold from a depth of 171.3 meters.

Hole TTD062 targeted a high intensity geophysical anomaly located under considerable glacial cover about 2,000 meters east of TTD057. Porphyry copper-gold-silver mineralization began at surface in hole 62 and strengthened steadily with depth. From 23.5 meters to the bottom of the hole, TTD062 cut 210.5 meters averaging 0.14 g/t gold and 0.16 percent copper, including 33.7 meters of 0.22 g/t gold and 0.24 percent copper over the bottom 33.7 meters of the hole. TTD064, drilled 1,000 meters west of TTD062, cut narrower and richer porphyry-style copper-gold-silver mineralization. From a depth of 134.6 meters, hole 64 cut 18.4 meters averaging 1.35 g/t gold, 1.42 g/t silver and 0.37 percent copper.

"The Saddle North copper-gold-silver porphyry is the latest discovery to emerge from the broader Saddle target area," said GT Gold President and CEO Kevin Keough. "We are excited by the early results and the potential of this large system. We believe it is largely un-eroded and, along with continued exploration of the impressive high-grade gold-silver systems at Saddle South and on the western end of the Saddle North Trend, we intend to make it a focus in 2018."

Auryn eyes development of gold-silver mine in BC

Auryn Resources Inc. Dec. 12 reported that this summer's drill program has identified the plunge of the high-grade South Reef zone at its Homestake Ridge gold-silver epithermal project in the Golden Triangle region of northwestern British Columbia. Highlights include 30 meters of 2 grams per metric ton gold; 10 meters of 4.12 g/t gold; 18 meters of 1.29 g/t gold; 8 meters of 2.67 g/t gold; and 14 meters of 1.23 g/t gold. Auryn said these results identified the geometry of the high-grade mineralization at the South Reef main zone that remains open to the northwest and importantly have identified an emerging parallel high-grade structure (Upper zone) 175 meters to the north of the main zone. "We are very excited about the South Reef extension as it demonstrates strong similarities to the robust Main Zone," said Auryn Chairman Ivan Bebek. "Our best intercepts came at the end of the program which resulted in strong expansion opportunities that will be exciting to follow up in 2018."

When Auryn acquired Homestake Ridge in 2016, the three main deposits – Homestake, Homestake Silver and South Reef –hosted 604,000 metric tons of indicated resource averaging 6.4 g/t (124,000 ounces) gold; 48.3 g/t (939,000 oz) silver; and 0.18 percent (2.4 million pounds) copper. These zones host another 6.77 million metric tons of inferred resource averaging 4.2 g/t (911,000 oz) gold; 93.6 g/t (20.37 million oz) silver; and 0.11 percent (16.3 million lb) copper. Auryn plans to incorporate the results from the 37 holes drilled this year into a preliminary economic assessment for this high-grade precious metals project in 2018. "The Homestake Ridge deposit stands out as a highly valuable asset with respect to its current size, grade and excellent access to infrastructure," said Bebek. "In an effort to unlock more value in the project in addition to the discovery of additional ounces we have also begun the necessary steps to advance the project towards development."

UG Drill results confirm historical results at Snip

Skeena Resources Ltd. said the results from the first 17 underground holes drilled this year at the past producing Snip Mine tapped high-grade gold and bolster the company's confidence in the decades-old drill data for this historic operation in northwestern British Columbia. The best intercept so far came in hole UG17-013, which cut 1.5 meters averaging 341 grams per metric ton gold. This intersection is 15 meters down-dip of the historically mined 150 Vein stope and matches spatially the modeled 150 Vein which was interpreted solely from historical drilling. The tenor and location of this intersection is also supported by 1996-era underground holes UG-1302, which cut 5.2 meters of 23.81 g/t gold and UG-1304, which cut 1.9 meters of 165.17 g/t gold, both down-dip of hole 13. The other three 2017 holes fanned on this section intersected a previously unidentified 150 Vein stope between the 260 and 220 levels. However, these historical intersections do not occur within the newly recognized stope and may represent a mineralized structure parallel to and within the footwall of the 150 Vein.

Also targeting the 150 Vein, hole UG17-008 cut 2.03 meters of 67.68 g/t gold immediately adjacent to an unanticipated void below the 260 level. This occurrence likely represents the remnants of a mining under-break during past excavation of the 150 Vein. Additionally, an unmined hanging wall splay of the 150 Vein averaging 10.76 g/t gold over 4.3 meters was intersected by hole UG17-014. This splay occurs 15 meters into the hanging wall of the 150 Vein and is supported by numerous historical drill holes, including 1.9 meters of 75.47 g/t gold cut UG-1571.

Skeena said the remaining results from the first 17 holes verified the historical data in the Twin Zone and 150 Vein by successfully supporting the anticipated geology and mineralization models. "This first campaign of underground drilling gives us greater confidence in the decades-old data such that we can utilize the past drilling and build upon it for a maiden resource at Snip," said Skeena CEO Walter Coles Jr. The historical Snip database that Skeena inherited from Barrick Gold Corp. included 3,549 surface and underground drill holes totaling 280,000 meters drilled between 1986 and 1999. The 17-year-old digital dataset was inherited without complete documentation to support drill hole locations or analytical results. Once validated, the historical data will be included in a maiden resource for Snip. "Once our technical team is comfortable with the data, our 2018 plan will be to aggressively expand upon the known zones and to prioritize previously overlooked areas with the highest exploration potential," said Coles. Skeena has completed over 7,500 meters of a planned 9,000-meter drill program for 2017.

