



## Narwhal 3D seismic approved; King offers predictions for new decade

THE STATE APPROVED SAE Exploration's Narwhal 3D miscellaneous land use permit to conduct geophysical exploration, per a Jan. 6 notice posted on Alaska's Division of Oil and Gas website.

Although SAE does not say which oil company(ies) the Narwhal survey is being done for, it appears to encompass part of ConocoPhillips' North Slope Narwhal prospect, which contains a portion of the Nanushuk reservoir and adjoins Oil Search's Pikka unit Nanushuk project on the east.

The permit, MLUPNS 19-006, authorizes SAE to conduct a

see **INSIDER** page 9



## Study assesses impacts of seismic in ANWR on polar bear denning

With the prospect of oil and gas exploration on the coastal plain of the Arctic National Wildlife Refuge in the relatively near future, new seismic surveying in the region will presumably take place as a forerunner to the identification of exploration drilling targets. But what will be the environmental impacts of the surveying, in particular on polar bears that den in the region during the winter? Researchers from the U.S. Fish and Wildlife Service and the U.S. Geological Survey have published a paper in the Journal of Wildlife Management, describing the results of modeling the potential impacts on the bears, and suggesting ways whereby those impacts may be minimized.

see **SEISMIC STUDY** page 11

## ANS up 3% month over month crude, NGL average 525,738 bpd

Alaska North Slope production averaged 525,738 barrels per day in November, up 3.3%, 16,620 bpd, from an October average of 508,751 bpd, but down 2.3% from a November 2018 average of 538,130 bpd. ANS production has two components — ANS crude oil (89.4% of the total) and natural gas liquids (the remaining 10.6%).

ANS crude oil averaged 469,994 bpd in November, up 1.9%, 8,824 bpd, from an October average of 461,170, but down 2.5% from a November 2018 average of 481,936 bpd. NGL is produced from Prudhoe, Endicott and Northstar and averaged 55,744 bpd in November, up 17.2%, 8,163 bpd, from an October average of 47,581, but down 2.3% from a November 2018 average of 56,194 bpd.

see **PRODUCTION STATS** page 8

## East outpaces West: Newfoundland offshore to see \$4 billion in drilling

The barometer of confidence in Alberta's upstream oil and natural gas sector took a sickening plunge last year when the sale of government exploration rights hit a record low.

The final 2019 auction of leases raised a mere C\$3.9 million, raising the year's total to C\$119 million, C\$18 million below the previous low mark in 2016 and the weakest industry response since the bidding system was adopted in 1977.

The high point was set in 2011 when a bidding fever triggered by the Duvernay oil formation in northern Alberta generated C\$3.5 billion in buying rights.

British Columbia also plunged to a new low point in 2019, with companies investing C\$14.7 million, C\$500,000 below the 2016 return, compared with the province's highwater mark

see **NEWFOUNDLAND** page 10

### EXPLORATION & PRODUCTION

## Willow shifts direction

Conoco cancels gravel island; BLM to open new comment period in spring

By **KAY CASHMAN**

Petroleum News

As Scott Jepsen predicted in his presentation at the Resource Development Council in November, the U.S. Bureau of Land Management said Jan. 6 that it intends to issue a supplemental draft environmental impact statement for ConocoPhillips' proposed Willow oil field and open a new public comment period in the spring for the project's revised Master Development Plan.

The supplemental EIS will be based on changes made by the company in response to stakeholder concerns and public comments regarding development of the giant Willow discovery, which is in the



**SCOTT JEPSEN**

National Petroleum Reserve-Alaska.

The ConocoPhillips Alaska senior vice president told RDC attendees that "one of the more contentious elements of our plan was our desire to build an offshore gravel island" where the company would bring in modules in the summer "and then build an ice road down to our location in the wintertime."

ConocoPhillips, he said, came up with another option to "bring the modules ashore at Oliktok Point" and transport them to Willow "via a combination of ice roads and gravel roads," which was something the company did not initially think it could do.

see **WILLOW DIRECTION** page 12

### EXPLORATION & PRODUCTION

## Early Pikka approvals

Entry authorizations issued for Nanushuk; BRPC has Mustang Road issues

By **KRISTEN NELSON**

Petroleum News

The Alaska Division of Oil and Gas has issued entry authorizations to Oil Search Alaska for pad and road work on its Nanushuk development at the Pikka unit on the North Slope. An entry authorization, EA, is a step in obtaining an easement, which is issued after terms and conditions of the EA have been met and construction and survey activities are complete.

Two of Oil Search's easement applications, for its operations pad and production pad, drew no comments, but its application to extend and expand the Mustang Road to accommodate the Nanushuk project drew heated comments from

*The division said OSA's plan for the road "will improve the use of the road for both parties and is a compatible use that would not unreasonably interfere with current operation activities by BRPC."*

Southern Miluveach unit operator Brooks Range Petroleum Corp., which built the Mustang Road for the development at the Mustang field, which began production late last year.

Oil Search, operator of the Pikka unit, applied for an easement to construct the Nanushuk access road in June, including making improvements to

see **PIKKA APPROVALS** page 12

### PIPELINES & DOWNSTREAM

## Lift for BC LNG line

Entities acquire 2/3; BC Supreme Court issues new injunction against protesters

By **GARY PARK**

For Petroleum News

Having taken a seemingly endless buffeting since it was announced a decade ago, British Columbia's LNG related Coastal Gas Link pipeline has picked up some solid tailwinds.

Rated as a key element of the largest capital construction venture in Canadian history, the pipeline ended 2019 with two strong votes of confidence.

First, a partnership of investors acquired a 65% stake in the C\$6.6 billion pipeline that will underpin the C\$40 billion LNG Canada.

Then less than a week later the British Columbia Supreme Court extended an injunction against Indigenous protesters who have blocked pipeline workers from reaching sections of the route from

*The transmission system is designed to ship 2.1 billion cubic feet per day of feedstock gas from the Montney region of northeastern British Columbia when it comes into service in 2023.*

Dawson Creek to the LNG liquefaction facility and tanker terminal near Kitimat on the northern British Columbia coast.

In the process, Justice Marguerite Church delivered a stern rebuke, ruling that the pipeline had suffered irreparable harm from the protesters, granting an injunction that workers should have safe access to the construction sites.

see **LNG LIFT** page 11

## ● FINANCE &amp; ECONOMY

# Port of Alaska tariffs sting users

Petroleum and cement terminal tariffs enter 10-year run-up to recoup rebuilding costs; Muni Assembly attempts to assuage pain

By STEVE SUTHERLIN

Petroleum News

A spike in tariffs for petroleum and cement at the Port of Alaska began on schedule Jan. 1, as established by an Anchorage ordinance unanimously passed Dec. 17 with an amendment designed to establish a yearly tariff review and involve port users in the port process.

The unprecedented rate of increase will boost last year's tariffs of 16.4 cents per barrel of fuel 4 to 5 cents each year, targeting 56.3 cents per barrel by 2029. Cement tariffs will reach \$5.72 per ton in 2029, up from \$1.67 per ton in 2019.

