

page TAPS moves 18 billionth barrel of ANS oil; Barrett nears retirement

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#### Hilcorp to take on exploration tasks for Doyon Ltd. in Interior

Doyon Ltd. said Dec. 9 that it has signed an agreement with Hilcorp for renewed oil and gas exploration in a portion of the Yukon Flats.

Doyon said the agreement covers 1.6 million acres of Doyon owned mineral rights in the Yukon Flats subregion where Doyon has a long-term interest in oil and gas potential. There are more than 10 million acres in the greater Yukon Flats area, much under federal ownership as part of the Yukon Flats National Wildlife Refuge.

The agreement with Hilcorp includes an initial airborne gravity survey of the region followed by the opportunity for seismic and drilling program, with the initial focus of exploration in the Birch Creek area, Doyon said.

see HILCORP-DOYON page 11

#### **Guitar unit tracts back in play,** fate of Hemi Springs lease unclear

On Oct. 18, Alliance Exploration told the Alaska Department of Natural Resources' Division of Oil and Gas in an email that it was relinquishing the North Slope Guitar unit and surrendering its three leases, ADL 391544, 391545 and 392104. Four days later, the division sent the company a letter confirming the unit has been terminated and the leases surrendered. The agency also told Alliance it would contact US Specialty Insurance by Nov. 1 about releasing the \$500,000 statewide bond that Alliance wants refunded.

The company's unit termination and lease surrender email came in after the Sept. 16 cutoff date for the three Guitar leases

see GUITAR UNIT page 8

#### **Revenue Sources Book forecasts** crude oil price continuing to drop

In its Fall 2019 Revenue Sources Book, released Dec. 6, the Alaska Department of Revenue said its current forecast is based on "relatively stable oil production from Alaska's North Slope" and on ANS oil prices which averaged \$69.46 per barrel for fiscal year 2019 and are forecast to average \$63.54 for FY20 and \$59 for FY21.

ANS oil production averaged 496,900 barrels per day in FY19, acting Revenue Commissioner Michael A. Barnhill said in a cover letter to Gov. Michael J. Dunleavy included in the forecast, with production forecast to decline modestly in FY20 to 492,100 bpd and to 490,500 bpd in FY21.

While a modest drop is forecast going forward, the difference between the spring 2019 and fall 2019 forecasts impacts revenues,

see **SOURCES BOOK** page 10

#### **Horgan: Province's legal fight with** TM expansion has 'run its course'

British Columbia Premier John Horgan sent the clearest message yet to the backers of the Trans Mountain pipeline expansion that they can go ahead with their C\$7.4 billion project to ship crude bitumen from Alberta across his province to a tanker terminal in Vancouver.

"We believe that the court cases, our participation in the litigation, has run its course, save and except for our case" to determine whether B.C. has the authority to



**JOHN HORGAN** 

regulate increased interprovincial shipments of heavy crude through pipelines, he told a national news conference on Dec. 4.

see HORGAN MESSAGE page 10

#### LAND & LEASING

# \$19M at lease sales

Armstrong, bidding in NPR-A, accounts for \$10.8M, 970,000 acres in west

By KRISTEN NELSON

Petroleum News

idders dropped more than \$19 mil-B lion in state and federal North Slope lease sales Dec. 11, with the bulk of the bids, \$10.8 million, on exploration acreage by Bill Armstrong bidding as North Slope Exploration LLC in the federal Bureau of Land Management's BILL ARMSTRONG National Petroleum Reserve-Alaska.

That sale, which has been a quiet affair in recent years, was exciting this time around, drawing bids on 92 tracts, more than a million acres, with total bids of \$11,268,709, BLM Alaska Deputy Director Ted Murphy said at the conclusion of the agency's online bid opening.



While existing acreage holders did fill in around their positions, both the BLM and state sales - particularly BLM's NPR-A sale — saw either the establishment of big new exploration tracts or substantial expansion of existing exploration blocks.

The dominant bidder in the NPR-A sale was Armstrong, bidding as North Slope Exploration LLC, with \$10.8 million in bids on 85 tracts, more than

970,000 acres west and southwest of existing lease positions in NPR-A, where his companies have not previously bid.

Armstrong has been a major exploration player

see **LEASE SALES** page 11

#### EXPLORATION & PRODUCTION

# ANS exploration tally

Four companies to drill up to 12 wells, including 88, Conoco, Eni, Oil Search

By KAY CASHMAN

Petroleum News

he Alaska North Slope off-road exploration season looks to be another big one, with as many as 12 wells plus some sidetracks being drilled by four companies — 88 Energy, ConocoPhillips Alaska, Eni US Operating and Oil

Check out the maps in the pdf and print versions of this article for a visual view of well loca-

#### 88 Energy/Premier Oil JV-1 well

88 Energy Ltd. through its subsidiary

Accumulate Energy Alaska is drilling the Charlie No. 1 well in its Icewine project. The well, on state oil and gas lease ADL 393380, is approximately 29 miles west of the Franklin Bluffs pad.

Accumulate's lease plan of operations was approved Nov. 22 by Alaska's Division of Oil and Gas.

Thirty-four miles of ice roads will be built along with two 500 feet by 500 feet ice pads; one drill pad and one staging pad, which will be one mile west of the Dalton Highway at milepost 386.

Using the Nordic Rig 3, Charlie No. 1 will be drilled to an approximate depth of 11,000 feet and may include laterals, sidetracks or additional penetrations.

see **EXPLORATION TALLY** page 6

#### FINANCE & ECONOMY

# **HEX** seeks inlet assets

New Anchorage firm winning bidder for KLU and facilities in Furie bankruptcy

By STEVE SUTHERLIN

Petroleum News

EX LLC, a company formed in November which is 100% owned by member manager John L. Hendrix, was the successful bidder for assets of Furie Operating Alaska LLC, according to a Dec. 6 notice filed in the U.S. Bankruptcy Court for the District of Delaware.

HEX bid \$15,000,010 for Furie's assets, primarily the Cook Inlet Kitchen Lights offshore unit, and related infrastructure such as the Julius R offshore platform, onshore processing facility and all related pipelines. The unit lies offshore the town of Nikiski on the Kenai Peninsula.

Furie and two related companies filed for volun-



JOHN HENDRIX

≥ tary Chapter 11 bankruptcy in the Delaware court Aug. 9. The debtors listed about \$450 million in debt against assets it listed at an estimated value of less than \$50 million.

Hendrix was general manager of Apache Corp. in Alaska.

More recently Hendrix was president of NANA Commercial Group — made up of subsidiaries that support resource development projects, as well as other industries throughout Alaska and the Lower 48.

Hendrix brings close to four decades of experience in the energy industry — in Alaska, the Lower 48 and internationally with both Apache and BP.

Prior to the position with NANA, he was on former

see FURIE BIDDER page 5

PIPELINES & DOWNSTREAM

# TAPS moves 18 billionth barrel of crude

Since startup of pipeline in 1977, North Slope oil has put \$145 billion in state coffers; Alyeska chief Tom Barrett nears retirement

#### By KAY CASHMAN

Petroleum News

n Dec. 6 the 18 billionth barrel of North Slope crude began moving down the trans-Alaska oil pipeline from Pump Station 1 at Prudhoe Bay to the port of Valdez — more than double what was originally projected.

Alyeska Pipeline Service Co., operator of the Trans Alaska Pipeline System, or TAPS, said in a Dec. 9 press release that since the startup of the 800-mile pipeline on June 20, 1977, North Slope crude alone has brought in an estimated \$145 billion in revenue to state of Alaska coffers, transforming Alaska from a frontier state to an economic force.

"TAPS workers achieve these milestones with a laser focus on safety and the environment. Our team just marked 26 million hours of work without a serious injury," said Alyeska President Tom Barrett.

For more than 42 years, TAPS has safely moved oil from Prudhoe Bay south to Valdez, the northernmost icefree port in the United States. The pipeline traverses three mountain ranges, permafrost regions and 34 major rivers and streams.

Alyeska personnel work in Anchorage, Fairbanks and Valdez and at pump stations and response facilities all

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The trans-Alaska Pipeline

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# EIA expects Brent to average \$61 in 2020

US crude production forecast to average 13.2 million bpd next year, up 900,000 bpd from 2019, but with slower growth rate expected

#### By KRISTEN NELSON

Petroleum News

The U.S. Energy Information Administration said Dec. 10 in its Short-Term Energy Outlook that Brent crude oil spot prices averaged \$63 per barrel in November, up \$3 from October, with the agency's forecast for Brent in 2020 at \$61 per barrel, down from a 2019 average of \$64. West Texas Intermediate is projected to average \$5.50 per barrel less than Brent next year. EIA said it expects crude oil prices to be lower in 2020 than this year "because of forecast rising global oil inventories, particularly in the first half of the year."

