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page Senate Majority ups Finance to 9; Birch to chair Resources Committee 2

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Hilcorp Anchor Point lease approved by Kenai Borough

THE KENAI PENINSULA BOROUGH ASSEMBLY has passed an ordinance granting an oil and natural gas lease on borough lands in Anchor Point to Hilcorp Alaska LLC (see initial report in Petroleum News Oct. 28 edition). The action was taken at the Nov. 20 regular meeting of the assembly in Soldotna, following a lands committee hearing earlier the same day.



The ordinance, numbered 2018-34, was introduced to the assembly Oct. 23 by Borough Mayor Charlie Pierce.

The lease carries a negotiated 12.5 percent royalty rate to the borough and covers five parcels scattered about the unin-

see INSIDER page 12

Hydrate well drilling approved; BP to drill test well this year

Alaska's Division of Oil and Gas has issued a notice, approving a change to BP's plan of operations for the Prudhoe Bay unit, to enable the drilling of a new methane hydrate test well in the unit. As previously reported in Petroleum News, the Alaska Oil and Gas Conservation Commission has already issued a permit for the drilling of the well. According to the division notice the plan is to drill from a small existing gravel pad, adjacent the Spine Road, about one mile north of Z pad, in the western part of the unit.

The notice says that BP plans to use gravel to level the pad in November, in preparation for starting drilling of the well during the first half of December. Drilling would be completed and the rig demobilized by mid-January.

see HYDRATE WELL page 9

Oil Search is moving ahead with Pikka; FEED decision next year

With the final environmental impact statement for Oil Search's Pikka development having been issued and with a record of decision for the project expected from the U.S. Army Corps of Engineers in the first quarter of next year, the company has started mobilizing for a two-rig appraisal drilling program this winter, Keiran Wulff, president of Oil Search Alaska, told the Resource Development Council's annual KEIRAN WULFF conference on Nov. 14. Oil Search antici-



GOVERNMEN **Revisiting NPR-A pla**

BLM announces intent to prepare new plan to allow more development in reserve

By ALAN BAILEY Petroleum News

n Nov. 20 the Bureau of Land Management issued a notice of intent to prepare a new integrated activity plan and associated environmental impact statement for the National Petroleum Reserve-Alaska. The announcement comes as a follow up to an order issued by Interior Secretary Ryan Zinke at the end of May, requiring among other things a rework of the existing NPR-A plan, to determine whether more land in the reserve could be opened for oil and gas leasing.

The current plan, issued in 2013, places much of the northern part of the reserve off limits to oil and gas leasing and development.

Moving out much farther west than Willow would hit the edge of the special restricted area around Teshekpuk Lake.

The BLM notice triggered the start of a 45-day period for public comments on the scope of the plan and associated EIS.

"Production from federal leases is being realized 95 years after the then Naval Petroleum Reserve was established," said Assistant Secretary of the Interior for Land and Minerals Management Joe Balash. "As development and production increases into the NPR-A, and as advances in technologies are discovered for

see NPR-A PLAN page 10



Company bid on oil & gas leases in North Slope area that has sparse data

By ALAN BAILEY Petroleum News

hile taking a conventional route to success may be safe, adopting a contrarian strategy can sometimes pay handsome dividends. These two approaches appear to lie behind much of the bidding in the state of Alaska's recent North Slope lease sale.

While Repsol, ASRC Exploration and Caracol Petroleum competed for remaining unleased acreage in the area of recent major oil finds associated with the Nanushuk formation, near the Colville River delta, Lagniappe AK bid on a large swathe of 120 tracts in the more eastern part of the Slope, to the south of the Badami and Point

PIPELINES & DOWNSTREAM

The most recent exploration well, to the northwest of the Lagniappe acreage, in a lease owned by Caelus Natural Resources Alaska but being transferred to Eni US **Operating Co., is Jacob's Ladder, drilled** to a vertical depth of 13,306 feet by Anadarko Petroleum in 2007 and 2008.

Thomson fields. Lagniappe's move is reminiscent of wildcatter Bill Armstrong's contrarian push to test the Nanushuk a few years ago, a venture that ultimately led to those major oil discoveries that

see SPECULATIVE PLAY page 8

pates making a decision next year on carrying out the front-end

engineering and design for the project, with the potential for first

see PIKKA PROGRESS page 11

Dunleavy names Brune to head DEC, Quick to lead Administration

Gov.-elect Mike Dunleavy announced four additional appointments Nov. 26, including the commissioners of Administration, Environmental Conservation, Health and Social Services and the director of the Office of Management and Budget.

Best known of these appointees in the resource community is Jason Brune, named commissioner of Environmental as Conservation. Brune has been senior director JASON BRUNE



of land and resources for Cook Inlet Region Inc., was public affairs and government relations manager for Anglo-American and prior to that executive director of the Resource Development

see DUNLEAVY PICKS page 11

on issue divides

Trudeau, Notley in Calgary, don't discuss solutions to Canada's pipeline bottleneck

By GARY PARK For Petroleum News

anada's Prime Minister Justin Trudeau and Alberta's Premier Rachel Notley were both in Calgary Nov. 22 amid a deepening crisis for the oil industry, Alberta and Calgary. Yet they might as well have

been ships passing in the night.



West Texas Intermediate by US\$40-\$45 a barrel that is costing producers at least C\$80 million a day.

Nutley disappointed

Notley said she was disappointed with the Trudeau government's lukewarm response to her government's plan for buying additional rail cars to

move more oil to market as a hedge against future shipping problems.

Sharpening her attack on the national government, she said it has "the most authority over the ridiculous situation we find ourselves in right now. I would suggest it might be reasonable for them to come to the

see PIPELINE BOTTLENECK page 8

JUSTIN TRUDEAU

Notley spoke to industry executives and Trudeau

to the Calgary Chamber of Commerce, but there was

no attempt to bring the two leaders together and

respond to growing frustration with both and urgent

pleas for both to take measures that would reduce the

shipping bottleneck that has widened the price spread

between Western Canada Select bitumen blend and

RACHEL NOTLEY

GOVERNMENT Senate majority set at 14, team announced

Democrat Lyman Hoffman of Bethel joins Republican Senate Majority; Finance Committee expanded from 7 to 9, with 7 majority members

By KRISTEN NELSON

Petroleum News

he Alaska Senate Majority said Nov. 26 that Senate Finance has been increased by two members, from seven to nine, and that Democrat Lyman Hoffman of

Bethel has joined the majority as its 14th member.

The majority said it had identified passing a responsible budget on time as its single most important task, and to that end had added two members to Senate Finance, giving nearly half of Alaska's senators hands-on roles in the budget process.



"The amended caucus agreement recognizes the rights and responsibilities of each majority member,"

they said. "Members will have more opportunities than ever to actively participate in budget deliberations, and therefore have more ownership of the majority budget. However, members who find themselves unable to vote for the majority budget will not face automatic removal from the caucus. Consequences for such a vote will be determined by the caucus and consider the importance of representing constituents."

