

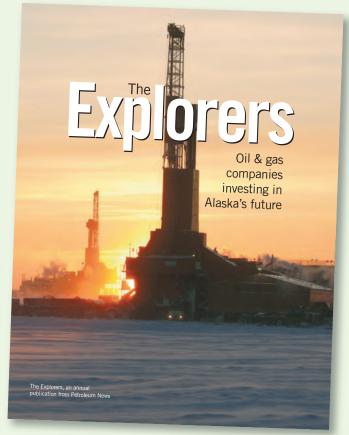
page Congressional committee hears call **8** for Arctic action, six icebreakers

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2019 Explorers inside



Inside this week's issue is the annual Explorers magazine, a look at oil and gas companies investing in Alaska's future.

Wolfpack offers mineral rights; Report focus on eastern Slope; 88E updates asset activity

WOLFPACK LAND CO. OF HOUSTON, TEXAS is offering 4,761 onshore acres of prime mineral interest ownership near Kenai, Alaska in the Cook Inlet basin for oil and gas leasing.

In the Beaver Loop Road area the company has listed approximately 3,116.49 acres, broken up into three parcels.

The first parcel, containing about1,063.51 acres, is in Township 5 North, Range 11 West. The second parcel of around 947.98 acres is in Township 6 North, Range 10 West. A third parcel in Township 6 North, Range 11 West has 1,105 acres, more or less.

In the Robinson Loop Road area Wolfpack is offering two

see **INSIDER** page 20

Only 3 tracts draw bids at state's Cook Inlet oil and gas lease sale

The state received only three bids at its 2019 Cook Inlet areawide oil and gas lease sale, all three from Hilcorp Alaska, and no bids in the Alaska Peninsula sale.

The Alaska Department of Natural Resources Division of Oil and Gas opened bids May 22 in Anchorage.

Hilcorp appeared to be filling in around existing acreage. The company bid \$20 an acre on tract 378 on the eastern edge of its offshore acreage at North Trading Bay. The other two tracts are on the Kenai Peninsula east of Cosmopolitan and north of Anchor Point. Hilcorp holds acreage in the

Anchor Point area south of the adjacent blocks, tract 781 and tract 800, and to the northeast. The company bid \$22 per acre on tract 781 and \$16 an acre on tract 800, the more southerly of the two tracts.

Kyle Smith, the division's leasing section manager, said at

see **LEASE SALE** page 23

GOVERNMENT

Bond regs questioned

DNR asks AOGCC to reconsider recent changes to well surety bonding levels

By ALAN BAILEY

Petroleum News

Sara Longan, deputy commissioner of the Alaska Department of Natural Resources, has written to the Alaska Oil and Gas Conservation Commission, asking the commission to reconsider new regulations that the commission recently issued for the surety bonding of Alaska SARA LONGAN oil and gas wells. DNR is worried that

the very large increases in the bond levels will deter oil and gas investment in the state and that some small operators may be forced to discontinue

"We note that many small and mid-size operators are responsible for a significant portion of the



natural gas production in Cook Inlet," Longan commented. She also said that, while production costs in Alaska are much higher than in other states, the new bonding levels "exceed those of other states by orders of magnitude."

DNR has its own bonding requirements to assure adequate restoration of surface land around wells — the AOGCC bonding deals with the subsurface plugging of wells that are abandoned. DNR

thinks that it and AOGCC could coordinate their financial assurance procedures, to avoid overlapping requirements. Apparently, DNR financial assurance agreements with producers often include assurance for the effective plugging and abandon-

see **BOND REGS** page 23

EXPLORATION & PRODUCTION

KLU gas output climbs

Operator Furie is gradually bringing Kitchen Lights production back online

By KAY CASHMAN

Petroleum News

Furie Operating Alaska's natural gas production from the offshore Kitchen Lights unit continues to increase, per the Alaska Oil and Gas Conservation Commission. Natural gas output from the Cook Inlet field in April was 347,919 thousand cubic feet as com- **SCOTT PINSONNAULT** pared to 68,651 mcf in March.

That compares to 853,410 mcf as of November 2018, prior to the field going down because of hydrate plugs.

In April, two wells were online in the 83,394acre unit, compared to one well in March and four



in November and December.

AOGCC reported that for April, well KLU 3 produced 238,316 mcf as compared to 68,651 mcf in March, 1,886 mcf in February, 290,425 mcf in December and 290,279 mcf in June 2018.

KLU A-2A has come back online and for 27 days produced 109,603 mcf in April, as compared to 34,554 mcf in January and 211,732 mcf in December.

Operator Furie had been making steady progress in the field, having completed its planned 2018 drilling program and thus curing a 2017 default with the Alaska Department of Natural Resources' Division of Oil and Gas, along

see KLU OUTPUT page 20

Taking the plunge

Alberta's new energy minister has long history as industry lobbyist, legal advisor

By GARY PARK

For Petroleum News

lberta's Energy Minister Sonya Savage is getting a baptism of fire as she decides whether the newly installed government of Premier Jason Kenney should proceed with leasing rail tanker cars at a cost of about C\$3.7 billion.

In her favor is a master of laws degree and a highly acclaimed record of employment with pipeline company Enbridge and the Canadian Energy Pipeline Association.

Those jobs put her in the frontlines, but not necessarily in the public spotlight, of battles over such



SONYA SAVAGE

major projects as the failed Northern Gateway pipeline plan to export 525,000 barrels per day of oil sands crude to Asia, lobbying the Canadian government on a variety of issues and dealing with fierce legal challenges from environmentalists and First Nations.

"I had a front row seat to watch the action unfold," she told the Globe and Mail. "I saw it play out against every single energy project that was moving

through the system."

Seen as obvious choice

Given her credentials, Savage was seen as an

see ENERGY MINISTER page 19

NATURAL GAS

AGDC advances work toward FERC permits

Issue of whether Alaska LNG project is economic not resolved; staff met with BP, Exxon in April, but workshop results not public

By KRISTEN NELSON

Petroleum News

he Alaska Gasline Development Corp. board met May 22 in Anchorage and heard an update on the work the corporation is doing to obtain permitting for the project from the Federal Energy Regulatory Commission and other agencies, but there was little discussion in the public portion of the meeting of the JOE DUBLER big issue — whether the project is economic.

Joe Dubler, AGDC's interim president, said the competitive assessment was being done. There are preliminary indications, he said, and those will be presented in executive session. He said results of the competitive assessment will be public at some point, but not yet.

When AGDC reorganized under a new board in



January one of the goals was to get the North Slope producers involved in the project again. BP and ExxonMobil signed non-binding memorandums of understanding.

Part of that MOU, Dubler said, was to get engineers from the parties together, to go over cost items in the work program and budget and figure out changes in the industry over the last three years that have provided an opportunity to

In April, engineers from AGDC, BP and ExxonMobil met in Houston for what Frank Richards, AGDC senior vice president of program management, called a workshop.

Richards said the goal of the cost-reduction workshop was to look at costs, because the last cost estimate was based on 2015 numbers. The workshop looked at new market conditions, technology advancements — opportunities for cost reductions, he said, using publicly available information.

He called the output of the three-day workshop positive and said more information would be provided to the board in the executive session. Multiple engineers from each organization attended, along with a commercial person from each group.

Consolidation continues

AGDC continues its consolidation. Dubler said the May 22 meeting was the last to be held in the AGDC conference room, as space on that floor was being eliminated, with staff finishing a move to a single floor the week of the meeting. Future board meetings will be in

Alaska's source for oil and gas news

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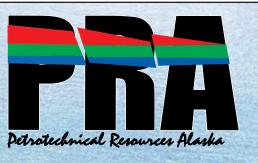
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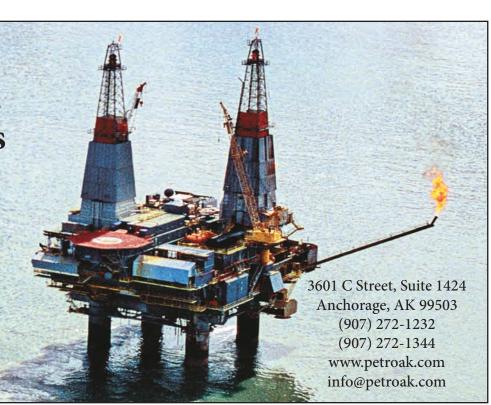
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Questions raised over Railbelt transco

ART responds to RCA concerns over deficiencies in certificate application but Chugach Electric and MEA still raise issues

By ALAN BAILEY

UTILITIES

Petroleum News

n a May 20 order, the Regulatory Commission of Alaska accepted some corrections to an application from Alaska Railbelt Transmission LLC, or ART, for a certificate of public convenience and necessity as a transmission company, or transco, for the Alaska Railbelt electricity transmission system. The commission set a schedule for making a decision on the application. In an earlier order, the commission had required ART to resolve some deficiencies and defects in its application — in a dissenting statement at that time, RCA Chair Stephen McAlpine and Commissioner Daniel Sullivan had said that they would simply have rejected the application.

In a May 17 letter to the commission, Tony Izzo, CEO of MEA, questioned whether ART had adequately corrected the deficiencies in its application, as ordered by the commission. In particular, the service area map that ART has filed appears to include Chugach Electric Association transmission facilities, despite the fact that Chugach Electric is not an ART participant. ART has still not demonstrated its ability to provide the services it proposes. And there are still many unclear ambiguities in the application, Izzo wrote.

Multiyear effort

The application is one outcome of a multiyear effort to achieve a more unified approach to the management and operation of the electrical system. The idea is that the transco would operate the transmission system, thus enabling the instigation of a consistent, system-wide set of fees for the use of the system. The transco would also become a vehicle for investing in upgrades to the system – investment is currently impeded by the balkanized nature of the system ownership and operation.

A critical and contentious issue underlying all of this is the governance of the system, and the extent to which this governance should be independent from the Railbelt electric utilities. The utilities have proposed the formation of a Railbelt Reliability Council, or RRC, an organization which would be governed by a stakeholder board and would have oversight of the entire Railbelt system, including the transco.

For-profit company

ART has been formed as a private, for-profit company by the American Transmission Co. and four of the Railbelt utilities: Homer Electric Association, Golden Valley Electric Association, Municipal Light & Power and the City of Seward. Two utilities, Chugach Electric and Matanuska Electric, have opted not to join ART. These two utilities own portions of the transmission system — Chugach Electric, in particular, owns significant parts of the transmission grid.

Unlike ART, the Railbelt utilities either are memberowned cooperatives or are owned by municipalities.

In its certificate application ART told the commission that, by implementing uniform system-wide transmission pricing across the Railbelt and non-discriminatory access for generation facilities, the company would be able to facilitate maximum use of the most efficient power generation on the grid. The commission has been encouraging several grid unification efforts, including the formation of a

Both Chugach Electric and MEA have told the commission that, while they support the idea of forming a transco for the Railbelt, they view the ART concept as problematic from a number of perspectives.

Comments from Chugach Electric

In a May 16 letter to the commission, Chugach Electric CEO Lee Thibert commented on his utility's concerns. Chugach Electric believes that ART's filing of its application "while well intended and a step forward, was premature," Thibert wrote. In addition, Chugach Electric's bylaws would likely prevent it from participating in ART, he wrote.

The design of ART is "fatally flawed," Thibert wrote. In particular, the concept would result in a for-profit, assetowning company having exclusive control over both longand short-term planning. ART also proposes to conduct congestion management in the grid through the re-dispatch of generation capacity, a role beyond that of a transco. And the proposal for ART's operation of the system lacks meaningful controls over the company's potential for manipulating the electricity market, Thibert wrote.