Sojourn narrows drill targets at GT projects

Sojourn Exploration Inc. Dec. 7 said its initial exploration at the Oweegee Dome project in northwestern B.C. has identified multi-element stream sediment and soil anomalies associated with several historical volcanogenic massive sulfide and porphyry geophysical targets on the property. Oweegee is one of two Golden Triangle properties Sojourn optioned from Millrock Resources Inc. in August. This year's sampling program was recommended by Millrock as a logical follow-up to airborne geophysical survey and data compilation it completed in 2016. Sojourn said the stream sediment and soil results suggest the area underlying and downstream of three of the five VMS airborne versatile time domain electro magnetics target zones are anomalous in silver, lead and zinc. Additionally, two of the thirteen VTEM survey porphyry target zones are anomalous in gold and copper. More importantly, this program also found multi-element stream sediment and soil anomalous in the area hosting the Deltaic zone and its historic mineralization. "Millrock and Sojourn have identified numerous high-priority drill targets through systematic, property-wide exploration; an approach that had been previously lacking," said Millrock Chief Exploration Officer Phil St. George. "The targets are situated at the same stratigraphic level that has produced many other mines and deposits known to exist in the Golden Triangle District, and will be well worth drill testing."

In November, Sojourn announced the discovery of important new zones of mineralization during surface exploration at Willoughby project, located near Stewart, B.C. The new zones of bedrock mineralization are located in some of the freshly exposed bedrock revealed by recent retreat of glaciers and snowfields. Out of 60 bedrock and float grab samples collected across the Willoughby property, 16 returned values in excess of 1 gram per metric ton gold. A shallowly west dipping, one-meter thick quartz sulfosalt shear vein was discovered and mapped over a 250-meter strike length. Highlights from a one-meter chip samples across the vein include 3.88 g/t gold and 2.42 g/t silver; 2.76 g/t gold and 92.1 g/t silver; and 1.93 g/t gold and 4.81 g/t silver. A grab sample of locally derived sulfide talus down slope from the exposure returned 6.18 g/t gold and 206 g/t silver. The shear vein pinches out to the south and is open to the north underneath the North Willoughby Icefall. Sojourn also noted that there are indications of possible massive sulfide mineralization within limestone located in the northern section of the claim block. A talus grab sample of angular, gossanous vuggy limestone returned 17.25 percent zinc. This sample was collected from rubble crop on a ridge above the glaciers and very close to the summit. It is coincident with a significant color anomaly around the summit. "We're very pleased with these initial results from Willoughby as new vein zone and potential massive sulfides validate our theory of previously unknown mineralization being easily located in areas of recent glacial retreat," said Tim Henneberry, interim CEO, Sojourn Exploration.

Colorado discovers new gold-copper zone at KSP

Colorado Resources Ltd. Dec. 6 reported the final batch of results from the 2017 drill program at its KSP gold-copper property in northwestern British Columbia. This includes the results from 11 holes drilled at Tami, a discovery zone about 5,000 meters southeast of Inel-Khyber, the primary target of the 2017 drill program. Highlights from the drilling at Tami include 13.6 meters averaging 2.37 grams per metric ton gold and 0.16 percent copper from a depth of 15.4 meters in hole TMDDH17-111; 58. 7 meters of 1.05 g/t gold and 0.19 percent copper from a depth of 7.3 meters in TMDDH17-114; 40 meters of 1.74 g/t gold and 0.24 percent copper from a depth of 5 meters in TMDDH17-115; and 39 meters of 1.11 g/t gold and 0.18 percent copper from a depth of 66 meters in TMDDH17-118. Colorado said the data suggests that a thick, well mineralized, east-west striking volume of rock with a strike length exceeding 350 meters is open to the east. The strong gold-copper intersections obtained from the westernmost holes – TMDDH17-114 and TMDDH17-115 – suggest the system is also open to the west.

In addition to the results from Tami, Colorado reported results from 12 more holes drilled in the Inel-Khyber area this year. Four of these holes encountered modest gold-copper mineralization at Camp Porphyry, including 132 meters of 0.41 g/t gold and 0.02 percent copper in TMDDH17-098. Colorado said the results suggest that modest- to low-grade gold and copper mineralized zones occur over variable widths, with the strongest grades related to north-south trending structural zones and contacts between several intrusive phases or intrusive volcanic contacts. Two holes tested the South Discovery zone; two holes tested Big Rock Deformation zone; and four holes tested the V.G. zone.

The 11,824-meter drill program at KSP during 2017 included 57 holes completed at the Inel-Khyber zone and 11 holes at Tami. "The 2017 drill program at the KSP Project was successful in identifying new discoveries at the Camp Porphyry, West Khyber and Tami zones," said Colorado President and CEO Adam Travis. "At the Tami zone, our 2017 program has outlined a new and encouraging gold-copper intrusive related system. We look forward to further review and analysis of all of the 2017 results and effectively using those interpretations in next year's program." ●


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continued from page 2

EIA FORECAST

agency said.

EIA is also forecasting an increase of 200,000 bpd in OPEC output in 2018, and said it expects the late 2017 crude oil price increases to contribute to U.S. production reaching more than 10 million bpd in 2018. U.S. crude oil production is forecast to increase by an average of 800,000 bpd in 2018, EIA said, with another increase of 700,000 bpd coming from a combination of Canada, Brazil, Norway, the United Kingdom and Kazakhstan.