"We are committed to a productive session, delivering solid results for Alaska families and businesses," said Sen. Cathy Giessel, the in-coming Senate president. "This modified caucus agreement strikes the balance of putting the budget front and center without an automatic penalty that aversely impacts members' constituents."

Gov.-elect, then-Sen. Mike Dunleavy lost his membership in the Senate Majority caucus and his seat on the Finance Committee when he refused to vote for the majority budget, citing constituent concerns. He later resigned from the Senate to focus on running for governor.

Finance

The Finance Committee will now have nine members.

Co-chairs Sen. Bert Stedman, R-Sitka, and Sen. Natasha Von Imhof, R-Anchorage, were previously announced. Stedman will direct the operating budget and Von Imhof will manage the capital budget and legislation before the committee.

Majority members include Sens. David Wilson, R-Wasilla, Click Bishop, R-Fairbanks, Peter Micciche, R-Soldotna, Mike Shower, R-Wasilla, and Hoffman, a long-time Finance Committee member and previous cochair.

The Senate Democrats will select the two remaining Finance Committee members.

"The state is facing a very significant structural budget deficit," Stedman said. "To help fix the problem, the Senate Finance Committee is adding two members.

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Asks FERC for a 10-year license to continue and expand the testing of an in-river turbine power generation system for the village

Petroleum News Alaska's source for oil and gas news

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Alaska - Mackenzie Rig Report

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status	The Alaska - Mackenzie Rig Report as of November 28, 2018 Active drilling companies only listed.
	Alaska	a Rig Status		
	North	n Slope - Onshore		TD = rigs equipped with top drive units WO = workover operations CT = coiled tubing operation SCR = electric rig
Doyon Drilling Dreco 1250 UE	14 (SCR/TD)	Milne Point, MPLU-20	Hilcorp	This rig report was prepared by Marti Reeve
Dreco 1000 UE Dreco D2000 Uebd	16 (SCR/TD) 19 (SCR/TD)	Standby GTMU, MT6-09	ConocoPhillips	
AC Mobile	25	Mustang pad Jan. 2018	Brooks Range	
OIME 2000	141 (SCR/TD) 142 (SCR/TD)	Alpine, CD4-59 Kuparuk 2S-315	ConocoPhillips 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 Mid-Continental U36A	2-ES (SCR-TD) 3-S	Stacked Stacked	Available Available	
Oilwell 700 E	4-ES (SCR)	Stacked	Available	
Dreco 1000 UE Dreco 1000 UE	7-ES (SCR/TD) 9-ES (SCR/TD)	Kuparuk 3C-08 Stacked	ConocoPhillips ConocoPhillips	
Oilwell 2000 Hercules	14-E (SCR)	Deadhorse	Available	
Oilwell 2000 Hercules Oilwell 2000 Canrig 1050E	16-E (SCR/TD) 27-E (SCR-TD)	Stacked	rooks Range Petroleum Glacier Oil & Gas	
Oilwell 2000 Academy AC Electric CANRIG	33-E 99AC (AC-TD)	Deadhorse Stacked	Available Repsol	
OIME 2000	245-E (SCR-ACTE	D) Stacked	ENI	
Academy AC electric CANRIG Academy AC electric Heli-Rig	105AC (AC-TD) 106AC (AC-TD)		Doyon Ltd Great Bear Petroleum	
Nordic Calista Services	,			
Superior 700 UE	1 (SCR/CTD)	Kuparuk	ConocoPhillips	
Superior 700 UE Ideco 900	2 (SCR/CTD) 3 (SCR/TD)	Prudhoe Bay Winx exploration well	Available Great Bear	
Rig Master 1500AC	4 (AC/TD)	Oliktok Point well #18-08	ENI	
Parker Drilling Arctic Operating				
NOV ADS-10SD NOV ADS-10SD	272 273	Prudhoe Bay DS 18 Prudhoe Bay DSW-59	BP BP	
BP		Slope - Offshore		
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 Stacked	Caelus Energy LLC	
			••	
	Cook In	let Basin – Onshore		
BlueCrest Alaska Operating LLC Land Rig	: BlueCrest Rig #1	Anchor Point RhugCros	t Alaska Operating LLC	
	placetest Nig #1	drilling production section of H14	t / Maska 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 TSM-850	147 169	Stacked Seaview	Hilcorp Alaska LLC Hilcorp Alaska LLC	and the second s
		let Basin – Offshore		
Hilcorp Alaska LLC				Baker Hughes North America rotary rig counts*
National 110	C (TD) Rig 51	Platform C, Stacked Steelhead Platform, Stacked	Hilcorp Alaska LLC Hilcorp Alaska LLC	Nov. 21 Nov. 16 Year Ago
	Rig 51 Rig 51	Monopod A-13, stacked	Hilcorp Alaska LLC Hilcorp Alaska LLC	United States 1,079 1,082 923
Spartan Drilling Baker Marine ILC-Skidoff, jack	-110	Spartan 151, Upper Cook Inlet KLU#4	4 Furie	Canada 204 197 215 Gulf of Mexico 25 22 22
	ч	Spartan 191, Opper COOK IIIIet NLU#4	. i une	
Furie Operating Alaska Randolf Yost jack-up		Nikiski, OSK dock	Furie	Highest/Lowest US/Highest 4530 December 1981
Glacier Oil & Gas		Ocorov Diatform anti-		US/Lowest 404 May 2016 *Issued by Baker Hughes since 1944
National 1220	25	Osprey Platform, activated	Glacier Oil & Gas	"issued by baker mugnes since 1944
National 1320	35			
				The Alaska - Mackenzie Rig Report
		zie Rig Status		The Alaska - Mackenzie Rig Report is sponsored by:
	Macken			•
SDC Drilling Inc.	Macken _{Canac}	zie Rig Status dian Beaufort Sea	A. 10 ³ 1-11-	•
	Macken Canac	tian Beaufort Sea Set down at Roland Bay	Available	•
SDC Drilling Inc.	Macken Canac	zie Rig Status dian Beaufort Sea	Available Available	•

GOVERNMENT **Bond regs public comment period ends**

AOGCC has finished accepting testimony on its proposed increase in surety bonding levels for oil and gas wells drilled in Alaska

By ALAN BAILEY

Petroleum News

he public comment period came to an end on Nov. 27 for proposed changes to Alaska Oil and Gas Conservation Commission regulations for the surety bonding of oil and gas wells in Alaska. The purpose of the bonding, which has to be obtained by a well operator, is to ensure the availability of adequate funding for the plugging and abandonment of obsolete wells — a well that has not been appropriately plugged can become an environmental and safety hazard.

AOGCC concerns

For some time the commission has been concerned that current bonding levels in Alaska are inadequate and fall far short of the realistic cost of plugging and abandonSmall oil and gas producers in the state are particularly concerned about the AOGCC proposals: Obtaining a large bond may prove difficult or impossible for a company with relatively small financial resources.

ment operations. Should a well operator fail to have the financial wherewithal to seal off its wells, the plugging and abandonment costs would revert to the landowner, in many cases the state of Alaska.