Instead, Chugach Electric sees the RRC as the best starting point for unified operation of the electrical system, Thibert wrote. The RRC, and not the transco, would establish and maintain the rules for operation of the grid, and is envisaged as having a 13-member board representing a variety of stakeholders in the electrical system. ART, on the other hand, would both administrate its tariff and benefit from the tariff provisions.

ML&P purchase

Chugach Electric is in the process of purchasing ML&P and is concerned about the ramifications of the ART implementation on this proposed deal, given that ML&P is a participant in ART. The agreement for the purchase by Chugach Electric requires ML&P to maintain its current business organization and operations, and to refrain from activities such as investing in other entities. Moreover, ART's certificate application should be rejected because the application includes assets that are already committed through the purchase agreement, Thibert wrote.

Thibert wrote that Chugach Electric and MEA plan to jointly propose the establishment of the RRC, as an alternative to ART. The RRC, once in operation, will provide the appropriate foundation for the establishment of a proper transco in the Railbelt, Thibert wrote.

> Contact Alan Bailey at abailey@petroleumnews.com





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GOVERNMENT

Stirring Canada's pot in Parliament

Senators assert their role, calling for changes in legislation, changes that industry leaders describe as 'critical' to their future

By GARY PARK

For Petroleum News

wo bills before the Canadian Parliament that petroleum leaders have warned are "critical" to their industry's future now face a head-on collision with the government of Prime Minister Justin

Both have gone through an unusually bumpy ride in the Senate, an appointed body that serves as the so-called chamber of "sober second thought" in Canada's Parliament, but whose role is mostly that of a rubber-stamp for government legislation.

Bill C-48 and Bill C-69 have come under fierce attack in recent weeks, mostly because they are seen as singling out Alberta — the bedrock of Canada's oil and natural gas production — for discriminatory attention from Environment Minister Catherine McKenna.

Viewed by many in Alberta as a zealot who wants to shut down the oil sands sector, McKenna issued a recent tweet accusing Conservative Leader Andrew Scheer (tipped to defeat Prime Minister Trudeau in this October's national election) of "scheming behind closed doors with wealthy (energy) executives to gut environmental protection laws, silence critics and make pollution free again."

Banning tanker traffic

That stirred a backlash against Bill C-48 to ban tanker traffic off British Columbia's northern coast and Bill C-69, which aims to overhaul the environmental review process for large scale resource projects such as pipelines and oil sands development.

In an attack without parallel from a federal cabinet minister, McKenna claimed that Scheer's meeting with the industry discussed "deploying litigation as a tool" to silence environmental critics.

Bill C-48 would ban tankers carrying more than 90,000 barrels of conventional crude or "persistent" oil (which is a thick slurry that is difficult to move or clean) from loading or unloading on the B.C. coast between the northern tip of Vancouver Island and the Alaska border.

In the forefront of those attacking the

legislation, Senator Doug Black said there was no precedent for the ban anywhere else in the world.

Alberta Premier Jason Kenney said the bill represents a serious threat to Alberta's and Canada's economic interests, adding "we believe it must be scrapped."

He also threatened to launch a constitutional challenge against the legislation if it moved forward.

The last, slender hope of either amending or scrapping the bill rested with a Senate committee that voted 6-6 to urge the Trudeau administration not to proceed with a final vote on Bill C-48.

Kenney praised the committee vote as a "victory for common sense and economic growth."

Described as fulfilling promise

Transport Minister Marc Garneau said Bill C-48 is the "fulfillment of an election promise we made to protect the coast ... from the risk of a major oil spill."

It would essentially rule out oil pipeline projects in northern British Columbia by prohibiting tankers from loading or unloading crude at ports in the region.

Alberta Sen. Paula Simons said she might have endorsed a temporary legal restriction on tankers to allow further research, arguing the bill only locked in a measure based on limited research more than 40 years ago after the Exxon Valdez

She said the bill was a "big middle finger to the province of Alberta ... when it was not a good time for the people of Alberta to be provoked."

However, some critics have warned that even if the Trudeau administration stalled passage of the bill through Parliament it would be little more than a token gesture given that Bill C-69 effectively gives the government power to reject any plans for tanker terminals.

A different Senate committee from that which reviewed Bill C-48, attached 187 amendments — reduced from an earlier 250 — to Bill C-69 as the Senators lined up with the provinces of Alberta and Saskatchewan in showing their frustration with 15 years of

see **PENDING BILLS** page 5



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ENVIRONMENT & SAFETY

PETROLEUM NEWS • WEEK OF MAY 26, 2019

Draft Fairbanks air quality plan & regs

DEC publishes revised plan, associated regulations to tackle severe FNSB air pollution and ultimately comply with Clean Air Act

By ALAN BAILEY

Petroleum News

s part of actions designed to address serious air quality problems within Fairbanks North Star Borough, the Alaska Department of Environmental Conservation has published a draft version of a new plan for the borough's air quality nonattainment area. The agency has also published draft revisions to air quality regulations that need to be implemented to put the plan into operation. DEC requires comments on the proposals by July 26.

The plan — a serious state implementation plan, or SIP — has been mandated by the Environmental Protection Agency, to address major problems with fine particulates in the Fairbanks air, primarily resulting from the use of wood burning stoves to heat buildings during the winter. Winter thermal inversions tend to exacerbate the problem by trapping the particulates close to ground level. Fairbanks air quality often fails to meet air quality standards required under the Clean Air Act, with resulting impacts on the health of Fairbanks residents.

Plan and regulatory changes

In ramping up from an existing moderate SIP to a serious SIP, the state proposes a number of plan changes and additions, supported by appropriate regulations. The thresholds for instigating burn bans will be lowered; only low sulfur diesel fuel will be allowed in oil-fueled heaters; coal-

fired heaters and uncertified heaters must be removed by December 2024, or when homes are sold or leased; heaters more than 25 years old must be removed or replaced by December 2024; and there are stricter emission requirements for new wood-fired heaters.

The proposed plan also introduces stringent new rules, designed to prevent the burning of moist wood, a significant cause of particulate emissions: Starting in October 2021, strict rules would apply to the operations of wood vendors.

Major industrial emissions sources will need to be controlled by best available technology.

Deadline cannot be met

Although the federal deadline for attaining the required air quality standards is the end of this year, the agencies have realized that this deadline cannot be met in practice: The SIP has been designed in expectation of a longer timeframe for attainment. And there are other initiatives proposed or in play to address the Fairbanks air quality problems. For example, the Alaska Industrial Development and Export Authority sponsored Interior Energy Project, being conducted by Interior Gas Utility, is seeking to boost the availability of affordable natural gas in the Fairbanks region, to encourage residents and businesses to convert to the use of natural gas for heating buildings. •

> Contact Alan Bailey at abailey@petroleumnews.com

continued from page 4

PENDING BILLS

federal failures to increase Canada's oil pipeline capacity.

Key changes they called for would require the environment minister to get written approval from the finance and natural resources ministers before a project could be rejected; a reduction in timelines for project reviews to 510 days from 600; and limits on the role of foreign-funded environmental activism.

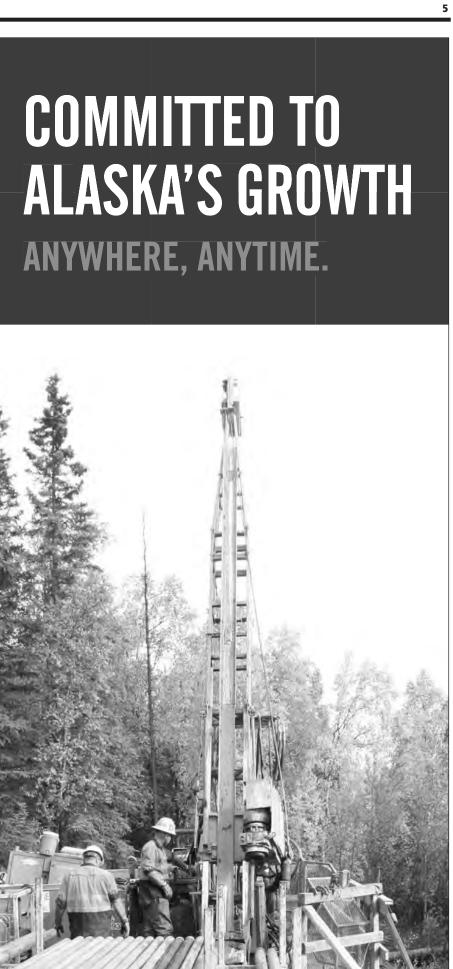
Kenney said he was pleased with the suggested amendments, noting he told the Senate committee that the bill needed "complete reconstructive surgery."

Scheer vowed to repeal the bill if it becomes law and he becomes prime minister in the fall.

He proposed to establish a "dedicated right of way" across Canada from the Pacific to the Atlantic for projects such as

> Contact Gary Park through publisher@petroleumnews.com





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Beaver Loop Road Area

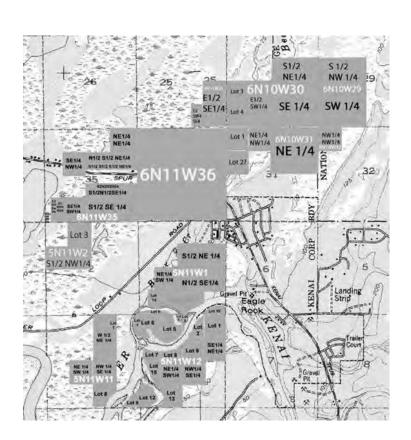
Township 5 North, Range 11 West (Surveyed)
Section 1, Lots 6-8, 10, 14, S1/2NE1/4,
N1/2SE1/4, NE1/4SW1/4;
Section 2, Lots 3 and 6, S1/2NW1/4.
Section 11, Lots 1, 8, 9, W1/2NE1/4,
NW1/4SE1/4, NE1/4SW1/4;
Section 12, Lots 1-13, NE1/4SW1/4,
SE1/4NE1/4, NW1/4SE1/4.
Containing 1,063.51 acres, more or less.

Township 6 North, Range 10 West (Surveyed)
Section 29, SW1/4, S1/2NW1/4
Section 30,Lots 3 & 4, E1/2SW1/4, SE1/4,
S1/2NE1/4
Section 31,Lots 1 & 2, NE1/4NW1/4NE1/4
Section 32,NW1/4NW1/4
Containing 947.98 acres, more or less.

Township 6 North, Range 11 West (Surveyed)
Section 25, El/2SE1/4,El/2SW1/4SE1/4
Section 35, NE1/4NE1/4, N1/2S1/2NE1/4,
N1/2S1/2S1/2NE1/4, SE1/4NW1/4,
E1/2SW1/4SW1/4,
E1/2W1/2SW1/4SW1/4,
W1/2SW1/4SW1/4SW1/4, SE1/4SW1/4,
S1/2SE1/4, S1/2N1/2N1/2SE1/4,
S1/2N112SE1/4.
Section 36,All

Containing 1,105 acres, more or less.

Aggregating 3,116.49 acres, more or less.

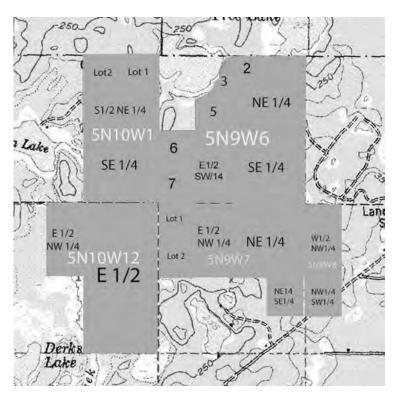


Robinson Loop Road Area

Township 5 North, Range 9 West (Surveyed)
Section 6, Lots 2, 3, 5-7, SW1/4NE1/4,
El/2SW1/4, SE1/4;
Section 7, Lots 1, 2, El/2NW1/4, NE1/4,
NE1/4SE1/4;
Section 8,W1/2NW1/4, NW1/4SW1/4.
Containing 926.23 acres, more or less.