The rates are designed to partially fund construction of a new \$200 million petroleum and cement terminal at the port. Users and the municipality agree that action is needed to shore up the aging infrastructure, but users continue to have concerns about the design, cost, and the process.

The amendment — which was added just prior to

see **PORT TARIFFS** page 6



Port of Alaska, Anchorage

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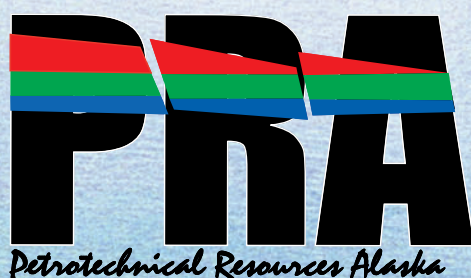
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● NATURAL GAS

# State finishes answering feds questions

Additional 2,000 pages from AGDC on Alaska LNG project delivered by end of last year; final EIS from FERC scheduled out in March

By **LARRY PERSILY**

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With an additional 2,000 pages of charts, data, maps and explanations, the state-led Alaska LNG team finished out 2019 by answering the last batch of questions from federal regulators for the project's final environmental impact statement.

With less than two months to go before the Federal Energy Regulatory Commission's scheduled March 6 release date for the final EIS, regulators could present additional questions to the Alaska Gasline Development Corp. As of a Dec. 23 filing, however, AGDC had answered all of the last questions submitted as recently as mid-November.

Assuming no delay in the final impact statement, FERC commissioners could vote on the project application June 4.

The state has been leading the effort since North Slope oil and gas producers declined in late 2016 to proceed to permitting for the economically challenged multibillion-dollar development, which includes a gas treatment plant at Prudhoe Bay, 870 miles of pipeline from the Point Thomson gas field to Prudhoe Bay and turning south through the state to the Kenai Peninsula, with a liquefaction plant and marine terminal in Nikiski.

## State 'standing back'

"As the government, we're just right now standing back and just observing if there's any project that can be economical," Alaska Gov. Mike Dunleavy said in an early December interview with the Nikkei Asian Review in Japan.

"If one of these projects, or another project that comes up ... if that makes economical sense, that's a good thing because we just want to monetize our gas," Dunleavy said, referring to the state-led Alaska LNG project and privately led Qilak LNG, which proposes to build a much smaller liquefaction plant several miles offshore the North Slope, avoiding the cost of a pipeline.

"We have a lot of natural gas on the North Slope. We know that it has been stranded for years," Dunleavy said.

Qilak LNG is a subsidiary of Dubai-based Lloyds Energy, which has been looking to develop an LNG business since it was formed in 2013. The Qilak project — taking gas from Point Thomson but not Prudhoe Bay — initially would produce about one-fifth the volume of

Alaska LNG, its sponsor said when it announced the proposed \$5 billion venture last October.

Qilak has not started the permitting process. Alaska LNG filed its application with FERC in April 2017.

If it obtains FERC approval, AGDC would need to spend hundreds of millions of dollars on final engineering and design, land acquisition in Nikiski and get through multiple federal, state and municipal permits before it could make an investment decision.

## Not interested in financial risk

The governor, however, has said he is not interested in the state continuing to take the financial risk of leading the project.

Without any partners, investors or financing for the estimated \$43 billion Alaska LNG project, and lacking firm gas supply contracts with North Slope producers or customers for the LNG, the state corporation could just hold on to the FERC authorization until — if — it is ever needed. In a project authorization, FERC will set a deadline to start operations — much like an expiration date for a building permit — though a developer can request an extension.

In his proposed budget for the fiscal year that will start July 1, Dunleavy has requested legislative approval of \$3.4 million in AGDC spending, down from a \$9.7 million budget this year. While downsizing its staff from last year, the corporation said it would continue to look for a way to attract equity and debt financing of the project. "Outreach to potential partners is underway," the corporation's Jan. 3 budget write-up said.

In addition to nearing the end of the review and approval process at FERC, the Alaska LNG team is working on other permits and regulatory authorizations such as a Bureau of Land Management right-of-way authorization for federal lands and a U.S. Army Corps of Engineers permit under the Clean Water Act and Rivers and Harbors Act.

Public comments on the draft EIS closed on Oct. 3, despite several groups asking FERC to extend the comment period. The commission released the draft impact statement last June.

## Nikiski, Valdez issues

In its December filings, AGDC provided further explanation of why it believes Nikiski is a better site for the liquefaction plant and marine terminal than Port MacKenzie, heavily promoted by the Matanuska-Susitna Borough which owns the property across Knik Arm from Anchorage. More ice, heavier currents, a wider tidal

range and the challenges of LNG carriers transiting across the Knik Arm Shoal all make the Port MacKenzie site far less attractive than Nikiski, the state team told FERC.

The borough has spent considerable effort submitting filings with FERC, refuting the project team's decision to stick with Nikiski. As an intervenor in the docket, the borough could challenge the final EIS or regulatory commission decision.

Also in December, ADGC again listed for FERC the reasons why the corporation believes Anderson Bay at Valdez is an inferior alternative to Nikiski. The city of Valdez, similar to the Matanuska-Susitna Borough, has submitted multiple filings with FERC, seeking further review of its community for the LNG project and challenging AGDC's numbers and conclusions.

The Valdez site would require substantially more "excavation and disposal" than Nikiski to create a buildable project site out of the steep topography at Anderson Bay, AGDC said in its Dec. 23 answer to FERC. "Site preparation would involve blasting, excavating, grading and terracing to the site to create level surfaces for the facility."

## More informal for final EIS

Among the other information in December for the final EIS, AGDC provided:

- More details of its "direct microtunneling" plans for pulling the gas pipeline underneath the Middle Fork of the Koyukuk River, the Yukon, Tanana, Chulitna and Deshka rivers on the way to Cook Inlet.

- Plans for how it would avoid damaging the permafrost and ground cover as occurred during trenching and laying of fiber optic lines along the Dalton Highway to the North Slope in 2015-2017. AGDC said its "review of the Arctic broadband projects ... indicated the construction techniques, mitigation practices and subsequent rehabilitation plan were not done using standard best practices for construction in Arctic conditions. Poor and shallow trenching techniques and use of ice-rich backfill material combined with the absence of erosion control measures were the primary root causes." The gas line project will not make those mistakes, AGDC said.

- Updated calculations of the project's air emissions.

- A gravel-sourcing plan, listing almost 90 proposed and alternate sites for digging up gravel for construction of the project, mostly for use along the pipeline route. The gravel sites stretch from 18 miles outside Prudhoe Bay to Milepost 760 of the pipeline, a short distance

see **ALASKA LNG** page 4



LARRY PERSILY

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● EXPLORATION & PRODUCTION

# Entry authorization issued for GMT2 work

By KRISTEN NELSON

Petroleum News

ConocoPhillips began production at its Greater Mooses Tooth 1 pad in the National Petroleum Reserve-Alaska in October 2018 and has begun work on the second pad, Greater Mooses Tooth 2.