U.S. crude oil production continued to increase and is expected to average 13.2 million barrels per day in 2020, up 900,000 bpd from this year, EIA said. The agency said U.S. production growth is expected to slow based on a decline in drilling rigs active over the last year, a decline EIA said it expects to see continue into 2020. "Despite the decline in rigs, EIA forecasts production will continue to grow as rig efficiency and well-level productivity rises, offsetting the decline in the number of rigs."

"While EIA expects the rate of U.S. crude oil production growth to slow in 2020, production is still on pace to set new records in 2019 and 2020," EIA Administrator Dr. Linda Capuano said in a statement.

#### **US** exports

"September marked the first month in U.S. recorded data that the United States exported more crude oil and petroleum products than it imported," Capuano said.

She said records of U.S. imports and exports of crude oil and petroleum products began to be kept on an annual basis in 1949 and on a monthly basis in 1973. "EIA's December STEO forecasts that U.S. exports of crude oil and petroleum will continue to increase, averaging 570,000 barrels per day in 2020. If realized, 2020 would be the first year the United States becomes a net petroleum exporter on an annual basis," Capuano said.

EIA said the expected 570,000 bpd average for total crude oil and petroleum net exports in 2020 compares with average net imports of 490,000 bpd this year.



DR. LINDA CAPUAN

#### **OPEC** and prices

The Organization of the Petroleum Exporting Countries and a group of other producers announced Dec. 6 that they were deepening production cuts they agreed to in December 2018. Production is now targeted at 1.7 million bpd lower than in October 2018; the former target reduction was 1.2 million bpd, with the cuts in effect through the end of March. EIA said that its assumption is that OPEC will limit production through the end of 2020, based on a forecast of rising inventories, and expects that OPEC crude oil production will average 29.3 million bpd in 2020, down 500,000 bpd from 2019.

EIA said the it expects increased non-OPEC production will more than offset OPEC production cuts, with global liquid fuels supply expected to rise by 1.5 million bpd in 2020, with an increase in global fuels demand of 1.4 million bpd.

"Despite the extension, EIA continues to expect Brent prices to decline from current levels to an average of \$59 per barrel in the first half of 2020, based on a forecast of rising global inventories," Capuano said. "Some upward price pressures could emerge in the second half of the year as global oil demand growth is expected to recover on the back of a modest acceleration in global economic growth," she said.

#### Natural gas

Capuano said November temperatures in the U.S were colder than the previous 10-year average. "As a result, average Henry Hub spot prices increased to \$2.64 per million British thermal units, up 31 cents from October. EIA expects U.S.

benchmark Henry Hub spot prices to average \$2.45 per million British thermal units in 2020, down 14 cents from the 2019 average, as U.S. production continues at a record level," she said.

U.S. annual dry natural gas production is forecast to average 92.1 billion cubic feet per day this year, up 10% from 2018, EIA said.

"EIA expects production growth to slow in 2020 because of the lag between changes in price and changes in future drilling activity. The 2020 natural gas production forecast will average 95.1 billion cubic feet per day," Capuano said.

EIA said low prices in the third quarter of this year "will reduce natural gasdirected drilling activity in the first half of 2020"

The agency said it expects natural gas production to remain at or lower than the November 2019 level through the end of 2020. ●

Contact Kristen Nelson at knelson@petroleumnews.com

### **UTILITIES**

## Enstar requests earthquake cost recovery

The Regulatory Commission of Alaska has opened an enquiry into a request by Enstar Natural Gas Co. for approval to recover costs associated with the major November 2018 earthquake. As a consequence of the earthquake, which caused significant damage in the Anchorage region, Enstar incurred about \$1.3 billion in unanticipated costs, the gas utility told the commission. The utility did carry insurance covering the possibility of earthquake damage. But the insurance policy involves a deductible of \$1 million — Enstar wants to true up its earthquake recovery costs, net of insurance, and include these costs in its next rate case, due to be filed on July 1, 2021.

Enstar's response to the earthquake included bringing in additional personnel to help conduct leak detection and aerial surveys around the utility's gas infrastructure. The utility also needed personnel to deal with a major uptick in emergency calls and calls from contractors requesting emergency locates. There were 1,600 calls on Enstar's emergency line and 500 emergency work orders on Nov. 30, the day of the earthquake. Ultimately three earthquake related underground leaks were discovered, although there were no leaks from any gas transmission lines, Enstar told the commission.

The earthquake triggered two significant projects.

The first project involved the assessment and replacement of a transmission line and a distribution line near Vine Road, where there had been ground displacement and associated severe damage to the road. While neither pipeline had leaked as a consequence of the earthquake, both lines had shifted significantly.

The second project involved an inline inspection of the Beluga Pipeline, a major 20-inch diameter transmission pipeline carrying gas from the west side of Cook Inlet. Although Enstar had conducted an aerial survey of this line and had also determined that there was no pressure loss from the line, the federal Pipeline and Hazardous Material Administration had recommended an inline inspection, to detect possible damage such as buckling or dents. A preliminary report from the inspection indicated no damage resulting from the earthquake, Enstar told the commission.

—ALAN BAILEY

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#### TAPS MILESTONE

along the pipeline. They also operate the Ship Escort/Response Vessel System, or SERVS, for Prince William Sound.

Alyeska was created to construct, operate and maintain TAPS for owner companies which currently are BP Pipelines (Alaska), ConocoPhillips Transportation Alaska, ExxonMobil Pipeline Co. and Unocal Pipeline Co.

Construction of TAPS began in 1974. The pipeline itself was the largest privately funded infrastructure project ever undertaken in America at the time, at about \$8 billion. In October 1975, about 28,000 people were working to make it a reality. While TAPS once carried 2.1 million barrels of oil per day, accounting for a full quarter of America's supply, today it runs just one-quarter full

#### \$24B in works says Moriarty

Alaska Oil and Gas Association announcement.

"TAPS is our economic lifeline and a source of great pride for Alaskans. It's hard for many of us to imagine life without the pipeline, but it's worth emphasizing the enormous economic contribution the oil

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proud legacy can continue as industry considers approximately \$24 billion in new opportunities in legacy and new fields in the coming decade, and Alveska continues to harness new technology and innovation," said Moriarty.

"Billions of barrels of oil remain on Alaska's North Slope. Alaska's economic future is under our feet, and with the right investment climate, we will bring that oil to market, preserving Alaska jobs and funding vital services," she said.

AOGA is a professional trade association whose mission is to foster the longterm viability of the oil and gas industry in Alaska for the benefit of all Alaskans.

In a Dec. 9 press release the Alaska congressional delegation said they appreciate the years of service by Admiral Barrett in his role as Alyeska president: "As he approaches a well-deserved retirement, this 18 billionth barrel is a significant capstone to a remarkable career."

When TAPS turned 40, the delegation said Barrett wrote: "Though there has been a lot of change on TAPS in 40 years, one unwavering constant remains: the commitment of the people who work on TAPS today to provide safe, reliable, operational excellence, 24 hours a day, seven days a week, resilient amid all of Alaska's extreme geography and weather."

> Contact Kay Cashman at publisher@petroleumnews.com

# **GOVERNMENT**

## Alberta imposing carbon levy Jan. 1

In a softening of the showdown between the Canadian and Alberta governments over carbon taxes, Alberta has gained federal approval to proceed with its own version of a tax on heavy industrial emitters of greenhouses gases, notably the oil sands sector.

Under the deal, Alberta will impose a C\$30 per metric ton levy on Jan. 1, 2020, without coming to a final agreement on whether Alberta will comply with the federal benchmark of a C\$10 annual increase to C\$50 in 2022.

Alberta Premier Jason Kenney said he still opposes that annual increase because "we don't want the federal government big footing into Alberta and enforcing their own separate regulatory regime."

However, he conceded Alberta would not close the door on going to C\$40 "if we have no choice except the imposition of a federal regime in Alberta.'

Kenney said hikes in the tax would hurt the competitiveness of his province's oil and gas sector and "lead to the flight of capital and carbon leakage, basically from our energy sector to the energy sector in the United States that doesn't have a carbon price."