Township 5 North, Range 10 West (surveyed) Section 1, Lots 1, 2, Sl/2NEl/4, SEl/4; Section 12, El/2, El/2NWl/4. Containing 718.96 acres, more or less.

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FACILITIES

Corps publishes draft Nome port study

Recommends expansion of current structure, deepening of outer basin, creating new deep basin, and construction of new docks

By ALAN BAILEY

Petroleum News

On May 8 the U.S. Army Corps of Engineers published a draft report on the results of a feasibility study into the expansion of the Port of Nome, and an environmental assessment of the potential port expansion.

The Corps has recommended an option involving extending the port's west causeway by 3,484 feet; replacing the existing east breakwater with a new 3,900-foot causeway; deepening the port's existing outer basin to 28 feet below mean low water; and creating a new deep-water basin with a water depth of 30 to 40 feet below mean low water beyond the extent of the current port. The Corps is also recommending the construction of five new docks. The agency has assessed that there would be no significant environmental impact from the port modifications. Dredged material collected during the port deepening would be placed east of the port.

Apparently the outer basin dredge depth is constrained to 28 feet by the sheet pile construction of the west causeway docks.

Alternatives

Other alternatives considered but not recommended included only making minimal modifications to the east breakwater, converting only part of the existing east breakwater to a causeway and varying the number of docks. A potential more extensive modification would involve removing the east breakwater and replacing it with a new causeway farther east. A primary factor in deciding on a preferred alternative

An aerial view of the Port of Nome. The proposed expansion involves adding a deep-water section beyond the current port entrance, deepening the existing outer basin and replacing the east breakwater.

was the need to separate non-industrial pedestrian traffic from industrial activities, the report said.

Public comments on the draft report must be filed with the Corps within 30 days of the report's publication.

A long debate

The issue of whether and where to develop a deep-water port for Arctic Alaska has been a subject of debate for many years, with more recent planning activities dating back to conferences held in 2008 and 2010. Currently the Port of Nome can only handle shallow draft vessels — large cruise ships, for example, have to anchor offshore, with passengers being transferred to the shore in small boats. A deep-water port could provide logistical support for large vessels plying Arctic waters and could act as a port of refuge in the event of stormy weather. The

current small port also suffers from overcrowding, the draft feasibility study says.

Vessel traffic in the region is expected to increase, as the Arctic seas open up with reduced sea ice.

In late 2014, after a study into a number of potential deep-water port locations in

see PORT STUDY page 9







• FACILITIES

A need for more US Arctic involvement

Testimony to congressional committee urges actions to boost the country's presence in the region as international attention grows

By ALAN BAILEY

Petroleum News

he commissioning of a new heavy polar icebreaker for the U.S. Coast Guard will form a vital component of the United States' future engagement in the Arctic region. But the country has been falling behind other nations, in particular Russia and China, in making moves to exert its influence and presence in the region, a series of experts testified to a subcommittee of the House of Representatives Committee on Transportation and Infrastructure on May 8. And key to exerting an Arctic presence is the development and maintenance of appropriate Arctic infrastructure, the testifiers said. Infrastructure includes port facilities and an adequate communications network.

Russia has nearly 50 icebreakers and has been opening up the Northern Sea Route around its coast. China has been opening Arctic research stations and observatories and is building its second icebreaker. Meanwhile, with just one aging polar heavy icebreaker and one medium-sized icebreaker, the U.S. Coast Guard can only operate in the Arctic during the summer.

Almost no infrastructure

Retired Adm. Thad Allen, former Coast Guard commandant, told the committee that, although the U.S. Navy sees its subsurface capabilities as meeting the nation's Arctic defense needs, the current inadequate Arctic command, control and communications infrastructure points to a lack of U.S. sovereignty in the region. Currently there is



Coast Guard icebreakers Polar Star and Polar Sea.

almost no marine infrastructure in the U.S. maritime Arctic, he said.

Heather Conley, a senior vice president from the Center for Strategic and International Studies, suggested that the country has lost a decade in advancing its Arctic interests, given the inactivity that followed President George W. Bush's signing of a new Arctic security policy in 2009.

Adm. Charles Ray, vice commandant of the Coast Guard, commented on how the Coast Guard has been demonstrating its presence in the Arctic through the agency's annual Arctic Shield program. This involves deploying assets, working with Arctic communities and conducting activities such as search and rescue, and emergency response planning. Mead Treadwell, co-chair of the Polar Institute, the Woodrow Wilson Center, and a previous Alaska lieutenant governor, argued for the establishment of an Arctic seaway, modeled on the St. Lawrence Seaway, with a tariff-based service that could help fund infrastructure support. A bill has been introduced in the U.S. Senate to establish an organization of this type. Treadwell thinks that in future it will be possible to transport liquefied natural gas by sea from Alaska's North Slope.

China's interests

Conley suggested that China's current involvement in the Arctic primarily reflects an economic interest in the region. In particular, the country is interested in energy

resources, as reflected in the country's investment in Russia's Yamal LNG facility. However, in the long term there is major interest in Arctic shipping, with the Arctic Ocean presenting a shorter distance alternative to the Straits of Malacca for shipment between the Pacific and Atlantic Oceans, Conley said. Of particular interest to China is a potential trans-polar route, across the middle of the Arctic Ocean, given that the waters of Russia's Northern Sea Route are too shallow for deep container ship traffic.

"The Chinese vision is 2040-2050. They are thinking that far ahead," Conley said.

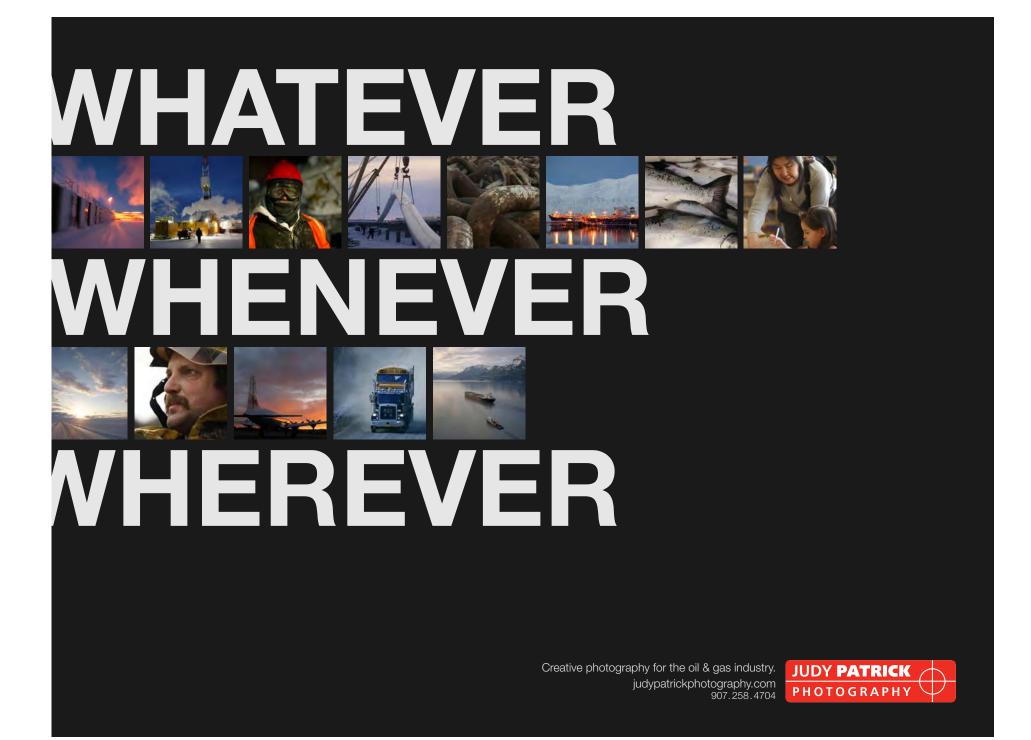
Icebreaker program

The new polar icebreaker which Congress has now funded is planned as the first of three icebreakers of the same design. Adm. Ray said that the Coast Guard needs six icebreakers: three heavy icebreakers and three medium icebreakers, to have the capacity for year-round Arctic operations, including long-distance missions such as patrolling around Greenland. He also emphasized that it will be important to characterize the icebreakers as security cutters, given that the ships will be expected to be able to support multiple Coast Guard missions.

"We need the ability to project a yearround presence in the Arctic," Ray said. "It is possible to be up there summertime and wintertime."

Ray also said that maintenance of the Coast Guard's existing heavy polar ice-

see ARCTIC INVOLVEMENT page 9



continued from page 8

ARCTIC INVOLVEMENT

breaker, the Polar Star, will be critical to a continuing ice breaker capability until the new icebreaker is delivered, potentially in 2024.

Support infrastructure

Ray said that he anticipates Kodiak as continuing to be the Coast Guard base for the agency's Arctic operations.

"That's our northernmost place, where we have the most plans and the most specifics about investment," he said. Given the dynamic nature of the Arctic, the Coast Guard's approach is to operate from Kodiak and move icebreakers to wherever they are needed, he said. Conley suggested that there is a need to also think about establishing some forward operating bases in the Arctic.

Ray said that the Coast Guard has successfully worked with the Russians on a port access route study in the Bering Sea region, coordinating this work with local Native communities.

In terms of the Arctic communications infrastructure, the Coast Guard has now reached a point where it can use satellite communications reliably up to the 85th lati-

tude — the agency is working with the Department of Defense to gain access to updated satellite communications. This year, in cooperation with other government agencies, the Coast Guard launched two miniature satellites in polar orbit, able to receive emergency signals, Ray said.

Abbie Tingstad, senior physical scientist in the RAND Corp., a policy think tank, commented on the importance of support infrastructure beyond icebreakers, in bolstering the ability to respond to threats and hazards in the Arctic. International and domestic cooperation between stakeholders is also critically important, she said.

Arctic navigation

Rear Adm. Shepard Smith, director of the NOAA Office of Coast Survey, described NOAA's efforts in maintaining data, charts and forecasting services for marine navigation in the Arctic region. The agency supports international cooperation in the Arctic, including the activities of the Arctic Council, the Polar Code for Arctic shipping and the Arctic Report Card, an annual peerreviewed science publication.

Smith commented that, given the huge distances involved to reach survey sites, NOAA's annual operational season tends to be very short. The agency is considering the use of unmanned systems, to augment its efforts, he said.

Deep-water port

A major issue, the subject of much discussion and study over the years, is the question of establishing a U.S. Arctic deep-water port, both for logistical support for shipping and to act as a port of refuge in the event of stormy weather. Much attention has focused on the potential to expand and deepen the port at Nome, which cannot currently handle deep-draft vessels. There is a natural deep-draft port at Port Clarence, not far from Nome. But Port Clarence has no supporting infrastructure and would require the construction of an access road.

Col. Phillip Borders, commander of the Alaska district, U.S. Army Corps of Engineers, told the committee that studies have concluded that Nome presents the most viable deep-water port option. The Corps has recently published a draft feasibility study for expanding the Port of Nome. (See story in this issue.) However, the agency has been conducting this study as a civil works project that limits port depth considerations to depths required for vessels that currently use the port and for Coast Guard vessels. That would put the depth of the port at somewhere in the range of 30 to 40 feet —

military use of the port would require a depth of 45 feet. Allen commented that the Corp uses a 45-foot depth in its official definition of a deep-water port.