Scott Jepsen, ConocoPhillips Alaska's vice president of external affairs and transportation, told the Alaska Support Industry Alliance Sept. 12 that first oil is expected from GMT2 in 2021, with estimated peak gross production of 35,000-40,000 barrels per day from 48 wells.

Jensen said gravel was in place and was being reworked for the GMT2 pad and an 8-mile road, along with preparation for pipeline installation, scheduled to begin in 2020, as well as completion of module and fabrication work.

*The entry authorization, or EA, authorizes construction and survey activities within the approximately 33-acre construction area, the division said.*

He said pipeline installation between GMT1 and GMT2 would be complete, and modules and pipe racks installed, in 2021, with drilling, commissioning and startup of GMT2 in that year.

## Entry authorization

The Alaska Department of Natural Resources, Division of Oil and Gas, issued an entry authorization for ConocoPhillips Jan. 3 for construction of GMT2 produced oil and miscible injection pipelines on state lands.

The entry authorization also covers the GMT1 waterline, which supplies injection water from state land to federal leases within Greater Mooses Tooth. The company applied for modification to the existing easement for the waterline, 2.75 miles of 14-inch line and pipe rack between the CD4 North pipeline tie-in and the Alpine Central Facility, to allow installation and operation of an 8-inch miscible injection pipeline and a 20-inch produced oil pipeline. The division said the company also proposes to include installation and operation of a 20-inch produced oil line, messenger cable and power cable on existing vertical support members over the Nechelik Channel on state lands.

The project will support construction and operation of GMT2. The decision authorizes a private non-exclusive easement on state lands to install GMT2 infrastructure on existing VSMs and pipe rack.

## Not actual easement

This is not the easement, which will be granted once terms and conditions of the entry authorization have been met, including completion of construction and submittal of an as-built survey. The entry authorization is for 5 years; the easement will be for a term of 35 years.

The entry authorization, or EA, author-

izes construction and survey activities within the approximately 33-acre construction area, the division said. Upon completion of construction and survey, a non-exclusive private easement of some 16.83 acres will be issued for operation and maintenance of the infrastructure.

The division said that upon the end of pipeline life or terms of the easement, ConocoPhillips is expected to remove all infrastructure from state-owned lands and restore the site to its original condition. The division is requiring a performance guarantee for full estimated cost of dismantlement, removal and remediation, which for the GMT1 waterline and GMT2 infrastructure is estimated at \$5,814,950.

The division said it determined that there are no other directly competing uses for this area which would provide greater economic benefit to the state.

EA stipulations include reservation of the right to grant additional authorizations to third parties for compatible uses on or adjacent to land under this authorization and the division said it "may require authorized concurrent users of State land to enter into an equitable agreement regarding concurrent use." ●

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continued from page 3

## ALASKA LNG

before the line would enter Cook Inlet for the crossing to Nikiski on the east side.

•Further explanation of why AGDC believes a site near Suneva Lake, just north of Nikiski, is the best location to make landfall as the pipe comes out of Cook Inlet. An alternate landfall site about 5 miles closer to the LNG terminal site, preferred by several residents in the area, would cross a larger area of seafloor boulders, AGDC told FERC in a Dec. 23 response.

In the only third-party comments submitted on the project in December, Trustees for Alaska, on behalf of the National Parks Conservation Association, filed comments Dec. 19, pointing to "newly identified and continuing deficiencies with the air quality analysis" in the draft EIS. The parks association has asked FERC to let it sign on as an intervenor in the application docket, which would give the group legal standing to challenge the final EIS or FERC decision in federal court.

*Editor's note: Persily, currently the Atwood Chair of Journalism at the University of Alaska Anchorage, has a Bachelor of Arts degree with a major in journalism from Purdue University. Following a 25-year journalism career in Alaska, he spent 20 years in public policy work at federal, state and municipal levels, and has returned to journalism with his purchase of The Skagway News. He has served as deputy commissioner of the Alaska Department of Revenue under two governors and as coordinator in the Office of the Federal Coordinator, Alaska Natural Gas Transportation Projects.*

*Persily follows international natural gas and liquefied natural gas and has followed Alaska natural gas and liquefied natural gas proposals, including the current Alaska Stand Alone Pipeline project and the Alaska LNG project.*

*He publishes oil and gas news briefs twice-weekly online as well as periodic LNG project updates.*

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Brigham McCown



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## UTILITIES

### RCC non-utility committee members sought

The Alaska Railbelt electric utilities are inviting applications for non-utility membership on the Implementation Committee for the Railbelt Reliability Council, an organization that is being formed to oversee the operation of the Railbelt electricity system. The 12-member committee will consist of six utility representatives and six non-utility stakeholders in the electricity system. The Implementation Committee will oversee the development of the RRC.

Applications for non-utility positions on the committee must be submitted by 5 p.m. on Feb. 17. The utilities say that committee membership will operate on a volunteer basis and members will be unpaid but will provide opportunities to help address Railbelt-wide regional electrical issues, to ensure electrical grid resilience and to reduce long term costs. Further information, including committee membership criteria and required qualifications, can be found at [www.alaskapower.org/rcc/](http://www.alaskapower.org/rcc/)

—ALAN BAILEY

## EXPLORATION & PRODUCTION

### US drilling rig count drops by 9 to 796

The U.S. active drilling rig count dropped by nine to 796 the week ending Jan. 3, down from 805 the previous week and down by 279 from a year ago.

The company reported that 670 rigs targeted oil (down seven from the previous week; down 207 from a year ago) and 123 targeted natural gas (down two from the previous week; down 75 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 51 of the U.S. holes were directional, 701 were horizontal and 44 were vertical.

Alaska was up one rig from the previous week.

Rig counts in seven states were unchanged: California, Colorado, Louisiana, North Dakota, Ohio, Utah and West Virginia.

The remaining states were each down by one rig from the previous week, including Texas, which at 403 has the nation's largest active rig count. Also dropping by one rig were New Mexico, Oklahoma, Pennsylvania and Wyoming.

Baker Hughes shows Alaska with eight rigs active for the week ending Jan. 3, down one from a year ago.

The U.S. rig count peaked at 4,530 in 1981. It bottomed out in May 2016 at 404.

—KRISTEN NELSON

*The company said 51 of the U.S. holes were directional, 701 were horizontal and 44 were vertical.*

## FINANCE & ECONOMY

# Oil price uncertain amid Iran-US conflict

By KAY CASHMAN

Petroleum News

On Jan. 3 Alaska North Slope crude rose \$2.03 to \$70.42 a barrel, the first time it hit \$70 a barrel since May 22, 2019, per the Alaska Department of Revenue.

Oil surged in reaction to tensions in the Middle East, specifically Iran's threat to retaliate for the U.S. airstrike on Jan. 2 that killed the Islamic Republic's top general, Qassem Soleimani, leader of the Revolutionary Guards' Quds force

According to a Jan. 2 CNN report that cited an unidentified U.S. defense official, the U.S. intends to send "thousands of additional" troops to the Middle East due to rising regional tensions.

