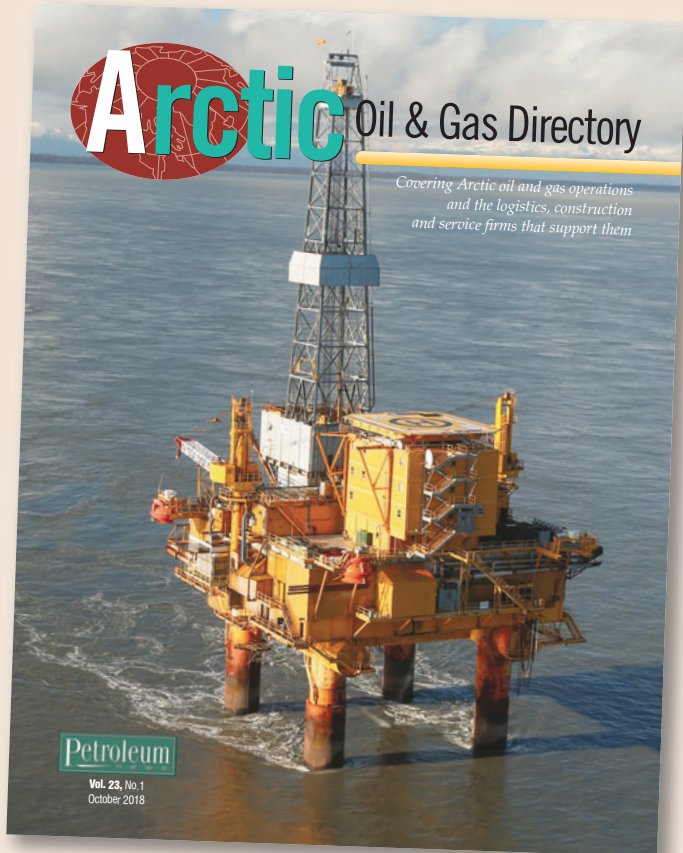




Latest Arctic Directory released



Conoco massing; Sweeney at BIA

THERE IS SOME TRUTH IN THE RUMOR that ConocoPhillips Alaska has stepped up hiring. On Oct. 7, company spokesperson Natalie Lowman told Petroleum News, “we are not increasing staff significantly but have been filling some positions as we begin the process to permit the Willow project.”

As previously reported, in a highly upbeat presentation in September, ConocoPhillips Alaska

see **INSIDER** page 12

Terms agreed for sale of ML&P

Chugach Electric Association and the Municipality of Anchorage have released a proposed term sheet, setting out the provisions for the sale of municipality-owned electric utility Municipal Light & Power to Chugach Electric Association, Chugach Electric announced Sept. 28. Anchorage voters approved the sale in the municipal election that was held in April — since then the municipality, ML&P and Chugach Electric have been working out the details of the deal. Completion of the deal will result in a single consolidated utility in Anchorage, which, the municipality and the utilities say, will achieve long term economies of scale through the effi-

see **ML&P SALE** page 11

Western satellite production up

BP Exploration (Alaska) Inc. is reporting production growth at four of the five fields that make up the Western Satellites at Prudhoe Bay, after reporting declines last year.

In a plan of development submitted to the state Division of Oil and Gas in late September, the Prudhoe Bay operator reported increased oil production at the Borealis, Midnight Sun, Orion and Polaris fields at the west end of Prudhoe Bay. The company reported a slight decline at the Aurora field that essentially constituted flat production.

The increases follow a trend in place before the year ending

see **SATELLITE PRODUCTION** page 10

EXPLORATION & PRODUCTION

Oil Search winter plan

Company will drill two Pikka wells, two sidetracks, to better define Nanushuk

By **KRISTEN NELSON**

Petroleum News

Oil Search (Alaska) LLC, operator of the North Slope Pikka unit, plans two wells — each with a sidetrack — at Pikka this winter, one in the southern portion and one in the central portion of the unit.

In a fourth plan of exploration for Pikka, submitted to the Alaska Department of Natural Resources and the Arctic Slope Regional Corp. Sept. 28, Oil Search provided an update for the third POE, submitted by then-operator Armstrong Energy LLC in September 2017, and laid out plans for this winter’s exploration and for work covering the plan year, which runs from Dec. 1 through Nov. 30, 2019.

On the drilling side, the company said it will begin construction of ice roads and two ice pads on or about Dec. 1, with the ice roads starting from the Mustang Pad in the Southern Miluveach Unit; two rigs will be mobilized from Deadhorse on or about Jan. 15.