Revenue from traffic?

Treadwell suggested that the Port of Nome and Port Clarence could be supported by revenues from Arctic shipping traffic.

"Together you're talking about a system of ports which is about a \$300 million problem," he said.

And Conley commented that it is time for a decision on the port issue.

"We have to get out of the mode of studying ... we study things in lieu of action," she said.

Allen urged for a whole-of-government approach to the issue, taking into account the drafts of vessels that might need the port over an extended U.S. presence in the region

And Treadwell urged action on the port

"I believe there's enough on the record, right now, for Congress to find that it would be absurd for us to go into a brand new ocean, newly accessible to the world, and not have a deep-water port of refuge, and not have a port which could have us play a role in assisting shipping," he said. •

continued from page 7

PORT STUDY

Arctic Alaska, the Corps determined that Nome presented the most cost-effective solution and developed a tentative plan for expanding the port there. The Corps embarked on a feasibility study for the port expansion but announced a pause in this study in October 2015, following Shell's withdrawal from its Arctic offshore oil exploration program. Apparently Shell's potential use of the port had been a factor in the economics of the port expansion.

In early 2018 the Corps announced that it had signed an agreement with the city of Nome to look again at the costs and benefits of port expansion. Hence the feasibility study that is now being completed.

Option to maximize benefits

The new draft report says that the option that the Corps is recommending was favored on the basis of maximizing annual economic benefits, and on the basis of economic benefits coupled with national security benefits. Security benefits would accrue from the use of the port by U.S. Coast Guard vessels — the Coast Guard could use the enlarged port as a port of convenience for fuel, for example, the draft report says. The recommended option minimizes costs while meeting the objectives of the port expansion, the report says.

Other benefits potentially include support for 18 communities in the Nome region.

Construction could take up to four to five years to complete, with construction activities having to take place during a four-month summer construction season. Activities would be designed to avoid marine mammals and protected species. Crab habitat lost during construction would be replaced. The east causeway would include a bridge to allow the passage of fish. And an on-site archaeologist would ensure minimal impacts to significant cultural resources during construction.

The estimated cost is \$418 million. Under the federal Water Resources Development Act, the federal government could pick up \$313 million of this cost, the draft report says. ●



FACILITIES

BP plans updated waste disposal facility

BP Exploration (Alaska) has applied to the Alaska Department of Natural Resources' Division of Oil and Gas for construction of a new gravel pad and installation of an updated Class I waste disposal facility between Drill Site 4 and the Fire Training Area in the Prudhoe Bay Unit. Permits will also be required from other state, federal and local agencies.

BP said in its application that the 2.58-acre gravel pad would accommodate an updated Class I waste disposal facility that would replace two existing facilities,

Grind and Inject and Pad 3, which "are no longer providing adequate disposal operations."

The company said the updated facility will allow for a single modern facility, appropriately sized, "to safely process and inject Class I waste vehicles."

At the new facility vehicles offloading waste will access the facility via a one-way drive, transferring waste to "an enclosed system entirely within a sealed containment."

The company said the updated facility will allow for a single modern facility, appropriately sized, "to safely process and inject Class I waste vehicles."

Pad 3, south of Drill Site 6, and G&I on Drill Site 4, handle processing for wastes eligible for injection into existing Class I and Class II injection wells.

In addition to Prudhoe Bay, the new facility will handle wastes generated outside of BP-operated areas. Third-party wastes must meet all regulatory and operational criteria; those wastes are handled under terms of written agreements with the Greater Prudhoe Bay owners, and the same procedures will be followed for third-party wastes delivered to the new facilities, BP said.

The current injection facilities will cease operations after the new facility is operational.

Facilities

Construction will include the gravel pad and widening of existing roads, a total of 2.58 acres using some 20,000 cubic yards of gravel.

Some 100 vertical support members will be installed on the gravel pad to support the processing module, the offloading tent, the transformer platform and associated infrastructure.

Seawater and waste slurry pipelines will be modified to isolate the existing G&I facility on Drill Site 4.

BP said project activities are scheduled to begin on July 10 with gravel placement beginning Aug. 1 and project completion expected by December 2020.

—KRISTEN NELSON



EXPLORATION & PRODUCTION

Hilcorp plans additional Milne Ugnu wells

The Alaska Department of Natural Resources' Division of Oil and Gas has approved an amendment to Hilcorp Alaska's Milne Point unit plan of development, approved by the division late last year (see story in Feb. 10 issue of Petroleum News).

Hilcorp applied May 7 to drill six new development wells, one previously approved, into the Ugnu reservoir at Milne Point unit S Pad; the division approved the application May 20.

The division said associated infrastructure will be updated to support the wells. Hilcorp also plans to convert an existing well to a water source well to support the development of the new Ugnu wells.

If activities have not begun, the approval expires May 20, 2022.

—PETROLEUM NEWS

US drilling rig count drops 1 to 987

The number of rigs drilling for oil and natural gas in the U.S. dropped by one the week ending May 17 to 987.

A year ago, the count was 1,046 active rigs.

Houston oilfield services company Baker Hughes reported that 802 rigs targeted oil (down three from the previous week) and 185 targeted natural gas (up two).

The company said 73 of the U.S. holes were directional, 866 were horizontal and 48 were vertical.

The Ohio rig count was up four from the previous week, Wyoming was up three, Louisiana was up two and New Mexico was up one.

California, Colorado, North Dakota and Utah were unchanged.

West Virginia was down one rig from the previous week.

Alaska and Oklahoma were each down two rigs.

Pennsylvania and Texas were each down three rigs. Texas, at 482, has the most active rigs in the country.

Baker Hughes shows Alaska with seven active rigs, the same count as a year ago. The U.S. rig count peaked at 4,530 in 1981. It bottomed out in May 2016 at 404.

—PETROLEUM NEWS

UTILITIES

IGU issues RFPs for LNG plant expansion

Fairbanks based Interior Gas Utility has issued a series of requests for proposals for various aspects of the planned expansion of liquefied natural gas supplies to Interior Alaska. The RFPs revolve around a planned two-phase expansion of IGU's Titan LNG plant, near Point Mackenzie on Cook Inlet.

In February IGU commissioned Braemar Technical Services to conduct the front-end engineering and design for the expansion project, with Coffman Engineers Inc. contracting with Braemar on the project. Braemar and

One RFP, which closed on May 10, relates to the provision of a natural gas pretreatment and liquefaction unit for the expanded LNG plant. Another, closing on May 22, relates to the provision of a unit for loading LNG into road trailers. A third, closing on May 31, relates to the provision of new LNG storage at the Titan plant.

Coffman are handling the RFPs, which presumably form part of the FEED project.

Braemar's plan envisages the project running through to early November of this year. However, the company has said that it anticipates an estimated budget for the ensuing construction project becoming available in September, enabling the board to make a final investment decision for the Titan expansion at around that time. RFPs for the implementation of components of the expanded plant anticipate contract negotiations being completed by late July. Contracts would be awarded at some date after that, with final contract awards being dependent on a final investment decision for the expansion project.

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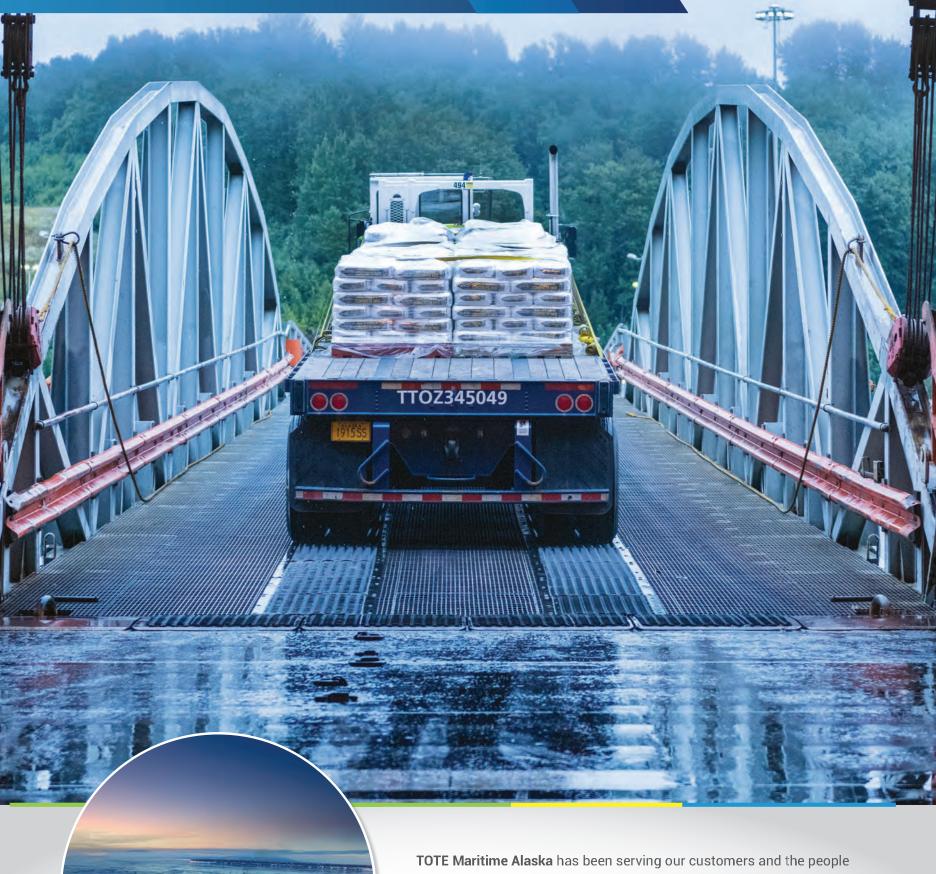
In addition to the FEED RFPs. IGU issued an RFP for road transportation services for the shipment of LNG from the Titan plant to Fairbanks, Houston and Talkeetna. That RFP closed on May 9 and anticipated the transportation contract running from July 1 of this year to June 30, 2022. The selected contractor would own and operate a fleet of road LNG tankers associated with the Titan plant.

—ALAN BAILEY





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The Spartan 151 is an independent leg cantilever jack-up rig

EXPLORATION & PRODUCTION

Hilcorp to use jack-up rig at Granite Point

By KRISTEN NELSON

Petroleum News

ilcorp Alaska plans to use the Spartan 151, or a similar jack-up rig, to drill as many as four sidetrack wells from existing wellbores at the Granite Point Platform. The Alaska Department of Natural Resources' Division of Oil and Gas said in an approval of the unit plan of operations dated May 16 that the proposed wells will be drilled to bottom-hole depths between 7,000 and 16,000 feet. Rig mobilization is expected to begin by June 1, with an estimated 30 to 60 days per each well completion. Drilling activities and rig demobilization will conclude by Nov. 15.

The division said its authorization is for rig placement and related development drilling activities only, with authorizations required from other state and fed-

Hilcorp's most recent plan of development for the Granite Point unit, filed April 1 and approved May 10, said the company planned to maintain production for the period of the 2019 POD, which is effective July 1 through June 30, 2020.

eral agencies.

Three primary targets have been identified, the division said.

Spartan 151

The division said Hilcorp has contracted the Spartan 151, an independent leg cantilever jack-up rig, for the drilling and plans to cantilever the Spartan over the Granite Point Platform.

Support vessels and helicopters to support drilling activities will originate from Nikiski, from either the Offshore Systems Kenai Dock or Rig Tender's Dock.