The airstrike came amid tensions with the United States after a New Year's Eve assault by Iran-backed militias on the U.S. Embassy in Baghdad. The two-day embassy attack that ended Jan. 1 resulted in President Donald Trump deploying approximately 750 U.S. soldiers to the Middle East.

The Jan. 2 U.S. airstrike followed a strong fourth quarter for oil, which saw OPEC and associated companies announce deeper production cuts than expected in December, and after drone strikes in September on Saudi Arabia's Abqaiq and Khurais oil facilities rattled international markets.

So, how will oil prices be impacted in coming weeks?

"It's been a knee jerk reaction because everybody" is wondering how is Iran going to retaliate, and "I think that's why you've seen prices jump 3, 4%," Energy Aspects' Amrita Sen said Jan. 3 on CNBC's Worldwide Exchange.

"We've seen what Iran can do in Saudi Arabia, does it do similar stuff again, is there another attack on Saudi facilities?"

Sen said retaliation will likely "take some time," and that in the meantime oil might lose some of its gains.

"This market is extremely complacent. It never takes into account just how tight the market it ... the general view in the market has been 'oh the world is awash in oil' however incorrect it is, and unless an actual outage lasts, I'm not sure we're going to sustain this rally just yet," she said.

The U.S. Energy Information Administration said Jan. 3 that inventories decreased by 11.5 million barrels for the week ending Dec. 27, as opposed to an expected decline of 5.5 million barrels.

Goldman Sachs and UBS market analysts do not think oil prices will continue to rally above \$70 a barrel because of strong production from outside the Middle East.

Other market analysts and Middle East observers say that if Iran's retaliation targets oil production in Saudi Arabia or Iraq, which are OPEC's two largest producers, prices could move higher. ●

Contact Kay Cashman at [publisher@petroleumnews.com](mailto:publisher@petroleumnews.com)

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## PORT TARIFFS

adoption of the ordinance — "requires annual reporting on the tariff revenues generated, user comments and response to rate increases in relation to and status of capital projects," Assemblywoman Meg Zaletel said. "Particularly for me, this is important that we have an annual report, and that we're thinking forward about how we're going to finance the capital projects we know we're looking to undertake through the Port of Alaska modernization program, and whether or not the tariff should adjust to include a plan toward saving toward those intended capital projects."

Assemblyman Christopher Constant referenced a consultant's report which recommended the assembly find ways to work more closely with the stakeholders in the port process.

"What we decided in this conversation was to A: allow the Port Commission annually in September an opportunity to review the revenues, grants and other funds that may have come in as a surprise — or kind of as anticipated but not previously calculated — to determine the question in November and December of 'should we the assembly have the conversation of whether to actually tip down the tariff?'"

"We're giving the users — through the commission — the opportunity to ensure that we aren't just once in 10 years raising these tariffs and having a bunch of cash," he said. "The idea is to give the users — though the Port Commission — a clearer

see PORT TARIFFS page 7

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● PIPELINES & DOWNSTREAM

# Williams ordered to pay for solvent leak

By **DAN JOLING**  
Associated Press

The former owner of an Alaska crude oil refinery has been ordered to pay millions in damages for releasing large amounts of a refinery solvent, sulfolane, into groundwater and polluting hundreds of residents' drinking water wells.

Superior Court Judge Pro Tem Warren Matthews in Fairbanks ordered Williams Alaska Petroleum, former owner of the North Pole Refinery, to pay \$29.4 million for costs and damages.

He also ordered Williams Alaska to pay future response costs and partially reimburse the company that bought the refinery, Flint Hills Resources LLC.

Flint Hills has spent more than \$130 million to provide clean water to affected residents, Fairbanks television station KTVF reported, and reimbursement could add tens of

millions to the judgement.

Matthews allocated 75% of the spill liability to Williams and 25% to Flint Hills in the trial to decide the allocation of responsibility.

Alaska Deputy Attorney General Treg Taylor said Williams had not been cooperative throughout the process of attempting to assign responsibility and restore clean water to residents.

"Despite being responsible for most of the pollution, Williams chose not to work with the State of Alaska in coming up with a solution and instead chose litigation," Taylor said in prepared statement. "We're pleased that the court affirmed the basic principle that under Alaska law the polluter pays."

David Shoup of Anchorage, an attorney for Williams Alaska, was traveling Jan. 3 and could not immediately respond to a request for comment, his office said.

The refinery was built in 1977 in North Pole, a city of

2,100 about 14 miles south of Fairbanks. The refinery tapped crude from the trans-Alaska pipeline and refined it into jet fuel, heating fuel and other products.

Williams in 2004 sold the refinery to Flint Hills Resources. Five years later, sulfolane was found in nearby water wells. Flint Hills closed the refinery a few years later.

The two companies and the state engaged in litigation surrounding the sulfolane plume for nearly a decade.

The trial opened in October. An attorney for Flint Hills, Jan Conlin, said sulfolane was not disclosed in the sale and Williams had not contributed to cleanup efforts during years of litigation.

Shoup during the trial said sulfolane was not considered a hazardous chemical by the state and was not a regulated chemical at the time of the spill. He said neither Williams Petroleum nor Flint Hills Resources was under obligation to clean the spill because the state had not set a cleanup standard. ●

continued from page 6

## PORT TARIFFS

voice."

Secondly, Constant said, the amendment would "allow the users a section in the port's annual report, which will be a very meaningful way of them participating in the conversation over the long term, in both direct, current ways, and in the historic record."

### Smoothing away rate shock

The tariff hikes could have been worse. In February, the municipality presented an analysis to the Port Commission which said it would take as much as a 600% increase over 10 years to fund construction through higher tariffs alone.

Jim Jager, director of external affairs for the port, told Petroleum News in November that the port's overall cost estimate has already factored in some degree of success in

attracting grants, as well as an anticipation of favorable financing terms. The port landed a \$25 million grant in November.

Rate consultant Bill Wilks of Parrish, Blessing, & Associates Inc. said in a Dec. 6 assembly work session that the rates would be ratcheted up slowly — in what he referred to as a smoothing process — to avoid rate shock.

Wilks said any rate scenario would have to meet five criteria.

Debt service coverage must be 1.3 or greater, cash operating reserves must be 90 days or greater, capital reserves must be sufficient for bond covenants, reserves must be set aside for one full year of principal and interest, and by 2029 rates must fully recover their cost.

### Stakeholder concerns remain

At the Dec. 6 work session Ryan Zins, vice president, Alaska Basic Industries Inc. said cement tariff increases are proving hard to pass on to customers.

"As far as the industry goes, we're in a fourth year of a recession; it's tough," he said. "We sent out to customers rate increases for next year; we're hearing it from everybody ... we have the national or Trump tariffs, we have carbon tax increases, we have bunker fuel increases, and we have some very concerned customers."


Casey Sullivan, government and public affairs manager for Marathon Petroleum Corp. in Alaska, told Petroleum News in November that the port is moving forward at lightning speed, based on plans drawn without significant input from the people that are actually going to use the dock.


