Petroleum news

page 5 US was world's leading crude oil producer in August; prices down

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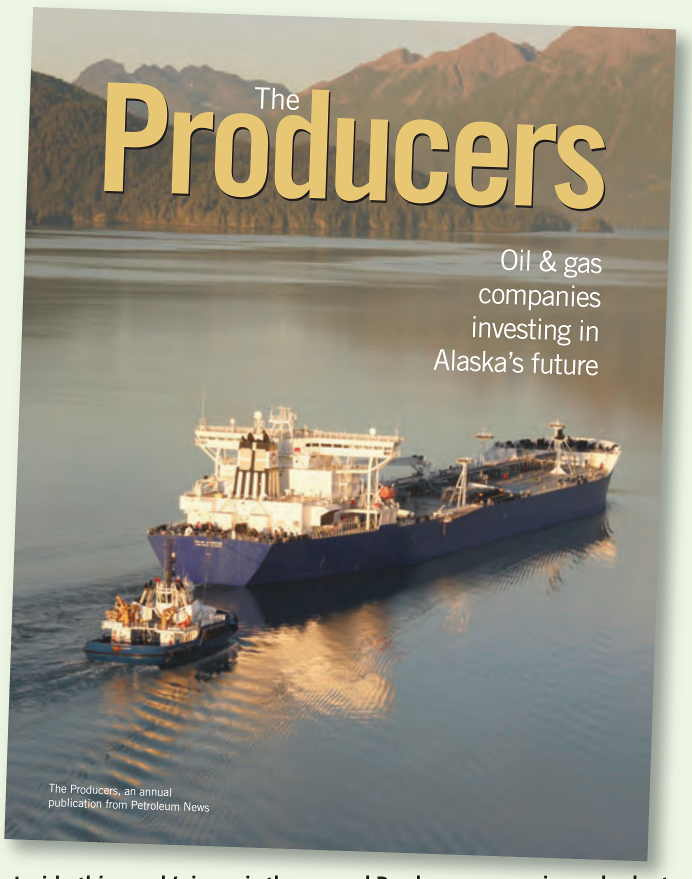
2018 Producers inside



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

Elliott replaces Giesler at Glacier; Recruiting to increase in oil patch

CARL F. GIESLER JR., PRESIDENT AND CEO of Glacier Oil & Gas, has left the Alaska-based company to take the position of CEO and director of Jones Energy Inc. in Austin, Texas.

Phil Elliott, who has been with Glacier and its predecessor companies since April 2015, formerly carried the title chief financial officer and executive vice president and confirmed his promotion to president in an email to Petroleum News on Nov.

see **INSIDER** *page 18*

Nikaitchuq North not completed; Eni planning 2019 restart of well

Eni US Operating Co. has not yet completed its Nikaitchuq North No. 1 exploration well. The continued drilling of the well has been suspended until early 2019.

"The NN01 exploration well was not completed in 2018 and as such no flow test was performed. Drilling was suspended on August 23 due to impending seasonal drilling restrictions. Eni intends to restart drilling in early 2019," an Eni spokesperson has told Petroleum News.

see **NIKAITCHUQ NORTH** *page 15*

Keystone XL rebooted; State Dept.

As one door closes another one opens, then it too closes and we're back to the first door.

Confused?

Who wouldn't be in the mad-cap circus that poses as the Canadian pipeline business?

With the Trans Mountain expansion plans spluttering, despite having the Canadian government as its outright owner, TransCanada's Keystone XL pipeline is suddenly moving closer to its construction phase in 2019, despite legal barriers

see **KEYSTONE REBOOTED** *page 15*

EXPLORATION & PRODUCTION

Pikka FEIS is out

Corps publishes environmental analysis for major Oil Search development

By ALAN BAILEY

Petroleum News

The U.S. Army Corps of Engineers has published the final environmental impact statement for Oil Search's planned major oil development in the Pikka unit, on the North Slope to the east of the Colville River delta. The FEIS presents a series of potential development options, including a "no action" alternative, and an analysis of the anticipated environmental impacts of each alternative. The Corps will issue a record of decision, stating its preferred, approved alternative for the project, following a 30-day public comment period for the FEIS.

Estimated oil resources for the project amount to at least 500 million barrels, with projected production rates of up to 100,000 barrels per day. Although the project has often been referred to as the Pikka development, the Corps calls it the Nanushuk development, while Oil Search refers to its Alaska Nanushuk project. The main oil resource is in the Nanushuk formation, but there is a secondary oil pool in the deeper Alpine C sands. Oil Search is partnering with Repsol, Armstrong Energy and

The FEIS says that Oil Search has proposed a development involving the drilling of up to 146 production and injection wells from three drilling pads.

see **PIKKA FEIS** *page 16*

EXPLORATION & PRODUCTION

Exploration's in view

The Alaska winter will see some new drilling and seismic surveying operations

By ALAN BAILEY

Petroleum News

As temperatures drop in Alaska, and the ground freezes up, companies are preparing for this winter's exploration season.

Top of the anticipated well count comes ConocoPhillips — the company is following up on last winter's bumper count of six wells with a plan for this winter involving six to eight wells. The final count will depend on how quickly the drilling projects progress, and on the weather conditions.

In fact, the company should already be gearing up for its first two wells, planned to be drilled in November from existing gravel drill pads. One of these will test the Cairn prospect in the southwestern corner of the Kuparuk River unit. The other involves the Putu prospect, near the village of Nuiqsut, in what ConocoPhillips terms the Narwhal trend, to the east of the Colville River. This is the same trend as the Pikka/Horseshoe trend, where Oil Search and its partners are planning the development of a major oil field primarily involving a reservoir in the Nanushuk formation. ConocoPhillips will drill the new Putu well directionally from the CD-4 pad in the Colville River unit.

ConocoPhillips discovered oil associated with two distinct seismic anomalies in the Putu prospect during last winter's exploration drilling season. The company now wants to test a third seismic anomaly in the prospect.

see **WINTER EXPLORATION** *page 19*

FINANCE & ECONOMY

For whom takeovers loom

Historic lows in oil sands bitumen prices could open door to new consolidation

By GARY PARK

For Petroleum News

With Alberta oil sands bitumen prices sliding into negative territory for the first time in their 50-year history, there is talk the trend will set off a wave of new energy deals, which may have started with two attempted takeovers totaling C$8 billion.

Canadian heavy crude, dominated by bitumen, has dropped below US$20 a barrel, which analyst Matt Murphy of Tudor Pickering & Holt said is less than the cost of production, lagging US$52 per barrel behind the benchmark West Texas Intermediate price.

He said the price slump has been focused on Western Canada Select, the blend of sticky bitumen and light condensate needed to facilitate movement of the crude through a pipeline.

"The reality is actually quite a bit worse than what the headline WCS differentials would suggest," Murphy told The Canadian Press. "It's not the actual realizations these producers are getting ... they're losing money before they even produce their barrels at current price levels."

Based on a recent sampling, condensate was selling for US$63 a barrel in Edmonton and accounting for 30 percent to 40 percent of the WCS barrel, which

Based on a recent sampling, condensate was selling for US$63 a barrel in Edmonton and accounting for 30 percent to 40 percent of the WCS barrel, which translated into a return of between 11 cents US and 28 cents US per barrel.

see **TAKEOVERS LOOM** *page 18*

● EXPLORATION & PRODUCTION

ANS September production up 11% from August

Largest month-over-month ANS crude increase at Alpine as field comes back after summer maintenance downtime; Cook Inlet down 1%

By KRISTEN NELSON
Petroleum News

Alaska North Slope crude oil production averaged 503,996 barrels per day in September, up 10.9 percent, 44,048 bpd, from an August average of 454,602 bpd but down 1.7 percent from a September 2017 average of 512,910 bpd.

The largest month-over-month increase was at the ConocoPhillips Alaska-operated Colville River field, which had its first full month of production in September after being down four weeks over July and August for scheduled maintenance. The field averaged 67,565 bpd in September, up 62.6 percent, 26,000 bpd, from an August average of 41,565 bpd, and up 5.4 percent from a September 2017 average of 64,111 bpd.

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

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

Other ANS fields with increases

Four other North Slope fields also had month-over-month production increases.

The Hilcorp Alaska-operated Northstar field averaged 10,862 bpd in September, up 15 percent, 1,415 bpd, from an August average of 9,447 bpd and up 21 percent from a September 2017 average of 8,977 bpd. Northstar volumes include natural gas liquids.

The BP Exploration (Alaska)-operated Prudhoe Bay field, the Slope's largest, averaged 261,301 bpd in September, up 11.2 percent, 26,315 bpd, from an August average of 234,986 bpd, but down 5.7 percent from a September 2017 average of 277,128 bpd.

In addition to Prudhoe oil, production from the Prudhoe Bay field includes: Aurora, Borealis, Lisburne, Midnight Sun, Niakuk, Polaris, Point McIntyre, Put River, Raven and Schrader Bluff; Prudhoe volumes include NGLs.

The Caelus Alaska-operated Oooguruk field averaged 10,376 bpd in September, up 7 percent, 677 bpd, from an August average of 9,699 bpd, but down 1.1 percent from a September 2017 average of 10,493 bpd.

Badami, operated by Glacier Oil & Gas subsidiary Savant Alaska, averaged 1,799 bpd in September, up 5.3 percent, 91 bpd, from an August average of 1,708 bpd, and up 116 percent from a September 2017 average of 833 bpd.

Month-over-month decreases

Four North Slope fields had month-over-month production decreases.

The ConocoPhillips-operated Kuparuk River field averaged 107,076 bpd in September, down 2.1 percent, 2,331 bpd, from an August average of 109,407 bpd, but up 1 percent from a September 2017 average of 105,966 bpd.