Granite Point

Hilcorp's most recent plan of development for the Granite Point unit, filed April 1 and approved May 10, said the company planned to maintain production for the period of the 2019 POD, which is effective July 1 through June 30, 2020.

Long-range development activities included plans to delineate all underlying oil or gas reservoirs, further evaluate additional rotary development wells and evaluate drilling of multilateral sidetracks out of existing parent bores using coiled tubing drilling technology.

Hilcorp said in the POD that it anticipates drilling two rotary sidetrack wells, GP-53 and GP-55, and said it was possible that operation on the first of the wells could begin in late May.

"If timing of the ice arrival in the Cook Inlet permits, a third rotary sidetrack well, GP-52, will be drilled," the company said.

There are three platforms at the Granite Point unit: Granite Point, Anna and Bruce.

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NATURAL GAS

Saudi Aramco to buy LNG from US company

Saudi Aramco will begin buying liquid natural gas from a U.S. company under a 20-year agreement.

Saudi Arabia's state-owned oil company said May 22 it would buy 5 million tons of liquid natural gas per year from Sempra Energy, based in San Diego.

Aramco will make a 25% equity investment in an LNG export facility under development in Port Arthur, Texas, as part of the deal.

Sempra CEO Jeff Martin that the company is pleased to partner with Saudi Aramco, the largest oil and gas company in the world, to help develop the natural gas liquefication facility in Texas

Aramco CEO Amin Nasser says the agreement is a major step forward in the company's long-term strategy to become a global LNG player.

—ASSOCIATED PRESS

INTERNATIONAL

Mexico pledges to help Pemex until 2021

Mexico President Andres Manuel Lopez Obrador says his government will support the state-owned oil company with all the budget it needs and tax relief until 2021.

Lopez Obrador said May 22 that by then, Petroleos Mexicanos will have recovered its footing, increased production and be able to finance the country's development during the remainder of his term.

Years of neglect during which governments funded themselves on Pemex's profits rather than reinvesting in the company left it heavily indebted and facing declining production.

Lopez Obrador has made returning Pemex to its former stature a priority. He has sent the military after the organized crime rings that tap its pipelines and steal its fuel and promised to build a massive new refinery in spite of experts questioning the financial logic.

—ASSOCIATED PRESS

ENVIRONMENT & SAFETY

Work underway on British tanker from WW2

Work is underway to extract oil from a British tanker sunk by a German U-boat off Long Island during World War II.

A team has been at the site of the tanker, named Coimbra, since April 29 and has pumped more than 62,000 gallons of oil since May 11, the Coast Guard said in a news release. Initial dive operations found the tanker was leaking small amounts of oil.

The Coimbra was carrying more than 2 million gallons of oil when it was torpedoed in January 1942, killing 36 officers and crew members.

It now lies 180 feet beneath the surface of the Atlantic Ocean, about 30 miles off Long Island's south shore. The Coast Guard and the state Department of Environmental Conservation are working with a private company, Resolve Marine, to assess and reduce any pollution threats posed by the leak.

German U-boats sank 148 petroleum tankers and countless other ships near the U.S. Gulf and East coasts.

Some came harrowingly close to heavily populated areas. The one that torpedoed the Coimbra had ventured just hours earlier along the New York City shoreline, bobbing on the surface near Rockaway Beach, Queens, and in view of Coney Island's Parachute Jump and Wonder Wheel amusement rides, according to "New York at War," a book by Steven H. Jaffe.

—ASSOCIATED PRESS

FINANCE & ECONOMY

OPEC continues balanced market commitment

Following a May 19 meeting of the ministerial committee overseeing OPEC's oil production agreement, the committee reaffirmed its commitment to maintaining a balanced oil market, with sustainable market stability. Partners to a December 2016 agreement on production cuts have been adapting to changes in market conditions, the committee said, commenting that the organization reported high levels of conformity with voluntary oil production adjustments. However, there are significant uncertainties regarding future market dynamics, with continuing trade negotiations, monetary policy developments and geopolitical challenges, the organization cautioned.

Between early March and late April the Brent crude price increased from around \$64 per barrel to more than \$74. The May oil market report published by the International Energy Agency attributed this rise to the end of U.S. waivers on Iranian oil exports. Since the end of April the price has dropped a bit, hovering around the \$70 level. The price of Alaska North Slope crude tends to correlate with the Brent price.

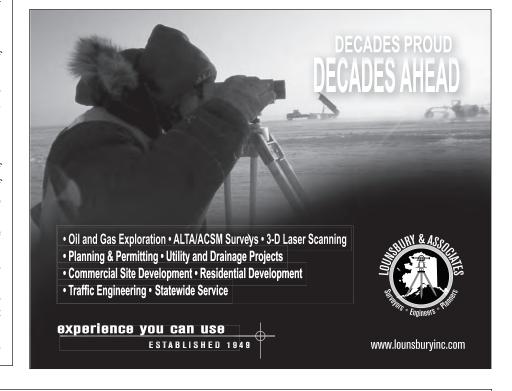
The IEA has slightly lowered its expectation for oil demand growth in 2019, as a consequence of a lower rate of demand growth in Africa and Asia. However, countries in the developing world, in particular China and India, will continue to drive global oil demand growth, potentially adding 1.1 million barrels to daily demand.

On the other hand, the global oil supply fell by 300,000 barrels per day in April, primarily because of production drops in Canada, Kazakhstan, Azerbaijan and Iran. OPEC production rose by 60,000 barrels per day — Saudi Arabia held about 70% of OPEC's spare production capacity, the IEA said.

Growth in oil refining throughput continues to be "lackluster" but is expected to pick up between May and August, the IEA said. Oil stocks in countries of the developed world dropped by more than an average amount in March, the agency said.

In a May 19 report on the oil market situation, Bloomberg commented that much of the current risk in the oil market lies on the supply side, with disruption continuing in Venezuela and Libya. Decisions by Saudi Arabia over what to do with its spare production capacity may determine market trends in the coming months, Bloomberg suggested.

—ALAN BAILEY



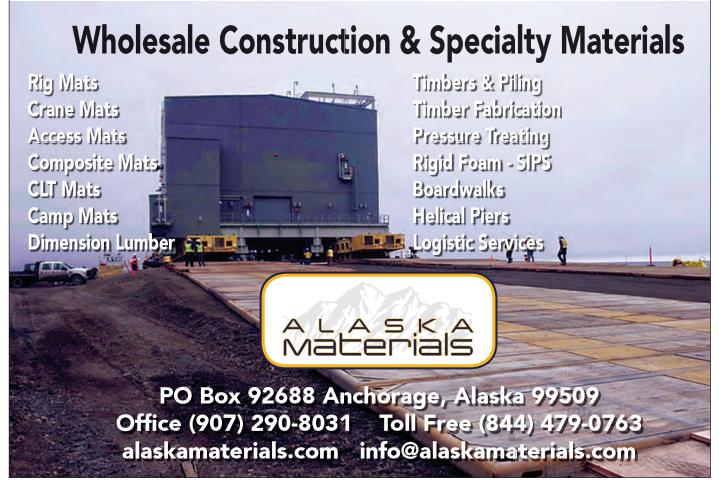


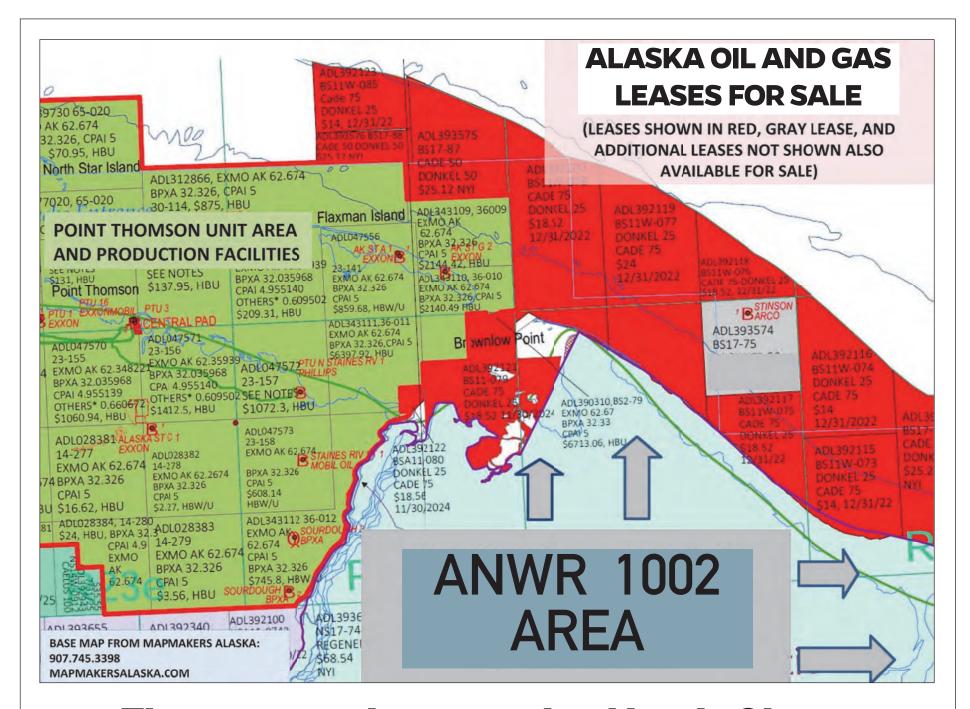


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● EXPLORATION & PRODUCTION

Commingling approved at Granite Point

AOGCC OKs Hilcorp requests for establishment of new Hemlock oil pool, commingling of Hemlock, Middle Kenai at Cook Inlet field

By KRISTEN NELSON

Petroleum News

The Alaska Oil and Gas Conservation Commission has approved commingling of production, revised pool definitions for the Granite Point Middle Kenai Oil Pool and defined a new Granite Point Hemlock Oil Pool at Hilcorp Alaska's Cook Inlet Granite Point unit.

In a May 20 order, the commission said retaining the vertical extent of the Granite Point Middle Kenai Oil Pool, GPMKOP, and defining the new Granite Point Hemlock Oil Pool, GPHOP, "is appropriate and will lead to better development of the field and maximization of the ultimate recovery." In the order the commission revised the pool definition so there is no vertical gap between the oil pools, with the GPMKOP the accumulation that correlates to Mobil's Granite Point No. 1 well between 7,725 feet and 10.885 feet measured depth, and the GPHOP defined as the accumulation between 10,885 feet and 11,280 feet MD in Mobil's Granite Point No. 1 well.

Among the changes Hilcorp requested was elimination of interwell spacing requirements for wells in the affected area and authorization of downhole commingling of production in wells open to both the GPMKOP and the GPHOP.

The commission approved commingling, subject to a production log or geochemical analysis being obtained within 30 days of beginning of commingled production. It also required periodic production logging or geochemical analysis of wells with downhole commingled production (at least every 24 months), with copies of logs and analyses used to determine allocation of production submitted to the commission within 30 days. The order also eliminates well spacing restrictions for the GPMKOP and

Allowing commingled production from the GPMKOP and the GPHOP would allow some of the remaining 164,000 barrels of reserves in the Hemlock to be recovered, Hilcorp told the commission.

GPHOP, "except that no oil well shall be completed within 500 feet of an exterior property line where ownership or landownership is not the same on both sides of the line."

Development history

Hilcorp is the operator and sole working interest owner of the Granite Point unit. The Granite Point field was discovered in 1965 by the Mobil-Union Granite Point No. 1 well and three production platforms were installed in 1965 and 1966 — from north to south, the Bruce, Anna and Granite Point platforms.