"That is a little bit of the crux of the issue, that we as the user group, and Marathon, to some degree, have had on the design aspect," Sullivan said. "We want that port to be successful, but we also want to do it in a prudent fashion, both financially and construction wise." ●

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## PRODUCTION STATS

Production data reported here is from the Alaska Oil and Gas Conservation Commission, which provides volumes by field and well on a month delay basis.

### Largest increase at Prudhoe

The largest month-over-month volume increase was at the BP Exploration (Alaska) operated Prudhoe Bay field, the Slope's largest, which averaged 277,672 bpd in November, up 9.1%, 23,240 bpd, from an October average of 254,432, but down 3.8% from a November 2018 average of 288,769 bpd. Crude oil at Prudhoe averaged 225,503 bpd, up 7.5%, 15,722 bpd, from an October average of 209,781, but down 4.7% from a November 2018 average of 236,560 bpd. Prudhoe NGL production averaged 52,169 bpd in November, up 16.8%, 7,518 bpd, from an October average of 44,650 bpd but down 0.1% from a November 2018 average of 52,209 bpd.

In addition to the primary reservoir, production volumes from Prudhoe include Aurora, Borealis, Lisburne, Midnight Sun, Niakuk, Polaris, Point McIntyre, Put

*The Slope's newest producing field, Southern Miluveach, operated by Brooks Range Petroleum, came online in November, averaging 367 bpd from a single well — total production for the month was 10,999 barrels.*

River, Raven and Schrader Bluff.

### Other increases

Oooguruk, operated by Eni, averaged 9,045 bpd in November, up 9.3%, 769 bpd, from an October average of 8,276, but down 10.3% from a November 2018 average of 10,081 bpd.

ConocoPhillips Alaska's Greater Mooses Tooth in the National Petroleum Reserve-Alaska averaged 8,060 bpd in November, up 7.7% from an October average of 7,481 bpd, but down 4.9% from a November 2018 average of 8,473 bpd. There are three producing wells at the field, but one well, GMTU MT6-05, which averaged 7,594 bpd in November, accounted for 94% of the field's production.

Hilcorp Alaska's Northstar field aver-

aged 9,629 bpd in November (7,046 bpd of crude and 2,584 bpd of NGL), up 5% from an October average of 9,172 bpd (7,150 bpd of crude and 2,022 bpd of NGL) but down 20.2% from a November 2018 average of 12,062 bpd (8,953 bpd of crude and 3,110 bpd of NGL).

The Hilcorp operated Endicott field averaged 7,505 bpd in November (6,512 bpd of crude and 992 bpd of NGL), up 31 bpd, 0.4%, from an October average of 7,473 bpd, although down 0.5% from a November 2018 average of 7,541 bpd.

The Slope's newest producing field, Southern Miluveach, operated by Brooks Range Petroleum, came online in November, averaging 367 bpd from a single well — total production for the month was 10,999 barrels. While production numbers are shown here averaged over the number of days in the month, the field produced for just 23 days, so for those producing days, it would have averaged 478 bpd.

### Month over month declines

All other North Slope fields had month over month production declines, with the largest at the ExxonMobil Production-operated Point Thomson, which averaged 1,263 bpd, down 3,547 bpd, 73.8%, from

an October average of 4,810 bpd and down 87.3% from a November 2018 average of 9,949 bpd.

Point Thomson production is from a single well and is dependent on gas injection compressor availability and reliability. The company told the Division of Oil and Gas in an October plan of development that it experienced issues related to its gas injection equipment in the 2018-19 plan period and has begun installing modified components with remaining equipment to be received and installed during the 2020-21 plan period. The facilities are rated at 10,000 bpd.

The Slope's second largest field, the ConocoPhillips Alaska-operated Kuparuk River field, averaged 105,512 bpd in November, down 2.2%, 2,409 bpd, from an October average of 107,921 bpd and down 4.3% from a November 2018 average of 110,280 bpd.

In addition to the main pool, Kuparuk produces from satellites at Meltwater, Tabasco and Tarn, and from West Sak.

Eni's Nikaitchuq field averaged 18,575 bpd in November, down 6.9%, 1,371 bpd, from an October average of 19,946 bpd but up 183.5% from a November 2018 average of 6,553 bpd. Only Oliktok Point wells were in production last November due to flowline repairs at the field; the majority of the field's wells are on the Spy Island drill site.

The Hilcorp-operated Milne Point field averaged 29,023 bpd in November, down 1.9%, 547 bpd, from an October average of 29,571, but up 32.3% from a November 2018 average of 21,930 bpd.

ConocoPhillips' Colville River averaged 57,709 bpd in November, down 480 bpd, 0.8%, from an October average of 58,189 bpd, and down 4.9% from a November 2018 average of 60,684 bpd.

In addition to oil from the main Alpine pool, Colville production includes satellite production from Fiord, Nanuq and Qannik.

Badami, operated by Savant Alaska, a Glacier Oil & Gas company, averaged 1,379 bpd in November, down 102 bpd, 6.9%, from an October average of 1,481 bpd and down 23.7% from a November 2018 average of 1,808 bpd.

### Cook Inlet up 3.7%

Crude oil production from Cook Inlet averaged 14,117 bpd in November, up 3.7%, 504 bpd, from an October average of 13,613 bpd but down 8.1% from a November 2018 average of 15,359 bpd.

The largest month over month increase was at Hilcorp's Granite Point, which averaged 2,712 bpd in November, up 309 bpd, 12.8%, from an October average of 2,403 bpd, but down 0.6% from a November 2018 average of 2,729 bpd.

Redoubt Shoal, operated by Cook Inlet Energy, a Glacier Oil & Gas company, averaged 1,362 bpd in November, up 230 bpd, 20.3%, from an October average of 1,132 and up 7.5% from a November 2018 average of 1,268 bpd.

Hilcorp's McArthur River, the inlet's largest field, averaged 4,553 bpd in November, up 81 bpd, 1.8%, from an October average of 4,472, but down 1.6% from a November 2018 average of 4,626 bpd.

West McArthur River, operated by Glacier's Cook Inlet Energy, averaged 576 bpd in November, up 52 bpd, 9.9%, from an October average of 524 bpd, but down 10.7% from a November 2018 average of 645 bpd.

Hilcorp's Middle Ground Shoal was basically flat, averaging 1,326 bpd in November compared to 1,325 bpd in October, but down 10.3% from a November 2018 average of 1,479 bpd.



### Tamara Grasse

POSITION: Senior Account Executive

LOCATION: Anchorage, Alaska

DATE HIRED: December 29, 2003

NOTES: Known and trusted by customers for her ability to solve complex challenges. Long history of involvement with local charities. Devoted 19-year supporter of Covenant House Alaska and frequent patron of Covey Café, its job training program.

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## INSIDER

land-based seismic survey on state land and waters within the Colville Delta area, encompassing approximately 65.7 square miles of state land. The proposed Narwhal survey is also on federal and Native land.