State statutes require bonding of not less than \$100,000 for a single well and not less than \$200,000 for blanket coverage of all of an operator's wells in the state. And traditionally the commission has only required bonding at these minimum levels, other



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than in situations where there have been regulatory violations. The commission now wants to set higher target bonding levels by regulation, presumably to provide some clarity over bonding expectations.

The commission has gone through three versions of potential new regulations. The latest proposal sets a minimum bond level of \$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 100 to 1,000 wells; and a \$30 million bond for more than 1,000 wells. However, the regulations would give the commission flexibility to set different bonding levels in specific situations, if the circumstances surrounding a well warrant some bonding variance.

Impact on small operators

Small oil and gas producers in the state are particularly concerned about the AOGCC proposals: Obtaining a large bond may prove difficult or impossible for a company with relatively small financial resources. Thus, setting high bond rates may, in effect, preclude some small companies from developing Alaska oil and gas resources. Some commenters have also said that there is overlap between AOGCC bonding requirements and landowner

continued from page 2 SENATE MAJORITY

These additional members broaden the geographic representation and bring valuable experience to the Senate Finance table."

Majority leadership

In addition to Giessel, previously announced Senate Majority leadership includes Sens. Mia Costello, R-Anchorage, as majority leader, and John Coghill, R-North Pole/Fairbanks, as Senate Rules chair.

Chairs of standing committees, announced Nov. 26, include:

Sens. Shelley Hughes, R-Palmer, Judiciary and Transportation committees; Garv Stevens, R-Kodiak, Education and Legislative Council; Mike Shower, R-Wasilla, State Affairs; Sen.-elect Chris Birch, R-Anchorage, Resources; Sen.elect Lora Reinbold, R-Eagle River, Labor and Commerce: David Wilson, R-Wasilla, Health and Social Services; and Click Bishop, R-Fairbanks, Community requirements for bonding and financial assurance.

Supporters of AOGCC's proposals argue for the importance of ensuring that a company drilling a well has the financial wherewithal to eventually close the well down in an adequate manner.

During a public hearing on Nov. 27, shortly before the close of public comments, Peter Caltagirone, regulatory and legal affairs manager for the Alaska Oil and Gas Association, re-iterated AOGA's concerns about potential impacts on small producers.

"The second set of revisions (to regulations) proposed by AOGCC further discourages new investment in our state and disproportionately affects small producers," Caltagirone said. "The cost of bonding per well has increased significantly from the first set of proposed revisions to the second set."

AOGA is also arguing for a more integrated approach to well bonding, taking into consideration, for example, financial assurance agreements between well operators and the Alaska Department of Natural Resources for the dismantlement of surface facilities and the restoration of land impacted by defunct oil and gas operations.

and Regional Affairs.

New leadership in Resources

Senate Resources and Finance are the committees which hear the majority of oil and gas related bills.

Giessel, who will take over as Senate president in January, has been chair of Senate Resources since 2013. Birch, while a newcomer to the Senate, has been a member of the House Resources Committee in the 30th Legislature; the 31st Legislature gavels in in January.

Democratic leadership

Senate Democrats announced earlier in November the election of Sen. Tom Begich, D-Anchorage as Senate Democratic leader. In addition to Begich, Democratic caucus members include: Sens. Donny Olson, D-Golovin, and Bill Wielechowski, D-Anchorage, and Sens.elect Scott Kawasaki, D-Fairbanks, Elvi Gray-Jackson, D-Anchorage, and Jesse Kiehl, D-Juneau.

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• PIPELINES & DOWNSTREAM

BRPC has deal to use Alpine line

By KRISTEN NELSON Petroleum News

A lpine Transportation Co. has filed two applications with the Regulatory Commission of Alaska for approval of a connection agreement and permit between ATC and Brooks Range Petroleum Corp.

The application for a connection permit would allow BRCP's Southern Miluveach crude oil sales pipeline to connect to ATC's Alpine Pipeline. ATC is requesting that if a permanent connection permit is not granted by March 1, that RCA grant a temporary connection permit by that time. ATC is also requesting approval of the connection agreement between ATC and BRPC.

BRPC is in the process of developing the Southern Miluveach unit, estimated to hold 33 million barrels of proven and probable light oil reserves, with peak production estimated at some 15,000 barrels per day, ATC told the commission.

ATC said an approved plan of development for the unit "requires Brooks Range to install a crude sale pipeline and connect into the Alpine Pipeline infrastructure system by the first quarter of 2019."

Six-inch crude sales line

BRPC has requested that ATC permit it to connect a 6-inch diameter sales line, some 0.2217 miles long, originating at the Mustang pad processing facility in the Southern Miluveach unit, to a tie-in to the common carrier Alpine Pipeline near Kuparuk River unit Drill Site 2S.

ATC said it and BRPC have a connection agreement which will become effective when RCA grants a connection permit and approves the connection agreement.

The connection involves a hot tap into the 14-inch diameter Alpine Oil Pipeline, a 34-mile line between Alpine Central Facility 1 in the Colville River unit and the inlet of the Kuparuk Pipeline Extension at Central Processing Facility 2.

Estimated cost of the connection is \$1.05 million; additional annual operating expenses are estimated at \$20,000 per year, with the cost of the connection to be paid by BRPC and additional operating costs included in ATC rates.

Mustang work underway

BRPC has been working to get the Southern Miluveach unit into production for a number of years.

A plan of development approval Oct. 31 by the Alaska Division of Oil and Gas notes that BRPC plans to use an early production facility at Mustang while it builds a permanent facility.

The division said BRPC's work commitment for 2018 includes installation of any remaining on-pad piles in the third quarter; begin installation of Alaska-fabricated modules in June and complete installation by the end of 2018; conduct engineering for a ConocoPhillips Alaska-executed pipeline tie-in, with field work to begin in the fourth quarter of the year; telecoms survey work to be done in the summer; preparation of Mustang Pad for installation of the early production facility in third quarter; installation of early production facility in third quarter; and functional upon completion of installation — in the fourth quarter.

BRPC has told the division it plans to pre-produce its SMU M-02 well before converting it to gas injection, trucking oil and flaring gas during the period before the early production facility is in operation. The division denied the company permission to flare gas for an indeterminate period estimated at three to six months. ●

> Contact Kristen Nelson at knelson@petroleumnews.com



EXPLORATION & PRODUCTION

National drilling rig count down 3 at 1,082

The number of rigs drilling for oil and natural gas in the U.S. was down up by three Nov. 21 to 1,079 when Baker Hughes published their Thanksgiving week rotary rig count.

At this time last year there were 923 active rigs.

Houston oilfield services company Baker Hughes reported that 885 rigs targeted oil (down three from the previous week) and 194 targeted natural gas (unchanged).

The company said 73 of the U.S. holes were directional, 929 were horizontal and 77 were vertical.

Among major oil and gas producing states, Louisiana was up by four rigs and New Mexico was up by three.

California, Colorado and Pennsylvania were unchanged.

Alaska was down by one; Oklahoma and Wyoming were each down by two; North Dakota and Texas were each down by three rigs.