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

The Hilcorp-operated Endicott field averaged 7,331 bpd in September, down 2.5 percent, 186 bpd, from an August average of 7,517, but up 26.4 percent from a September

see **PRODUCTION UPDATE** *page 5*

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ON THE COVER

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UTILITIES

Alaska - Mackenzie Rig Report

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status

Alaska Rig Status

North Slope - Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Milne Point, MPU L-55	Hilcorp
Dreco 1000 UE	16 (SCR/TD)	Standby	
Dreco D2000 Uebd	19 (SCR/TD)	GTMU, MT6-05	ConocoPhillips
AC Mobile	25	Mustang pad Jan. 2018	Brooks Range
OIME 2000	141 (SCR/TD)	Alpine, CD2-78	ConocoPhillips
	142 (SCR/TD)	Kuparuk 3S-612	ConocoPhillips
TSM 700	Arctic Fox #1	Pikka well	Oil Search
Hilcorp Alaska LLC	Rig No.1	Milne Point	Hilcorp Alaska LLC
Kuukpik Drilling	5	Deadhorse	Available
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2 (CTD)	Stacked in Deadhorse	BP
AC Coil	CDR-3 (CTD)	Kuparuk 3H-13	ConocoPhillips
Dreco 1000 UE	2-ES (SCR-TD)	Stacked	Available
Mid-Continental U36A	3-S	Stacked	Available
Oilwell 700 E	4-ES (SCR)	Stacked	Available
Dreco 1000 UE	7-ES (SCR/TD)	Kuparuk 1C-26	ConocoPhillips
Dreco 1000 UE	9-ES (SCR/TD)	Stacked	ConocoPhillips
Oilwell 2000 Hercules	14-E (SCR)	Deadhorse	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Stacked	Brooks Range Petroleum
Oilwell 2000 Canrig 1050E	27-E (SCR-TD)	Stacked	Glacier Oil & Gas
Oilwell 2000	33-E	Deadhorse	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Stacked	Repsol
OIME 2000	245-E (SCR-ACTD)	Stacked	ENI
Academy AC electric CANRIG	105AC (AC-TD)	Stacked in Deadhorse	Doyon Ltd
Academy AC electric Heli-Rig	106AC (AC-TD)	Stacked	Great Bear Petroleum
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Kuparuk	ConocoPhillips
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Drill Site 15, well 33	BP
Ideco 900	3 (SCR/TD)	Winx #1 well	Captivate Energy
Rig Master 1500AC	4 (AC/TD)	Oliktok Point well #18-08	ENI
Parker Drilling Arctic Operating Inc.			
NOV ADS-10SD	272	Prudhoe Bay DS 18	BP
NOV ADS-10SD	273	Prudhoe Bay DSW-59	BP

North Slope - Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
BP			
Top Drive, supersized	Liberty rig	Inactive	BP
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Spy Island SP-05	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk ODSN-04	Caelus Energy LLC

Cook Inlet Basin – Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
BlueCrest Alaska Operating LLC			
Land Rig	BlueCrest Rig #1	Anchor Point, drilling production section of H14	BlueCrest Alaska Operating LLC
Glacier Oil & Gas	Rig 37	West McArthur River Unit Workover	Glacier Oil & Gas
All American Oilfield LLC			
IDECO H-37	AAO 111	North Slope stacked	Available
Aurora Well Services			
Franks 300 Srs. Explorer III	AWS 1	Stacked out west side of Cook Inlet	Available
Saxon			
TSM-850	147	Stacked	Hilcorp Alaska LLC
TSM-850	169	Seaview	Hilcorp Alaska LLC

Cook Inlet Basin – Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Hilcorp Alaska LLC			
National 110	C (TD)	Platform C, Stacked	Hilcorp Alaska LLC
	Rig 51	Steelhead Platform, Stacked	Hilcorp Alaska LLC
	Rig 51	Monopod A-13, stacked	Hilcorp Alaska LLC
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151, Upper Cook Inlet KLU#4	Furie
Furie Operating Alaska			
Randolf Yost jack-up		Nikiski, OSK dock	Furie
Glacier Oil & Gas			
National 1320	35	Osprey Platform, activated	Glacier Oil & Gas

Mackenzie Rig Status

Canadian Beaufort Sea

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
SDC Drilling Inc.			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Available

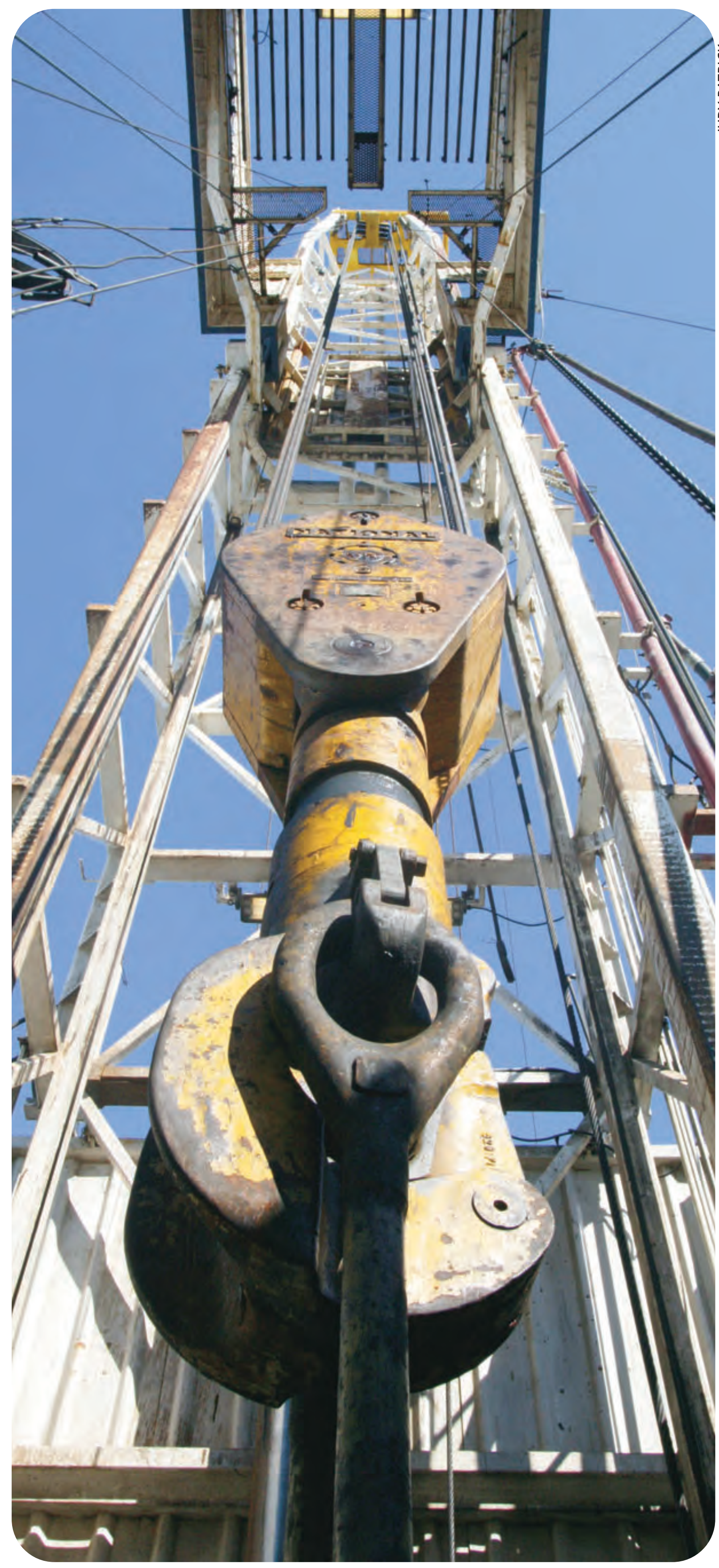
Central Mackenzie Valley

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Akita			
TSM-7000	37	Racked in Norman Wells, NT	Available

The Alaska - Mackenzie Rig Report as of November 7, 2018. Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations
CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve



JUDY PATRICK

Baker Hughes North America rotary rig counts*

	Nov. 2	Oct. 26	Year Ago
United States	1,067	1,068	898
Canada	198	200	192
Gulf of Mexico	18	18	18

Highest/Lowest		
US/Highest	4530	December 1981
US/Lowest	404	May 2016

*Issued by Baker Hughes since 1944

The Alaska - Mackenzie Rig Report is sponsored by:

Oil Search

● UTILITIES

Some questions over ML&P purchase

Utilities answer RCA questions over the terms under which Chugach Electric proposes to buy municipal electricity business

By ALAN BAILEY
Petroleum News

During a Regulatory Commission of Alaska public meeting on Nov. 7 officials from Chugach Electric Association and Municipal Light & Power talked to the commissioners about the status of the proposed purchase of ML&P by Chugach Electric, and answered some commission questions about the takeover deal. The commission has opened a docket to gather information about the purchase, in advance of the formal process that will be required for regulatory approval.

In particular the commissioners asked about the legal or regulatory basis for allowing the Municipality of Anchorage to recover payments in lieu of taxes, or PILT payments, from Chugach Electric as part of the purchase arrangements. The commission also wants to understand the implications of a commitment by Chugach Electric to ensure that base rates for customers do not increase as a result of the purchase: Does this impinge on the commission's statutory duty to ensure just, reasonable and nondiscriminatory rates?

Agreements negotiated

The move to combine the two utilities was approved by Anchorage voters in April. Since then the municipality and Chugach Electric have been negotiating the details of the deal and are now close to finalizing the terms of the purchase. There are actually four components to the complete deal: an agreement for the purchase of ML&P's assets by Chugach Electric; an agreement for the purchase by Chugach Electric of electricity from ML&P's interests in the Eklutna hydropower generation project; an agreement on how to handle the use and accounting of natural gas fuel from the Beluga River gas field; and the agreement that Chugach Electric will make annual PILT payments to the Municipal of Anchorage.

The utilities told the commission that the Chugach Electric board of directors has authorized CEO Lee Thibert to sign off on the four agreements, subject to certain conditions. The entities involved are in the process of finalizing the agreements. The Anchorage Assembly is scheduled to conduct a public hearing and make a decision on the deal during its Dec. 4 meeting, with the Dec. 18 assembly meeting being available as a backup, should a decision not be made on Dec. 4.

Assuming that the deal is agreed, that would lead to a filing with the RCA in the first quarter of 2019, asking for approval of certificate of public necessity and convenience modifications and for advanced approval of the recovery by Chugach Electric of costs associated with the acquisition. A decision by the RCA is anticipated in the second half of the year, leading to the deal closing within 120 days, if the commission approves the purchase transaction.