Still to be resolved is the dispute that the Canadian government is determined to impose on a consumer-based carbon tax of C\$20 per metric ton on Jan. 1, rising annu-

In a few weeks the Alberta Court of Appeal will hear arguments on a Kenney government challenge to the constitutional right of Canada to impose the consumer tax.

That has pitted Alberta, Saskatchewan and Ontario in separate fights against the federal government, with Kenney arguing that the administration of Prime Minister Justin Trudeau should "not punish people for heating their homes and filling up their gas

He said the new industrial tax is a "very detailed and credible program for emissions reduction through the levy price we are imposing."

—GARY PARK

## **EXPLORATION & PRODUCTION**

## US rig count drop continues, down 3 to 799

Baker Hughes reports the number of rigs drilling for oil and natural gas in the U.S. continued to fall the week ending Dec. 6, down three from the previous week to 799, following drops of one, three, 11, five, eight and 21 the previous six weeks.

In its weekly rig count the Houston oilfield services company said the active rig count was down 276 from 1,075 active rigs a year ago.

The company reported that 663 rigs targeted oil (down five from the previous week; down 214 from a year ago) and 133 targeted natural gas (up two from the previous week; down 65 from a year ago). There were three miscellaneous rigs active (unchanged from the previous week and up by three from a year ago).

The company said 52 of the U.S. holes were directional, 695 were horizontal and 52 were vertical.

North Dakota and Pennsylvania were each up by one rig from the previous week. Rig counts in most states were unchanged from the previous week: Alaska, California, Colorado, New Mexico, Ohio, Utah, West Virginia and Wyoming.

Louisiana and Oklahoma were each down by one rig.

Texas, with the most active rigs at 400, was down five from the previous week. Baker Hughes shows Alaska with seven rigs active for the week ending Dec. 6, unchanged from a year ago.

The U.S. rig count peaked at 4,530 in 1981. It bottomed out in May 2016 at 404. Baker Hughes reported worldwide rig counts for November on Dec. 6, noting that the international rig count was 1,096, down 34 from 1,130 in October and up 105 from 991 in November 2018. The international offshore rig count was 247 in November, up five from 242 in October and up 41 from 206 in November 2018.

Baker Hughes also provided an average U.S. rig count for November — 810, down 38 from an average of 848 in October and down 267 from an average of 1,077 in November 2018. The company said the average Canadian rig count for November was 136, down nine from 145 in October and down 62 from 198 in November 2018.

Worldwide the rig count was 2,042 in November, down 81 from 2,123 in October and down 224 from 2k266 in November 2018.

-KRISTEN NELSON

President and CEO Kara Moriarty congratulated Alyeska on its milestone in a press release following the company's

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**Kay Cashman PUBLISHER & FOUNDER** Mary Mack CEO & GENERAL MANAGER Kristen Nelson **EDITOR-IN-CHIEF** 

Susan Crane ADVERTISING DIRECTOR

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Marti Reeve SPECIAL PUBLICATIONS DIRECTOR

PRODUCTION DIRECTOR

CONTRIBUTING WRITER

Alan Bailey CONTRIBUTING WRITER

Eric Lidji **CONTRIBUTING WRITER** 

**Gary Park** CONTRIBUTING WRITER (CANADA)

Judy Patrick Photography CONTRACT PHOTOGRAPHER

**Forrest Crane** CONTRACT PHOTOGRAPHER

Renee Garbutt CIRCULATION MANAGER **ADDRESS** 

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

NEWS 907.522.9469

publisher@petroleumnews.com

CIRCULATION 907.522.9469

circulation@petroleumnews.com

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#### **FURIE BIDDER**

Gov. Bill Walker's cabinet as chief oil and gas advisor.

#### **HEX Alaska based**

HEX is based in Alaska, headquartered in Anchorage, and Alaska owned, Hendrix told Petroleum News in a Dec. 10 interview.

"It would be great to bring the asset back home to Alaskans," he said.

The company is committed to hiring Alaskans, Hendrix said.

"Of course," he said. "Anchorage hire; Alaska hire; peninsula focused."

Hendrix was raised in the south Kenai Peninsula town of Homer and is a graduate of Homer High School.

"Being from Homer, it's nice to have a business back on the peninsula again," he said, adding that the operation is a major contributor of production taxes, and of Kenai Peninsula Borough taxes.

Under the state leases that HEX would assume in the sale, the state will also continue to collect production royalties.

The name HEX derives from the name Hendrix, Hendrix said.

'We want to be visible and easy to pronounce," he said. "My daughter came up with the name."

#### Much to be done

Hendrix said there is much to be done to make the Kitchen Lights unit takeover a reality — gaining court approval for the transaction, obtaining financing and solving issues with production that currently bedev-

"This isn't done yet; we still have a long way to go," Hendrix said. "I have to go back to New York on the 20th to put the money into our hands, and then we have to purchase it."

Hendrix said he would love to work with Alaska based lenders if possible, instead of going to the East Coast.

"If the state of Alaska would like to participate with AIDEA, we'd love to see 'em," he said.

AIDEA — the Alaska Industrial Development and Export Authority — has historically invested in selected oil and gas ventures in the state, including extensive support for a small Australian company that brought a jack-up rig to Cook Inlet in 2012. That company, Buccaneer Oil, filed for Chapter 11 bankruptcy in May 2014, and

the jack-up rig is no longer in Alaska.

A number of Buccaneer creditors went unpaid. The city of Homer, Homer Electric Association and several businesses received letters from the company's trustee saying preferential payments made to them in the 90 days before the bankruptcy filing had to

In the wake of the bankruptcy, the Alaska Legislature passed new statutes requiring oil and gas companies operating in Alaska to obtain a surety bond or deposit an equivalent amount of cash when obtaining a state business license. The idea behind the bonding requirement was to protect small Alaska service companies from having to refund to secured creditors money received for services rendered to the oil company, in the event of the oil company's bankruptcy.

#### Solving production issues

HEX is already at work to find solutions to natural gas production issues at Kitchen Lights, Hendrix said.

In early January, Furie ran into problems when hydrate plugs at its onshore processing facility and in the 15-mile subsea pipeline from the offshore production platform slowed natural gas delivery to a trickle, which put Furie's contract with utility Enstar Natural Gas in jeopardy. Gas output fell from 739,023 thousand cubic feet to 1,886 mcf in February.

"We need to get the base production fixed and provide our people we sell our gas to with assurances that we will meet their demands, and we need to work with the state, and locals," Hendrix said.

"We have a tremendous opportunity in the Sterling formation but it makes a lot of water, and with water ... we've got to dispose of water," he said. "That's going to be the key to unlocking the future potential and future for the state and for HEX."

"There's a lot of gas to be had, and unless we can process the water on our platform, it will be tough to expand," he said. "Right now we can do a lot with just the Beluga formation."

The Kitchen Light unit is a large unit with a number of prospects for oil and gas beyond the Beluga and Sterling formations currently accessed by wells from the Julius R platform.

While Hendrix was working for Apache in Alaska, Apache collected 1,100 miles of seismic in Cook Inlet, some of which was shot across portions of the Kitchen Lights

see FURIE BIDDER page 10

## **EXPLORATION & PRODUCTION**

# Hilcorp permits five new test wells

Hilcorp Alaska has obtained permits from the Alaska Oil and Gas Conservation Commission for the drilling of five new stratigraphic test wells in the southern Kenai Peninsula. According to AOGCC data, the wells, called the Whiskey Gulch wells, would be drilled onshore on private land in an area immediately north of Anchor Point. Hilcorp has not responded to requests for further information about the planned wells.

Hilcorp recently undertook a drilling program involving eight Seaview stratigraphic test wells near Anchor Point. AOGCC data indicate that seven of these wells were drilled to depths of a few hundred feet and plugged and abandoned in August and September 2017. The Seaview No. 8 well was completed in December 2018 to a vertical depth of 10,148 feet. AGOCC data indicate that the well encountered natural gas.

According to state documents, Hilcorp planned to perforate the first 5,500 feet of the Seaview No. 8 well to evaluate gas zones, with the well extending into private subsurface land at greater depths to explore for oil. The state documents also indicated that Hilcorp planned to drill a Seaview No. 9 well, but there is no AOGCC record of a permit for that well.