Baker Hughes shows Alaska with five active rigs, the same 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

GOVERNMENT

ND gives industry more flaring flexibility

North Dakota regulators have decided not to change targets for capturing the natural gas produced from oil drilling.

The goal is set to increase in November from 85 percent to 88 percent. The Industrial Commission was to consider postponing that by two years but instead voted Nov. 20 to give the oil industry more flexibility to meet gas flaring regulations.

The three-member commission voted to change the gas capture policy goals to increase the volume of captured gas and reduce the percentage of flared gas.

Natural gas not captured at oil wells is burned off, a practice known as flaring that can degrade air quality. North Dakota has struggled to build enough infrastructure to capture the gas.

The problem is worse when production speeds up. Record production in September led to just 83 percent of gas being captured — the fifth straight month the 85 percent target was missed.

The commission said the gas capture policy must "be balanced with what infrastructure is in place and how the industry is evolving."

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Our Greatest Resource.

Alaskan ingenuity and determination are leading to exciting breakthroughs at BP.

The spirit that has fueled BP for decades is paving the way to new innovations. We're now producing more oil from Prudhoe Bay, putting more wells on line, celebrating three years of no decline and making strides towards the development of Alaska's LNG project. And we're not done yet. At BP, we're working hard to ensure that Alaska keeps advancing toward a brighter future.

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FINANCE & ECONOMY

Current recession state's longest at 3 years

Fried tells RDC that employment figures could start to turn around in 2019, but actual economic recovery would take several years

By KRISTEN NELSON Petroleum News

A laska's current recession, only the third in the state's history, is now its longest at three years, but not its worst that distinction is held by the states great recession following the mid-1980s drop in oil prices, Neal Fried, economist with the Alaska Department of Labor and Workforce Development, told the Resource Development Council's annual conference Nov. 14.

Fried illustrated job growth since 1980, showing the sharp drop after the mid-1980s oil price crash, and 21 years of steady growth from 1988 to 2008. There was a dip in 2009, with a few jobs lost, followed by serious jobs losses in 2016 and 2017, continuing at a slower pace in 2018.

A slide accompanying Fried's talk shows employment falling by 1.9 percent in 2016, by 1.5 percent in 2017 and 0.8

"Recessions end with a whimper," Fried said, and hopefully sometime next year employment will start to turn positive.

percent for January-September of this year, figures which are still very preliminary, he said.

In absolute numbers, the job loss was about 5,000 jobs in 2016, Fried said, about 4,500 jobs in 2017 — and some 2,000 from preliminary numbers through September of this year.

The biggest job loss so far this year, in retail, is actually more related to national companies, and not to Alaska's economy, Fried said. Retail shows a loss of 900 jobs so far this year, but that's related to the closure of Sam's Clubs and Sears and the coming closure of Bed, Bath and Beyond (the Glenn Square location is closing). The other huge force bearing down on retail is e-commerce. While the national economy is booming, he said, retail is declining as a result of e-commerce inroads.

End with a whimper

On the plus side, construction was down 1,500 jobs last year, but so far this year it's up 300 jobs.

And while oil industry jobs are still down 600, last year those jobs were down by 2,100.

Fried said the economy is where it was between 2010 and 2011, after peaking in 2015 — that's how much ground we've lost, he said.

So how does a recession come to an end, he asked? Well, leisure and hospitality numbers have turned positive: people are eating out more. Transportation has remained positive, partly tied to tourism and partly tied to international air cargo.

And health care is growing as the pop-

As for the state's population overall, it fell slightly in 2017, down less than half a percent.

ulation grays.

"Recessions end with a whimper," Fried said, and hopefully sometime next year employment will start to turn positive. There is some optimism, he said, among those who make forecasts that employment could turn somewhat positive in 2019.

But that doesn't mean the economy will have recovered. That will require getting back to where we were in 2015, he said, and will take three to four years.

For some sectors, it will take longer: Construction is down to where it was in 2001, he said, and a lot more recovery is required there.

Leaving state?

Fried reviewed some research on those who lost jobs in the recession. Hardest hit industries were oil and gas, construction and state government. Comparing 2015 to 2017, Fried said, of those who lost oil jobs in the recession, 86 percent were still working in Alaska: 60 percent in the oil industry; only about 7 percent had left the state.

This is basically true for the other industries, as well: The state just didn't see a huge outflow of workers, he said.

The outlook for the oil sector is very positive, with good reason to believe oil industry numbers will turn positive soon, he said. Nationally oil employment has been recovering for more than two years.

As for the state's population overall, it fell slightly in 2017, down less than half a percent. There were more births than deaths in the state, but that number wasn't large enough to overwhelm the negatives from outmigration.

There has been a period of five years of outmigration, he said, and with prosperity elsewhere, fewer people are moving to Alaska. \bullet

Contact Kristen Nelson at knelson@petroleumnews.com



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LAND & LEASING

NASA weighs in on proposed Beaufort sale

ASSOCIATED PRESS

The federal agency that oversees offshore petroleum leasing has received comment on Arctic Ocean drilling from a surprise source — NASA.

Alaska's Energy Desk reports that the Bureau of Ocean Energy Management asked for comment as the Trump administration considers a 2019 lease sale in the Beaufort Sea.

A letter from NASA says Beaufort Sea drilling rigs could be affected by launches from its only high-latitude rocket range.

The space administration funds Poker Flat Research Range outside Fairbanks. The high-latitude rocket range for decades has been operated by the University of Alaska Fairbanks.

"What we're known for is doing research on the aurora," Poker Flat director Kathe Rich said.

Scientists launch rockets that pass through the aurora and sometimes land great distances from the launch site.

"If we're looking for something that's fairly far north, it's going to come down in the Beaufort Sea or the Arctic Ocean, one or the other," Rich said.

Rocket parts land in Beaufort

The NASA Goddard Space Flight Center in April sent a letter to the Bureau of Ocean Energy Management estimating that 70 rocket parts have landed in the Beaufort Sea since the 1960s.

NASA expressed concern that future oil and gas development in the Beaufort Sea could result in the need to protect additional people and property during launches.

As scientists use higher-performing rockets nowadays, more could land in the Beaufort, according to NASA.

The chance of rocket parts crashing onto oil rigs is extremely unlikely, Rich said. Scientists would not launch them if they thought people or infrastructure would be in danger. What's more likely is that more Beaufort Sea activity could limit research opportunities, Rich said.

"The downrange area that we have, it can be kind of like threading a needle with all the various things that we need to avoid," Rich said. "So every time that you have to add something else in that can be avoided, that can result in fewer launch opportunities for us."

Rich is optimistic that NASA and the Bureau of Ocean Energy Management will reach an agreement. The research is important because the aurora is like a visual manifestation of the sun's energy entering the earth's upper atmosphere. That energy can affect cellphone communications or the electrical grid

Bureau spokesman John Callahan said by email the agency will work with NASA to explore the best options.