PILT payments

Much discussion during the Nov. 7 meeting revolved around the proposed PILT payments. Currently, ML&P makes PILT payments to the Municipality of Anchorage as a means of ensuring that the municipality receives revenues as a consequence of its ownership of ML&P. The idea is that Chugach Electric would continue making these payments to the

see **ML&P PURCHASE** *page 9*

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FINANCE & ECONOMY

US crude oil volumes up; oil price down

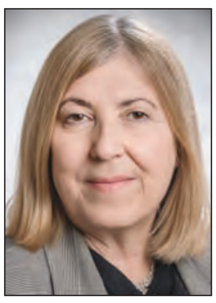
August US volumes exceed Russia, making US world's leading crude oil producer; records set in Texas, North Dakota, federal Gulf

By KRISTEN NELSON

Petroleum News

Domestic crude oil production topped 11 million barrels per day in August, the U.S. Energy Information Administration said in its November Short-Term Energy Forecast, released Nov. 6.

"U.S. crude oil production reached a record milestone in August 2018, when it exceeded 11 million barrels per day for the first time," EIA Administrator Dr. Linda Capuano said in a statement accompanying the forecast release. "U.S. production has exceeded EIA's previous expectations and, as a result, the short-term outlook now forecasts U.S. crude oil production to exceed 12 million barrels per day in 2019," Capuano said.



DR. LINDA CAPUANO

EIA said the August volume was 11.3 million bpd, surpassing 11 million bpd for the first time. The agency also said August production was 290,000 bpd higher than estimated in the October STEO, raising the agency's baseline for 2019. EIA said it now expects U.S. crude oil production to average 12.1 million bpd in 2019, compared with an October forecast of 11.8 million bpd.

The agency estimates that U.S. crude oil production averaged 11.4 million bpd in October, down slightly from September because of hurricane-related outages in the Gulf of Mexico. U.S. crude oil production is projected to average 11.9 million bpd in 2018, up from 9.4 million bpd in 2017.

Global volumes

EIA said crude oil production in Saudi Arabia and Russia reached some of the highest levels in history in October, helping to offset months of supply losses from Iran and Venezuela. The oil production declines in Venezuela have slowed, EIA said, and estimates of its crude oil exports have increased. Libyan production resumed at a rate faster than expected because of improved security; the country has now produced more than 1 million bpd for two consecutive months.

EIA said Nov. 1 that the U.S. August production volume of 11.3 million bpd exceeded the Russian Ministry of Energy's estimated August production of 11.2 million bpd, making the U.S. the world's leading crude oil producer.

U.S. crude oil production first crossed the 10 million bpd mark in October 1970 and crossed the 10 million bpd mark again in November 2017.

EIA said monthly production reached a record high in several states in August: Texas at 4.6 million bpd and North Dakota at 1.3 million bpd. Record highs were also recorded in August in New Mexico, Oklahoma, Colorado and New Mexico. Federal Gulf of Mexico production also hit a record high in August at 1.9 million bpd.

The Permian accounts for some 63 per-

see EIA FORECAST page 6

continued from page 2

PRODUCTION UPDATE

2017 average of 5,801 bpd. Endicott volumes include NGLs.

The ExxonMobil Production-operated Point Thomson field averaged 93 bpd in September, down 3.1 percent, 3 bpd, from an August average of 96 bpd, but down 94.4 percent from a September 2017 average of 1,670 bpd. Point Thomson has effectively been down for maintenance since early June, when the field operated for only nine days. In July, August and September AOGCC data show the field operating only one day each month.

The Hilcorp-operated Milne Point field averaged 21,295 bpd in September, down 4 percent, 877 bpd, from an August average of 22,172 bpd, but up 17.9 percent from a September 2017 average of 18,063 bpd.

The Eni-operated Nikaitchuq field averaged 16,253 bpd in September, down 9.4 percent, 1,680 bpd, from an August average of 17,933 bpd, and down 18.2 percent from a September 2017 average of 19,867 bpd.

Cook Inlet

Cook Inlet production averaged 14,777 bpd in September, down 1 percent, 152 bpd, from an August average of 14,929 bpd and down 7.1 percent from a September 2017 average of 15,899 bpd.

Hilcorp's Beaver Creek field, Cook Inlet's smallest, averaged 75 bpd in September, up 8.1 percent, 6 bpd, from an August average of 69 bpd, but down 96.5 percent from a September 2017 average of 143 bpd.

Hilcorp's Granite Point field averaged 2,763 bpd in September, up 1.2 percent, 33 bpd, from an August average of 2,730, and up 18.1 percent from a September 2017 average of 2,339 bpd.

BlueCrest Alaska Operating's Hansen field, the Cosmopolitan project, Cook Inlet's newest producing field, averaged 1,197 bpd in September, up 74.5 percent, 511 bpd, from an August average of 686 bpd, and up 74.5 percent from a September 2017 average of 316 bpd. The company is drilling and bringing on additional wells.

Hilcorp's McArthur River field, Cook Inlet's largest, averaged 4,671 bpd in September, down 6.3 percent, 313 bpd, from an August average of 4,984 bpd and down 18 percent from a September 2017 average of 5,699.

Middle Ground Shoal, also operated by Hilcorp, averaged 1,494 bpd in September, down 3.9 percent, 61 bpd, from an August average of 1,555 bpd, but up 125.2 percent from a September 2017 average of 652 bpd.

Redoubt Shoal, operated by Glacier subsidiary Cook Inlet Energy, averaged 1,201 bpd in September, down 5.5 percent, 70 bpd, from an August average of 1,271 bpd and down 29.5 percent from a September 2017 average of 1,702 bpd.

Hilcorp's Swanson River field averaged 1,221 bpd in September, down 8.6 percent, 114 bpd, from an August average of 1,335 bpd and down 34 percent from a September 2017 average of 1,848 bpd.

Trading Bay, also operated by Hilcorp, averaged 1,388 bpd in September, down 2.1 percent, 29 bpd, from an August average of 1,417 and down 30.3 percent from a September 2017 average of 1,990 bpd.

West McArthur River, operated by Glacier's Cook Inlet Energy, averaged 769 bpd in September, down 12.8 percent, 113 bpd, from an August average of 882 bpd and down 36.5 percent from a September 2017 average of 1,210 bpd.

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

Contact Kristen Nelson at knelson@petroleumnews.com

LAND & LEASING

Division issues Cook Inlet final finding

The Alaska Division of Oil and Gas has issued a final finding of the director for Cook Inlet areawide oil and gas lease sales. Findings for areawide sales are good for 10 years; this finding covers 2019-28.

The decision, signed Nov. 2 by Director Chantal Walsh with concurrence from the Department of Natural Resources commissioner, finds benefits of the Cook Inlet annual areawide lease sales outweigh possible adverse impacts, and thus best serve the interests of the state. Parties who have meaningfully participated in the process by filing written comments can file for reconsideration within 20 calendar days.

The issuance of the final finding allows the division to hold annual lease sales in the area for 10 years with issuance of an annual supplement each year as necessary.

The final BIF is available on the division's website.

—PETROLEUM NEWS

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EIA FORECAST

cent of Texas crude oil production and 95 percent of New Mexico production.

Crude oil prices

"October 2018 experienced the largest one-month percentage decrease in crude oil prices since July of 2016. EIA attributes the drop to indications of slower global economic growth and higher than expected supplies, as rising crude oil production in the United States, Saudi Arabia, and Russia more than offset decreasing production elsewhere," Capuano said.

EIA said Brent crude oil spot prices averaged $81 per barrel in October, up $2 from September. The agency said that despite the increase in monthly average prices, Brent declined from $85 per barrel Oct. 1 to $75 per barrel Oct. 31.

Brent is forecast to average $72 per barrel in 2019, $3 lower than previously forecast, the agency said, with West Texas Intermediate expected to average $65 per barrel in 2019, $5 lower than previously forecast.

"The lower crude oil price forecasts are partly the result of higher expected crude oil production in the United States in the second half of 2018 and in 2019, which is expected to contribute to growth in global oil inventory and put downward pressure on crude oil prices," EIA said.

Natural gas

"The November outlook revises the forecast up for U.S. dry natural production in 2019, while the forecast for 2018 increased modestly," Capuano said. "In both cases, U.S. dry natural gas production is poised to set new records in 2018 and 2019 — exceeding an average of 80 billion cubic feet per day this year and approaching 90 billion next year."

Domestic dry natural gas production is estimated to have averaged 86.9 bcf per day in October, EIA said, up 0.7 bcf from September. Production is forecast to average 83.2 bcf this year, up 8.5 bcf from 2017. "Both the level and growth of natural gas production in 2018 would establish new records," the agency said, with 2019 production projected to average 89.6 bcf per day.

The agency said it expects strong production growth to put downward pressure on natural gas prices next year, with Henry Hub spot prices expected to average $2.98 per million thermal units next year, down 4 cents from a 2018 average and down from a forecast average price of $3.25 in the fourth quarter of this year. ●

● PIPELINES & DOWNSTREAM

RCA accepts Tesoro tariff settlement

By KRISTEN NELSON
Petroleum News

The Regulatory Commission of Alaska has accepted a settlement agreement, as amended, between Tesoro Alaska Pipeline Co. LLC and Tesoro Alaska Co. LLC., over the objections of the Regulatory Affairs and Public Advocacy Section in the Attorney General's office.

RCA said in a Nov. 1 order that Tesoro Alaska Pipeline filed a proposed tariff increase on May 31, 2017, based on a 2016 test year, for an increase from 61 cents per barrel, a rate which had been in place for 30 years, to 75.31 cents per barrel.

The tariff applies to a products pipeline between Tesoro's refinery at Nikiski and Tesoro's Anchorage terminal.

RCA opened a docket and established as a temporary rate the 75.31 cents per barrel filed rate, inviting the RAPA to participate; Tesoro Alaska Co. requested intervention, which was granted.

Both Tesoro entities were represented by the same counsel.

At a prehearing conference counsel for the Tesoro entities told the commission they wanted to find an acceptable way to end the proceeding without going through the long and expensive process of fully litigating a rate case.

Tesoro Alaska is the only shipper — and the only possible shipper — on the line, counsel told the commission, and because it is a products line there are no royalty or state income tax implications. The pipeline is regulated because of the right-of-way lease associated with the pipeline.

The settlement

On Nov. 22, 2017, the Tesoro entities filed a settlement agreement, requesting that the docket be closed; RAPA objected.