Liquids fuel demand is projected to increase by more than 1.6 million bpd in 2018, compared to an increase of 1.4 million bpd this year, but demand growth is not expected to keep pace, EIA said, resulting in a modest increase in liquids inventories in 2018, resulting in a decline in Brent crude oil prices to some $57 per barrel in 2018.

Domestic crude production

"U.S. crude oil production increased in November, up roughly 400,000 barrels per day from October's production levels," Conti said, with the agency attributing a large share of that to recovery of production in the Gulf of Mexico following Hurricane Nate. "An additional increase of 100,000 barrels per day in December is forecast to put production at 9.77 million barrels per day for the month," he said.

The November U.S. crude oil production level is up 360,000 bpd from October, EIA said. U.S. production is forecast to average 9.2 million barrels for 2017 and 10 million bpd in 2018, the highest annual average production the U.S. has seen, surpassing a previous record of 9.6 million bpd in 1970.

The agency said the increase in U.S. production "largely occurs during the second half of 2018 and reflects crude oil prices during November and December 2017 that have been higher than previously expected in the STEO. The higher prices contribute to higher forecast rig counts and production in the Lower 48 onshore regions after about a six-month lag."

Natural gas

EIA said U.S. dry natural gas production is forecast to average 73.5 billion cubic feet per day this year, up 0.7 bcf from 2016, with 2018 production forecast to be nearly 80 bcf per day, some 6.1 bcf higher than 2017.

Henry Hub averaged $3.01 per million Btu in November, up nearly 14 cents from October, EIA said.

The agency said expected growth in both natural gas exports and domestic consumption next year contribute to a forecast increase in Henry Hub to $3.12 per million Btu in 2018.

EIA said increased takeaway capacity from Appalachia is expected to result in increased natural gas production and could limit significant upward price pressure, while noting that colder than normal temperatures through the end of 2017 could contribute to natural gas price increases. ●

Contact Kristen Nelson at knelson@petroleumnews.com

GOVERNMENT

Reiser named executive director of AEA

The board of the Alaska Energy Authority has named Janet Reiser executive director, the authority said Dec. 7. In its press release AEA said she comes to the agency with more than three decades of Alaska experience in energy management, engineering, construction and telecommunications.

AEA board Chairman Russel Dick said Reiser's "track record of professional integrity, business development and public policy will serve this organization and communities around the state well."

Reiser is currently chair of the board of Chugach Electric Association and AEA said her resignation from that position will be effective Dec. 31.

Reiser holds a Bachelor of Science in chemical of engineering from the University of Colorado at Boulder.

John Springsteen, executive director of the Alaska Industrial Development and Export Authority, has served as acting AEA executive director since August. Her first day at AEA is Jan. 2.

—PETROLEUM NEWS

continued from page 6

BATTLE CREEK

approved the Battle Creek diversion design in September 2016.

The existing hydropower system has a 125-foot-high dam that raises the natural level of Bradley Lake by 100 feet, with water entering the lake coming from the upper Bradley River and a diversion on the upper Nuka River. A 18,610-foot-long tunnel carries water from Bradley Lake to a powerhouse with two 45-megawatt generating units, on the shore of Kachemak Bay, about 22.5 miles northeast of the town of Homer.

AEA says that it anticipates that construction of the Battle Creek diversion will begin in the coming spring and take three years to complete. ●

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continued from page 1

PENTEX SALE

Pentex owns FNG, the Titan liquefied natural gas plant near Point Mackenzie on Cook Inlet and a trucking operation for transporting LNG from the plant to Fairbanks.

In late October AIDEA had approved a version of the sale documents. But the documents were subsequently revised following negotiations between the chairs of the AIDEA and IGU boards, thus enabling the publication of document versions that could be approved by both boards.

The Pentex sale comes as part of AIDEA's Interior Energy Project, an initiative to provide affordable, clean energy to Fairbanks and its surrounds. In addition to providing natural gas at a workable price in Fairbanks, the idea is to reduce air pollution that results primarily from the use of wood burning stoves for heating buildings in the region.

State funding

The Alaska Legislature has provided support for the IEP in the form of a capital appropriation and through authorization for the use of AIDEA Sustainable Energy Transmission and Supply, or SETS, loans. The project can also use some AIDEA bonding. AIDEA purchased Pentex in 2015 using $54 million from its revolving fund — the idea is that, upon completion of the sale, IGU will use IEP funding to purchase Pentex at a price that will enable AIDEA to restore the Pentex purchase money plus a standard return on investment to the revolving fund.

AIDEA board Chair Dana Pruhs commented that, prior to AIDEA's purchase of Pentex, Fairbanks North Star Borough, the City of Fairbanks and the City of North Pole had all passed resolutions supporting AIDEA's action and the plan for using the Pentex purchase as a vehicle for utility consolidation.

"That was very clearly laid out to the community," Pruhs said.

With IEP support, FNG and IGU had previously started the expansion of their gas distribution networks in Fairbanks. The idea is that, following the completion of the purchase of Pentex by IGU, IGU will ask for proposals for the expansion of the Titan plant, for an increase to the gas supply to Fairbanks, enabling potential customers with access to the expanded gas network to sign up for gas service. Depending on the level of demand for gas in Fairbanks, further expansion of the LNG supply and gas distribution system could then be

see **PENTEX SALE** *page 13*

Petroleum news

Oil Patch Bits

Fluor chosen for Vopak contract in South Africa

COURTESY FLUOR

Fluor Corp. announced Dec. 11 that it was awarded an engineering, procurement and construction management contract by Vopak Terminal Durban Ltd. to deliver the Vopak growth 4 project in Durban, South Africa. Fluor booked the undisclosed contract value in the fourth quarter of 2017.