—ALAN BAILEY

#### **GOVERNMENT**

## North Slope Borough Assembly okays Oil Search Pikka master plan, rezoning

The North Slope Borough Assembly met Dec. 3 and voted in favor of the Nanushuk Master Plan and rezoning request submitted Nov. 5 by Oil Search for its Pikka unit development west of the central North Slope.

The vote on the ordinance was 8 to 0, with one member abstaining.

Rezoning involved amending the official borough zoning map to change the area needed for the Pikka Nanushuk project from Conservation District to Resource Development District.

Oil Search must pay \$50,000 per year into the mitigation fund for the life of the Pikka project, starting with the beginning of construction.

Included in the nine pages of requirements imposed by the North Slope Borough was establishing a fund that will be administered by the borough to diminish the impacts on area residents. Oil Search must pay \$50,000 per year into the mitigation fund for the life of the Pikka project, starting with the beginning of construction.

Among numerous other requirements, the company also must establish provisions for several studies in the interest of wildlife and habitat protection and work on them with appropriate borough departments and officials.

Economic opportunities for borough and Native residents and local companies were also provided for in the ordinance.

The Nanushuk project will produce 120,000-130,000 barrels of oil per day at its peak, which is approximately one-fourth of the amount that currently flows through the trans-Alaska oil pipeline.

—KAY CASHMAN



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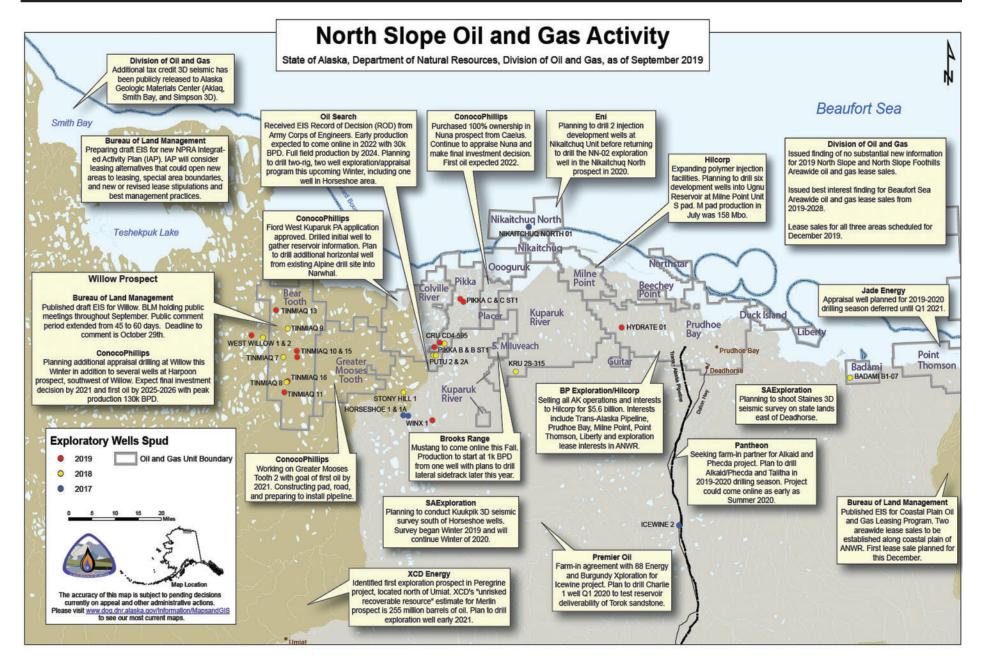
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#### EXPLORATION TALLY

The well will intersect seven stacked prospects, four of which are interpreted as oil bearing in nearby Malguk No.1 (drilled in 1991 by BP) and are therefore considered appraisal targets, 88 Energy said.

In paperwork submitted to the division, the primary drilling objective includes testing and evaluating the Seabee formation for oil.

The program is being financed via a joint venture between 88 and Premier Oil Plc, with Premier picking up the cost of drilling (up to US\$23 million).

#### ConocoPhillips — up to 7 wells

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Using the Doyon 141 and 142 drill rigs, ConocoPhillips is planning to drill and test up to seven exploration wells this winter on its Willow (and West Willow) and Harpoon acreage in the National Petroleum Reserve-Alaska, although it is permitting 10 sites to maintain operational flexibility.

The U.S. Bureau of Land Management said in its environmental assessment that vertical seismic profiles will be done at some of the new wells.

The company's existing suspended wells — Scout 1, Tinmiaq 2 and 15 — are part of the program to conduct inspection and potential abandonment.

The 10 wells, all on ConocoPhillipsoperated leases, are as follows, with the last figure being the lease number:

- Tinmiaq 14 exploration/appraisal well AA090710
- Tinmiaq 18 exploration/appraisal well AA090707
- Tinmiaq 19 exploration/appraisal well AA094166
- Tinmiaq 20 exploration/appraisal well AA095290
- Tinmiaq 22 exploration/appraisal well AA081824 • Tinmiaq 24 exploration/appraisal
- well AA081823
- Harpoon exploration well AA094454
- Harpoon 2 exploration well AA094443

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- Harpoon 3 exploration well AA094436
- Harpoon 4 exploration well AA094445

The Tinmiaq 14, 18, 20, 22, 24 ice pads will be 600 by 600 feet, as will all the Harpoon pads.

The Tinmiaq 2 ice pad will be 500 by 500 feet.

The Tinmiaq and Harpoon base camp ice pads will be 1000 by 1000 feet, as will be the Remote Ice Camp pad, or RIC, plus there will be several other ice pads.

The ice airstrip will be 4,000 by 75

Scott Jepsen, a ConocoPhillips Alaska senior vice president, recently said there will be 74 miles of ice roads for exploration (Harpoon), with 165 miles total in this winter's program. He also said four of the wells would be in the Willow area (Tinmiaq wells).

Jepsen described the Harpoon program southwest of Willow as "rank explo-

State and federal geologists have said the geological targets in the Willow area are Nanushuk and Torok.

#### Eni US — 1 or 2 wells?

In Eni US Operating's 11th annual plan of development for the Nikaitchua unit filed with the division and ran from Oct. 1, 2018, through Sept. 30, 2019, the company said it would continue drilling the Nikaitchuq North exploration well, NN-01, which was spud in late 2017 from the Spy Island drill site, or SID.

Eni suspended drilling on NN-01 in April at a measured depth of 30,010 feet, shy of its 35,000-foot target, because of "operational limitations."

tional drilling of the well in early February 2020.

In its 12th POD (Oct. 1 through Sept. 30, 2020) Eni confirmed it plans to resume NN-01well operations in the 2019/2020 winter drilling season and

The company also plans to do surface

facility upgrades in anticipation of spudding another Nikaitchuq North exploratory well, NN-02, in first quarter 2020.

Facility upgrades are planned to support the second well and the two remaining SID injection wells, including a new six-slot well containment shelter and associated well conductors, plus the requisite well tie-ins.

The NN-01 and NN-02 wells are part of an initiative to find new oil resources in the Nikaitchuq North prospect in the federal outer continental shelf north of the existing Nikaitchuq producing unit in state waters, using ultra-extended reach drilling to target Harrison Bay Block

Eni has not identified the drilling target at Nikaitchuq North. The Schrader Bluff formation that hosts the reservoir for the Nikaitchuq unit is known to extend a long way north.

However, there are other possibilities that, based on circumstantial evidence such as planned drilling depth, may be likely. One contender is the Jurassic Alpine sands, equivalent to reservoir sands in the Alpine oil field and deeper than the Schrader Bluff.

Also, Kerr-McGee, the previous Nikaitchuq operator, had talked about the possibility of testing the Jurassic Nuigsut sandstone to the north of the unit.

Eni did not specify which rig(s) it would be using to drill NN-01 and NN-01, but it currently has Doyon Rig 15 drilling at SID, which was used for NN-01. It also has Nordic Calista 4 and Nabors 245-E under contract.

#### Oil Search — 2 wells

Oil Search's lease plans of operations for the two wells it wants to drill and test this winter, Mitquq 1 (plus sidetrack) and Stirrup 1, were approved in early December by the Division of Oil and Gas.

The wells will test Nanushuk analogues east of the Pikka unit with Mitqua 1, and west of the Horseshoe Block with Stirrup 1.

Eni anticipated continuing the direc-

expects to reach target depth by Q3 2020.