The settlement agreement was amended in April based on federal tax changes, reducing the proposed tariff from 75.31 cents per barrel to 74.43 cents per barrel.

The Tesoro entities asked that the commission accept the settlement agreement and close the docket, telling the commission that all economically impacted parties had signed the settlement agreement and the public interest did not require continuation of the proceeding.

RAPA, however, urged the commission to reject the settlement agreement based on public interest, and said Tesoro needed to prove its tariff was reasonable and that the proceeding needed to continue.

The commission said that the essence of RAPA's position what that the public interest requires the commission to determine whether the rates agreed on in the settlement are just and reasonable before accepting the settlement agreement.

Commission's decision

The commission rejected RAPA's argument, saying that "RAPA, in this instance, has not demonstrated that it has an interest, economic or otherwise, in this proceeding such that we should reject the settlement agreement."

The commission said RAPA had not provided an analysis of Tesoro's revenue requirements study "sufficient to demonstrate that we should reject the proposed rates as unjust and unreasonable nor has it provided us with a basis for setting just and reasonable rates."

Many common carriers in the state operate under settlement agreements the commission has accepted "without adjudication of just and reasonable rates. RAPA has not provided any information indicating that those pipelines are operating in violation of their respective ROW leases," the commission said.

RAPA had asserted that components of Tesoro's revenue requirements appeared to be inconsistent with RCA regulations. The commission found that assertion "unsupported and without merit," and also said "RAPA has not provided any precedent or valid argument explaining why, in this instance, we should overturn our existing precedent and fully adjudicate the rates proposed in a settlement agreement."

see TARIFF SETTLEMENT page 10

EXPLORATION & PRODUCTION

National drilling rig down 1 to 1,067

The number of rigs drilling for oil and natural gas in the U.S. was down by one the week ending Nov. 2 to 1,067.

At this time last year there were 898 active rigs.

Houston oilfield services company Baker Hughes reported that 874 rigs targeted oil (down by one from the previous week) and 193 targeted natural gas (unchanged). Seventy-three of the rigs were drilling directional holes, 929 were drilling horizontal holes and 65 were drilling vertical holes.

Among major oil and gas producing states, Oklahoma was up by three rigs; Louisiana and New Mexico were each up by one rig.

The rig counts in Alaska, California, Colorado, North Dakota and Wyoming were unchanged.

Pennsylvania was down one rig and Texas was down four.

Baker Hughes shows Alaska with five active rigs, unchanged from 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

RCA investigating ML&P Beluga gas use

Commission raises questions over use of gas for economy power sales and over costs associated with the Cook Inlet gas field

By ALAN BAILEY
Petroleum News

The Regulatory Commission of Alaska has launched an investigation into the way in which Anchorage electric utility Municipal Light & Power uses natural gas fuel from the Beluga gas field. The utility's 56.67 percent ownership interest in the field provides the utility with a relatively low-cost gas supply. But the RCA worries whether the utility is using this low-cost gas in a manner appropriate to the regulatory approval of its gas field acquisition.

ML&P originally acquired interests in the Beluga field in 1996. The Alaska Public Utilities Commission, the equivalent agency at that time to the RCA, approved the purchase on condition that ML&P's ratepayers would be the ultimate beneficiaries of the field ownership. ML&P more recently increased its ownership interests in the field, when ConocoPhillips sold its field interests to ML&P and Chugach Electric Association.

ML&P's ratepayers gain benefits because the use of relatively cheap gas reduces the cost of electricity. In addition, ML&P can sell some of its gas to other utilities, placing the profits from these sales into a fund for future use in maintaining the Beluga field and in reducing the cost of electricity for future ML&P ratepayers. ML&P also accumulates savings in a fund that will eventually be used for the decommissioning of the gas field.

ML&P has an approved method for determining the effective price of its Beluga gas.

Economy energy sales

The RCA is particularly raising questions over the use of Beluga gas as fuel in what are referred to as economy energy sales, the sale of relatively cheap power to other utilities. All Railbelt electric utilities participate in these economy energy sales, in the interests of reducing the cost of electricity for consumers. But the use of some Beluga gas in the generation of power for delivery to other utilities appears to benefit those utilities, and not the ML&P ratepayers, as required by the APUC's original stipulation, the RCA suggests. Moreover, the use of gas in this way reduces the amount of gas that can be sold to generate revenues for placement in the fund that will benefit future ML&P ratepayers.

The RCA questions whether it would be more appropriate, when accounting for Beluga gas used for power generation for other utilities, to price the gas using the opportunity cost to ML&P ratepayers of not having the gas for their own use, rather than using ML&P's internal Beluga gas price. ML&P's internal price is substantially below the current market price for gas from the Cook Inlet basin.

In addition, the occasional use of one of ML&P's less efficient power generation units in support of economy energy sales further distorts the economics of those sales, the RCA suggests.

see **BELUGA GAS** *page 10*

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continued from page 4

ML&P PURCHASE

municipality for a period of 50 years. Until 2033 the payments would be recovered from the rates charged to customers in the current ML&P service area, in the same manner as the payments are dealt with currently. After 2033 the payments would be recovered through the rates of all Chugach Electric customers. The total 50-year PILT commitment by Chugach Electric amounts to a net present value of around $166.8 million.

The manner in which the payments would initially be recovered from the ML&P service area reflects a commitment by the two utilities not to have the merger cause an immediate change to electricity base rates. Presumably, the rate structures for the two utility areas would tend to converge over time, eventually merging as the PILT recovery mechanism is also merged.

Linkage to Beluga gas

Utility attorneys explained to the commissioners that the PILT mechanism is also linked to the proposed mechanism for handling the accounting of natural gas obtained from the Beluga River field. Both ML&P and Chugach Electric own significant working interests in the field and obtain a substantial amount of their fuel gas from the field. But ML&P owns a higher proportion of the field than Chugach Electric, and each utility has its own protocol for pricing the gas. The consequence is that the cost benefit from the use of Beluga gas is higher for ML&P customers than for Chugach Electric customers.

The idea is that, following the merger, the accounting of the gas would remain separate for the two utility service areas, continuing the current procedures and enabling customers within the ML&P service area to continue to enjoy the benefits of relatively cheap gas. Again, the idea is to engineer the takeover without any immediate impact on electricity rates. Attorneys commented that the benefit of cheap gas in the ML&P area would be offset by the need to continue to fund PILT payments.

And, again, this dual arrangement for gas accounting would merge in 2033, in synchronization with the merging of the PILT arrangements.

Legal issues?

A potential legal issue arises over the PILT payments because by law, as a member-owned cooperative, Chugach Electric is not required to pay property taxes. Attorneys commented that, although a utility of this type cannot be compelled to pay taxes, there are legal precedents for agreements where PILT-type payments are made.

Commissioner Antony Scott questioned whether the PILT payments would be viewed as a type of "acquisition adjustment" for the ML&P purchase — in general, except in special circumstances, acquisition adjustments cannot be recovered through rates, he said.

Attorneys reiterated that ML&P already makes PILT payments, and that these payments would simply be transferred to Chugach Electric. Moreover, the transfer of the PILT payments is ultimately to the benefit of Anchorage electricity consumers, they said. Without the continuing revenue from PILT, the Municipality of Anchorage would not be willing to sell ML&P. And, without the sale of ML&P to Chugach Electric, consumers would not see the cost benefits achievable as a consequence of the merger of the two utilities.

Questions over rate rises

The commissioners' concerns regarding their ability to ensure acceptable electricity rates result from a commitment by the utilities not to raise base rates as a consequence of the ML&P purchase. The worry is that this may limit in some way a rate ruling that the commission can make.

Attorneys for the utilities commented that this component of the deal would be to the benefit of consumers and would not impact the commissioner's ability to regulate the rates. Some discussion revolved around the question of how practical it might be to distinguish components of a base rate change not related to the ML&P purchase.

Concern was also expressed that it needs to be clear to customers that the rates in question are base rates, and do not include the recovery of fuel costs. Moreover, given the impacts of inflation, it is likely that electricity rates will increase over time, regardless of the ML&P purchase. However, given the economies of scale and efficiencies that can result from the utility merger, rates would rise less rapidly than they would, if the utilities remain separate, the utilities said.

"We would not be here today if we didn't think there were substantial savings from consolidating these two utilities," Thibert told the commission. ●

● FINANCE & ECONOMY

Exxon 3Q profit surges on higher prices

By DAVID KOENIG

Associated Press Business Writer

Higher oil prices propelled Exxon's third-quarter profit up 57 percent to $6.24 billion despite another drop in production.

It was Exxon's best third quarter since 2014, when the effects of a collapse in oil prices had not yet been felt, and a sign that Big Oil is coming back. Rival Chevron Corp. reported a doubling of quarterly profit, to $4 billion.

Citi analysts said Exxon showed improved results Nov. 2 in both its production and refining segments, which "helps support the case that the business is turning."

Oil companies are being boosted by rising crude prices. Brent, the benchmark for international oil, is up about 16 percent from a year ago, even with a dip in the last month, and the U.S. standard, West Texas intermediate, is up about 13 percent.

Shares of Exxon Mobil Corp. rose $1.28 to close at $81.95.

Production down

While profit soared, Exxon's production continued to slide. Overall output declined 2.4 percent compared with last year's third quarter largely because of falling production of natural gas in the United States and Europe. That continued a theme of the past couple years, in which the oil giant has struggled to maintain its production pace.

Still, it was an improvement over weak second-quarter production. And it was better than analysts expected, breaking a string of six straight misses on quarterly production, according to CFRA Research.

Exxon, like other oil giants, cut investment in big projects after prices began to collapse in mid-2014. It also suffered setbacks on some projects. Earlier this year, Exxon dropped a major oil-exploration deal in Russia after U.S. sanctions against Russia prevented the company from expanding the project.

As oil prices have rebounded, Exxon has increased capital spending. The company is upbeat about its prospects off the coast of Guyana, where it has drilled several exploratory wells, and Brazil, where it has increased its stake in an offshore basin to about 2.3 million acres. ExxonMobil will be the operator and own a

see EXXON PROFITS page 13

continued from page 9

BELUGA GAS

Other questions

Other questions that the RCA raises include issues around whether an artificially low internal ML&P price for its Beluga gas distorts the dynamics of supply and demand in the Southcentral electricity market. The commission questions whether falling gas production from the Beluga field will result in a shortfall in the savings for field decommissioning. And the commission also questions whether ML&P is earning a high enough interest rate on those savings. ●

Contact Alan Bailey at abailey@petroleumnews.com

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TARIFF SETTLEMENT

RCA said RAPA has not pointed to any previous instance where the commission has done that. "In fact," the commission said, "most of the pipeline settlement agreements currently in place contain no evaluation as to whether the rates are just and reasonable or whether the revenue requirement was calculated in compliance with all of our regulations."