"This is one of Vopak's largest storage facility projects in South Africa and the largest storage project undertaken by Fluor in Africa," said Al Collins, president of Fluor's Energy & Chemicals business in Europe, Africa and the Middle East.

"We are pleased to assist Vopak with this project where our team will use Fluor's Zero Base Execution approach to safely develop fit-for-purpose integrated solutions to optimize the expansion of the facility," said Alejandro Escalona, general manager of Fluor in Sub-Saharan Africa. "Fluor is successfully using Zero Base Execution all over the world to reduce the cost of facilities while improving schedule certainty by aligning the design and execution principles, project drivers and economic needs before design work begins."

The expansion project is part of Vopak's program to facilitate the increased demand for fuel with cleaner specifications in Southern Africa by increasing the capacity of fuel storage at its Durban terminal.

To add value to the project, Fluor will use its global networks to competitively source material and equipment that cannot be sourced locally. Local contractors and vendors will also be used to further develop and sustain the local labor market, enterprises and economy.

Fluor previously completed Vopak's Fuel 2 project at the same location and will similarly execute this project in a safe, socially, economically and environmentally responsible manner to benefit future generations.

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

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

continued from page 12

PENTEX SALE

possible.

"This represents the culmination of nearly a year of in-depth due diligence and negotiations between AIDEA and IGU," said Pruhs in response to the AIDEA board decision. "AIDEA welcomes this approval of the sale and financing package that we anticipate will create a unified, locally controlled gas utility for the Interior by next spring."

Questions raised

A number of questions have been raised over the Pentex sale, with these questions appearing in public comments at both the IGU and AIDEA board meetings. Key issues include whether the purchase price of Pentex is too high, and whether enough people in Fairbanks will be sufficiently motivated to convert their heating systems to gas usage, given the anticipated delivered price of gas in Fairbanks. Fairbanks-based Doyon Ltd. is planning an oil and gas exploration well in the Nenana basin next summer and has suggested that the commitment to purchase LNG through the Titan plant will preclude the possibility of selling Nenana gas to Fairbanks consumers.

Another issue that has been raised is the possibility of building a new LNG plant at Houston next to a spur of the Alaska Railroad, as an alternative to expanding the Titan plant — Knikatnu Corp. has been working with industrial manufacturing company Siemens on this concept, which would involve the transportation of LNG to Fairbanks by railroad rather than by road tanker.

Former Gov. Frank Murkowski appeared briefly during the public comment period of the AIDEA board meeting, arguing for a delay in the Pentex decision until the results of Doyon's Nenana basin drilling are known.

However, the dominant sentiment at both the IGU and the AIDEA board meetings involved a sense that the IEP needs to move forward at this point, given the opportunity to jack up the Fairbanks gas supplies with funding support from the state.

Pentex valuation

In terms of the purchase price for Pentex, AIDEA board member Fred Parady commented that the purpose of the purchase by AIDEA had been to ensure the formation of a single gas utility in Fairbanks, and that the Brattle Group and Western Financial Group had evaluated the proposed acquisition price, based on data for comparable companies and transactions. Without the consolidation of the utilities, future gas supplies would likely be limited to downtown areas, Parady said.

During the IGU board meeting Jomo Stewart, CEO of IGU, commented that, given the exceptionally advantageous terms of the AIDEA SETS loans, the net present value of the loans that IGU would use for the Pentex purchase would be just $38.7 million, a figure well below the purchase price.

AIDEA approves funding for Fairbanks LNG storage

The board of the Alaska Industrial Development and Export Authority has approved the use of up to $45.5 million in Sustainable Energy Transmission and Supply, or SETS, loans for the construction of a new 5.25 million gallon liquefied natural gas storage facility in Fairbanks. The facility is needed in anticipation of an expanded LNG supply for Fairbanks, an outcome of AIDEA's Interior Energy Project.

The IEP is anxious to move ahead with the storage tank construction, to ensure that the tank can go into operation by Jan. 1, 2020, to qualify for a state tax credit of up to $15 million. The financing plan for the IEP assumes award of the tax credit.

Prior to a vote on the SETS funding approval during the AIDEA board's Dec. 7 meeting, Dan Britton, CEO of FNG, told the board that the planned storage facility will perform a crucial role for both the community and for the IEP. The idea is to be able to hold 30 to 40 days of LNG supply to manage gas availability, ensure security of supply and handle peak demand. The ability to store summer produced gas for winter use will enable substantially increased LNG production from the Titan LNG plant near Point Mackenzie, thus upping the gas supply to Fairbanks, Britton said.

The plan for the development envisages the award in mid-December of a contract for tank construction, with foundation construction to start at the beginning of March. The plan envisages the new tank being ready for commissioning at the end of June 2019.

FNG issued a request for proposals for the construction project and has identified a likely contractor for the work, Britton said.

—ALAN BAILEY

Conversion is key

Gene Therriault, IEP team leader, told the AIDEA board that he agrees that conversion to natural gas usage by Fairbanks consumers is key to success for the IEP.