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off the print edition. **CONTACT** Trudeau treads carefully Renee Garbutt

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#### **EXPLORATION TALLY**

Both the wells will be drilled by Doyon's Arctic Fox rig from ice pads on state land east of the Colville River, with Mitquq 1 about six miles from the proposed Pikka Nanushuk Development A pad, or ND-A, and approximately 5.5 miles southwest of DS-3S pad in Kuparuk River unit. Stirrup is 15 miles southwest of the village of Nuiqsut.

Oil Search recently described Mitquq's oil potential as a "high value tieback" to "future Pikka infrastructure."

Success at the Stirrup prospect, which is close to the Horseshoe Block southwest of the Pikka unit "could de-risk additional fairways to underpin a possible standalone" Horseshoe development, the company had said, noting Stirrup is a direct analogue to the Horseshoe 1 Nanushuk discovery.

The main Mitquq 1 ice road will be 6.4 miles long with 10 spur ice roads for water source access. A construction ice pad will be at the start of the ice road, near DS-3S, to support ice road construction, early mobilization and maintenance.

The Mitquq well and all operations will be on a 23-acre ice pad.

The single surface hole well will be drilled to a true vertical depth of 7,000 feet or less.

Oil Search plans to conduct a walkaway vertical seismic profile. The well will be plugged and abandoned upon completion, since its purpose is to better understand subsurface reservoir characteristics.

The Mitquq 1 drill site and surface hole will be on state oil and gas lease ADL 393876, and the wellbore will be on ADL 393875 — Oil Search is the lessee on both.

The main ice road for Stirrup 1 will be 26.1 miles long with 10 spur ice roads for water source access.

Four ice pads will be built for staging, construction, telecommunications and drilling. An ice airstrip may also be constructed.

All operations for Stirrup 1 will be conducted on a 23-acre ice pad.

The single surface hole well will be drilled to a true vertical depth of 6,000 feet

In addition to the well, Oil Search will conduct a walkaway vertical seismic profile. The Stirrup 1 well will be plugged and abandoned upon completion, since its purpose is to better understand subsurface



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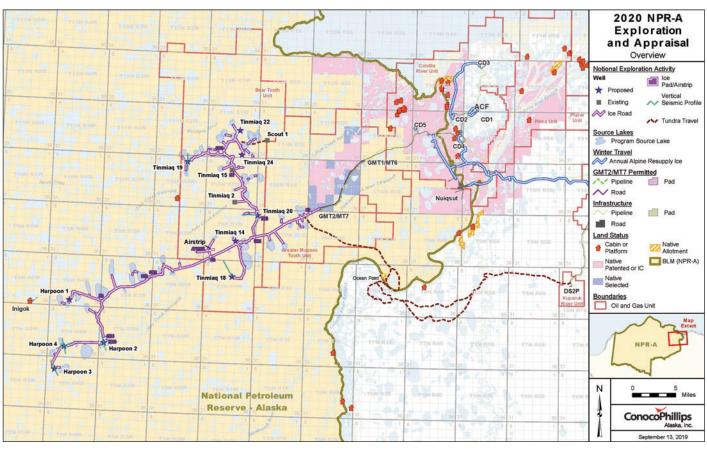
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reservoir characteristics.

The Stirrup 1 drill site and surface hole location will be on state oil and gas lease ADL 392044, leased to Oil Search; presumably the wellbore will be on the same lease, although the approval document did

EDITOR'S NOTE: See map showing the location of the Mitgua and Stirrup wells in page 11 of the Sept. 29 issue of

Petroleum News, which subscribers can find in our online archive.

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#### **GUITAR UNIT**

to make it into the state's Dec. 11 North Slope lease sale, but they will be offered in the next North Slope lease sale, currently scheduled for about a year from

In Alliance's plan of exploration, approved by the division in 2017 in conjunction with the formation of the Guitar unit, the company promised to drill a well in the winter of 2018 or 2019, which was why the statewide bond was required.

Alliance did not meet its work commitment and so the unit was put into default by the state.

Although it did not cure the default, the division approved a new plan of operation filed by Alliance for drilling the well this winter.

The vertical well was to be spud from an ice pad prior to March 31, 2020, and like the previous plan of operation, it was to penetrate the Ivishak, the formation that hosts the adjacent Prudhoe Bay reservoir, with a lateral well targeting a seismic anomaly in the Kuparuk C.

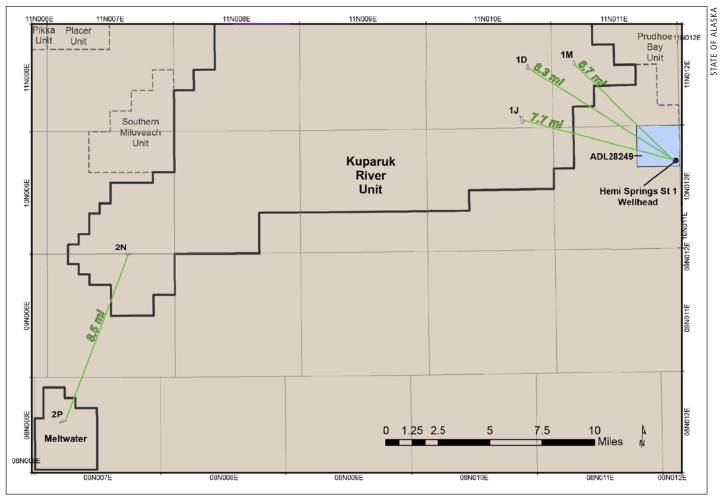
Oil potential indicates an upside of 200-300 million barrels, an Alliance executive previously told Petroleum News.

#### **Deal with ConocoPhillips**

In June, Alliance said it had finalized a lease transfer document and production sharing agreement with ConocoPhillips on the Hemi Springs lease, ADL 28249, which sat at the northwest quadrant of what, with the three Guitar unit tracts, had formed a square shape.

The fourth lease was of intertest to Alliance because the well head of the Hemi Springs State No. 1 discovery well, drilled by ConocoPhillips predecessor ARCO Alaska in the mid-1980s on the

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tract, was certified as capable of producing hydrocarbons in payable quantities from the Kuparuk C formation. The bottom hole of the well was on one of Alliance's three Guitar unit leases.

Those three leases and the fourth ConocoPhillips tract had previously been part of the Hemi Springs unit, formed in 1983 by ARCO Alaska and terminated in 1992

#### Fate of ConocoPhillips lease uncertain

Alliance terminating the Guitar unit and surrendering its three leases to the

state revived a situation between ConocoPhillips and the division on ADL 28249. The agency had ordered ConocoPhillips to put the lease into production or lose it.

The most recent public document was a response from DNR's commissioner at the time, Andy Mack, to an appeal by ConocoPhillips on the production order, confirming the division's initial decision.

In his July 25, 2018, decision letter, Mack said ConocoPhillips "has submitted an application to assign this lease to Alliance Exploration, LLC, received August 31, 2017. To allow the Division's assignment process to proceed, this decision is hereby stayed pending the outcome of the assignment application."

If the lease assignment had gone through ConocoPhillips would no longer have had any working interest in the lease.

With the Guitar unit gone and its leases surrendered to the state, the production order is back in play and will have to be worked out between ConocoPhillips and the state.

#### Background on ADL 28249

DNR initially issued ADL 28249 to Richfield Oil Corp., predecessor to ARCO Alaska, and Humble Oil and Refining, predecessor to ExxonMobil, on Oct. 1, 1965, with an effective date of March 27, 1974, once the State perfected title.

Paragraph 7 of the lease says, "If, upon the expiration of the primary term or at any time or times thereafter, there is on said land a well capable of producing oil or gas in paying quantities, this lease shall not expire because Lessee fails to produce the same unless Lessor gives notice to Lessee allowing a reasonable time, which shall not be less than sixty days, after such notice to place the well on a producing status, and Lessee fails to do so; provided, that after such status is established such production shall continue on the said land unless and until suspension of production is allowed by Lessor."

Near the end of the lease's 10 year term it was included in the Hemi Springs unit, formed Jan. 17, 1984. Unitization extends a lease for the life of the unit.

ARCO Alaska drilled the Hemi Springs State No. 1 on ADL 28249 and on June 5, 1984, the division certified the well's results as capable of production in paying quantities.

When the working interest owners vol-

untarily terminated the Hemi Springs unit Oct. 1, 1992, the unit agreement extended all the leases for one year, and then on April 30, 1993, the division notified the lessees that the lease would remain in force under Paragraph 7 because of the well certification finding.

The well was never brought into production.

#### Well plugged and abandoned

The well is currently plugged and abandoned and therefore not physically capable of commercial production without being redrilled. As of 2012, after several name changes and assignments, ConocoPhillips was the sole lessee for ADL 28249.