The commission also said that "RAPA has failed to demonstrate who would benefit from our rejection of the settlement agreement," and said it agreed with Tesoro that there would be no beneficiaries to a settlement rejection. ●

Contact Kristen Nelson at knelson@petroleumnews.com

UTILITIES

RCA orders filing of board resolutions

The Regulatory Commission of Alaska has ordered Railbelt electricity utilities that have not already done so to file by Nov. 9 copies of board resolutions authorizing the formation of a Railbelt Reliability Council and of a regional transmission company for the Alaska Railbelt electricity grid. The order follows a request during the commission's Oct. 24 public meeting that the utilities file these resolutions with the commission. So far Chugach Electric Association, Golden Valley Electric Association and Homer Electric Association have filed resolutions, but Matanuska Electric Association, Municipal Light & Power and the City of Seward have not yet done so, the commission said.

The commission has also ordered the six Railbelt utilities to file reports by Nov. 21 with data regarding economy energy and spin transactions for the summers of 2017 and 2018. This type of reporting had also been discussed during the Oct. 24 meeting. Economy energy transactions relate to the interchange of relatively low-cost power between the utilities, while spin transactions relate to the provision between the utilities of spinning reserves, reserve power used to maintain the continuity of electricity supplies.

The commission has been encouraging voluntary efforts by the utilities towards a more unified approach to the operation of the Railbelt electrical system and is gearing up for the preparation of a report on the topic to be submitted to the state Legislature around the turn of the year.

—ALAN BAILEY

GOVERNMENT

Interior disburses Alaska energy revenues

The U.S. Department of the Interior has disbursed $35 million in federal energy revenues to Alaska for fiscal year 2018, the department has announced. That represents a $23-million increase over last year. Interior collects oil and gas revenues from federal land such as the National Petroleum Reserve-Alaska in the form of bonus bids and rents for land leasing, and from royalties on oil and gas production. In the case of NPR-A, for example, 50 percent of the revenues are disbursed to the State of Alaska — this money has to be used for designated purposes, rather than going into the state's general fund. Under federal and state laws the funds are used for a variety of purposes, in particular to help finance projects conducted by North Slope communities impacted by NPR-A oil and gas activities.

In total, for the entire United States, Interior disbursed $8.93 billion in energy revenues for fiscal year 2018, an increase of nearly $1.82 billion from the previous year. Interior attributes the increase to the rising price of oil and rising oil production. The agency also credits expedited permitting, streamlined regulations, and stepped up oil and gas demand for the increase.

"President Trump's energy dominance strategy is paying off and local communities across America are the beneficiaries," said Interior Secretary Ryan Zinke. "Trump administration policies like reforming and reducing regulatory burdens and broadening access to the nation's oil, gas and coal resources have made America the largest oil and gas producer in the world."

—ALAN BAILEY

● PIPELINES & DOWNSTREAM

Tribe challenges Corps pipeline findings

By BLAKE NICHOLSON

Associated Press

The Standing Rock Sioux tribe is challenging new government conclusions that the $3.8 billion Dakota Access oil pipeline poses no significant environmental threats to American Indian tribes in the Dakotas.

The Army Corps of Engineers in August finished more than a year of additional study ordered by a federal judge. The agency said the work substantiated its earlier determination that the chances of an oil spill are low, any impacts to tribal hunting and fishing will be limited and that the project does not pose a higher risk of adverse impacts to minority and low-income people.

The Standing Rock Sioux tribe, which is leading a four-tribe lawsuit against the four-state pipeline built by Texas-based Energy Transfer Partners, in court documents filed Nov. 1 asked a federal judge to reject the findings.

"The corps has conducted a sham process to arrive at a sham conclusion, for the second time," tribal Chairman Mike Faith said in a statement.

The pipeline has the capacity to move half of the oil produced daily in North Dakota, the nation's second-leading producer behind Texas. It passes just north of the Standing Rock Reservation, beneath a Missouri River reservoir that is the tribe's water source.

The pipeline has been moving North Dakota oil through South Dakota and Iowa to a shipping point in Illinois since June 2017. That same month, U.S. District Judge James Boasberg ruled that the Corps largely complied with environmental law when permitting the pipeline but needed to do more study of its impact to tribal rights. The Corps filed its work with the court in late August.

Standing Rock's challenge says the Corps "failed to grapple with extensive technical input provided by the tribe and others undermining its conclusions." The major example the tribe offered is information it says shows the Corps has underestimated the risk and impact of an oil spill.

The tribe continues to maintain that the only lawful way to resolve the matter would be through a full environmental study that includes consideration of route alternatives.

The Corps had planned to do a more extensive environmental study before President Donald Trump took office in January 2017 and pushed through completion of the stalled project. The agency said in court documents in August that the additional study concluded a more thorough review is unwarranted. The tribe asks Boasberg to reject that conclusion. ●

● INTERNATIONAL

Turkey O&G search could stoke tensions

ASSOCIATED PRESS

Turkey embarked on a search for oil and gas in the east Mediterranean Oct. 31 in a move that could stoke regional tensions, with the country warning it would thwart "unilateral, illegitimate and unfair" actions against its interests.

The drillship "Conquerer" — named after Ottoman Sultan Mehmet, who conquered Constantinople — began exploratory drilling off Antalya, on Turkey's southern coast.

The country is asserting itself in the east Mediterranean to signal that it won't be left out of a potential offshore gas bonanza as neighboring Cyprus is poised to renew exploratory drilling off its southern shores. ExxonMobil is scheduled to start drilling in one of 13 blocks inside Cyprus' exclusive economic zone by year's end.

Turkey doesn't recognize Cyprus as a state and opposes its gas search, which it says infringes on its rights to oil and gas reserves and ignores the rights of breakaway Turkish Cypriots to the ethnically split island's natural resources. Turkey also says that its continental shelf overlaps part of Cyprus' exclusive economic zone.

Cyprus was divided in 1974 when Turkey invaded in response to a coup by supporters of union with Greece. Only Turkey recognizes a declaration of independence by Turkish Cypriots in the island's north, where it maintains more than 35,000 troops.

"We would protect until the end our and the Republic of Northern Cyprus' rights ... against those attempting to take unilateral, illegitimate steps that are unfair to Turkey," said Turkey's Energy and Natural Resources Minister Fatih Donmez during a tour of the "Conquerer" Oct. 30.

In February, Turkish warships prevented a drillship from carrying out exploratory drilling southeast of Cyprus, where Italian company Eni is licensed to search for gas. Days earlier, Eni had announced a significant find southwest of Cyprus.

Tiny Cyprus, with a population of just over a million people, rejects Turkey's claims. It says its gas search is fully in line with international law and says Turkey is trying to create a crisis to undermine Cyprus' energy program.

Cypriot government spokesman Prodromos Prodromou said any potential wealth from newly discovered gas deposits belongs to all Cypriots — both Greek Cypriot and Turkish Cypriot — and will be shared once a peace accord reunifying the island is reached.

France's Total is also licensed to drill off Cyprus' southern coast. In 2011, Texas-based Noble Energy discovered a field estimated to hold 4.5 trillion cubic feet of gas. ●

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EXXON PROFITS

64 percent stake in the Brazilian block.

At home, Exxon has stepped up activity in the oil-rich Permian Basin of Texas and New Mexico. Chairman and CEO Darren Woods said the company expects to increase output over time as it increases drilling in the Permian and starts pumping oil and gas from new projects.

Exxon's drilling in the U.S. is increasingly "unconventional" in nature, using hydraulic fracturing and horizontal drilling to pull more oil and gas from shale formations underground. The shale revolution, as it is called, has pushed U.S. production to record levels and made the United States the world's leading oil producer, ahead of both Russia and Saudi Arabia.

Unconventional drilling is more expensive, however, and some analysts believe that shale output will be under pressure if a very recent dip in oil prices continues.

The U.S. benchmark has retreated from around $76 to about $63 since early October. If oil falls much further, energy analyst Phil Flynn said Nov. 2, "you can forget about increasing shale output in the future. Most shale oil producers were having a hard time making money when prices were above $70."

Asset sales possible

Senior Vice President Jack Williams told analysts that as new projects come online, Exxon will consider selling other oil and gas assets in North America that "might be worth more to somebody else than it is to us." He declined to name facilities that might be sold or say how quickly that could happen.

Exxon, based in Irving, Texas, earned $1.46 per share. Unlike many companies, Exxon does not adjust its earnings per share to exclude one-time gains such as the sale of about 1,000 Esso service stations in Germany. It received proceeds from that sale on the last day of the quarter, part of $1.5 billion in asset sales during the period. The average forecast among seven analysts surveyed by Zacks Investment Research was for earnings of $1.21 per share.

Revenue rose 25 percent to $76.61 billion in the period. Three analysts surveyed by Zacks expected $72.45 billion.

Exxon shares have fallen 2 percent since the beginning of the year, compared with a 2 percent rise in the Standard & Poor's 500 index in that time. ●

PIPELINES & DOWNSTREAM

Fort Berthold landowners sue oil company

A group of landowners from the Fort Berthold Indian Reservation is accusing a crude oil company of trespassing in a lawsuit that seeks compensation for a pipeline that crosses their land.

Former Mandan, Hidatsa and Arikara Nation chairman Tex Hall recently announced a federal lawsuit against Andeavor, formerly known as Tesoro, the Bismarck Tribune reported. Andeavor recently merged with Marathon Petroleum.

A pipeline that transports crude oil to the Marathon Petroleum Mandan Refinery crosses 64 acres within the reservation, Hall said. The tribe owns about 26 acres of the land, while the rest is owned by landowners or allottees, he said.

The company's easement agreement with the allottees expired in 2013 and talks to re-negotiate fell apart, according to Hall.

The lawsuit alleges the company is trespassing by operating the pipeline without authorization from landowners or the Bureau of Indian Affairs.