"It's a volume exercise," Therriault said. "The more customers we can get hooked up, you're able to spread your fixed costs. That drives down the per-unit cost and makes it more appealing to the next customer."

He said that the last revision to the estimate of consumer conversions had indicated the possibility of a 50 percent conversion rate for residential consumers, assuming an oil fuel price of $2.75 per gallon; IGU is assuming a lower conversion rate of 35 percent. The current price of fuel oil in Fairbanks is $2.80, a price equivalent in energy terms to natural gas at $21.03 per thousand cubic feet, a price slightly above FNG's current rate of $20.08, Therriault said. Moreover, gas heating appliances produce heat at an efficiency 5 to 10 percent better than do oil burning heating systems, thus further reducing the effective cost of gas heating. And gas appliances require significantly less maintenance than do oil appliances, he said.

Commercial interest

Given the efficiency and low maintenance costs of gas burning heaters, local businesses in Fairbanks have already been asking about gas availability, even at current gas price levels, Therriault said. Also, gas use eliminates the need for businesses to maintain underground oil storage tanks. And commercial and industrial businesses would use significantly more gas for heating than would individual residential consumers. Dan Britton, CEO of FNG, also commented that developers see benefit in the availability of natural gas when constructing new buildings, given lower construction costs when using gas-fired heating.

However, the cost of converting from fuel oil to gas for heating could be high for residential customers, perhaps $10,000 to $13,000, Therriault said. One solution, albeit with lower efficiency, would be just to swap out the burner system rather than the entire boiler. In addition, Fairbanks North Slope Borough, AIDEA and IGU have been investigating ways whereby the conversion cost impact could be eased, through initiatives such as EPA clean air grants or in-gas-bill repayments for the conversions.

Gas supply flexibility

Therriault commented that during negotiations for a new gas supply for the Titan LNG plant, IGU had requested only a medium term commitment to the gas supply, to enable future flexibility in the gas supply arrangements. The result had been a three-year gas supply commitment with Hilcorp Alaska, with a fixed price and flexibility over increasing supply volumes, Pruhs said.

The upshot is that there is scope for Doyon to enter the Fairbanks gas supply market, if the corporation finds gas in the Nenana basin and if the gas is competitively priced, Therriault said. If Doyon does find gas, the gas resource will take time to develop — in the meantime the IEP has secured a relatively short term gas supply.

"We have always taken the position that we wish the best for Doyon," Therriault said. "We hope they find gas. A resource that much closer to the consumer can't help but be a good thing."

The relatively short term nature of the new Hilcorp gas supply agreement presumably also accommodates the possibility of considering the proposal for a new Siemens LNG plant in Houston as an alternative to the Titan plant expansion. Although the Pentex sales documents specifically refer to the Titan expansion, it was made clear during the October AIDEA board meeting that the proponents of the Houston plan will be able to submit their plan in response to IGU's anticipated request for proposals for the Titan expansion. ●

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continued from page 1

LEASE SALE BIDS

past couple of decades.

"We're seeing these lands potentially going forward and explorers are going to be out there and there is going to be activity," Walsh said. "All of that speaks very highly of positive things for the state of Alaska."

"We are excited to see the level of competition between bidder groups in this lease sale," said Department of Natural Resources Commissioner Andy Mack. "The surge of interest from companies that have been exploring on our lands over the last decade indicates a positive direction for the oil industry on the North Slope."

The Pikka trend

Armstrong Energy and Repsol E&P USA Inc. bid on a fairway of leases running roughly north-south, some distance south of the Pikka unit, where the two companies are planning a major development focused on the Nanushuk formation, east of the Colville River delta. The Nanushuk and Torok formations in the Brookian sequence, the youngest and shallowest of the major North Slope petroleum bearing rock sequences, have become the focus of much exploration interest, following major oil discoveries at Pikka, at Willow in the northeastern NPR-A, and at Smith Bay off the northwestern North Slope.

The leases that Armstrong and Repsol bid on appear to roughly follow the trend of what geologists term "the ultimate shelf margin," the farthest east extent of a marine shelf system that existed when the sediments that formed the Nanushuk and Torok were laid down. The oil reservoir at Pikka consists of a sand body viewed as having been laid down by an ancient river delta system on that shelf margin.

Jason Sebastinas, Repsol's North America senior landman, confirmed to reporters that the companies were following that Pikka trend.

It is "a great area of interest," Sebastinas said, also commenting that Repsol's Alaska interests form one of the company's strategic assets.

"Alaska's one of our focal points. So, we're very excited about Alaska," he said.

Independent bidding

Repsol and Armstrong bid independently on tracts in the fairway, with Repsol bidding to the south and Armstrong more to the north, and with the companies submitting competing bids for some tracts. Sebastinas said that the companies had agreed on this strategy for the sale and that, once the lease ownership positions are confirmed, the companies will offer each other shares in their newly acquired leases.

CaraCol Petroleum LLC bid on four tracts immediately southeast of the Pikka unit, perhaps with the same Pikka play in mind. Similarly, investors Andrew Bachner and Keith Forsgren successfully bid on three small tracts immediately south of Pikka. And Mayhem Energy LLC picked up a single tract in the same general area. CaraCol is involved in Brooks Range Petroleum's Mustang oil field development, nearby to the east. According to state records, Mayhem Energy is based in Colorado and registered in Alaska in October.