Production began from the GPMKOP in 1967 and peaked at more than 49,000 barrels per day in 1968; cumulative oil production is more than 150 million barrels, the commission said, with current production of some 2,600 bpd from approximately 31 active production wells, supported by four injection wells.

Regular production from the Hemlock formation within the field began in 1992 and peaked at some 1,900 bpd that same year. Cumulative production from the Hemlock oil pool at Granite Point is some 2.2 million barrels; current production is some 15 bpd from a single well.

Hilcorp requested

When Hilcorp requested amendments to the conservation order for Granite Point it noted that commingling production between the Hemlock and Middle Kenai pools in the GP 11-13RD well was approved by the commission in 2014, extending the economic life of the well and reducing waste.

That approval extended the economic life of the well and reduced waste, the company said.

Allowing commingled production from the GPMKOP and the GPHOP would allow some of the remaining 164,000 barrels of reserves in the Hemlock to be recovered, Hilcorp told the commission.

The request to eliminate spacing

restrictions would allow horizontal wells to "be drilled in the stacked sands of the Middle Kenai Oil Pool," Hilcorp said in its request. The company also noted a reduction in administrative burdens for both the company and commission staff.

The company had an operations plan approved by the Department of Natural Resources' Division of Oil and Gas on May 20 for as many as four Granite Point sidetracks (see story in this issue).

Contact Kristen Nelson at knelson@petroleumnews.com



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EXPLORATION & PRODUCTION

New study: exploration targets by play

State releases North Slope map, database of 548 wells categorized by play type from 1960s through 2018, including Nanushuk

By KAY CASHMAN

Petroleum News

The Alaska Department of Natural Resources' Division Oil and Gas recently released a tool for North Slope explorers — a map and database of exploration drilling targets categorized by play type.

The study, which was derived from public sources, includes 548 exploration wells onshore the North Slope and in the Beaufort Sea and Chukchi seas. The discovery well and production data for each producing pool are included. (See map on opposite page).

The wells have targeted five main stratigraphic play groups: Ellesmerian clastics and carbonates (Kekiktuk, Lisburne, Ivishak, Shublik, Sag River); Jurassic shoreface sands (Barrow, Simpson, Kugrua, Nechelik, Nuiqsut, Alpine); Cretaceous rift sands (Walakpa, Kuparuk, Put River, Kemik, Thomson); Brookian turbidites (Torok, Seabee, Canning); and Brookian topsets (Nanushuk, Tuluvak, Schrader Bluff, West Sak, Ugnu, Prince Creek, Sagavanirktok). A sixth category called

The study, which was derived from public sources, includes 548 exploration wells onshore the North Slope and in the Beaufort Sea and Chukchi seas. The discovery well and production data for each producing pool are included

Other includes the remaining targets, such as basement, methane hydrates and gas hydrates.

A series of maps and diagrammatic cross sections show the spatial distribution of the exploration wells targeting each play type. Drilling target timelines indicate the progression from exploration to discovery to delineation and then production.

In each play type, significant discoveries spur a flurry of drilling activity.

Exploration activity that targeted the Ellesmerian was the most prominent after the discovery of Prudhoe Bay in 1968 and continued at an elevated rate through 1986. Exploration of the Jurassic shoreface sands saw two pulses in the early and mid-1980s that led to the oil discovery in the Nuiqsut sands at Oooguruk. Jurassic exploration continued from 1992 to 2015, spurred by the giant Alpine field discovery in 1994.

Cretaceous rift sands have been a drilling target since the Kuparuk River field was discovered in 1969.

Brookian topset and turbidites were the earliest targets starting in the 1940s with spikes in exploration activity in every decade since 1964. Exploration wells delineating recent major Nanushuk topset discoveries outnumbered every other play in 2018.

Division of Oil and Gas petroleum geologist Laura Gregersen will be making a presentation about the study at a noon luncheon of the Alaska Geological Society on May 20 in the BP Energy Center.

For more information call 907-854-2363 or visit the AGS website at http://www.alaskageology.org. ●

Contact Kay Cashman at publisher@petroleumnews.com



Oil Patch Bits



Doyon announces Tanya Kaquatosh as Sr. VP of administration

Tanya Kaquatosh has been named the new senior vice president of administration for Doyon Ltd., the regional Native corporation for Interior Alaska.

Kaquatosh is a seasoned professional who has worked for the Doyon family of companies for the last 10 years. Kaquatosh comes to Doyon from Doyon Utilities, where she served as the director of regulatory affairs. She has her Bachelor's degree in Economics from Stanford University, and her Master's in Business Administration from Arizona State University. She is also a graduate of the 2014 Doyon Leadership Training program.

Kaquatosh grew up in Interior Alaska and is the daughter of Barbara Beatus and the late Norman Beatus of Hughes. Her maternal grandparents are Johnson Moses and the late

Bertha Moses of Allakaket, and her paternal grandparents are Henry and the late Sophie Beatus of Hughes. Her siblings are Jody Moses, Joyce Oldman, Jessica Wilson and Cherise Beatus. Kaquatosh resides in Fairbanks with her husband, Steve, and their daughter, Skye.

Her favorite quote comes from her grandmother,

"La'ga'danthlaa" in Denaakk'e it means "Keep moving forward."

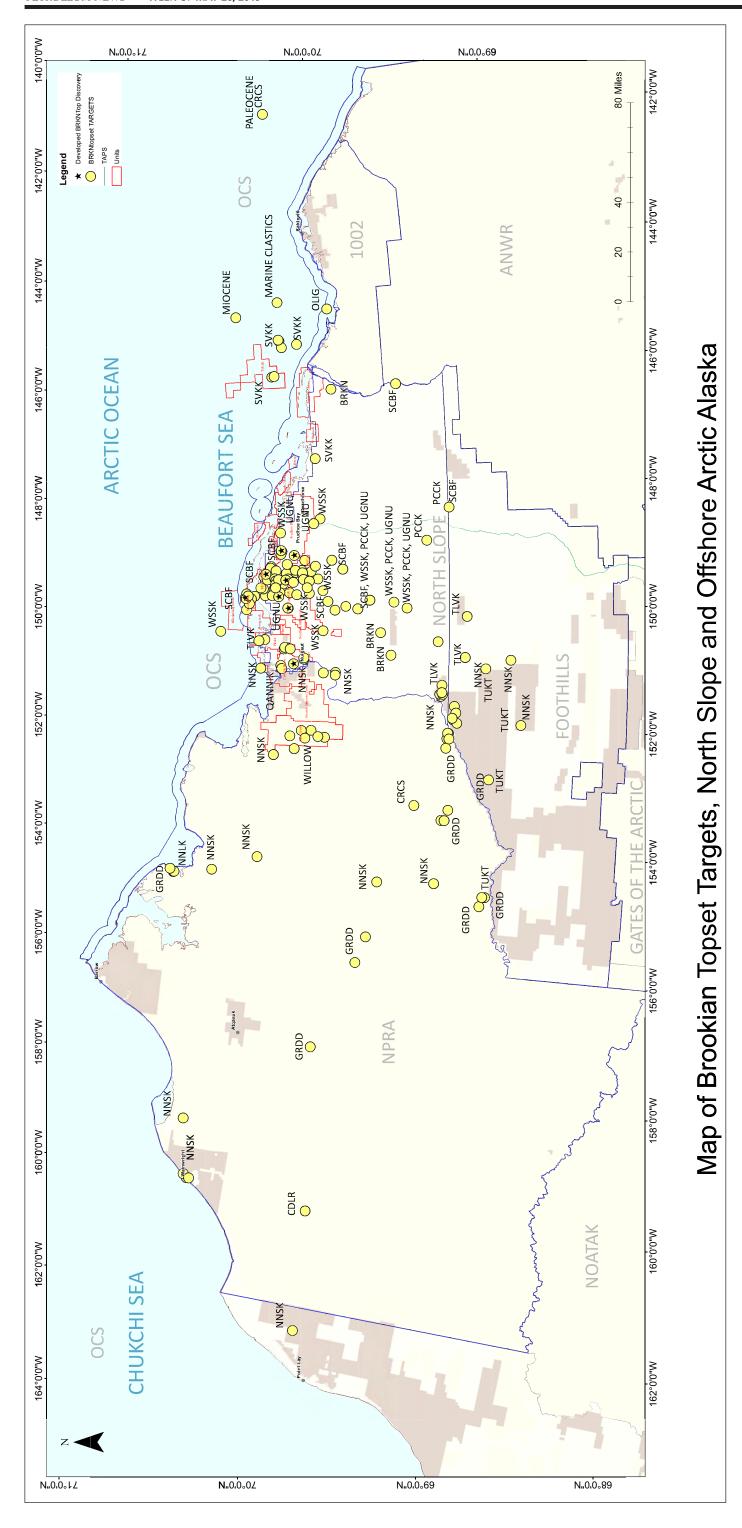
"We are looking forward to have Tanya bring her experience from Doyon Utilities back to Doyon, Limited," said Doyon President and CEO Aaron Schutt, "and we are glad she will continue within the Doyon Family of Companies. Tanya's enthusiasm and expertise will be a great addition to our team."



TANYA KAQUATOSH

Companies involved in Alaska's oil and gas industry

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Brookian Topset Pools

ZzMpuUGNU	Milne Point Unit, Ugnu Ss
ZzKruUgnuUnd	Kuparuk River Unit, Ugnu Ss Undefined
ZzPbuPol a ris	Prudhoe Bay Unit, Polaris
ZzPbuOri o n	Prudhoe Bay Unit, Orion
ZzKruTab a sco	Kuparuk River Unit, Tabasco
ZzNikaScbf	Nikaitchuq Schrader, Bluff Fm
ZzKruWssk	Kuparuk River Unit, West Sak Ss
ZzMpuSCBF	Milne Point Unit, Ugnu Ss
77CDLIOANNIL	Colvilla Pivar Unit Oannik Sc

* Note: **Zz** = **A**OGCC Production Pool

Exploration Target Abbreviations

Hydrate	Gas Hydrate Stability Zone
SVKK	Sagavanirktok Formation
CNNG	Canning Formation
FLAX	Flaxman Sandstone
BDAM	Badami Sandstone
KILLIAN	Killian Sandstone
PCCK	Prince Creek Formation
KGKK	
	Kogosurkruk tongue of Prince Creek abandoned
UGNU	Ugnu Sandstone
SCBF	Schrader Bluff Formation
SLHL	Sentinel Hill Mbr of Schrader Bluff abandoned
BRTL	Barrow Trail Mbr of Schrader Bluff abandoned
WSSK	West Sak Sandstone
TLVK	Tuluvak Formation
SEBE	Seabee Formation
AYYK	Ayiyak Mbr of Seabee Formation abandoned
TARN	Tarn Sandstone
ICEBERG	Iceberg Sandstone
ARETE	Arete Sandstone
CAIRN	Cairn Sandstone
BRMA	Bermuda Sandstone
NNSK	Nanushuk Formation
NNLK	Ninuluk Formation abandoned
CDLR	Chandler Formation abandoned
GRDD	Grandstand Formation abandoned
TUKT	Tuktu Formation abandoned
WILLOW	Willow Sandstone
QNNK	Qannik Sandstone
K2	Brookian K2 Marker
TOROK	Torok Formation
ALBN	Albian Top
NANUQ	Nanuq Sandstone
MORAINE	Moraine Sandstone
OMLK	Nuna Sandstone
NUNA	Oumalik Formation abandoned
TPGK	Topogoruk Formation abandoned
FRTR	Fortress Mountain Formation
HUE	Hue Shale
HUE HRZ	Hue Shale HRZ
HUE HRZ PBLS	Hue Shale HRZ Pebble Shale
HUE HRZ PBLS KLBK	Hue Shale HRZ Pebble Shale Kalubik Formation
HUE HRZ PBLS KLBK PTRR	Hue Shale HRZ Pebble Shale Kalubik Formation Put River Sandstone
HUE HRZ PBLS KLBK PTRR THOM	Hue Shale HRZ Pebble Shale Kalubik Formation Put River Sandstone Thomson Sandstone
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Brookian Turbidite Pools

ZzBadmBadm	Badami Unit, Badami Ss
ZzBadmUndOil	Badami Unit, Undefined
ZzKruTarn	Kuparuk River Unit, Tarn Ss
ZzKruMelt	Kuparuk River Unit, Meltwater
ZzOoogTorokOil	Oooguruk Unit, Torok Fm
ZzKruTor o k	Kuparuk River Unit, Torok Fm
ZzCRUNANUQ	Colville River Unit, Nanuq Ss

* Note: Zz = AOGCC Production Pool







GOVERNMENT

Colorado rule redo won't halt drilling

By DAN ELLIOTT

Associated Press

Colorado officials said May 21 that they had no plans to stop energy companies from drilling for oil and gas while regulators overhaul state rules to make health, safety and the environment their top priority.