SAE plans to conduct the 3D seismic survey in an area west of the Kuparuk River unit, including the Colville River unit and Greater Moose's Tooth unit, within the North Slope Borough, although the permit issued by the division only authorizes operations on state land.

See story in the Dec. 8 issue of Petroleum News for more details and view the approval documents, including maps, at [https://dog.dnr.alaska.gov/Document/D3992D9A2E3F46378647062E81A8BDED/1-6-2020\\_\\_MLUP\\_19-006\\_SAE\\_Narwhal\\_3D\\_Geophysical\\_Exploration](https://dog.dnr.alaska.gov/Document/D3992D9A2E3F46378647062E81A8BDED/1-6-2020__MLUP_19-006_SAE_Narwhal_3D_Geophysical_Exploration)

—KAY CASHMAN

## King predicts state's 10-year future

ILLUSTRATING HIS DISCOURSE with hands held over a crystal ball, Alaska economist Ed King wrote about what he foresees the new decade will bring for Alaska in his Jan. 6 newsletter, noting that some of the outcomes he doesn't necessarily think are desirable, but it's how he sees "the dominos falling."

Three underlying trends will drive the overall direction Alaska is headed, King said:

- The population will keep aging.
- Technology will keep advancing.
- Climate change concerns will keep growing

Two of the implications of those trends are these predictions from King, in his own words:

- ANS oil prices will be consistently above \$100 per barrel by 2030.

This prediction might sound a little counter-intuitive at first. After all, if the cost of transportation is falling and climate change concerns grow, wouldn't that imply downward pressure on oil prices? Here's why I think the price will actually go up.

At some point in the next decade, the U.S. government will pass legislation that will significantly alter the energy market. This action will stem from growing climate change concerns. When the calls for action coincide with an environmentally conscience White House and Congress, something will change. I suspect that will happen in 2024, but it may not be until 2028.

It might be a moratorium on production from federal land and waters. It could be a ban on hydraulic fracturing. Maybe it will be something like what's in the Green New Deal. I really don't know. But, I foresee some type of federal action upending the incredible growth in U.S. oil production.

Regardless, the world runs on oil. And, it will be much more difficult to quit using fossil fuels than to stop producing them. As a result, I suspect that we will see the volume of production fall (although OPEC will replace most of the reductions) and the price of oil increase by more than inflation.

It won't happen right away – probably not within the next 5 years – but I think there's a good chance it happens this decade.



ED KING

Note: the current tension is the Middle East could create a near-term spike over \$100 if things escalate. That is different than what this prediction is talking about, but it could shift the timing of it happening.

- ANWR will not be developed by 2030.

Something the majority of Alaskans have been pushing for years is opening up the coastal plain of the Arctic National Wildlife Refuge (ANWR) for oil development. In 2017, our federal delegation took a major step in that direction by inserting lease sale language into a budget bill.

The first lease sale will very likely happen at some point in 2020. But, it will be slowed down by litigation. One possible strategy of opponents is to stall the lease sale until the November election, hoping there is a change in the White House that will kill the effort.

But, even if a lease sale really does get certified, there are a lot of ways that ANWR remains undeveloped this decade. Assuming exploration efforts are successful, the permitting phase could easily stretch ten years. Especially when you consider that each stage in the process can be challenged in court. And that is if federal policy changes don't shut the whole thing down before then.

Further, even if exploration happens quickly and permits are issued timely, the logistics are complicated. Look at Pikka for example. The leases sale for the lands containing that prospect was held in 2008; the discovery was announced in 2017; and, first oil is expected in 2022. That's 14 years from lease sale to production in a much less contentious area that is much closer to infrastructure.

I wouldn't start spending that ANWR money quite yet.

*Editor's note: To read about King's other six predictions for Alaska, including one about North Slope production, email him at [ed.king@kinge-con.com](mailto:ed.king@kinge-con.com).*

# Petroleum news

## Oil Patch Bits



### Calista Corp. acquires Nordic-Calista Services

Calista Corp. said Jan. 3 that it has acquired Nordic-Calista Services, a drilling and workover company, operating primarily on Alaska's North Slope.

Calista took full ownership of Nordic Calista by purchasing Nordic Well Servicing Inc., the company's founder and majority owner. Calista had participated as a 20% Nordic Calista joint venture partner alongside Nordic Well Servicing since 1985.

"This is Calista's first major acquisition since 2013 and we are very pleased to create new value for our Shareholders by increasing our investment in Alaska's North Slope," said

Calista Corp. President/CEO Andrew Guy.

Alaska's North Slope is experiencing an upsurge in construction and drilling due to recent oil discoveries and development in new and existing oil fields. Nordic Calista owns five drilling rigs and five camps available for projects on the North Slope.

Calista's last major significant acquisition was its 2013 purchase of STG Inc. and its subsidiaries Alaska Crane, Gambell Properties and Terra Foundations. STG specializes in heavy construction projects in Alaska including the installation of wind energy and telecommunication towers, bulk fuel systems, bridges, pile foundations and other infrastructure needs in rural and urban areas.

# Companies involved in Alaska's oil and gas industry

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## NEWFOUNDLAND

of C\$2.66 billion in 2008.

Saskatchewan sales raised C\$25 million last year, the lowest since 1992, while the record year in 2008 pumped C\$1.1 billion into the government treasury.

### Newfoundland

But, almost unnoticed in this bleak picture, the Newfoundland offshore has attracted C\$4 billion in spending commitments to identify that region's next major oil project.

"There's an unprecedented level of interest in offshore East Coast Canada," said Jim Keating, executive vice president of offshore development at Nalcor Energy, a Newfoundland government corporation which holds minority equity stakes in three of four producing fields — Hebron, Hibernia, Terra Nova and White Rose.

He said the "significant" investment is partly due to new geosciences work and changes to the bidding regime, which has made the offshore a "must-be place for

some of the world's best explorers," some of which have drastically scaled back their interests in Alberta's oil sands.

Husky Energy's West White Rose field is expected to yield its first commercial oil in 2022, while a sixth production site could proceed if Equinor (formerly Norway's Statoil) develops its Bay du Nord project in the Flemish Pass area, 300 miles east of St. John's, the Newfoundland capital.

The four operating projects have produced 19.9 billion barrels of oil since Hibernia came on stream in 1997, although current output of 257,000 barrels per day lags well behind the peak of 426,680 bpd in 2007.

The Canadian Association of Petroleum Producers has forecast Atlantic Canada will work back up to 354,000 bpd in 2026, then slide to 185,000 bpd in 2030. However, Keating expects that Bay du Nord and possibly increased volumes from Hebron could raise the total to a new high.

"Our peak day is yet to come even with the projects that we know about, let alone the ones we have yet to discover," he told the Financial Post.

He said that given technological advances, another four projects could be waiting for discovery, especially with companies such as China's CNOOC, BP, Australia's NP Group and Houston-based Navitas Petroleum poised to join the offshore's existing five companies that hold exploration licenses — Husky, ExxonMobil, Chevron, Suncor and

Equinor.