"We're happy they've reached out to us to talk about safe operations in the Beaufort," Callahan said. "It's a great example of good lines of communication between federal agencies here." \bullet

Igiugig applies for hydrokinetic pilot

Asks FERC for a 10-year license to continue and expand the testing of an in-river turbine power generation system for the village

By ALAN BAILEY Petroleum News

giugig Village Council has applied to the Federal Energy Regulatory Commission for a license for an in-river turbine power generation pilot project. The proposal, which follows the testing of a hydrokinetic system in the village in 2014 and 2015, would involve the placement of underwater turbine generators with helical shaped turbine blades, anchored to the bed of the fast-flowing Kvichak River, not far from where the river flows out of Lake Iliamna in southern Alaska.

Igiugig is situated adjacent to the river. Power cables from the generator would connect onshore to the village power distribution system.

Ocean Renewable Power Co., a firm that specializes in hydrokinetic power generation systems, has been assisting Igiugig with its hydrokinetic venture. The company built and installed the prototype device used for the testing. The U.S. Department of Energy provided funding assistance. Success with a system of this type at Igiugig could presumably open up the possibility of using hydrokinetics in other rural Alaska locations, as a potential source of electrical power.

ORPC, in conjunction with the village council, has prepared a plan for a pilot project at Igiugig, based on an assumption that FERC would conduct an environmental assessment for the project during the first quarter of 2019. The project would involve two phases. Phase one would entail installing a single turbine in the river in late June 2019. This device would be operated and monitored for a period of up to 12 months. The results of this testing would lead to a decision on whether to proceed to phase two. Phase two would expand the system by installing a second device in the river and connecting this device to the existing cabling for the system.

Each of the turbine generators would have a 35-kilowatt rating.

Could lead to commercial development

The application to FERC says that information gleaned from the testing conducted in 2014 and 2015, together with the results of environmental studies conducted in conjunction with the pilot project, would be used during the pilot project to develop an application for a commercial hydrokinetic system development. To this end, the village council has asked for a 10-year license term for the pilot.

The village told FERC that it has been consulting with a number of federal and state agencies regarding the testing of a hydrokinetic device in the Kvichak River.

Igiugig currently uses diesel generators as its prime source of electrical power. The village told FERC that there are also six 1.5-kilowatt wind turbines in various states of functionality. A 70-kilowatt hydrokinetic system could displace the need for 25,000 gallons per year of diesel fuel, the village told FERC. Diesel fuel has to be delivered by air or barge during the summer, for storing in a tank farm adjacent the diesel power plant.

Having conducted tests of the deployment of hydrokinetic technology at Igiugig, the village is now ready to initiate the final development stage of its hydrokinetic project by installing a commercial scale system in the river in 2019 for the pilot project, the village told FERC. \bullet

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continued from page 1 PIPELINE BOTTLENECK

table."

Notley said it was simplistic of the Trudeau administration to dismiss buying new locomotives and crude tankers by saying they would take at least a year to enter service by which stage the Keystone XL and Trans Mountain pipeline expansions would be under construction.

Faced with federal inaction on the rail front, Notley said she is seriously thinking about buying hundreds of tanker cars "to help ease the economic pain that Alberta played no part in causing, but that is affecting the economic well-being of the entire province and country."

Otherwise, the only near-term relief for the shipping crunch will come from the return of U.S. refineries to full capacity and Enbridge's scheduled started of service in 2019 on its Line 3 to the U.S. Midwest

A month after Notley asked Trudeau to authorize the purchase of more locomotives she said her own government would "do what it needs to, whether we do it by ourselves or with (federal) support."

Federal officials were quick to scuttle

any hopes of federal action on the rail front, telling the Toronto Star that additional locomotives and crude tankers would not provide a short-term fix.

The best the industry heard from Trudeau was his glib acknowledgement that the oil price situation "is very much a crisis. When you have a price differential that (has peaked at US\$50) that's a massive challenge to the local industry, to the livelihood of a lot of Albertans and I hear that very clearly."

Trudeau said his government is doing what it can to get the tripling of Trans Mountain capacity to 890,000 barrels of oil equivalent per day built, but since buying the existing system for C\$4.5 billion he has done nothing except embark on a replay of regulatory hearings.

He took the chance to take a swipe at the industry, arguing "it isn't entirely united on the best ways to move forward on how to fix the price differential," with some producers favoring production cuts and refiners insisting market forces should resolve the issue.

Federal Finance Minister Bill Morneau signaled Nov. 21 that the government does not back Alberta's call for rail rolling stock,

insisting pipelines are the only long-term solution.

"We've clearly said that pipelines are efficient, cost-efficient and a safe way for us to get our resources to market," he told the Star. "If the industry and Alberta choose to find other alternatives than that we understand. But we are focused on the longterm."

Notley's request for new rail capacity would carry an additional 140,000 barrels per day, on top of the record 270,000 bpd in September, but federal officials say it would cost C\$350 million to purchase the locomotives and tankers and C\$2.6 billion to operate them over three years.

The Alberta government has estimated about C\$2 billion would be recovered from shippers, along with extra tax revenue from a higher price of oil derived from Asian markets.

Alberta Finance Minister Joe Ceci vented his frustrations with the Trudeau government's failure in a federal budget update to include Alberta-specific tax breaks, accusing it of "speaking a different language."

But, in her speech to the Canadian Association of Oilwell Drilling Contractors, Notley offered what was viewed as a token gesture, offering tax breaks for small oil and gas drillers by exempting them from Alberta's carbon tax.

The exemption, backdated to the start of 2017 when the tax was introduced, is expected to provide a mere C\$750,000 to C\$1.5 million in relief for the drilling sector.

That followed an earlier announcement that Alberta will offer C\$1 billion of incentives to suppliers of feedstock to kick-start petrochemical upgrading.

Meanwhile, CAODC said it expected little improvement in drilling activity in 2019, forecasting an increase of 51 wells to about 7,000, which is down from about 13,000 wells in 2014 before global oil prices slumped.

"Other industries in the same situation would be holding their hands out for a government bailout," said CAODC President Mark Scholz. "Yet instead out industry has only asked for government permission and support to get our products to market.

"The lack of action and attention by the federal government to this pressing issue is deafening," he said. "We're looking for more than that." \bullet

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continued from page 1 SPECULATIVE PLAY

have transformed the outlook for North Slope oil development.

But what is the potential for the area where Lagniappe is acquiring its exploration acreage? This more easterly area, some distance inland from the Beaufort Sea coast, has seen little exploration in the past.

Geology changes to the east

No one doubts that there is significant oil and gas potential in the more easterly part of the North Slope. But the geology in the subsurface changes to the east, with uncertain consequences for the discovery and development of oil and gas resources. A major factor in the geology is a stratigraphic discontinuity called the lower Cretaceous unconformity. This break in the deposition of sedimentary strata resulted in the erosion out of older rocks in the stratigraphic sequence, with these older rocks, including the source and reservoir rocks for the Prudhoe Bay and Kuparuk River fields, tending to disappear towards the east. In the coastal plain

of the Arctic National Wildlife Refuge, to the east of Lagniappe's acreage, the major oil source horizons from the central North Slope appear to be largely missing, although there are known to be excellent younger potential oil sources.