Dan Gibbs, chief of the state Department of Natural Resources, said lawmakers did not want a moratorium on drilling permits while regulators rewrite the rules under a new law that shifted the state's focus from production to protection.

"It was never the intent of the Legislature that we pause our work," Gibbs told the Colorado Oil and Gas Conservation Commission, which will implement the new law. The commission is part of Gibbs' department.

Some environmentalists and community activists have demanded the commission stop issuing permits until the new rules are complete. They argue that drilling makes climate change worse, pollutes Colorado's air and water, and puts nearby residents at risk from fires and explosions.

Industry executives and workers argued against a moratorium. Janet Rost, whose company helps secure mineral rights, said she is a single mother and a cancer survivor who depends on the industry for her livelihood.

"Please don't pass a moratorium," she told the com-

missioners.

Sweeping changes mandated

The May 21 meeting was the first time the oil and gas commission met since Democratic Gov. Jared Polis signed the law mandating sweeping changes in regulations.

In addition to the new focus on protecting the public and the environment, the law gives local governments some authority over the location of wells.

The changes are Colorado's latest attempt to balance its booming oil and gas industry with a burgeoning population. The state's crude oil production has quadrupled since 2010, and it now ranks sixth in the nation in both oil and natural gas output, according to the U.S. Energy Information Agency.

But the state's most productive oil and gas field — the Wattenberg field north and east of Denver — borders on some fast-growing communities, raising fears about the dangers of pollution and accidents.

Commission membership changed

The new law changed the makeup of the seven-member commission to dilute industry influence, reducing the number of commissioners with oil and gas experience from three to one while adding experts in wildlife and public health.

Polis announced the new members May 17, a few days before their first meeting.

Only two commissioners are holdovers: Howard Boigon, who is an oil and gas attorney, and Erin Overturf, who works for the environmental group Western Resource Advocates.

Four other members applied for reappointment but were passed over, commission spokesman Chris Arend said

Polis' spokeswoman, Shelby Weiman, did not directly answer a question about why the four were not chosen but said the new commission has the expertise and geographic and political diversity needed to implement the new law. She said Polis appreciates the service of the former commissioners.

Commission staff members have already begun rewriting rules and have held preliminary meetings and released some proposals. But the commissioners themselves are still reorganizing, and work on rewriting substantive drilling rules isn't expected to begin until later this year.

Once all the rules are rewritten, the commission will be replaced by a smaller version that includes five appointed, full-time commissioners and the heads of two state departments, natural resources and public health. The commission now consists of seven appointed, part-time members and the two department heads. •

ENVIRONMENT & SAFETY

Sheen 'barely visible' at Gulf leak site

By MICHAEL KUNZELMAN

Associated Press

A chronic sheen has become "barely visible" since government contractors installed a new underwater system for capturing and collecting crude at a site in the Gulf of Mexico where oil has been leaking for 14 years, a Coast Guard official said May 16.

A Coast Guard statement describes the installation of the subsea containment system as a "major milestone" in long-running efforts by the federal government to contain the leak. More than 30,000 gallons of oil has been recovered since the system began operating, government attorneys said in a court filing May 14.

"After monitoring the system for several weeks we have determined that the system is meeting federal containment standards," Capt. Kristi Luttrell said in the Coast Guard's statement. "At this time the system is working and the once (predominantly) large surface sheen has been reduced to barely visible."

Taylor Energy Co. ultimately is responsible for ending the leak at the site 11 miles off Louisiana's coast where one of its oil platforms toppled during a 2004 hurricane. The New Orleans-based company sued Luttrell in December, attempting to challenge her order in A Coast Guard statement describes the installation of the subsea containment system as a "major milestone" in long-running efforts by the federal government to contain the leak.

More than 30,000 gallons of oil has been recovered since the system began operating, government attorneys said in a court filing May 14.

November to design and install a new system to capture and remove the crude before it forms slicks that often have stretched for miles.

Taylor Energy "looks forward to receiving the information needed to confirm the Coast Guard's statement, which, if accurate, is encouraging," said a statement released May 16 by a company spokesman.

Justice Department attorneys, who represent Luttrell in Taylor Energy's federal suit, said in the May 14 court filing that the containment system's collection tanks have been pumped three times and the recovered oil has been transported to shore.

"Based on the amount of oil captured to date, the Coast Guard is preparing a standard operating procedure for containment operations and maintenance," they wrote.

The government lawyers said they intend to file a request by May 24 for the court to dismiss the case against Luttrell, arguing the company's claims are moot given the "progress of work at the site."

Leak volumes an issue

"It's good that they have found something that's working for now, but it's a temporary fix," said Ian MacDonald, a Florida State University oceanography professor who was an expert witness for environmental groups that sued Taylor Energy in 2012.

The federal government has cited an estimate that approximately 10,500 to 29,400 gallons of oil is leaking daily from the leak site. That estimate, contained in a report that the government commissioned from a different Florida State University researcher, was much higher than previous government estimates and dwarfs the company's own assessment of the leak's volume.

A 2015 investigation by The Associated Press also revealed evidence that the leak was worse than the company or government had publicly reported during their secretive response. Presented with AP's findings that

see **GULF LEAK** page 19



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ENERGY MINISTER

obvious choice for the energy portfolio, backed by several industry leaders who believe she was well suited to a complex, volatile portfolio.

No one will have to wait long to assess her abilities and skills as she is asked to make a choice between the previous government's decision to lease 4,500 rail cars from Canadian Pacific and Canadian National railways, in hopes of increasing crude shipments out of Alberta by 120,000 bpd and easing some of the current pipeline bottlenecks.

Kenney vowed during the election campaign to scuttle the deals with CPR and CNR, even though a number of producers had endorsed the idea.

Savage told the Calgary Herald that the new government is now weighing its options.

"We are looking at a number of legal opinions and looking at the contracts ... everything from rail capacity contracts, to the lease of rail cars, to the loading and terminal contracts," she said

"The details are pretty complicated."

Producers might take over

Energy consultant Greg Stringham, a former vice president of the Canadian Association of Petroleum Producers, said it is possible that producers might even be interested in taking over the government contracts — an option that CNR Chief Executive Officer Jean-Jacques Ruest agreed could be a solution.

Stringham studied the crude-by-rail or CBR issue for the previous Alberta government last year at a time when few producers showed any willingness to sign on to five-year rail shipment contracts, pinning their hopes at the time on final approvals for the Trans Mountain expansion along with Keystone XL and Enbridge's Line 3.

CPR has brushed off any concerns

that the Kenney government could cancel its leasing deal, with company Vice President John Brooks telling analysts that the CBR contract, underpinned by strong fundamentals, could last at least another two or three years.

"Just like we would do with any customer, (the CBR contract) was negotiated in good faith and we feel good about it," he said.

Curtailments under review

As part of the CBR probe, Savage has to take into account how long to continue the curtailment of oil production quotas imposed by the government of Premier Rachel Notley.

That mandated cut, designed to ease pressure on pipelines, began in January at 325,000 bpd, affecting 28 producers. It has since been eased slightly.

It hasn't helped that the Line 3 project to restore 360,000 bpd of shipping capacity has been delayed and could by some estimates raise CBR demand to 500,000 bpd in the 2019-20 winter, compared with just 132,000 bpd in February.

Savage said many of the energy issues facing Alberta are "inter-related and complicated, (but) Alberta's future prosperity depends on getting those decisions right."

Kevin Birn, director of Canadian oil sands at IHS Markit, echoed her view that the complicated, sensitive issues amount to a "high pressure system" that includes a rapid increase in oil storage levels in Western Canada to a record 37.1 million barrels, counterbalancing the stated objective of production curtailments by reducing storage levels.

Producers have made the point that curtailment is a tool the government needs to have at its disposal but should only enact with care to prevent a return to destructive Canadian heavy oil price discounts.

Contact Gary Park through publisher@petroleumnews.com

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FERC PERMITS

the Atwood Building, he said.

Richards said AGDC has reduced its costs and built a "fit-for-purpose team" to address FERC's informational needs. He said AGDC has been reducing staff from fulltime to part-time and from part-time to no time, changes which are reflected in the organization's financials.

Operating budget figures show a fiscal year-to-date budget of \$7.791 million, with actuals at \$7.09 million, an underspend of \$702,000.

Commercial plans

Dubler said AGDC is looking for the right mix of investors and doesn't believe a reliance on one company or country for 75% is the right mix. He said AGDC went to LNG2019 in Shanghai and had nonstop meetings for four days with shippers, utilities, producers and builders. BP and ExxonMobil sent representatives with AGDC to meet with potential investors, he said.

AGDC provided an update on its new management at LNG2019, on the stagegate approach and on its efforts with BP and ExxonMobil.

In June AGDC representatives will be

In June AGDC representatives will be traveling to China with a representative of the governor's office and the commissioners of the Department of Natural Resources and the Department of Revenue to meet with potential China partners to discuss the state's role in the project and how they see it going forward, Dubler said.

traveling to China with a representative of the governor's office and the commissioners of the Department of Natural Resources and the Department of Revenue to meet with potential China partners to discuss the state's role in the project and how they see it going forward, Dubler said.

He said AGDC's top priority for 2019 is staying on track for 2020 FERC authorization.

Richards said FERC's draft environmental impact statement is expected in June. That will kick off a 90-day public comment period with FERC-hosted public meetings. A final EIS is expected in March 2020. ●

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GULF LEAK

year, the Coast Guard provided a new leak estimate that was about 20 times larger than the company's estimate at the time.

Hurricane Ivan in 2004 triggered an underwater mudslide that wrecked Taylor Energy's platform and buried a cluster of oil wells under mounds of sediment, preventing the company from employing traditional techniques to plug them.

Taylor Energy plugged nine wells, leaving 16 unplugged. Federal regulators believe oil and gas is leaking from at least one unplugged well. They have warned that the leak could last a century or longer if left unchecked.

Taylor Energy has argued that per-

forming more work out at the leak site could be dangerous and cause more environmental harm than good. The company has insisted there is no evidence any wells are still leaking. It has claimed residual oil is oozing from sediment on the seafloor.

Healthy Gulf, a New Orleans-based environmental advocacy group, has asked a judge for permission to intervene in Taylor Energy's suit against Luttrell.