"All of these landowners have finally decided enough is enough," Hall said, adding that about 450 landowners are affected.

Destin Singleton, a spokeswoman for Marathon Petroleum Corp., declined to comment on the pending litigation.

The complaint seeks a jury trial to determine compensation for trespassing and other damages. The lawsuit also requests $128 million to be put into a constructive trust for the plaintiffs and allottees. The group filing the complaint also wants a cease-and-desist order for the operation and the immediate removal of the pipeline.

—ASSOCIATED PRESS

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NIKAITCHUQ NORTH

Eni has been drilling the extended reach well, anticipated as the longest well of its type in Alaska, to test an oil prospect in the federal outer continental shelf of the Beaufort Sea, to the north of the Nikaitchuq field. The Nikaitchuq field lies in state land under nearshore waters of the Beaufort.

The Nikaitchuq North drilling has been taking place from an existing drill pad on Spy Island, a part of the Nikaitchuq field. The concept behind the drilling is to seek new oil reserves that can be developed in conjunction with the existing field. The Schrader Bluff formation that includes the reservoir for the Nikaitchuq field is known to extend a long way out under the Beaufort Sea, to the north.

Drilling rig

Eni is using the Doyon Rig 15 for drilling the Nikaitchuq North well. The company has used the same rig for regular development drilling at Nikaitchuq but had to have the rig modified for the challenges of the extreme extended reach drilling required for Nikaitchuq North. And in the interests of environmental protection there are seasonal restrictions on the drilling — drilling only takes place during frozen ice conditions, and during the summer open water season.

Spudding of the NN01 well took place in late December 2017, with an original plan to complete the well in mid-February, potentially conducting flow testing between mid-February and mid-March. The plan also envisaged the potential drilling of a sidetrack to the main well. Eni's plan has also anticipated the drilling of a second extended reach well, the NN02 well, depending on the results from the first well.

In the event, although the drilling of the NN01 well did progress, at some point the drilling was halted because of what Eni characterized as "unforeseen impacts to the drilling schedule." The anticipated completion of the well was deferred to the summer of 2018. Completion and testing of the well has now been further delayed.

—ALAN BAILEY

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KEYSTONE REBOOTED

confronting the company.

Preliminary work has begun on the XL route in Alberta, Saskatchewan, Montana and South Dakota, while Nebraska remains an obstacle.

Hopes for the decade-long plan to ship 830,000 barrels per day from the Alberta oil sands to Steele City, Nebraska, where it would connect with the existing Keystone system got a fresh boost when a U.S. State Department review ordered by a federal judge concluded the chances of environmental damage from a leak in XL would quickly be mitigated.

But TransCanada said in court documents it will not start construction in Nebraska until after mid-2019, while environmental groups say they'll continue to fight the project.

"The Trump administration sees no problem with building Keystone XL — in other news, the grass is still green and the sky is still blue," said Kelly Martin, a campaign director for the Sierra Club.

Updated report

The updated, 338-page report from the State Department said the US$8 billion, 800-mile line would have "negligible to moderate" environmental impact under its normal operations, while plans to continuously monitor and automatic shut-off valves would help pipeline officials quickly identify a leak or rupture.

The report also said TransCanada will have a response plan that should mitigate damage if it was implemented quickly by remediating contaminated soil before a hazardous release reached groundwater depth.

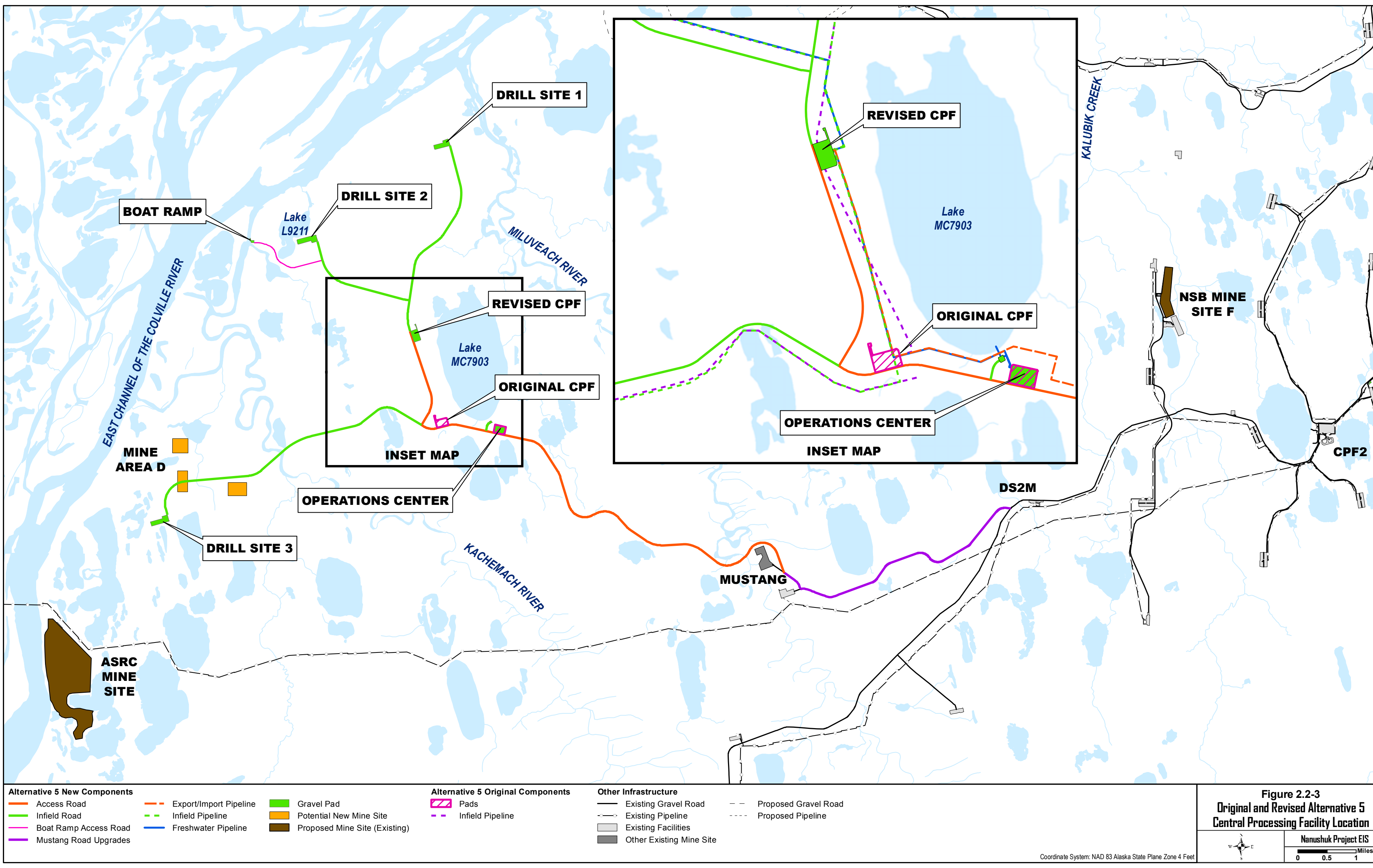
In court documents from a Montana lawsuit, TransCanada said it believed all pending lawsuits will be resolved before system-wide construction starts.

A company spokesman said work will start later this year on preparing workforce camps and camp modules.

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

U.S. ARMY CORPS OF ENGINEERS



The layout of Oil Search's preferred concept for its proposed Alaska Nanushuk development. The inset shows a proposed change to the location of the central processing facility.

continued from page 1

PIKKA FEIS

GMT Exploration in the project.

The fact that the development requires a Corps wetlands permit triggered the need for an EIS, as part of the permitting procedures for regulatory approval of the project.

A major project

The FEIS says that Oil Search has proposed a development involving the drilling of up to 146 production and injection wells from three drilling pads. The project would require a central facility for the processing of produced fluids, together with power generation, water treatment and wastewater disposal. An operations central pad would hold a personnel camp, office and warehouse facilities. A system of infield pipelines would be carried above the ground on vertical support members. A system of pipelines for the export and import of fluid from and to the field would connect to the existing North Slope infrastructure at a tie-in pad near Kuparuk Central Processing Facility 2. And there would be an intake system for potable water.

Modified proposal

In its original permit application, designated in the DEIS as alternative two, Oil Search had proposed co-locating the central processing facility with drill site one, one of the three planned drill sites. That would place the processing facility about 14.4 miles from the village of Nuiqsut.

However, in the interests of moving as much as possible of the road and pipeline infrastructure out of the 50-year floodplain of the Colville River, the company now proposes an alternative, designated alternative five, that places the processing facility and the operations center farther south and east of where originally envisaged, with the processing facility about 12.1 miles from Nuiqsut. This would render the layout of infield roads less parallel to the east channel of the Colville River, thus addressing local resident and agency concerns about the possibility of creating a barrier to caribou migration, the DEIS says. Also under this alternative, the export-import pipeline system would parallel the route of the existing gravel road to Brooks Range Petroleum's Mustang production pad and gravel mine, with the access road for the Nanushuk project connecting to the Mustang road — Oil Search's original proposal had envisaged the road and pipeline system passing two or three miles north of the Mustang infrastructure.

According to the DEIS, Oil Search's modified wetlands permit application, filed to specify the change in the company's preferred alternative, says that the company has also changed its road design, to reduce the road surface width, and has moved the proposed location of drill site two, shifting the drill site 0.3 miles farther from the Colville River. Overall changes to the project have reduced the project footprint by 77.6 acres.

Other alternatives

In addition to a no action alternative, the DEIS considers two other development options. One alternative, alternative three, would move the central processing facility and operations center to the south and west, thus enabling maximum use of the Mustang road. This alternative would place the processing facility 10.9 miles from Nuiqsut. The other alternative, alternative four, would move the central processing facility and operations center to the east, to enable shared use of yet-to-be constructed roads associated with Caelus Energy Alaska's planned Nuna development for the Oooguruk oil field.