Armstrong had two wells in the 2017-18 plan, Pikka 2 and the Pikka 2A sidetrack, in the southwestern portion of the unit in sections 34 and 35 of township 11 north, range 5 east, Umiat Meridian, wells critical to delineation of that area. Routine and special core analysis was planned.

see **OIL SEARCH** page 12

NATURAL GAS

LNG Canada a ‘go’

7-year struggle ends with final spending approval for C\$40B venture

By **GARY PARK**

For Petroleum News

With a grunt and a heave, the multinational partnership underpinning LNG Canada shoved their mammoth venture out of the starting gate Oct. 2.

Royal Dutch Shell and its four Asian investors agreed to pony up C\$40 billion of capital spending, seven years after first rolling out what is rated as the biggest infrastructure undertaking in Canadian history and a project that could boost global LNG supplies by 10 percent.

“We look forward to helping Canada take its place on the global map of LNG exporting coun-

The line will have initial capacity of 2.1 billion cubic feet per day when it comes into service in 2023 and eventually grow to 5 bcf per day.

tries,” said LNG Canada Chief Executive Officer Andy Calitz. “The final investment decision taken by our joint venture partners shows British Columbia and Canada, working with First Nations and local communities, can deliver competitive energy projects.

“This decision showcases how industrial development can co-exist with environmental steward-

see **LNG CANADA** page 11

UTILITIES

Progress on transco

Alaska Railbelt electric utilities give timeline for transmission company

By **ALAN BAILEY**

Petroleum News

The Alaska Railbelt electric utilities are continuing to make progress towards the formation of a transmission company, or transco, to operate the Railbelt transmission grid that extends from the southern Kenai Peninsula, across Southcentral Alaska and north to the Fairbanks region in the Interior, utility executives told the Regulatory Commission of Alaska during a commission public meeting on Sept. 26.

Board presentations

Proposed terms for forming a transco have been negotiated by utility managers and are in the process of being presented to utility boards for

During the Sept. 26 RCA meeting Myers reported that the utility managers have now reached tentative agreement, subject to board approvals, on the various elements of the transco structure and operation.

consideration, with the last of these presentations scheduled for Oct. 8, Eric Myers, manager of business development for the American Transmission Co., told the commission. The utility boards will need to decide on whether to agree with what is proposed. That will then lead to two possible outcomes in the fourth quarter of this year: Either, if

see **TRANSCO PROGRESS** page 8

● EXPLORATION & PRODUCTION

Amaroq gets production bump from workovers

Five-well workover program at Nicolai Creek yields increases at three wells, leaves two shut-in; one new well under evaluation

By ERIC LIDJI

For Petroleum News

A recent series of workover operations at several Nicolai Creek unit wells yielded mixed results — increasing production at some wells and necessitating shut-ins at others, according to a plan of development submitted by operator Amaroq Resources LLC.

The company has not drilled at the Nicolai Creek unit during the current development year and has no plans to do so in the remaining months of the cycle, which runs through the end of December. But the company has conducted workover operations on at least five existing wells at the onshore Cook Inlet, mostly to check for and clean out sand fill.

The company ran slickline at Nicolai Creek No. 2 in August to evaluate the potential for future production or storage. The company identified mechanical issues, and the well is currently shut-in until the company can gather additional



SCOTT PFOFF

information.

The Nicolai Creek No. 3 well remains shut-in until the company can obtain 1.25-inch coiled tubing, which is unavailable in the Cook Inlet region at the present time.

A slickline operation on the Nicolai Creek No. 9 well in the third quarter of 2018 addressed fill identified in an August 2016 operation. The recent operation resulted in an approximately 50 percent increase in production. The well produced 38.4 million cubic feet through the first eight months of

2018, according to production figures in the plan.

Amaroq is currently evaluating the economics of conducting a rig workover of the Nicolai Creek No. 10 well sometime in 2019 to replace damaged tubing and to implement sand control. The company attempted to workover the well in the third quarter of this year but discovered parted tubing in the well, which requires rig work. Prior to the attempted clean out, Nicolai Creek No. 10 had been producing from the Carya 2-1 sand. The previous operator had

comingled the Carya 2-1 sand with the Carya 2-3 sand in May 2015, but fill discovered in December 2015 and August 2016 closed the Carya 2-3 sand.

The Nicolai Creek No. 10 well produced 25.6 million cubic feet through the first eight months of 2018, according to figures provided by Amaroq in the development plan.

A coiled tubing workover of the Nicolai Creek No. 11 well in the third quarter of this year increased production by approximately 85 percent, according to Amaroq. A previous slickline check from December 2015 had discovered sand blocking the completion in the Lower Tyonek formation and attempts to clean out the sand failed. As a result, the well had been producing only from the Beluga formation. The well produced 27.7 million cubic feet through the first eight months of the year, according to figures in the plan.