"After 14 years, we are glad the Coast Guard is taking action to contain this runaway oil spill," Healthy Gulf spokesman Dustin Renaud said in a statement. "Now we must make sure that they follow through on a permanent solution and ensure a spill like this never goes unchecked again."

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INSIDER

parcels containing a total of approximately 1,645.19 acres.

The first parcel, in Township 5 North, Range 9 West, holds about 926.23 acres. At Township 5 North, Range 10 West, a second parcel has roughly 718.96 acres.

Wolfpack is offering the fee simple mineral interest land at \$3,000 per acre, with a 25 per cent overriding royalty.

"These fee mineral rights have significant known hydrocarbons on or very near them," the company said, adding that the prospect is road accessible, winter and summer, with easy access to oilfield suppliers.

Seismic data is available.

For more details interested parties can contact Jim White at jim5thgn@outlook.com, jim@applecapital.net or (907) 394-9148.

—STEVE SUTHERLIN

New report focus on eastern North Slope

DONKEL OIL AND GAS set a late May release for a comprehensive new report on the geology of the eastern

North Slope, encompassing a number of Alaska state leases held by Dan Donkel and Sam Cade, according to Dan Donkel, the company's president.

Donkel and Cade hold two groups of leases, one north of Exxon's Point Thomson producing unit and another commonly known as the Stinson prospect — north of the ANWR 1002 area and surrounding the Stinson No. 1 discovery well drilled by ARCO

The Stinson No. 1 is on a 2,560-acre lease held by Andrew Bachner and Keith Forsgren.

The report, Geologic Assessment and Resource Evaluation of the Greater Point Thomson Region Eastern North Slope by Dr. Beverly Burns, is a compilation of information from reports and research commissioned by the company as well as publicly available data.

The area, including the Point Thomson field, has had more than 22 exploration wells drilled since 1977, the report said, adding that the Alaska State A1 well drilled by Exxon in 1975 one of the first exploration wells in the region — found 120 feet of Tertiary "Flaxman Island" sandstones.

The region contains at least four distinctive play types, the Eocene sandstone, Paleocene sandstone, Neocomian sandstone, and Cambrian sandstone. Many leases contain vertically stacked plays, the report said, adding, "thin Paleocene sandstone laminae are charged throughout the Paleocene section in the Stinson No. 1 well, which may indicate that the well is located on the edge of a much larger Paleocene accumulation."

Donkel told Petroleum News the Donkel/Cade leases have been put back on the market after a deal signed with a "small company" failed to close as scheduled on April 1.

—STEVE SUTHERLIN

88 Energy provides update on Alaska assets

IN A MAY 23 UPDATE, Perth-based 88 Energy says its North Slope Project Icewine conventional farm-out "continues to progress" with a preferred bidder. Approval is expected in June.

Icewine is operated by 88 Energy Alaska's subsidiary Accumulate Energy Alaska.

88 Energy's Yukon Gold leases, operated by subsidiary Regenerate Alaska on the border of the ANWR 1002 area, is being discussed with nearby lease owners to "optimize monetization" of oil discoveries in the vicinity.

"Good progress" has been made on integrating Winx-1 well results into the existing 3-D seismic for 88 Energy's western block acreage. Subsidiary Captivate Energy Alaska has identified "additional data that will aid in the evaluation," which will likely be completed towards the end of 2019.

In regard to Project Icewine unconventional, the company said "finalization of advanced analysis using state-ofthe-art technology has significantly advanced the ... understanding of the nature of the HRZ play," confirming it is an "excellent source rock with good potential as an economic shale play."

However, the thermal maturity window for HRZ volatile oil is at lower temperature than is typical. As a result, the Franklin Bluffs location is outside the fairway; still, more than half of the revised play fairway is in Project Icewine.

A soft farm-out process is underway.

—KAY CASHMAN

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KLU OUTPUT

with securing approval in December of its new plan of development for the Kitchen Lights unit.

But the company ran into problems in January with hydrate plugs caused by freezing water combining with gas to form solid hydrates at the unit's onshore processing facility and in the 15-mile subsea pipeline from the Julius R offshore production platform, which eventually slowed natural gas delivery to a trickle later that month. Gas output fell to a mere 1,886 mcf in February, putting the company's supply contract with Enstar Natural Gas Co. in jeopardy.

On Jan. 23 Furie sent a letter to Enstar affiliate Alaska Pipeline Co., declaring Force Majeure and saying that it could no longer meet its commitments under its gas supply agreement with Enstar.

At that time Lindsay Hobson, Enstar communications manager, told Petroleum News the utility had not received any gas from Furie since Jan. 25.

Negotiations continue

On Feb. 11, APC sent a formal notice to Furie, declaring that Furie was in default under the supply agreement, triggering negotiations between Enstar and

Then in a March 19 email Furie's top executive for Alaska, Scott Pinsonnault, told Petroleum News, "We have safely restored utility and communication between our onshore natural gas processing plant and the Julius platform." He said



The Spartan 151 is an independent leg cantilever jack-up rig

the company would spend the next few remained in effect. reeks making sure that the line was completely clear, functional and safe before restoring gas production from the field.

Hobson confirmed May 22 that although Enstar was not currently receiving "firm volumes" from Furie, the contract with the Kitchen Lights operator

"The parties," she said, "are still in discussions regarding the future of the con-

2019 planned activity

The division's approval of the sixth plan of development for Kitchen Lights in

In that March 1 application Furie said, "in light of the additional reservoir information obtained, Furie proposes separate PAs for the Sterling and Beluga formations, based on substantially different pay area boundaries in each formation."

December required Furie this year to acquire the logs and data necessary to evaluate the possibility of drilling a fifth development well from the platform, and to present a plan for that well to the division. Depending on the results of data interpretations, the additional well would likely target the stratigraphic equivalents of Sterling formation zones flow tested in

The company also committed to conduct development operations, including the adding of new perforations, in KLU A-2A and KLU 3.

Per the approval document, Furie told the state it would also like to drill additional exploration wells at Kitchen Lights but to do so would require additional financing and the payment of state tax credits that Furie was owed. In that March 1 application Furie said, "in light of the additional reservoir information obtained, Furie proposes separate PAs for the Sterling and Beluga formations, based on substantially different pay area boundaries in each formation."

By February 2019 the company planned to mature two prospects outside the Corsair block of the unit, and to present the results to the division, together with evidence that reasonable efforts were underway to drill these wells in 2019 or 2020. (The unit is divided into four blocks, all offshore in the Cook Inlet, with development drilling for the Kitchen Lights field taking place in the Corsair block.)

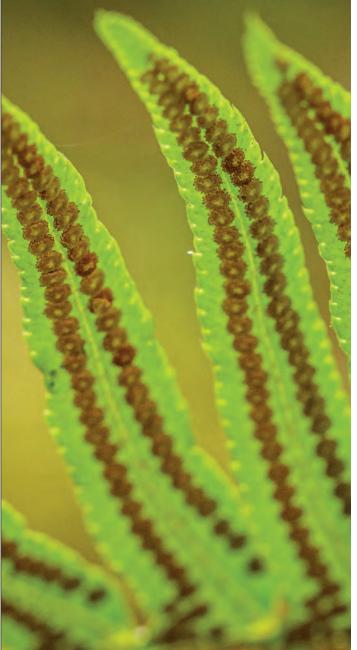
Furie also committed to submit by March 1 a proposal for the establishment of a participating area or areas in the unit.

Per the division, Furie applied for two participating areas — the Corsair Sterling PA and the Corsair Beluga PA.

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BOND REGS

ment of wells.

Unrealistic bonding levels

AOGCC's new bonding regulations, which came into effect on April 18, reflect concerns that the commission has harbored for some time that previous bonding levels fell far short of the realistic cost of plugging and abandoning wells. If an operator fails to plug and abandon a well and has insufficient bonding to cover the plugging and abandonment costs, those costs fall on the landowner, in many cases the state.

In the past the commission has generally required bonding at the statutory minimum level of \$100,000 for a single well and \$200,000 for blanket coverage of all of an operator's wells in the state. Under the new regulations the required bonding is \$400,000 per well for one to 10 wells; a \$6 million bond for 11 to 40 wells; a \$10 million bond for 41 to 100 wells; a \$20 million bond for 101 to 1,000 wells; and a \$30 million bond for more than 1,000 wells. Under some circumstances the commission may increase or decrease the required bonding level.

DNR, on the other hand, requires a \$500,000 statewide bond to cover an operator's liability for the restoration of surface land. The DNR commissioner can, however, require additional financial assurances, if deemed necessary.

DNR suggests rework

DNR suggests that AOGCC rework its bonding requirements, setting a more reasonable baseline level that can be adjusted up or down, depending on the circumstances. The commission should also consider potential overlaps with DNR financial assurance agreements, Longan wrote. Although AOGCC's regulations do allow some flexibility in bonding levels, that flexibility starts at a very high bond level and can only be based on four specific factors — moreover, the regulations do not require AOGCC to collaborate with DNR, to identify any overlapping obligations and to determine whether DNR has already secured sufficient financial assurance, Longan wrote.

Significant hardship

Longan told the commission that Alaska's Division of Oil and Gas has analyzed the potential commercial impacts of the new bonding regulations on the state's

oil and gas leaseholders, particularly small operators, and has determining that compliance with the regulations will lead to significant hardship for existing oil and gas producers.

"The regulation's new bonding levels run the risk of reversing the state's efforts over the last decade to encourage smaller and mid-sized operators to invest in Alaska," Longan wrote. "Many of these investments by such operators have led to the discovery of significant new oil and gas reserves."

And, although the new regulations allow existing producers to ramp up their bonding levels in four annual installments, these installments are large enough to represent a significant increase in bonding obligations, Longan wrote. Longan also commented that the bonding requirements do not take into account the difference in potential plugging and abandonment costs between a well, say in a remote region of the North Slope, and on the Kenai Peninsula road system, for example.

Previous division comments

The development of AOGCC's new

regulations was a lengthy process, involving public hearings and opportunities for public comment on various draft versions of the regulatory proposals. In a letter to the commission in October 2018, during a public comment period for one iteration of the draft regulatory changes, the division told the commission that, in cases where DNR is faced with having to deal with the plugging, abandonment and surface restoration of wells, the surety bonding levels have generally proven "grossly inadequate." The funding shortfall has to be met through appropriations from the Alaska Legislature.

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"In recent years the division has been addressing financial assurance of DR&R (dismantlement, removal and restoration) activities after negative experiences from bankruptcies of oil and gas companies operating in the state," the division wrote.

Based on its experience, the division evaluates a company's financial stability and determines whether some form of financial assurance is required in conjunction with a lease assignment, the division told the commission.

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LEASE SALE

the bid opening that 10,286 acres received bids, for a total of \$190,350.62.

The average high bid per acre was \$18.50.

Fluctuating sales

"We are pleased to see bid activity in the Cook Inlet lease sale. We recognize the focus of bidders has been on the North Slope in recent years. Nevertheless, significant investment is made to sustain current Cook Inlet production, while exploration activities continue to inform and support future development," said DNR Deputy Commissioner Sara Longan, in a press release on sale results.

Cook Inlet is a mature basin. Sales results have varied a lot in the last 10 years, from no bids in 2016 to \$8.2 million bid on almost 450,000 acres in

Most recently, when there have been bids, the acreage has been more in line with the May 22 bids: 20,840 acres in 2016, with \$167,033 in high bids; 24,138 acres in 2017, with \$836,502 in high bids; and 16,135 acres in 2018, with \$289,792 in high bids.

There are currently no leases in the Aleutian Peninsula sale area. The last bids the state received there were in 2014, when \$47,807 was bid on 9,561

—KRISTEN NELSON

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