CAPP expects eight license holders will start exploration drilling over the next three years, targeting 10 of the possible 100 wells in their applications.

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

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## PRODUCTION STATS

Hilcorp's Swanson River averaged 831 bpd in November, down 10 bpd, 1.2%, from an October average of 841 bpd and down 36.1% from a November 2018 average of 1,299 bpd.

Hilcorp's Beaver Creek averaged 206 bpd in November, down 29 bpd, 12.5%, from an October average of 235 bpd and down 77.3% from a November 2018 average of 904 bpd.

BlueCrest Alaska's Hansen field, the Cosmopolitan unit, averaged 1,186 bpd in November, down 60 bpd, 4.8%, from

an October average of 1,246 bpd, but up 8.3% from a November 2018 average of 1,095 bpd.

Hilcorp's Trading Bay field averaged 1,366 bpd, down 69 bpd, 4.8%, from an October average of 1,435 bpd but up 4% from a November 2018 average of 1,314 bpd.

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

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com



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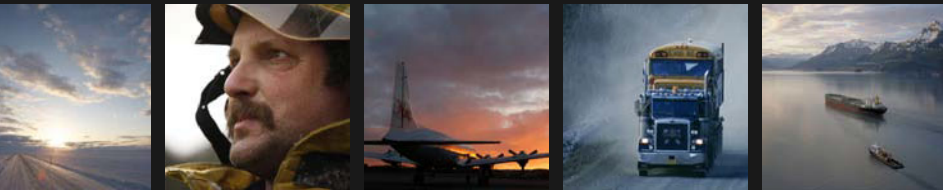
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## LNG LIFT

She said her injunction order provides “a mandate to the RCMP (Royal Canadian Mounted Police) to enforce the terms of the order.”

### Indigenous laws issue

In her 51-page decision, Church took issue with First Nations and some hereditary chiefs who claimed that Indigenous laws gave them legal rights to blockade crews trying to access the area.

She said that Indigenous laws are not part of Canadian common or domestic law until they are enshrined through treaties, court declarations, statutory provisions or other means.

“There has been no process by which (the customary law of Wet’suwet’en chiefs) have been recognized in this manner,” Church said.

The hereditary leaders issued a statement to denounce the court decision, accusing Coastal GasLink of “bulldozing through our territories and destroying our archaeological sites” while the RCMP and private security firms have interfered with hunting, fishing

and ceremonial activities.

A spokesman for the leaders said, “ultimately we are our own government and we decide who comes on our territory” and have “never ceded our land to Canada or British Columbia.”

To no one’s surprise, a hereditary chief of the Wet’suwet’en who answers to the name of Na’moks said he expects the RCMP, who arrested 14 protesters a year ago, will raise their involvement “to another level. They did it last year. They’ll do it again this year.”

The RCMP said it respects the ruling and the judicial process but would not say if or when it will enforce the new injunction.

Coastal GasLink said in a news release that all 20 elected First Nations along the pipeline route have signed agreements with the project in support of the pipeline.

The transmission system is designed to ship 2.1 billion cubic feet per day of feedstock gas from the Montney region of north-eastern British Columbia when it comes into service in 2023.

Initial LNG exports are scheduled to begin in 2025 at 14 million metric tons a year from the initial two trains. So far, two Japanese utilities have signed agreements for LNG purchasing contracts for 15 and

13 years.

Over the 40-year lifespan of LNG Canada the British Columbia government is expected to collect C\$25 billion in new revenues.

### New equity holders

The new pipeline equity holders in the 280-mile system are the Alberta Investment Management Corp. (AIM), Alberta’s public pension manager which oversees C\$115 billion in assets, and KKR & Co., a New York-based buyout manager. Prior to the transaction, the sole owner was TC Energy (formerly TransCanada).

Although the terms of the deal have not been disclosed, TC Energy said it will receive upfront proceeds that include the reimbursement of KKR and AIM’s proportionate share of the project costs.

LNG Canada has Royal Dutch Shell as the 40% operator, with companies from Malaysia, China, Japan and Korea as minority partners.

TC Energy said a syndicate of banks is now expected to set up a secured construction-debt facility to cover 80% of Coastal GasLink’s costs.

TC Energy Chief Executive Officer Russ Girling said the “partial monetization of

Coastal GasLink advances our ongoing efforts to prudently fund our C\$30 billion secured capital program while maximizing value for our shareholders.”

He said TC Energy looks forward to establishing a long-term relationship with KKR and AIM as “we advance this critical energy infrastructure project. We will continue ... to construct, deliver and operate the pipeline on behalf of the partnership.”

KKR said the deal is its third investment in the Canadian natural gas industry through a partnership with the National Pension Service of Korea, while the transaction is AIM’s second big pipeline deal in the past year with TC Energy after paying C\$1.15 billion for an 85% stake in the Northern Courier oil sands pipeline in Alberta.

From the outset, LNG Canada has been sold as a positive contributor to lowering greenhouse gas emissions by displacing the use of coal in China and reducing carbon dioxide volumes by 60 million to 90 million metric tons a year, or the equivalent of 100% of the CO2 produced annually in British Columbia.●

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## SEISMIC STUDY

The researchers have found that it is possible to prepare for and design seismic surveys in such a manner that the impacts on polar bears can be relatively insignificant. But, without appropriate planning and design, surveying would likely be harmful. As part of the permitting process for a survey, the company conducting the survey would need to demonstrate the use of procedures that would limit polar bear impacts to acceptable levels — polar bears have been listed as threatened under the Endangered Species Act and are protected under the terms of the Marine Mammal Protection Act.

### Popular region for bear denning

The ANWR coastal plain is a particularly popular region for the winter denning of female polar bears in the snow, to give birth to cubs. Winter is also the time when seismic surveying is conducted, with the frozen ground and snow cover protecting the tundra from potential damage from seismic vehicles.

Disturbance to a polar bear den can cause den abandonment, early emergence from the den by the bears, and stress on the mother bear that can impact the successful birthing of cubs, the Journal of Wildlife Management paper says. At the same time the subsistence take of polar bears already exceeds the assessed rate of polar bear removal, above

which a sustainable bear population is at jeopardy. Hence the need to ensure that seismic surveying has an insignificant impact on the bears, the paper says.

### Modeling of survey impacts

The researchers conducted statistical assessments of potential polar bear impacts by computer modeling of five seismic survey designs, each involving two seismic crews conducting 24-hours per day operations between Feb. 1 and May 15. The survey designs ranged from a least restrictive scenario, with no spatial or temporal limitations, to the most restrictive, involving specific dates for conducting surveying within specific survey blocks.

The researchers identified the particular importance of locating polar bear dens in advance by conducting an airborne forward looking infrared survey, or FLIR, ahead of the seismic surveying time window, but after the start of the bear denning season. Using this technique, up to 90% of dens can be detected, the paper said. However, although FLIR use would have a major impact in reducing bear den disturbance, the selection of an appropriate survey design, with careful planning of the timing and location of seismic activities, is also critical to ensuring that den impacts will be insignificant.