In the east there is a thick succession of strata from the Brookian sequence, the youngest and shallowest of the petroleum bearing North Slope rock sequences. This is the rock sequence that includes the Nanushuk and Torok formations that have been the focus of recent major oil discoveries in the west. But the Nanushuk and Torok do not extend to the east, much beyond the Pikka/Narwhal trend that has been a focus of recent oil discovery and development excitement. To the east, the Brookian strata are younger. However, these younger strata were laid down in a similar setting to the Nanushuk/Torok, with the infilling of an ancient marine basin with vast quantities of sand and mud. The sand can form oil reservoirs, with the oil trapped in place by less permeable muddy sediment layers.

Reservoir challenges

The challenge, as BP discovered years ago at Badami, is the possible compart-

mentalization of reservoir units, with oil being trapped in a multitude of distinct, relatively thin, disconnected sand layers. However, modern drilling and reservoir fracturing techniques can presumably help open up this type of oil accumulation. And there is the possibility of finding major reservoir sand lobes, deposited in similar settings to that of the Nanushuk oil reservoirs discovered to the west. Furthermore, modern seismic surveying could presumably help locate the subtle so-called stratigraphic hydrocarbon traps that are characteristic of the Brookian.

Sparse drilling

There has been very little drilling around the area where Lagniappe bid for its leases.

The most recent exploration well, to the northwest of the Lagniappe acreage, is a lease owned by Caelus Natural Resources Alaska but being transferred to Eni US Operating Co., is Jacob's Ladder, drilled to a vertical depth of 13,306 feet by Anadarko Petroleum in 2007 and 2008. This well targeted a possible oil pool in carbonate rocks of the Lisburne group, equivalent to the reservoir of the Lisburne field to the west. There was also the possibility of oil in the Ivishak formation, the main reservoir for the Prudhoe Bay field. The Lisburne and Ivishak are in the Ellesmerian sequence, the oldest and deepest of the main North Slope petroleum bearing rock sequences.

The Jacob's Ladder well did not encounter an oil pool. The well penetrated the lower Cretaceous unconformity at a depth of 10,500 feet. Above the unconformity was the HRZ, a major North Slope oil source. Above that lay more than 5,000 feet of Brookian strata of the Canning, Schrader Bluff and Prince Creek formations. Immediately below the unconformity came the Ivishak, and below that the Kavik, Echooka and Lisburne. Strata of the Beaufortian sequence, the sequence that lies between the Ellesmerian and Brookian and hosts the Kuparuk River and Alpine fields, are absent at Jacob's Ladder.

Older wells

There are two much older wells near Jacob's Ladder: the Lake 79 Fed 1, drilled by Shell in 1969, and the Kad Riv 1, drilled by Texaco in 1969. Shell reported that the Lake 79 Fed 1, drilled to a depth of 15,444 feet, encountered Cretaceous sandstone, presumably of the Brookian Sequence, above "Permo-Triassic sandstone," presumably of the Ellesmerian. Below that lay Lisburne limestone, with older metamorphic rocks at the bottom of the well. The Kad Riv 1 documentation ignores the Brookian but notes that the



The Alaska SPE Petroleum Section would like to thank all our sponsors and supporters to the SPE 2018 Scholarship fund

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continued from page 1 HYDRATE WELL

Petroleum News understands that the purpose of the well will be to conduct long-term testing of natural gas production from hydrates in the subsurface at the well location. However, no information is publicly available about the drilling and testing plan, or about how the project is being funded. The division notice says that, if the well encounters hydrates and a decision is made to conduct hydrate testing, the well will be completed as a monitoring well, with future operations being separately permitted.

Both BP and ConocoPhillips have been involved with the U.S. Department of Energy in previous North Slope methane hydrate research. The Japan Oil, Gas and Metals National Corp. has also been involved in the in the world. research.

Potential gas source

Methane hydrate is a solid in which molecules of methane, the primary component of natural gas, are concentrated inside a lattice of water molecules. Huge quantities of the material, which remains stable within a certain range of relatively high pressures and low temperatures, are known to exist around the base of the permafrost under the North Slope. If the technical feasibility and economic viability of sustained gas production from the hydrates can be demonstrated, the hydrates could become a major new source of gas supplies - the results from hydrate testing on the North Slope could have implications for developing hydrate resources elsewhere

Short-term gas production from hydrates has been demonstrated from previous hydrate test wells, including a test well on the North Slope. But long-term production has yet to be achieved. Intriguingly, sustained gas production from the Barrow gas fields at the western end of the North Slope is thought to be underpinned by the disassociation of methane hydrate in the field reservoir - this theory, if correct, would suggest that sustained production from hydrates is possible.

In 2008 the U.S. Geological Survey estimated the possibility of 85 trillion cubic feet of undiscovered, technically recoverable natural gas from North Slope gas hydrates. -ALAN BAILEY

Contact Alan Bailey at abailey@petroleumnews.com



Alaska Marine Lines expands Western Alaska service

Alaska Marine Lines, an Alaska marine transportation company, is expanding its service from Seattle and Anchorage to the Arctic Region in 2019. Bowhead Transport will provide the destination services at the North Slope villages of Point Hope, Point Lay, Wainwright, Utgiagvik and Kaktovik. Alaska Marine Lines will also service Deadhorse with its two annual sealifts. Bowhead, thru its teaming agreement with

Alaska Marine Lines, will continue to participate in the door-to-shore service to the Arctic that it initiated over 30 years ago.

The new stops will be added to Alaska Marine Lines' many ports of call, joining the major hubs of Naknek, Dillingham, Nome, Bethel and Kotzebue and more than 65 villages along the coast of Western Alaska.

"Adding these new locations allows us to meet our goal of serving the entire state of Alaska, from Ketchikan to Kaktovik. From April to October each year we bring essential supplies to local villages in Western Alaska and provide critical support to the seafood industry," said Alaska Marine Lines President Kevin Anderson. "Bowhead Transport has been serving Alaska for decades and we are proud to team with them to continue to provide the excellent service their customers depend on."

For more information or to book a shipment, contact Alaska Marine Lines at 800-426-3113 or westernakcs@lynden.com.

Chamber of Shipping honors 109 Crowley vessels

The Chamber of Shipping of America has awarded 109 vessels owned and or operated by Crowley Maritime Corp. with certificates of environmental achievement in recognition

of their strong safety records and environmental protection.

The 109 vessels include container ships, tankers, articulated tug-barges, tugboats and more, representing a combined 1,171 years without an environmental incident. Forty-nine of these Crowley-owned and or operated vessels have gone at least 10 years without an incident.

"The safety of the envi-

ronment is crucial to our operations in every place where we work. These awards are testaments to the dedication and hard work of the men and women who make up our crews," said Capt. Boren Chambers, director, marine operations, Crowley Shipping, who represented the company at the Nov. 7 awards ceremony in Washington, D.C. "Safety is our No. 1 core value, and we appreciate the recognition earned by crewmembers' commitment to environmental stewardship."