The DEIS says that some environmental impacts would be broadly similar for all alternatives, except for the no action alternative. For example, the project would have climate change impacts resulting from greenhouse gas emissions, both from the field operations and from the eventual combustion of produced hydrocarbons. And all of the action alternatives would have similar impacts on geologic and mineral resources in the region.

see **PIKKA FEIS** *page 20*

Petroleum News

Oil Patch Bits

COURTESY FOSS

Powerful harbor tug Bering Wind coming to Anchorage

Foss Maritime said Oct. 29 that the Bering Wind, a powerful Dolphin class tugboat, is being transferred from the Foss fleet in Long Beach, California, to Cook Inlet Tug & Barge in Anchorage. The tug, formerly known as the Campbell Foss, is scheduled to begin service in Anchorage in November.

The vessel was renamed in October of this year and is scheduled to enter service in Alaska in approximately Nov. 15.

"The addition of the Bering Wind to our Anchorage based fleet of tugs will improve our current level of service in the Port," said Ben Stevens, president of Cook Inlet Tug & Barge. "It will also ensure safe port operations can be conducted during the anticipated Port revitalization project which will commence in spring of 2019."

The boat was built by Foss in 2005. In 2011, it was converted to hybrid power, the first-ever tugboat converted to become a hybrid.

The Bering Wind is one of the most powerful harbor tugs in the industry. Powered by two engines and twin Rolls Royce US 205 FP Z drives, the Campbell Foss is rated at 5,080 horsepower and has more than 135 tons of pulling power. Its diesel-electric hybrid service is provided on one 125-kilowatt Marathon generator set.

The Bering Wind will be based out of Anchorage and has been repainted with the recognizable blue and white colors of Cook Inlet Tug & Barge.

Fluor awarded Valero cogeneration project in Wales

Fluor Corp. announced Oct. 30 that it was awarded the engineering, procurement and construction of Valero Energy Corp.'s combined heat and power cogeneration project at its Pembroke refinery in Wales, United Kingdom. Fluor booked the undisclosed contract value in the third quarter of 2018.

"We are pleased to assist Valero with this notable project that will enhance energy efficiency and sustainability at the refinery, which is of significant importance for the economy of Wales and, more particularly, to Pembroke," said Al Collins, president of Fluor's energy and chemicals business in Europe, Africa and Middle East. "Fluor will utilize its in-depth cogeneration expertise together with previous experience of working at the Pembroke Refinery to deliver a capital-efficient project."

Fluor's scope includes design, procurement, construction and commissioning support for the new 45 mega volt amps natural gas-fired combustion turbine generator system that will supply power and steam to enhance the refinery's energy efficiency and operations. The scope also includes substations, transformers, electrical and piping tie-ins and a fuel gas pipeline system.

The project, the first to receive planning permission as a development of national significance process under the Planning (Wales) Act 2015, will be executed on a cost reimbursable basis by an integrated engineering team located at Fluor's office in Farnborough and at the Pembroke refinery.

Fluor's United Kingdom office is in Farnborough, Hampshire. From there the company serves a wide range of industries including energy, chemicals, government, life sciences, advanced manufacturing, infrastructure, mining and power.

Air Liquide wins a contract with customer in China

Air Liquide Engineering & Construction said Oct. 29 that it has signed a contract to supply an air separation unit to Shandong Runyin Bio-Chemical Industry Co. Ltd, a subsidiary of Shandong Ruixing Group, a large chemical company and one of the key high-tech players in China. Under the terms of the contract, Air Liquide Engineering & Construction will design and build a large ASU with a production capacity of 2,950 tons of oxygen per day.

The ASU will be an integral part of the customers' key research and development project for chemical production. In support of this project, Air Liquide will provide its strong expertise and best-in-class oxygen production technologies which enable maximized energy efficiency and reduced environmental footprint. The first industrial production is expected in 2020.

Founded in 1970, Ruixing Group specializes in biochemical, fine chemical, thermal power generation and equipment manufacturing.

Domenico D'Elia, senior vice president, sales and technology, Air Liquide Engineering & Construction, commented: "Air Liquide demonstrates the commitment to contribute to the upgrading of China industries. This success with our new customer, Shandong Runyin Bio-Chemical, reaffirms our ability to provide competitive solutions that are safe, reliable and highly efficient."

Editor's note: Some of these news items will appear in the next Arctic Oil & Gas Directory, a full color magazine that serves as a marketing tool for Petroleum News' contracted advertisers. The next edition will be released in March.

Companies involved in Alaska's oil and gas industry

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

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TAKEOVERS LOOM

translated into a return of between 11 cents US and 28 cents US per barrel.

Murphy said that until now bitumen prices have always been in positive territory, even in early 2016 when oil fell below US$30 a barrel, but bitumen was still worth US$8 a barrel.

Consolidations possible

Martin Pelletier, a portfolio manager at TriVest Wealth Counsel in Calgary, said the latest commodity prices may spark a wave of consolidation, drawing buyers off the sidelines and causing "capitulation" among entrenched management team of smaller producers.

He told Bloomberg News there is every reason for well-run companies with good balance sheets "to take advantage of this environment."

Pelletier said his firm has moved 25 percent of its energy investments back into Canada, after temporarily abandoning the country, to buy into likely takeout candidates whose shares have been beaten into "deep value" territory.

The value of acquisitions involving Canadian companies fell 16 percent in the first nine months of 2018 to US$55.8 billion compared with the same period of 2017, compared with a surge of 72 percent in US energy deals to US$300.2 billion.

The latest two deals saw International Petroleum, controlled by Sweden's Lundin family, announce a US$1.36 billion takeover of oil sands producer BlackPearl Resources.

That coincided with a C$6.4 billion hostile takeover by Husky Energy of MEG Energy, a pure play oil sands producer which was one of the first Canadian companies to attract a Chinese investor — in this case China National Offshore Oil Corp. which holds a 17 percent stake.

Among its flagship operations, MEG is involved in Christina Lake, which is targeting 260,000 barrels per day by 2020, Surmont, which is close to starting production, and May River, one of the projects on 800 square miles of development opportunities in northern Alberta.

Long rated as a prime takeover target, MEG is not ready to cave in to Husky's offer, which Eric Nuttall, portfolio manager at Ninepoint Partners, which owns 2.5 million MEG shares, said "validates the quality" of MEG assets, adding he is certain another bidder will step in.

"In Calgary, hostiles rarely happen but now that the doors have been opened, there will be others," he said.

Husky Chief Executive Officer Rob Peabody said his company brings several advantages to the table including plans to raise its downstream capacity and thus "insulate" itself from the heavy oil price discounts.

He said that if the deal is approved by shareholders in January, Husky will revisit a deferred plan to double capacity of its Lloydminster, Alberta, asphalt plant to 60,000 bpd, in addition to its 375,000 bpd of upgrading, refining and committed pipeline capacity.

Rafi Tahmazian, portfolio manager at Canoe Financial, said a Husky-MEG deal is part of a consolidation mode in Canada that is "about survival of the strongest and fittest."

He said other companies that could match or exceed Husky's offer are Suncor Energy, Canadian Natural Resources and Imperial Oil. ●

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INSIDER

7. According to Glacier's website, prior to joining Glacier, his career was spent in the oil and gas industry in various roles with EQT Corp.

PHIL ELLIOTT

CARL GIESLER

Elliott currently serves on the board of directors of Cook Inlet Spill Prevention & Response, CISPRI.

He earned his MBA from Carnegie Mellon, his MS in Engineering from the University of Pittsburgh and his BA from Bucknell.

While Glacier is a privately held company, Jones is a public firm listed on the New York Stock Exchange (JONE).

Jones' operations are in the U.S. Midcontinent (Western Anadarko and Merge), while Glacier focuses strictly on Alaska.

Created through the bankruptcy case of the former Miller Energy Resources Ltd., Glacier now operates four units in Alaska, including the West McArthur River and Redoubt units on the west side of Cook Inlet and the North Fork unit in the southern Kenia Peninsula through its subsidiary Cook Inlet Energy. On the eastern North Slope Glacier operates the Badami unit through its subsidiary Savant Alaska LLC.

Former Alaska Gov. Sean Parnell is an independent director on Glacier's board.

At the time Petroleum News went to press there was no response from Giesler as to what if any interest Jones might have in Alaska.

—KAY CASHMAN

Rigzone: Recruiting to increase in oil patch

According to a Nov. 7 report in Rigzone, oil and gas recruiting worldwide is expected rise in coming months.

Valerie Jones, a staff member of the online publication, said Rigzone had recently conducted a survey Sept. 25 to Oct. 16 that targeted active industry recruiters and hiring managers, yielding 77 completed responses.

Eighty-two percent of the responders said they recruit for upstream, 49 percent recruit for midstream and 32 percent for downstream.

Seventy percent of the recruiters said they expected to recruit more in the next six months; 65 percent said they recruited more in the first half of 2018 than in second half of 2017. Another 21 percent said they recruited about the same in both halves.

Overall, respondents said they see the most hiring demand for the following positions:

- Safety engineer (28.57 percent)
- Procurement and construction: supply chain (22.08 percent)
- Electrical technician (22.08 percent)
- Mechanical technician (20.78 percent)
- Mechanical engineer (19.48 percent)
- Production operator (19.48 percent)
- Petroleum engineer (18.18 percent)
- Wellsite supervisor (16.88 percent)
- Electrical engineer (16.88 percent)

"However, most recruiters aren't looking for entry-level workers. Nor are they looking to hire veteran workers," Rigzone reported. Rather, "42 percent of respondents are hiring for workers with 5-10 years of experience. Twenty-nine percent are looking at candidates who have 10-20 years of experience," and 27 percent are interested in entry level candidates with 0 to 5 years of experience.

For the full story see the Nov. 7 issue of Rigzone at rigzone.com.

—KAY CASHMAN

Hart: Norway, Newfoundland, Labrador still exploring Arctic

ON NOV. 6, VELDA ADDISON, senior editor of the Digital News Group at Hart Energy, reported that some energy companies in Norway, Newfoundland and Labrador continue to pursue hydrocarbons in the Arctic and are "finding success and progressing multibillion-dollar projects."

Discoveries such as the Equinor-operated Johan Castberg development in the Barents Sea and the Bay du Nord discovery in the Flemish Pass Basin offshore Newfoundland in the Atlantic Ocean are two of those projects

"The region, which continues to compete with onshore areas for investment dollars, still has its challenges but has managed to attract players," Addison wrote, citing panelists on Nov. 5 at the Arctic Technology Conference in Houston.