South of Kuparuk

Armstrong bid on some tracts to the south of the Kuparuk River unit. These are tracts that had previously been under lease to a partnership between Armstrong, Repsol and GMT Exploration. The previous leases expired in June of this year. In 2008, after acquiring leases in the Kuparuk area, Bill Armstrong, now CEO of Armstrong Energy, told Petroleum News that his company saw many prospects in the area around the Kuparuk River unit. And, since in this year's lease sale ConocoPhillips also bid on several tracts in that region to the south of Kuparuk, ConocoPhillips must also see potential in the region. The ConocoPhillips Meltwater satellite field lies to the immediate southwest, with a reservoir in the Seabee formation of the Brookian sequence, at a younger stratigraphic position than that of the Nanushuk and Torok.

Accumulate Energy Alaska, a subsidiary of 88 Energy, bid on a block of leases outside the western edge of a east-west lease fairway operated by Accumulate and its joint venture partner Burgundy Xploration LLC, a number of miles south of the operating oil fields of the central North Slope. This lease fairway is the focus of Australian company 88 Energy's strategy of seeking source-rock oil plays in that more southerly region, where much of the oil found in the North Slope oil fields is thought to have been generated. There are also conventional oil plays in the region, 88 Energy has said.

Regenerate Alaska Inc., another 88 Energy subsidiary, outbid some oil and gas investors on a small block of leases immediately west of the 1002 area of the Arctic National Wildlife Refuge. These leases are well north of 88 Energy's existing lease fairway. There is intense interest at present in the possibility of the 1002 area being opened for oil and gas exploration, as part of a tax bill currently being worked in the U.S. Congress.

Investors Douglas Barr and Dan Donkel picked up a lease on the immediate east side of the Prudhoe Bay unit.

Beaufort Sea and NPR-A

Small investors dominated the Beaufort Sea lease sale. Bachner and Forsgren, and Samuel Cade and Dan Donkel, successfully bid on a scattering of leases adjacent the ANWR 1002 area, and on the seaward side of the nearby Point Thomson unit. Groupings of investors also bid on couple of other leases: one inshore of the Endicott field and another on the north side of the Prudhoe Bay unit. Bachner and Forsgren picked up a single lease, offshore to the north of the Pikka unit, and a block of leases to the north of the Colville River unit.

Armstrong was the high bidder on a

see LEASE SALE BIDS *page 15*

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continued from page 1

SOURCES BOOK

$2.8 billion by FY 2027, the end of the forecast period.

Alaska North Slope oil prices are forecast to be $56 per barrel in FY 2018 and $57 in FY 2019, up $2 per barrel and $1 per barrel respectively from the preliminary forecast.

"Oil markets appear to have come into balance compared to prior periods," Revenue Commissioner Sheldon Fisher said in a press release, "and the Department of Revenue projects that annual average prices will stabilize around $60 per barrel in real terms going forward. In nominal terms, this means that oil prices are expected to increase to $75 per barrel by the end of the ten year forecast period."

Forecast North Slope oil production is essentially unchanged from the preliminary forecast, the department said, and is expected to average 533,000 barrels per day in FY 2018 and decline moderately to 492,900 bpd by FY 2027, "based on the expectation of several new developments beginning production over the coming decade to help offset most of the declines from existing fields," the department said.

Oil prices

In the forecast Revenue noted that the most sensitive variable in the revenue forecast is the price of oil, which averaged more than $100 a barrel from FY 2012 to FY 2014, and then plunged, reaching a low of $30 per barrel in early 2016. Prices have nearly doubled since then, the department said, and for most of the last year have traded in a range from the mid-$40s to the mid-$50s.

"The fall 2017 forecast is based on the expectation that oil markets are likely to stabilize around the $60 per barrel range, in real terms, in the foreseeable future," the department said.

At current and expected prices each $1 increase or decrease in price translates to some $30 million in state unrestricted revenue.

Production

Alaska North Slope crude oil production averaged 514,900 bpd in FY 2016, increasing to 526,500 bpd in FY 2017.

In Cook Inlet, production decreased, from 16,600 bpd in FY 2016 to 14,100 bpd in FY 2017.

In its forecast, the department uses three categories: currently producing; under development, new wells and pools that are planned and funded, with production expected within the first 12 months of the forecast period; and under evaluation, new wells and pools expected to be in production in years two through 10 of the forecast, and which don't currently have final funding decisions or partner alignment.

With current production, the forecast is at the pool level, by experts from the Alaska Department of Natural Resources using data from the Alaska Oil and Gas Conservation Commission. This is the least speculative category in the forecast, with production from developed reserves where production characteristics are known and infrastructure is in place.

Under development volumes are based on information by operators in plans of development and include planned infill wells, as well as projects which have funding, approval and a drilling plan. Production is expected within the next 12 months.

"Because all oil in this category requires some level of capital investment and the use of equipment, there is potential for each of these projects to be delayed or abandoned," the department said, there is a 5 percent risk factor assigned to each project.

Under evaluation volumes are forecast based on concepts and plans presented by operators and performance from analogue wells, and these volumes are from projects expected to start producing in years two through 10 year of the forecast.

"Most of the oil in this category is from discovered but currently undeveloped oil accumulations, though conceptually, the category could also include future infill drilling and other activities that lead to incremental oil production from existing fields," the department said.

These projects may still have hurdles, such as funding, owner sanctioning or regulatory approval, and each is assigned a project-specific risk factor.