The awards are open to all owners and operators of vessels that operate on oceans or inland waterways. The association's awards honor companies for operating vessels without any environmental incidents, displaying a commitment to respecting and protecting the environment on oceans and inland waterways. More information on the awards program can be found on CSA's website, www.knowships.org.

Editor's note: Some of these news items — some in expanded form — 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.

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continued from page 1 NPR-A PLAN

use on the North Slope of Alaska, the Department of the Interior determined it is appropriate to consider a different approach to management of the NPR-A."

Current restrictions

Through a combination of limitations on areas that can be leased and of limitations on where infrastructure can be built, the current NPR-A plan places much of the northern part of the reserve off limits to oil and gas development. Restricted areas include onshore lands adjacent to Smith Bay and Admiralty Bay. Particularly sensitive is a region around Teshekpuk Lake, a habitat for large numbers of waterfowl, adjacent to caribou calving grounds and goose molting areas. There are also concerns about the sustainability of and access to subsistence resources in the region for local communities.

However, these areas also lie along the line of a major geologic structure called the Barrow Arch that acts as a focus for the migration of oil into North Slope oil field reservoirs.

Oil assessments

When BLM's current integrated activity plan was published, the agency commented that areas within NPR-A that remained open for oil and gas leasing encompassed around

72 percent of the undiscovered, economically recoverable oil in the NPR-A. That statement was based on a U.S. Geological Survey assessment of technically recoverable oil in the reserve. The assessment had focused on the oil potential in what is referred to as the Beaufortian sequence, the rock sequence that includes the reservoir rocks for the Kuparuk River and Alpine oil fields. The USGS scientists had determined that the hydrocarbons in these reservoirs become increasing dominated by natural gas rather than oil, towards the west across the coastal region of the reserve. Hence the conclusion that a relatively high proportion of undiscovered oil lay farther south, under land that subsequently remained available for leasing.

But recent major oil discoveries in the Nanushuk and Torok formations, in the Brookian rock sequence, above the Beaufortian, have caused the USGS to rethink its earlier evaluation, significantly increasing its estimates of the amount of undiscovered oil in the NPR-A, while placing a significant proportion this newly recognized oil potential in the northern part of the reserve.

Economic considerations

Economic considerations also play into the debate over NPR-A development. To be viable, an oil development in the remote interior of the refuge, far from any infrastructure, would presumably require a massive oil find. Instead, ConocoPhillips, for example, has been following a strategy of stepping out west into the northeastern NPR-A from the Alpine field, progressively extending the oil infrastructure west through a series of individual developments: CD-5, Mooses Tooth 1 and Mooses Tooth 2. Those particular developments have involved Alpine reservoir sands in the Beaufortian sequence. But the company's latest NPR-A venture, the Willow field, involves a massive oil pool in that younger Nanushuk formation.

Moving out much farther west than Willow would hit the edge of the special restricted area around Teshekpuk Lake.

And concerns about the environmental sensitivity of areas such as Teshekpuk Lake remain, regardless of how much oil lies underneath. On the other hand, state-of-theart drilling technologies such as ultraextended reach drilling can reduce the environmental impacts of oil development.

According to a report by Alaska Public Media Balash has indicated that one significant reason for reworking the NPR-A plan is a need to re-evaluate the restrictions that currently apply to the Teshekpuk Lake area.

Consider opening new areas

BLM, in its announcement about the new planning initiative, said that the plan revisions would consider "a range of leasing alternatives that open new areas to leasing." Current special area boundaries would be examined, while new or revised lease stipulations, together with the incorporation of best management practices, would be considered.

"The new plan will incorporate the most current information and lay out management goals and objectives that are environmentally responsible, respect traditional uses of the land, and maintain access to subsistence resources," BLM said.

"The planning being initiated today calls for substantial public involvement to include consideration of the State of Alaska's regional planning efforts for the North Slope," said Ted Murphy, acting BLM Alaska state director.

Environmentalists oppose

However, environmental organizations will clearly remain adamantly opposed to any relaxation of environmental restrictions, especially around the Teshekpuk Lake area.

"Gutting the NPR-A's land management plan, as we anticipate this administration will do, is outrageous and a complete waste of taxpayer money and agency resources," said Nicole Whittington-Evans, Alaska regional director for the Wilderness Society. "Nearly 27 million acres of Arctic Alaska are already available to the oil and gas industry, and just last week the State of Alaska leased over 220,000 acres in the region, demonstrating that there's plenty of land available for oil development." •

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continued from page 1 PIKKA PROGRESS

oil from the project flowing in 2023. Wulff also commented that Oil Search is conducting discussions with "a number of parties" on possible options for an early production start.

At the beginning of this year Oil Search purchased half of Armstrong Energy and GMT Exploration's interests in the Pikka unit for \$400 million, with an option to buy the remainder of those interests for \$450 million by June of next year.

"I've no doubt that we will exercise that option," Wulff said.

Repsol also has interests in the Pikka unit.

Community focus

Wulff emphasized the importance that his company places on working with local communities, to understand and accommodate community concerns, and to minimize environmental impacts. He commented that, after arriving in Alaska, Oil Search had slowed the EIS process, to seek opportunities for better community alignment, and for better alignment with adjacent oil operators such as ConocoPhillips. The company ended up making some changes to its development plan, to address community concerns.

"We're not just an oil company," Wulff said. "We work with the local community and local contractors to build long-term sustainability with projects."

Wulff commented that, among other initiatives, Oil Search is opening an office in the village of Nuiqsut, the community near the proposed development.

continued from page 1 **DUNLEAVY PICKS**

Council.

Jonathan Quick, named commissioner of Administration, is chief of staff to Kenai Peninsula Borough Mayor Charlie Pierce.

Adam Crum, named as commissioner of Health and Social Services, is executive vice president at Northern Industrial Training LLC.

Dunleavy named a non-Alaskan, Donna Arduin, director of the Office of Management and Budget. Arduin is president of Arduin, Laffer & Moore Econometrics LLC.

"Today's appointees are among the best and brightest in their fields," Dunleavy said. "Their passion for results combined with the institutional knowledge found within state government will bring a bold, fresh approach to managing their respective departments. Alaska is at a crossroads, and it is past time to start doing things differently if we want different results."

Brune

The statement from Dunleavy's transition team says that while at CIRI, Brune oversaw and participated in the development and administration of CIRI's 1.6 million acres of subsurface resources, including oil, gas, minerals, sand and



Alaska Frac Consulting

Experience in challenging situations

Oil Search is an Australian company with major oil and gas operations in Papua New Guinea, and with a market capitalization of around \$9 billion U.S. Citing the example of a successful gas well drilled at an altitude of 11,000 feet in remote territory in Papua New Guinea, Wulff said that Oil Search has a proven record of operating in harsh and difficult environments. And after becoming operator of Papua New Guinea oil fields in 2002, Oil Search had been able to increase production substantially, extending field life by around 20 years, he said.