"The change for us has been increased investments and knowledge of our prospectivity," said Doug Trask, assistant deputy secretary of royalty and benefits for Newfoundland and Labrador's Department of Natural Resources, who was quoted as saying. "Prior to the last five or six years we were not investing and the awareness was not there of how many basins we had and what the size of some of those potential discoveries were," he said, noting Newfoundland and Labrador have more than 20 basins with a lot of exploration potential.

Trask credited the areas regularly scheduled license rounds as playing a role in gaining new entrants to the offshore region. The government has also made strategic investments in geoscience, including 3-D seismic data, in advance of license rounds to help attract investors, Addison reported.

"Today we produce about 1.8 billion barrels of oil from a number of facilities," Trask said, noting the province has a 12-year plan to speed up oil and gas development offshore, looking to see more than 100 exploration wells drilled in multiple basins and increase production to more than 650,000 barrels of oil equivalent per day from the current level of about 250,000 barrels by 2030.

"We're certainly looking to continue to develop our offshore," Trask said. But its competitiveness hinges on the success of R&D initiatives and innovation, he said, which include remote sensing, offshore training, subsea technology and other emerging areas such as digital technology, AUVs and DNA environmental monitoring.

The fact that Norway's Barents Sea is ice-free, a benefit of the warm Gulf Stream, during the summer has proven a benefit for Norway's far north.

The region has two main Arctic producing fields: Equinor's Snøhvit, which provides gas for Hammerfest LNG and the Eni-operated Goliat Field, Addison reported. The U.S. Geological Survey estimates the Arctic holds more than 30 percent of the world's undiscovered gas resources and 13 percent of the world's undiscovered oil resources, she said.

To read the entire article go to hartenergy.com.

—KAY CASHMAN

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WINTER EXPLORATION

The remaining four to six wells to be drilled this winter will further test the Willow discovery in the Bear Tooth unit, in the northeastern National Petroleum Reserve-Alaska. Willow is a major oil discovery that ConocoPhillips plans to develop as a standalone oil field. ConocoPhillips has said that it wants to drill some horizontal wells, to better understand the potential productivity from the field, and some vertical wells to test inter-well communication. The company wants to further delineate the field and to conduct further well tests.

Oil Search

Oil Search, the company planning to develop the huge Nanushuk oil field in the Pikka unit, to the east of the Colville River, is also operating in field appraisal mode. It plans to drill two wells, each with a sidetrack, at Pikka this winter. One well, the Pikka B, will be in the southwestern portion of the unit and the other, the Pikka C, will be in more of a central location. Oil Search has said that it anticipates starting construction of an ice road and two ice pads in early December for the drilling. The company expects to mobilize two drilling rigs from Deadhorse in mid-January, with drilling expected to start at the beginning of February.

Oil Search has said that it needs the two wells for the further appraisal of the field reservoir, prior to the start of front-end engineering and design for the field development. The Pikka B is planned to reach a vertical depth of 6,513 feet, with a sidetrack to a depth of about 4,923 feet. The Pikka C is planned to reach a vertical depth of about 4,919 feet, with a sidetrack to a depth of about 4,175 feet.

The Nanushuk play involves reservoirs in relatively shallow sand bodies, deposited by river systems on the upper margin of an ancient marine basin. The copious quantities of relatively light oil in the play had been missed or overlooked during earlier North Slope exploration.

Great Bear

In a new initiative to leverage this same play, Great Bear is planning the Winx No. 1 well, targeting a Nanushuk prospect in a block of four leases to the east of the Horseshoe wells, where Armstrong Energy found oil in the Nanushuk in 2017. Three Australian companies — 88 Energy Ltd., Otto Energy Ltd. and Red Emperor Ltd. — have acquired a collective 90 percent interest in the leases from Great Bear. 88 Energy has said that its wholly owned subsidiary Captivate Energy Alaska has contracted the Nordic-Calista Services rig 3 to drill the Winx prospect.

The project is expected to require 11 miles of ice and snow roads and the construction of an ice pad.

Apparently Otto Energy used seismic data acquired from the Alaska Department of Natural Resources to identify the prospect at a depth of about 5,000 feet in the Nanushuk, and has said that the prospect has a mean estimated gross resource of 400 million barrels of oil, with a chance of success in the range of 25 to 30 percent.

Eni

As reported elsewhere in this issue of Petroleum News, Eni US Operating Co., in a wildcat exploration venture in a different geologic setting offshore the central North Slope, plans to continue its Nikaitchuq North project, restarting the drilling of its NN01 extended reach well early in 2019. The company is testing a prospect on the federal outer continental shelf of the Beaufort Sea, hoping to add new oil reserves for development in association with the Nikaitchuq field.

Further east, at Badami, last winter Glacier Oil and Gas Corp. saw exploration success with its Starfish well — the results from that well pointed to further exploration potential, However, the company is still figuring out its next steps, Phil Elliott, Glacier president and CEO, has told Petroleum News (see sidebar).

While not technically exploring on the North Slope, BP is seeking new development opportunities in the Prudhoe Bay unit through the conducting of a new 3-D seismic survey in the unit this winter. The idea is to use high resolution seismic data to locate subsurface features where further oil may be developed.

Hilcorp

In Southcentral Alaska, Hilcorp Alaska has filed plans with federal regulators, indicating an interest in exploration of the federal outer continental shelf of the lower Cook Inlet. As previously reported in Petroleum News, the company plans to conduct a 3-D seismic survey in the lower Cook Inlet between April and June of 2019, to be followed at some point by a geohazard survey. That could all lead to exploratory drilling in subsequent years.

Hilcorp has also indicated that it plans an exploration program on the Iniskin Peninsula on the west side of the Cook Inlet, with operations conducted between April and October, starting in 2019.

The lower Cook Inlet and the Iniskin Peninsula area have known oil potential but as yet no commercial discoveries — the region has an active petroleum system, including excellent oil source rocks, but has been only very sparsely explored. Hilcorp acquired 14 lease blocks in the Bureau of Ocean Energy Management's 2017 lower Cook Inlet lease sale.

In the upper Cook Inlet basin, in which all of the current Cook Inlet oil and gas fields are located, Hilcorp has been planning to drill two new exploration wells, the Seaview No. 8 and Seaview No. 9 wells, from a pad near Anchor Point in the southern Kenai Peninsula. There is no word yet on the status of that drilling program. Each well would be drilled directionally to measured depths of around 10,000 feet. The No. 8 well will test oil and gas prospects, while the No. 9 well will seek gas. ●

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Glacier in planning mode for next steps

Phil Elliott, president of Glacier Oil and Gas Corp., told Petroleum News in a Nov. 6 email that his company is currently evaluating its Alaska drilling opportunities and has not yet set its 2019 budget. The company operates the Badami oil field, on the Beaufort Sea coast, to the east of the central North Slope. Elliott said that he does not anticipate his company completing its funding assessment until January.

Last winter the company saw success with the drilling of its Starfish exploration well in the Badami unit.

Elliott said that his company had an exceptional year, both operationally and financially, in 2018, and that the company is focusing on maintenance projects and a multi-well drilling program at Badami. The company is also seeking to accelerate oil production in its Cook Inlet interests, Elliott wrote. The company operates the West McArthur River and Redoubt units on the west side of Cook Inlet and the North Fork field on the Kenai Peninsula. The company has also been planning the drilling of the Sabre exploration well near the West McArthur River unit.

—ALAN BAILEY

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PIKKA FEIS

Subsistence impacts

An issue of considerable importance to local communities is the potential impact of the project on the availability of subsistence resources.

The DEIS says that the project would likely have minor impact on the total subsistence take for caribou, a major subsistence resource in the region. However, the impact on subsistence harvester access to the project area would be major, the FEIS indicates. Impacts on caribou resource availability in the area would probably be major during project construction; these impacts would be possible to probable during field operations. Impacts on subsistence fish and bird resources are probable, but there are no data for quantifying these impacts.

Alternative four would likely have the greatest impact on subsistence resources, while alternative five would have the least impact, the FEIS says. But any of the action alternatives would likely have a high impact on subsistence harvesting for residents of Nuiqsut, the DEIS says.

Gravel usage

Although all development alternatives would have broadly similar footprints in terms of the use of gravel fill and road construction, the orientation of the roads envisaged for alternatives two and five could result in snowdrifts that would insulate the ground and hence elevate soil temperatures. Alternative three would likely have the greatest impact in terms of dust deposition from road construction and use.

All of the development alternatives would likely have similar impacts on air quality.

River hydrology

Different development alternatives have different potential impacts on the hydrology of the Colville River basin and floodplain, depending on factors such as the length of roadways and the number of pipeline support members and bridge piles within the floodplain. Alternative two would have the lowest number of pipeline supports and bridge piles placed below the river's ordinary high water level.

Given its ice-road requirements, alternative three would require the highest volume of water withdrawal from the region during the lifetime of the project, while alternative five would require the lowest water withdrawal. Alternative four would require the largest number of pipeline stream crossings, a factor that affects the potential impact of a pipeline related spill.

All action alternatives would cause some minor but long-term loss of wetlands. However, alternative five would directly fill the smallest area of wetland and water bodies, while alternative four would fill the largest area of these environmental features.

Wildlife habitat

Similarly, any development option will have minor but long-term impacts on wildlife habitat. Alternative four would place gravel fill within the designated critical habitat region for polar bears, a species designated as threatened under the terms of the Endangered Species Act. Alternative two would cause the greatest loss or alteration to potential polar bear denning habitat. The various development alternatives would have different impacts on bird habitat. And, while alternative four would likely have the biggest impact on the movement of caribou during the insect season, alternative five would cause the least loss of terrestrial mammal habitat loss.

With the fewest piles and vertical support members below high water, alternative two would have the least impact on fish habitat. Alternative five would likely cause the least impact from fugitive dust on lakes and streams.

Visibility and noise

While all action alternatives would have minor to moderate impacts on the visual and aesthetic resources of the region, the central processing facility would be farthest from Nuiqsut under alternative four, and closest under alternative three. The infrastructure crossing of the Kachemach River would be least conspicuous under alternative five.

Noise would particularly result from relatively short-term construction activities, but there would be noise impacts from all phases of the project. The noise impacts on local residents would depend on the locations of the facilities, as determined by whatever alternative would be used for the development. Alternative four would result in the least noise impact on Nuiqsut but a higher level of helicopter noise than the other alternatives.

All action alternatives would have similar impacts on land ownership and management. ●

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