In 2014, the company contacted the division regarding surrender of the lease. They "discussed an opportunity for the Division to re-lease the land with certain improvements intact," Mack wrote.

When those discussions did not work out, the division gave ConocoPhillips notice on Aug. 25, 2014, to place the Hemi Springs State No. 1 on producing status by Feb. 25, 2017, in accordance with Paragraph 7

ConocoPhillips appealed the division's decision on Sept. 15, 2014, challenging the reasonableness of the 2.5 year period that the division provided for it to place the well on production. The company also requested a stay of the decision.

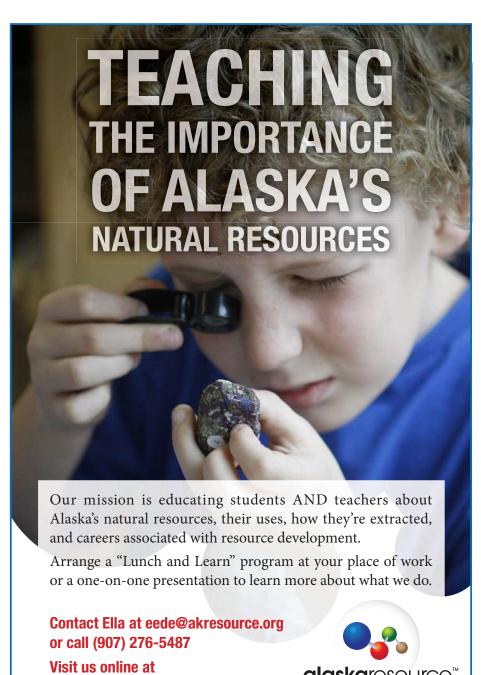
DNR initially did not issue a stay, but on Feb. 24, 2017 — one day before ConocoPhillips' deadline to place the well into production — the commissioner stayed the decision.

In the intervening 2.5 years while there was no stay in place, the division did not receive a plan of operations from ConocoPhillips to do the work needed for production. Nor, Mack wrote, was DNR aware of the company submitting permits to other state agencies for the approvals it would need to comply with the division's decision.

#### How long does it take?

ConocoPhillips disputed only one issue on appeal: whether 2.5 years was a reasonable amount of time to put the well into production. According to the company, the lease was not connected to infrastructure and the nearest production and transportation facilities were distant and not owned by ConocoPhillips.

see **GUITAR UNIT** page 9



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#### **GUITAR UNIT**

Instead ConocoPhillips said five years was a reasonable amount of time to bring a new field into production.

The division did not agree because the agency's order did not require a full field development.

Thus, Mack's decision said the issue was what was a reasonable amount of time for production from a single capable well, not production from an entire field.

Mack said, ConocoPhillips' "appeal offers no evidence that it was physically and logistically incapable of bringing the lease on production in the 2.5 years that the Division provided. As a lessor of oil and gas resources and regulator that approves the plans and permits lessees need to explore, develop, and produce resources, DNR has broad and deep expertise in how oil and gas leases can and are developed in Alaska, the length of time operators need to develop these resources, and the lengths of time operators prefer to take to develop resources. In DNR's experience, it was entirely possible for CPAI (ConocoPhillips) to place the Hemi Springs State No.1 on producing status in 2.5 years," noting ConocoPhillips and its predecessors have held this lease for more than four decades knowing it holds producible resources.

"DNR need look no further than CPAI itself for examples of comparable situations where CPAI brought acreage into production in far less than five years," Mack

said, saying the ConocoPhillips-operated Kuparuk River unit includes two leases that are not contiguous with the rest of the unit, separated by miles of acreage that is not part of the unit.

The leases he wrote about are in the Meltwater Participating Area, which is more than eight miles from the nearest pad in the Kuparuk River unit, whereas the Hemi Springs State No.1 is less than seven miles from a unit pad (see map in pdf and print versions of this article).

The company "progressed from a newly issued lease to first production in three years" at Meltwater, Mack said, and this included drilling three explorations wells and one development well, as well as building a road and pipelines to connect Meltwater to Kuparuk infrastructure.

Another example used by Mack was ConocoPhillips Tarn Participating Area within the Kuparuk River unit. When the Tarn project began, it was seven miles from existing Kuparuk River infrastructure.

ConocoPhillips "confirmed a commercial oil accumulation through exploration drilling in early 1997, built a road, pipelines, and a powerline to connect the area in early 1998, began development drilling in April 1998, and started first production by July 1998. If CPAI could accomplish this in a year and a half, certainly it should have been able to place the Hemi Springs State No. 1 on producing status in 2.5 years," Mack wrote.

#### Sixty-one days to production?

In his findings, Mack said his appeal decision "is hereby stayed for as long as the assignment application is pending before the Division," which it is no longer.

Mack stayed the division's decision on Feb. 24, 2017, leaving ConocoPhillips "with one day remaining in its period to place the well on producing status. If the division denies the assignment application and this decision becomes final, the commissioner will extend that period by 60 days. Under Paragraph 7 of the lease, CPAI would then need to place the Hemi Springs State No. 1 on producing status and continue producing from this well within that 60 days or ADL 28249 will expire."

A Petroleum News source said it is likely the division and the company will be able to come to terms that are acceptable to both.

Stay tuned ...

—KAY CASHMAN

Editor's note: Petroleum News subscribers see the May 5, 2013, article in Petroleum News online archive titled "Polar releases Hemi Springs reserves: Study estimates 558.2 million barrels of recoverable oil reserves from Ivishak, Kuparuk and Schrader Bluff/West Sak formations."

Contact Kay Cashman at publisher@petroleumnews.com

with Petroleum News



# Oil Patch Bits



#### **Brown Line earns third EPA Award**

As reported by Lynden News Dec. 9, Brown Line has earned its third consecutive Smart Way High Performer Award from the U.S. Environmental Protection Agency. For the past three years, Brown Line has been included in the minority — only 2% — of SmartWay carriers to receive this honor for all scoring metrics.

Colville Inc.



"Our team is very proud to receive this award for the third consecutive year," said Brown Line President Bill Johansen. "We continue to work hard to ensure we reduce carbon emissions by reducing idle time, sudden starts and stops and by using a new system called SmartDrive. This system allows our team to work together to improve driver safety and driving habits while reducing carbon emissions."

This year, Brown Line added 14 new fuel-efficient trucks to its fleet. Now 90% of its equipment is under five years old. New trailers arrived in November with electrical plug-ins allowing the refrigeration unit to turn off its generator to save on fuel and emissions. They will be tested with a new aerodynamic system in place of trailer tails designed to reduce the low pressure drag behind the trailer. The new system is expected to increase fuel economy and durability while reducing weight.

Brown Line also upgraded its refrigeration units with StarTrak, a system capable of sending alerts to dispatchers, drivers or shop personnel if any refrigeration unit is not maintaining the temperature set point. The temperature can also be adjusted remotely while a unit is en route.

In the past five years, Brown Line has improved its fuel economy by nearly 40% and, in the past seven years, it has reduced its nitrous oxide and particulate matter emissions per ton mile by 44% and 62% respectively.

# Companies involved in Alaska's oil and gas industry

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continued from page 5

#### **FURIE BIDDER**

unit. Hendrix declined to say if the Apache seismic provided insight into the future potential at Kitchen Lights. "Right now I can't really comment on that," Hendrix said. "Right now we're focusing on the base production, the Beluga formation."

Hendrix said data that Furie possesses has been hard to find, adding that HEX will be looking into that data between now and the closing of the sale to formulate a plan beyond the base production. "Right now we have to work on the base," he said.

When Apache entered Alaska, it said it was investing for the long haul.

In June 2012, Hendrix told Petroleum News Apache expected to be operating in Cook Inlet "30 years from now."

"You don't come in and buy this much acreage with a short-sighted plan," he said. "We're not a one-well wonder and we don't have to bet the farm on one well. ... It's a proven basin and we think it's been under-explored. But it's not an easy basin. It's a very complex basin. It's very complex to drill and it's very complex from the geology (standpoint)."

Between 2011 and 2014, Apache commissioned an ambitious three-year 3-D seis-

mic survey from Susitna Flats to Anchor Point and drilled the Kaldachabuna No. 2 exploration well on Cook Inlet Region Inc. leases near the village of Tyonek in November 2012.