And, as with under development volumes, there is the possibility for these projects to be delayed or abandoned.

Volumes by field

Revenue is projecting Prudhoe Bay production to average 228,600 bpd in FY 2018, declining gradually to an average of 206,700 bpd in FY 2027. Volumes for Prudhoe Bay satellites (Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff and Ugnu), with the Milne Point unit included in that grouping, are forecast to average 57,500 bpd in FY 2018, gradually declining to 43,100 bpd in FY 2027.

The Greater Point McIntyre area, including Lisburne, Niakuk, Point McIntyre, Raven, West Beach and West Niakuk, is projected to average 30,500 bpd in FY 2018, declining to 24,900 bpd in FY 2027.

The FY 2018 average for Kuparuk is projected at 82,600 bpd, declining to 73,300 bpd in FY 2027, while Kuparuk satellites, including Meltwater, NEWS, Tabasco, Tarn and West Sak, are pegged at 23,900 bpd in FY 2018, declining to 24,900 bpd in FY 2027.

Endicott, including Minke, Sag Delta, Eider and the unrelated Badami, is projected at 8,200 bpd in FY 2018, declining to 7,400 bpd in FY 2027.

Alpine, including Fiord, Nanuq, Qannik, Mustang, CRU 5th and Fiord West, is expected to average 63,100 bpd in 2018, dropping to 34,300 bpd in FY 2027.

Offshore, a category including three fields in production — Northstar, Oooguruk and Nikaitchuq — and the undeveloped Liberty field, is shown as 35,800 bpd in FY 2018, down to 33,300 bpd in FY 2027.

NPR-A is not expected to be producing in FY 2018, but is estimated at 16,300 bpd in FY 2027.

Point Thomson is expected to average 3,100 bpd in FY 2018, rising gradually to 7,400 bpd in FY 2027.

The other category — projects under evaluation outside of established areas — including Pikka, Placer and Smith Bay, is not expected to have production until FY 2022, with an average of 100 bpd shown, increasing to an average of 23,600 bpd in FY 2027.

Cook Inlet is projected to average 16,700 bpd in FY 2018, rising to 22,200 bpd in FY 2019 and then declining to some 10,500 bpd in FY 2027.

Overall North Slope production is estimated at 533,400 bpd in FY 2018, dropping to 492,900 bpd in FY 2027. ●

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continued from page 14

LEASE SALE BIDS

single tract off the northwest corner of the Ooguruk unit.

In the NPR-A lease sale ConocoPhillips Alaska and Anadarko Petroleum bid on seven tracts on the southwestern border of a large block of leases that the companies already hold in northeastern NPR-A. Presumably the companies are continuing a strategy of progressively moving out into the NPR-A from the Colville River delta, building out the support infrastructure in steps, starting with the CD-5 development, followed by Mooses Tooth 1, Mooses Tooth 2, and so on. ConocoPhillips has announced its major NPR-A oil discovery in the Nanushuk at Willow, some 30 miles to the northeast of the tracts that the companies have now bid on for leasing.

ConocoPhillips has said that it has been meeting with success in using advanced seismic survey techniques to identify subtle oil prospects in the northeastern NPR-A region.

Although in the NPR-A lease sale the Bureau of Land Management offered a huge number of land tracts, many of the tracts are in regions very far from the nearest infrastructure: Presumably viable oil development in these remote regions would require a very large find. And, although the productive Nanushuk/Torok play is thought to extend across much of the region, the exploration uncertainty is relatively high in the more inland and western areas. The unleased portion of NPR-A that is thought most prospective lies along the coast, following a major geologic structure called the Barrow Arch that tends to act as a focus for oil migration. However, under the current NPR-A Integrated Activity Plan, the coastal region west of where ConocoPhillips is currently operating is off limits to oil and gas leasing because of environmental concerns. ●

Although in the NPR-A lease sale the Bureau of Land Management offered a huge number of land tracts, many of the tracts are in regions very far from the nearest infrastructure: Presumably viable oil development in these remote regions would require a very large find.

Research for this article involved the use of a map from Mapmakers Alaska

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continued from page 1

STUMP LAKE

River, Pretty Creek and Stump Lake. The greatest opportunity was at the suspended Stump Lake unit.

When it took over operating Beluga, Hilcorp told the state that the larger unit created opportunities for reviving production at Stump Lake, which otherwise was likely no longer economic to operate.

The state mandated a study at Stump Lake, but after completion of that study, Hilcorp said in its March 2017 that conventional production at Stump Lake had reached its economic limit.

The company did include Stump Lake in its regional study but told the state that if it could not restart production by the third quarter of 2017 it would commit to plugging and abandoning the SLU 41-33RD in its 2018 plan year.

Termination proposal

Hilcorp submitted a proposal for Stump Lake unit termination Dec. 6, after consulting with Department of Natural Resources land managers, the company said in its proposal.

Hilcorp said that as of Sept. 30 it had been unable to resume production from Stump Lake, and said it had begun work to plug and abandon the SLU 41-33RD well, planning to complete the work before Jan. 1. The well has been cemented to the surface and is no longer capable of production, but Hilcorp said there were permitting and weather delays on the remaining P&A work required by the Alaska Oil and Gas Conservation Commission for location clearance, and that work can't be completed until spring.

Hilcorp said DNR wants to terminate the unit, allowing the unit leases to be included in the spring 2018 Cook Inlet areawide lease sale.