“The scenario with the highest spatial and temporal specificity always had the lowest level of disturbance for all scenarios with and without the aerial (FLIR) survey included,” the paper says.

In addition, coordination between industry and resource management agencies when developing proactive environmental conservation plans would be particularly valuable in avoiding more conservative government oversight, the paper suggests. The researchers say that, although their study does not provide a final answer on how to design seismic surveys for the ANWR coastal plain, the study does provide guidance to operators on initial survey design considerations, to assist with the development of survey plans that will meet regulatory requirements.

“Our study highlights that, with sufficient planning and effective mitigation measures, the effects to denning bears could likely be reduced sufficiently to allow seismic operators to complete their work over large areas,” the paper says. “Seismic operators and wildlife managers should consider design differences when planning surveys, as starting points to help achieve desired levels of protection for denning polar bears.”

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## WILLOW DIRECTION

“But we’ve done a lot more work since the initial submission and think this could actually work,” Jepsen said.

“It’s exciting to see the level of public involvement in determining responsible development of our natural resources in Alaska,” BLM Alaska State Director Chad Padgett said Jan. 6. “Since the new module transport option and other project changes are outside the scope of the original analysis, developing a supplemental draft EIS affords the public an opportunity to provide input on the revised plan as they did on the original draft.”

The Willow project proposal, BLM said in its press release, includes the construction, operation and maintenance of an oil and gas development 30 miles west of Alpine in the NPR-A Bear Tooth unit that may include one central processing facility, an infrastructure pad, up to five drill pads with up to fifty wells on each pad, access and infield roads, an airstrip, pipelines and a gravel mine.



### Startup date appears unchanged

Willow is “anticipated to have a peak production of 130,000 barrels of oil per day over its 30-year life — producing approximately 590 million barrels of oil — and would help offset declines in production from the North Slope oil fields and contribute to the local, state and national economies,” the agency said.

ConocoPhillips recently upped its estimated ultimate recovery from Willow to 800 million barrels. The cost of development will be between \$4 billion and \$6 billion gross and involve more than 2,000 construction jobs and 300 permanent positions.

As for when Willow will begin producing oil, BLM said prior to this latest announcement it would be as early as fourth quarter 2024, although a slide in Jepsen’s RDC presentation said first oil would be in 2025-26, which is consistent with what the company has been saying for the last couple of years.

Neither Jepsen nor BLM have said if the new public comment period will delay the startup of the field, but a Petroleum News source said not building the gravel island will likely mitigate any delay caused by the new public comment period.

BLM confirmed what Jepsen said; that the supplemental draft EIS will primarily

address a revision that removes construction of a module transfer island previously analyzed in Alternative B of the draft EIS. ConocoPhillips’ new proposal replaces construction of the island with a plan to transport modules via sealift barge to an existing dock at Oliktok Point “for ice road transport across the Colville River near Ocean Point,” the agency said.

ConocoPhillips’ updated proposal “contains design optimizations for each project component of Alternative B, in addition to the new module transport option, and the supplemental draft EIS will be developed with information provided by the BLM, cooperating agencies and various stakeholders,” BLM said.

The agency expects to have the supplemental draft EIS available for review and comment in “Spring 2020.”

For a link to the Willow Master Development Plan Environmental Impact Statement site, along with all other current BLM Alaska planning efforts, visit [www.blm.gov/alaska/comment123](http://www.blm.gov/alaska/comment123). ●

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## PIKKA APPROVALS

4.3 miles of the existing Mustang Road and 0.4 miles of the existing Gravel Pit Access Road, as well as constructing new road infrastructure. Improvements include an expansion of the existing road base width and addition of high-quality material to improve load capacity.

The new segments include the 9.1-mile Nanushuk Access Road, the 0.1-mile ND-A Infield Road, the 3.2-mile ND-C Infield Road and the 0.1-mile water source access road and pump house pad.

The division said total proposed easement length for the road is some 17.8 miles.

“Based on the facts in the record and the Division’s knowledge of oil and gas construction activities, the Division concludes the Mustang Road easement is compatible with OSA’s proposed Road construction, operation, and maintenance activities and will not unreasonably interfere with BRPC’s development and production activities,” the decision says.

### BRPC comments

BRPC made extensive comments on the OSA road easement application, basically arguing that it had a prior easement. Among other things, BRPC told the state it spent more than \$15 million on the Mustang Road to support its operations in the Southern Miluvec unit. On that issue the division said it was its understanding that the Alaska Industrial Development and Export Authority contributed

some \$20 million to the road with the current working interest owners contributing \$10 million toward a total road cost of \$30 million.

BRPC said it had contacted Oil Search about a commercial agreement “covering OSA’s proposed use of BRPC’s easement roadbed, and lands in the SMU. But to date, OSA has not meaningfully engaged with BRPC to resolve the issues ... arising from the conflict between BRPC’s existing easement and improvements and OSA’s application.”

The division said it encouraged BRPC and OSA to reach agreement for compatible use of the road by both parties “but does not consider it necessary to condition OSA’s use on first entering into an agreement with BRPC.”

The division noted that the BRPC’s Mustang Road easement is a private non-exclusive easement in which the state “reserved the right to grant overlapping easements.”

BRPC argued that the division “cannot authorize a use that would unreasonably interfere with the use of a prior easement.” The division said OSA’s plan for the road “will improve the use of the road for both parties and is a compatible use that would not unreasonably interfere with current operation activities by BRPC.”

There is a 20-calendar day window for appeal.

### Pad entry authorizations

OSA applied for a private exclusive easement for the Nanushuk Operations Pad, which will support operations with facilities including a 200-bed operations camp, office, warehouse, maintenance buildings, warm and cold storage buildings, wastewater treatment plants and temporary waste storage areas, communications structures, diesel-fired

standby power generators and a helicopter landing pad. The operations pad will also house a diesel and gasoline tank farm.

The construction area for the pad is 21.8 acres and the estimated operational area is 20.3 acres. The entry authorization, dated Jan. 3, has a term of 5 years; the easement will have a term of 35 years. The easement will be issued once terms and conditions of the EA are met.

A \$1 million bond is required to partially cover DR&R cost of the road, operations pad and facilities pad, and on or before May 30 OSA is required to deliver to DNR a DR&R cost estimate completed by a third-party engineering firm agreed to by DNR, with the remainder of the bond before Sept. 30 that equals 100% of the DR&R cost estimate.

There is a separate private exclusive easement application for the Nanushuk Processing Facility, which will house processing and utility modules for three-phase separation, heating and cooling, pumping, gas treatment and compression for gas lift and injection and water treatment for injection. The facilities pad will also house metering and pigging facilities, power generation facilities, a truck fill station, construction material and equipment staging area, a central control room, an equipment receiving module and a communications tower. The construction area for the facility pad is 21.4 acres; the estimated operational area is 20.7 acres.

This EA also has a term of 5 years; the easement will have a term of 35 years and will be issued once terms and conditions of the EA are met. ●

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