The drilling had problems. The drill bit got stuck several times as the well passed through more than 100 coal seams, many thicker than 10 feet. Apache suspended the well in April 2013 at 11,389 feet, according to Alaska Oil and Gas Conservation Commission records.

As of March 2016, Apache was leasing nearly 407,000 acres from the state of Alaska and at peak held some 800,000 acres altogether, including leases from federal,

Native and other landowners.

In the same month, the company announced that it would discontinue its program in Alaska due to companywide cuts. The company allowed its acreage to expire.

Hendrix remains undaunted, and optimistic for the future of HEX in Cook Inlet.

"We've got good hands out there making sure that we have production, and to keep on doing what they are doing," he said. "I think it's a good day for Alaskans, and we're going to do our part to make sure that we do our part to help the economy ... and hire Alaskans."

Contact Steve Sutherlin at ssutherlin@petroleumnews.com

continued from page 1

#### **SOURCES BOOK**

with ANS production down 2.8%, 14,500, from the spring 2019 forecast. For FY20, the production forecast is down 7.1%, 37,400 bpd, and the FY21 forecast is down 4.1%, 21,200 bpd.

The oil price forecast for FY19, up 0.8% for ANS West Coast, from \$68.90 in the spring forecast to \$69.46 in the fall forecast, is down from the spring forecast for all forward years in the fall forecast: down 3.7% for FY20 from \$66 in the spring forecast to \$63.54 in the fall forecast and down 10.6% for FY21 from \$66 in the spring forecast to \$59 in the fall forecast.

The spring forecast for FY20 unrestricted general fund petroleum revenues was \$1.755 billion; with both production and oil prices now forecast to be lower than estimated in the spring, the fall forecast for unrestricted general fund petroleum revenue has dropped to \$1.559 billion, a reduction of some \$200 million.

#### **Declines, increases**

The forecast looks at production by oil pools and recognizes both increases and decreases. "The oil production forecast balances projected declines in production at existing fields with incremental production from new fields and new developments," the department said, with production forecast to decline to 434,300 bpd in FY24 and then increase to 494,500 bpd by the end of the 10-year forecast period.

Cook Inlet production, which averaged 14,900 bpd in FY19, is forecast to increase to 16,200 bpd in FY20, and decline thereafter, dropping to an average of 9,200 bpd in FY29

National Petroleum Reserve-Alaska production, which averaged 8,300 bpd in FY19, is projected to increase steadily, from 11,500 bpd in FY20 to 52,600 bpd in FY29. ConocoPhillips' Greater Mooses Tooth began production in October 2018 and the company's Willow discovery is expected to begin production in the 2025-26 timeframe, the company said at a November analysts' presentation.

On state lands, Oil Search's Pikka is listed in the "other" category along with ConocoPhillips' Narwhal. In that category, which currently has no production, the state is projecting small volumes beginning in FY21 and reaching 128,100 bpd in FY29. Oil Search has said it expects initial production of some 30,000 bpd through Kuparuk facilities in mid-2022, and the beginning of full production in 2023-24 once its own facilities are online.

#### Change in methodology

Revenue said it has changed its price forecast methodology, with the forecast now incorporating "the most current indications from financial markets."

In prior years forecasts the department based the official price forecast on a day-long price forecasting session typically held in October. In the Fall 2018 Revenue Sources Book the department gave this description of that method: "The forecast session uses a survey method that relies on a pool of participants from state government, the private sector, and academia. Each participant submits his or her own price forecasts after a day of presentations by experts on oil price markets and market structure. These forecasts are used to calibrate internal models and inform discussions on how effects that occur after the price forecasting session should affect the price forecast."

That method is no longer being used.

The department said that beginning with the fall 2019 forecast, "the short-term oil price forecast (current and next fiscal year) is derived from futures market expectations for Brent crude. Brent is used because it is a widely followed global benchmark crude that is typically priced similarly to ANS crude. Beyond the next fiscal year, the price forecast is held constant in real terms, increasing with inflation. This approach to price forecasting allows the department to prepare a forecast with minimal expense to the state, while providing a transparent methodology that incorporates the most recent market information available at the time the forecast is produced."

The department has not changed its method for forecasting production. Those numbers are developed internally by

the Alaska Department of Natural Resources' Resource Evaluation and Commercial teams with assistance from

There are three categories of oil volumes in the production forecast: currently producing, including wells in production prior to the start date of the forecast; under development, which includes new wells and pool expected to be in production in the first 12 months of the forecast period; and under evaluation, including new wells and pool expected to go into production in years two through 10 of the forecast period.

Currently producing "volumes are forecast at the poollevel using decline-curve analysis," Revenue said, with DNR technical experts using data from the Alaska Oil and Gas Conservation Commission "to develop a time series dataset to assess the future production profile of fields that are already in production."

Volumes from the under development category are forecast using information provided by operators in plans of development for each pool. "Production from planned infill wells is determined using the well performance from historical analogue wells," the department said. For projects which have funding, approval and a drilling plan, volumes are categorized as under development "if production is expected to begin in the first year of the forecast period." Because oil in this category requires some level of capital investment and equipment usage, the potential for delay exists and actual performance is uncertain, so some consideration of risk is required, so "an occurrence risk factor" for individual projects is included in the forecast.

Under evaluation volumes are those likely to begin production in the second through 10th years of the forecast. These projects may still have funding hurdles to overcome, may need to be sanctioned by working interest owners, require regulatory approval, etc., so risk factors are assigned to each project.

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com

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#### HORGAN MESSAGE

That concession made it clear that B.C. has run up its surrender flag, regardless of a pending Supreme Court of Canada ruling expected early in 2020 that is likely to leave only some indigenous communities and environmentalists to continue the battle.

However, Horgan appears to have backed away from his earlier pledge to "use every tool in our toolbox" to litigate against TMX, effectively blaming the previous B.C. government for dragging his New Democratic Party administration into the legal arena.

"We entered into (those existing actions). Most of them have run their course. Now there are indigenous peoples who are still in court with Trans Mountain. We're not participating in those cases," he said.

For TMX that retreat was taken as a green light to make an official start on laying pipe in Alberta in anticipation of construction work extending into B.C. next spring.

"If everything goes according to plan, and nothing has for 10 years ... we will be finished in mid- to third quarter of 2022," said Trans Mountain Chief Executive Officer Ian Anderson.

#### **Positive news for TC Energy**

At the same time, there was positive news on TC Energy's C\$6.6 billion Coastal GasLink from northeastern British Columbia's Montney shale formation to the C\$40 billion LNG Canada liquefaction facility and tanker terminal at Kitimat.

Coastal President David Pfeiffer said the project was about to start taking delivery of pipe from Japan, India and Saskatchewan for the 500-mile link that is targeted for an in-service date by the end of 2023, allowing LNG Canada to start exporting LNG to Asia in early 2025.

The consortium led by Royal Dutch Shell expects to have initial capacity of 2.1 billion cubic feet per day, with potential expansion to 5 bcf per day.

The undertaking expects to employ 2,500 construction workers and has the support of all 20 elected First Nations along the route, leaving only hereditary chiefs of the Wet'suwet'en opposed.

Undeterred, Pfeiffer said Coastal has established a "great milestone" by stockpiling pipe to launching construction next summer and "is progressing on schedule right now."

#### TMX a different story

That level of comfort doesn't extend to TMX, where threats of protest and job-site disruption hang over the project, despite invitations from TMX for First Nations to seek equity stakes in the pipeline.

But the start of work in Alberta was seized on by the Canadian government (which owns Trans Mountain and the expansion) and Alberta.

Seamus O'Regan, Canada's newly appointed natural resources minister, said that with "more hard work and goodwill and a continued commitment to getting things done the right way, (TMX) will be completed."

Alberta Energy Minister Sonya Savage said the progress on TMX and the prospect of Enbridge completing its Line 3 top the U.S. Midwest is a "key to bringing back investment (to Alberta) and that's the key to bringing back jobs." The Canada Energy Regulator, CER, reinforced the outlook for crude and LNG exports by unveiling a new long-term outlook showing Canada's crude production could grow by 50% by 2040 to around 7 million barrels per day, while natural gas could grow by 30%, mostly to fuel thermal oil sands development.

Mark Oberstoetter, of the consulting firm Wood Mackenzie, lowered his forecast to 5.5 million bpd by 2040, highlighting that the resource base is available, although CER's prediction "does not line up with our most-likely view."