"Hilcorp does not object to unit termination," the company told the division, "but we are concerned about Hilcorp's obligations regarding lease expiration," which include onshore location clearance before the leases expire. The company said its leases allow the company six months from the time of lease expiration to remove all equipment and improvements, and requires that the lease lands be delivered "in good order and condition," but without clarity on what is considered "good order and condition." Hilcorp said it is apparent that six months "is not a reasonable amount of time to perform the required remediation measures and vacate the premises."

2018 Cook Inlet sale

Hilcorp proposed terminating the unit effective Dec. 1, with the leases held by the unit remaining in effect for 90 days, until March 1, as provided in regulations.

"This action will allow DNR the opportunity to offer said leases in the 2018 Cook Inlet Lease Sale," Hilcorp said.

Because location clearance cannot be completed prior to March 1, Hilcorp proposed that DNR grant an extension to Hilcorp to complete the clearance until May 1.

Upon receipt of a grant of extension Hilcorp said it would apply to AOGCC to extend the time for Hilcorp to complete onshore location clearance under commission regulations.

Hilcorp said it committed to complete location clearance no later than May 1, and said DNR would provide "specific detailed remediation requirements for the remediation of pads, roads, and pipelines" on DNR lands within six months of lease expiration, but also said it "suggests leaving all pads, roads, and pipelines for future development and to minimize any environmental impacts that the remediation measures may have."

The company said DNR would allow two years from the date of Hilcorp's remediation plan for the company to start remediation, and should the area be leased, "Hilcorp may, upon approval by DNR, transfer all or any portion of roads, pads, and pipelines to the new Lessee for use in their development operations," and to the extent those assets were transferred, the new lessee would assume responsibility for removal.

In a Dec. 7 letter DNR Division of Oil and Gas approved Hilcorp's proposal, noting that the SLU 41-33RD was the only well in the unit capable of production.

—KRISTEN NELSON

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continued from page 1

WELL BONDING

undertaking to plug and abandon some of Aurora Gas's other wells. After that order was found to be illegal under U.S. bankruptcy law, the commission reduced the bonding requirement to $3.6 million.

Aurora Exploration has commented that these exceptionally high bonding levels would render the field uneconomic and that the bonding requirement, much higher than the $200,000 that the commission has customarily required, was restricting Aurora Gas's ability to transfer its gas field asset.

Settlement

AOGCC has now agreed to a $200,000 bond, provided that Aurora Gas and Aurora Exploration release the state and AOGCC from any liability arising from AOGCC's previous orders and any other aspect of the bankruptcy case. Aurora Exploration has claimed loss of income as a consequence of the delay and possible denial of the gas field transfer. The company has appealed AOGCC's earlier bonding requirements in state Superior Court but, under the terms of the new agreement, that court case will be dismissed once the agreement becomes goes into effect.

Aurora Gas has requested bankruptcy court approval of the proposed settlement.

Despite the similarity in the names, Aurora Gas and Aurora Exploration are completely separate companies, with different ownership and management.

In a Dec. 12 email, Scott Pfoff, president of Aurora Exploration, told Petroleum News that his company is pleased to have reached a mutually agreeable settlement with the AOGCC that can enable the purchase transaction for the Nicolai Creek field to proceed.

"This agreement facilitates continued production, prevents waste of reserves, maintains field employment and avoids the need for state funded plugging and abandonment of six gas wells along with the associated surface facilities," Pfoff said. "We look forward to consummation of the transaction, possibly by year end, and restoring Nicolai Creek unit production to profitable levels during 2018."

AOGCC concerned

The AOGCC is concerned about the bonding levels for the plugging and abandonment of wells in Alaska. In particular, the commission worries that, if operators do not have the financial wherewithal to remediate defunct wells, the state will be forced to pick up the tab for the remediation work. Under current regulations, AOGCC requires bonding of not less than $200,000 for blanket coverage of all of an operator's wells in Alaska. And, whereas under these regulations the commission can assess a bond higher than that, the commission has in the past stuck to the $200,000 level, except in response to regulation violations.

The Nicolai Creek case has also raised questions over setting a precedent for issuing a new bonding order when transferring well operatorship, rather than simply allowing the transfer of the existing bond requirement to the new operator.

During a hearing on the Nicolai Creek bonding order, AOGCC presented testimony that the plugging and abandonment of the Nicolai Creek wells would cost substantially more than the $200,000 bonding level — hence the order for a larger bond. However, the actual cost of plugging and abandonment depends on the method used. And, with Aurora Gas bankrupt, a collapse of the sale of Nicolai Creek field to Aurora Exploration because of the bonding issue would result in the field being abandoned and the state having to pick up much of the tab for field and well remediation.

Proposed regulatory change

Separately from the Nicolai Creek issue, the AOGCC has been proposing changes to the bonding requirements for wells in Alaska. The commission has proposed that an operator must demonstrate to the commission that the bonding of the wells is sufficient to ensure that the wells can be appropriately plugged and abandoned. The commission held a workshop on this topic in June, but the issues raised have yet to be resolved.

The hearing over AOGCC's Nicolai Creek bonding order raised questions over whether this order could legally set a precedent for subsequent bonding orders for other wells, especially given the lack of resolution of bonding regulation change proposals. The oil and gas industry has argued that proposed dramatic increases in bonding levels would chill investment and decrease the recovery of Alaska's oil and gas resources.

—ALAN BAILEY

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