Following the company's mantra of community involvement, the company has been providing medical services and power for Papua New Guinea communities local to the company's operations, Wulff said.

Local hire

Part of the company's community commitment is the use of local hire, as much as possible. More than 85 percent of the company's employees are local citizen's in the regions where the company operates, Wulff said. And the company is engaged in ramping up its Alaska workforce.

"So we've made the conscious decision to establish all our staff and our decision making here in Alaska," Wulff said.

The company is also trying to make maximum use of local contractors, in some cases exploring opportunities for joint ventures between Alaska contractors and non-Alaska companies that have specialized technical expertise.

In March Oil Search had just three Alaska employees. That number has now risen to 80. By mid-January the company expects the number to be at the 100 mark, rising to

gravel, and coal. He supervised the team's staff, environmental contractors, stakeholder management and legal review while building relationships with CIRI's villages. He also worked to identify priorities for addressing Alaska Native Claims Settlement Act contaminated lands.

Brune has a bachelor's degree in biology from Carleton College and did graduate work in environmental

science at Alaska Pacific University. He has served on the Alaska Sealife Center Board, Cook Inlet Beluga Whale Endangered Species Act Recovery Team, Tyonek Tribal Conservation District Board, the Exxon Valdez Oil Spill Public Advisory Committee and numerous other business and civic organizations.

Quick, Crum

Quick was named commissioner of the Department of Administration; the Alaska Oil and Gas Conservation Commission, a quasi-judicial agency, falls under that department.

The transition team statement said one of Quick's signature achievements at the Kenai Peninsula Borough was reducing a \$5 million deficit to \$400,000 by finding efficiencies. He also spearheaded a business incentive program



ADAM CRUM

around 200 by the time that the FEED process starts next year. Following a commitment to construction, there would likely be around 800 people working on the project on the Slope, Wulff said.

A unified team

As part of its build up, Oil Search has integrated Repsol's database and technical team into its operations, to create a single joint venture team for pursuing the Pikka development. Oil Search has not yet fully evaluated the scale of the Pikka resource but confidence in the resource has enabled an upgrade of the resource potential from around 400 million barrels to about 620 million barrels. Based on the results of the continuing appraisal, and on opportunities for working with neighboring producers, development plans could change, he said.

To date, Oil Search has established some 150 contracts in association with the project, with a focus on how to involve Alaska companies. To move through to production will likely cost around \$4.5 billion, including the drilling of perhaps 70 production and 70 injection wells. Drill sites and a central processing facility will be needed, Wulff said.

Beyond the Pikka development, Oil Search sees further exploration potential in Alaska. And, with what it views as a world class project at Pikka, the company anticipates a long-term future in the state.

"For us, Alaska is a commitment. We are committed," Wulff said. "We want to be here for a long period of time." —ALAN BAILEY

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designed to attract investment to the peninsula, where he oversaw a team of 350, managed a budget of \$140 million and oversaw 13 directors. He has also launched and sold multiple successful businesses. He holds a bachelor's degree in business administration from Northwest University.

Crum, named as commissioner of Health and Social Services, has a bachelor's degree in psychology from Northwestern University and a master's degree in public health from Johns Hopkins University.

Arduin

The transition team said Arduin "is a budget fixer" with a proven track record of digging into "complex fiscal systems and making effective recommendations for large-scale change." She has experience in numerous states, working with then-Florida Speaker Marco Rubio, gubernatorial candidates Meg Whitman in California and Rick Scott in Florida and Gov. Bruce Rauer of Illinois. She helped then-Florida Gov. Jeb Bush cut taxes and build a surplus, and also worked for then-California Gov. Arnold Schwarzenegger.

She holds a bachelor's degree in economics and public policy from Duke University and is a graduate of the Harvard Kennedy School of Government's Leadership Program.

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Hilcorp Seaview pad near Anchor Point

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corporated Anchor Point community on the Lower Kenai Peninsula. The primary term of the lease is five years.

The lease area of 19.1 acres, more or less, includes two parcels on Milo Fritz Avenue consisting of the 1.7-acre site of the Anchor Point Volunteer Fire Dept. and Rescue — and across the street the 0.69acre site of the Anchor Point Fire and EMS training facility. Lease royalty payments attributable to the fire and rescue locations will be distributed at 9.7 percent to the Anchor Point Fire & Emergency Medical Service Area, with the remainder to accrue to the Land Trust Fund.

The primary consideration is the royalty, Borough Land Manager Marcus Mueller told Petroleum News, adding, "There was a nominal bonus paid."

Remunerations to borough

"The Land Trust income benefits

Anchor Point in a diffuse way," Mueller said. "The borough's land program puts land under solid waste facilities, schools and other borough needs."

Land Trust income goes to the management of the borough lands, some 130,000 acres of land in total, he said.

"It's unusual to have oil and gas rovalties issues because the land transferred to the borough from the state does not include mineral interests per the Alaska Constitution, which disallows the transfer of such interests," Mueller said.

"The mineral issues arise on lands that are purchased or acquired through tax foreclosure." Mueller said. "The borough does have a provision for oil and gas leasing without surface use; surface use would be by separate agreement."

Exhibit B of the lease specifies that no operations are permitted on the surface of the leased land, however the lessee will have the right to drill and operate directional wells through and under the land irrespective of the bottomhole

Oil & Gas Subsurface Lease Parcels Point Alaska Į Legend O&G Lease

locations of the wells. The exhibit further describes a subsurface easement for all purposes associated with the wells, commencing at and continuing below the depth of 500 feet.

Three thumbs up

The Anchor Point Advisory Planning Commission advised in favor of the ordinance, Mueller told the Borough Assembly Lands Committee in hearing testimony Nov. 20.

Additionally, the Anchor Point Fire & Emergency Medical Service Area board recommended passage of the ordinance by unanimous consent, he said, adding that at the Nov. 13 meeting of the Borough Planning Commission it was recommended for approval by majority consent.

Mueller also noted that Section 3.4 of the lease had been altered to eliminate any deductions from royalties for production expenses. In the originally proposed version of the lease the section said, "In computing the royalty, lessee may deduct the costs of heating, sweetening, gathering, transporting, dehydrating, compressing, extracting, processing,

or manufacturing."

"The change to the lease is making it deduction free," Mueller said. "That does bring it into conformance with state oil and gas rates for the area."

In follow-up questions to Mueller, assembly member Willy Dunne indicated that under borough code 12.5 percent was the minimum lease rate that could be considered for oil and gas leases, and he asked if there had been an attempt to negotiate a higher rate.

Mueller said he was satisfied that the rate was in line with prevailing state rates.

"That is a concern of a lot of my constituents, that we were just offered the minimum without any negotiation or any discussion over what we could get for more," Dunne said. "The state does have a number of leases for the 16 2/3 royalty, and that apparently there's been some leases in Cook Inlet with private individuals for up to 20 percent."

Mueller said the borough could ask for more, but he did not recommend it.

"As land manager, I think it is important for us to be very stable with how we approach our market," Mueller said.

-STEVE SUTHERLIN



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