Neither prediction makes any allowance for the Canadian government's new pledge to reduce Canada's net greenhouse gas emissions to zero by 2050.

#### Measured capital spending

The industry continues taking a measured approach to capital spending, with Husky Energy announcing plans to cut C\$500 million to its budget over the next two years, targeting C\$3.2 billion in 2020 and C\$3.4 billion in 2021, while oil sands giant Suncor Energy set a range of C\$5.4 billion-C\$6 billion in 2020 (up 11% from 2019), although it is keeping oil-related spending flat next year.

"We do not have a strong oil price environment, in our view, going forward," said Ian Nieboer, managing director of RS Energy Group. "The ability to grow and the incentive to grow on the oil side is limited."

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

#### **LEASE SALES**

on the Slope, taking large acreage positions and bringing in partners to explore and develop fields beginning with Oooguruk and Nikaitchuq.

His most recent venture, in partnership with Repsol, produced the Nanushuk discovery at Pikka.

Armstrong recently sold off a position in Pikka to Oil Search, which bought into Pikka in 2017 and acquired the remainder of Armstrong's interest earlier this year. On the eastern side of the Slope, bidding as Lagniappe, Armstrong picked up a large block of acreage in 2018 and remains in partnership with Oil Search on that acreage, which Oil Search augmented in the state's North Slope areawide sale.

#### NPR-A acreage

"We're back in a big way," Armstrong told Petroleum News after the sale.

The acreage the company took in NPR-A, bidding as North Slope Exploration, is west of Willow, the big discovery ConocoPhillips has in NPR-A west of

"Basically, we jumped over Pikka, over Alpine and over Willow and the ConocoPhillips NPR-A discoveries," he

"It's super speculative, of course," Armstrong said of the acreage. "It's very attractive, but it's all wildcat ideas. We've done a lot of technical work on those ideas but we have more work to do."

Armstrong has brought in partners on its exploration prospects, but he said there is currently no partner on the NPR-A acreage. Asked about Oil Search, Armstrong said: "We do have a very strong relationship with Oil Search on the North Slope, but this is solely an Armstrong initiative at this time. That's all I can say right now."

There were two other bidders in the NPR-A sale.

ConocoPhillips, which has more than a million acres in NPR-A, and is developing two units, Greater Mooses Tooth, already in production, and Bear Tooth, the site of the company's Willow discovery, picked up three tracts, 33,149 acres, for \$246,510. Emerald House LLC, which holds 13 tracts in NPR-A, picked up four tracts, some 57,442 acres, for \$259,956.

#### State sales

The state of Alaska also opened oil and gas lease sale bids Dec. 11. The Alaska Department of Natural Resources' Division of Oil and Gas received no bids for the North Slope Foothills areawide sale or for the three special areas it offered, the Gwydyr Bay, Harrison Bay and Storms blocks.

The state received a combined \$7.8 million in bids for 154,610 acres in the Beaufort Sea and North Slope areawide sales.

In a statement on the sale the division noted that many of the bids were from exploration interests with significant lease positions, "and appear to represent efforts to consolidate opportunities near existing leases into larger contiguous areas."

Division Director Tom Stokes said in a statement that the number and amount of

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the bids validate the state's continuing status as an attractive target for oil exploration and production.

"Current plans of development indicate up to 10 wells will be drilled this winter to confirm the size and reach of oil fields," Stokes said. "And we're getting quite a bit of inquiry about permits for 3D seismic work that could direct future exploratory work," he said, all of which is positive for

The Beaufort Sea areawide sale drew 13 bids on 13 tracts from two bidding groups, Samuel Cade 75% and Daniel Donkel 25%, and Narwhal LLC. Bids on 46,290 acres totaled \$1,222,360.

The Cade-Donkel bids, on six tracts, 15,290 acres, for \$382,250, were on the eastern side of the Beaufort sale, north of and adjacent to the Point Thomson unit. The two hold positions in some 65,000

Narwhal LLC, which already holds 31,215 acres, bid on seven tracts in Harrison Bay, 31,000 acres, for \$840,110.

#### North Slope sale

The state drew 56 bids on 56 tracts in the North Slope areawide sale, with 108,320 acres receiving bids totaling \$6,581,990.40 from two bidders, Great Bear Petroleum Venture II LLC and Oil Search Alaska LLC.

Great Bear Petroleum appeared to be filling in around existing acreage. It took 17 tracts, 27,840 acres for \$849,094.40, with three tracts southwest of the Storms block and the remaining 14 around existing acreage farther south and west.

London based Pantheon Resources, which acquired Great Bear's Alaska assets in January, said in a Dec. 12 statement: "The new leases are strategically positioned in two areas contiguous or adjacent to our current acreage on our northern and southwestern boundaries."

Pantheon said it had a competitive advantage in bidding on the acreage "given it owns the proprietary 3D seismic which covers the leases," seismic not accessible by third parties, and cited technical work completed in recent months.

Oil Search took 39 tracts, 80,480 acres, for \$5.73 million, on the eastern side of the Slope, adjacent to acreage acquired by Bill Armstrong bidding as Lagniappe last

Oil Search took a 50% interest and operatorship in the 195,200-acre block early this year.

Armstrong discussed the eastern block in an interview with Petroleum News in January:

"It is a very subtle play; that's why it has been hidden for so long; it doesn't just jump out at you on seismic. ... The amount of running room this concept has is just massive in Alaska. ConocoPhillips is chasing it west, which is great and we like what they are doing a lot, but going east from Pikka we also see the same thing. We're really excited. It's still a wildcat play. It still has risk, but it has huge potential," he said.

He said then that the next step would be 3D seismic.

-Kay Cashman contributed to this

Contact Kristen Nelson at knelson@petroleumnews.com



From left, Jackie Baalam, Virginia Johnson, Dawn Williams-Stowers, Aaron M. Schutt, David Wilkins, Orville Baalam, Laurence James, Kevin Tabler and Pete Williams.

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#### **HILCORP-DOYON**

"Doyon has been actively exploring for oil and gas resources in our region for over a decade," Doyon Ltd. President and CEO Aaron Schutt said in a statement. "We've barely scratched the surface. We are pleased to sign this agreement allowing Hilcorp to explore further and we look forward to seeing results from their activities."

David Wilkins, senior vice president, Hilcorp Alaska, said: "Our partnership with Doyon represents great opportunity for their shareholders and the State. We have worked successfully with Doyon over the years both in the Cook Inlet and on the Slope. This agreement opens the door to continue that relationship in the Interior as

Doyon is the Alaska Native regional corporation for Interior Alaska and is the largest private landowner in Alaska and one of the largest in North America.

#### The agreement

The airborne gravity surveys and data analysis, to be done in 2020-21, would be the first phase and would involve a grid flown covering the 1.6 million acres of Doyon land to define opportunities by measurement of subsurface rock properties. There are no ground activities and no land impacts in this first phase.

Phase 2, a seismic survey in 2022-23 depends on data gathered and analyzed in phase one, with the areas of interest near Birch Creek, Fort Yukon, Beaver and Stevens Village.

Pending results from the first two phases, exploration could take place near Birch Creek, with the agreement designed to provide maximum partici-

Doyon is the Alaska Native regional corporation for Interior Alaska and is the largest private landowner in Alaska and one of the largest in North America.

pation from the village corporation to provide economic benefits to the area. Dovon said it has also signed a cooperation agreement regarding a joint pursuit of service contracts and shareholder training and hire with Tihteet Aii, the Birch Creek Alaska Native village corporation.

#### **Yukon Flats**

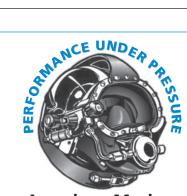
Doyon has long been interested in the oil and gas potential of the Yukon Flats subregion, where it believes geology is similar to the Nenana basin. The corporation's program in Yukon Flats was delayed for five years as Doyon and the U.S. Fish and Wildlife Service tried to negotiate a land swap in the region. That effort failed, although Doyon later determined its existing acreage was more promising than it had originally thought.

The only exploration in Yukon Flats was a 3D seismic survey in the Stevens Village region in the 2012-13 winter.

Doyon also holds extensive Nenana basin acreage where it drilled five wells in partnership with others beginning in 2004, took over as operator in 2009 and drilled what would prove to be its last Nenana basin well in the summer of 2018. Three of the wells were in the basin's central saddle and two in the deeper more northerly part of the basin.

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com



**American Marine Services Group** 

6000 A Street, Anchorage, AK 99518

907-562-5420

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