The company reported no activity on the Nicolai Creek No. 1B well, which produced 10.2 million cubic feet through the first eight months of the year, according to the plan.

see **AMAROQ OUTPUT** page 5

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Alaska - Mackenzie Rig Report

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

Alaska Rig Status

North Slope - Onshore

Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Milne Point, MPLU-41	Hilcorp
Dreco 1000 UE	16 (SCR/TD)	Standby	
Dreco D2000 Uebd	19 (SCR/TD)	GTMU, MT6-06	ConocoPhillips
AC Mobile	25	Standby	
OIME 2000	141 (SCR/TD)	Stacked	
	142 (SCR/TD)	Kuparuk, 35-611	ConocoPhillips
TSM 700	Arctic Fox #1	Stacked	
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 31-01	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)	Stacked	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)	Prudhoe Bay	Available
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay	Available
Ideco 900	3 (SCR/TD)		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

BP			
Top Drive, supersized	Liberty rig	Inactive	BP
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Spy Island, Maintenance	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk ODSN-04	Caelus Energy LLC

Cook Inlet Basin – Onshore

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	In All American Oilfield's yard in Kenai, Alaska	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	Stacked	Hilcorp Alaska LLC

Cook Inlet Basin – Offshore

Hilcorp Alaska LLC			
National 110	C (TD) Rig 51 Rig 51	Platform C, Stacked Steelhead Platform, Stacked Monopod Platform, Drilling	Hilcorp Alaska LLC Hilcorp Alaska LLC 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

SDC Drilling Inc.			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Available

Central Mackenzie Valley

Akita			
TSM-7000	37	Racked in Norman Wells, NT	Available

The Alaska - Mackenzie Rig Report as of October 3, 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*

	Sept. 28	Sept. 21	Year Ago
United States	1,054	1,053	940
Canada	178	197	213
Gulf of Mexico	18	18	22

Highest/Lowest

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

*Issued by Baker Hughes since 1944

The Alaska - Mackenzie Rig Report
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● EXPLORATION & PRODUCTION

Blueprint for oil sands survival

Teck embarks on regulatory process for C\$20.6 billion mine, with plans to ship 20 percent of output to US Gulf Coast refineries

By **GARY PARK**

For *Petroleum News*

Teck Resources, the Vancouver-based mining giant, has suddenly emerged as a power in the Alberta oil sands.

In early September it shared the spotlight at the grand opening of the Fort Hills mine — a 194,000 barrels per day operation owned by a trio made up of Suncor as 54.1 percent operator, France's Total with a 24.6 percent stake and Teck with a 21.3 percent holding.

Before the month was over, Teck put an end to beliefs that the era of mega oil sands projects is over by launching the first day of regulatory hearings into its application for the Horizon proposal — a massive greenfield project north of Fort Hills that is designed to produce 260,000 bpd.

The announcement coincided with a flurry of upbeat news for a sector that has been pummeled into submission over the last four years, including thousands of layoffs, billions of dollars in spending cutbacks and the withdrawal of several major companies from the oil sands, compounded by a fire that wiped out large chunks of the oil sands operational "capital" of Fort McMurray.

Since May a host of industry analysts say oil prices could top US\$100 a barrel this year, compared with less than US\$30 in early 2016, while the International Energy Agency fueled talk of a roughly 40 percent spike by projecting that world oil consumption will surpass 100 million barrels per day over the next three months.

"The price range for Brent crude of US\$70-\$80 in place since April could be

tested," the agency said, referring to U.S. sanctions on Iran's output, falling Venezuelan production and unplanned outages, although it warned that a possible risk to the forecast lies in some key emerging economies, due to currency depreciations against the U.S. dollar and risks to growth from an escalation of trade disputes.

However, Matt Badiali, a senior research analyst at Banyan Hill, said the current global market is tight, with supply and demand almost in lockstep.

C\$20.6 billion price tag

Amid this renewed optimism, the Horizon application is now facing a joint review hearing by the Canadian Environmental Assessment Agency and the provincial government's Alberta Energy Regulator.

Carrying an estimated price tag of C\$20.6 billion, Horizon's price tag slightly exceeds Teck's own market capitalization of C\$18 billion, giving rise to speculation that Teck will need a partner to help finance the massive capital costs, based on the company's record of seeking partners for its other mining ventures after guiding those proposals through the regulatory process.

For instance, it is currently seeking a partner for the C\$4.8 billion second phase of its recently approved Quebrada Blanco copper mine in Chile.

But for now Teck's focus is on "successfully advancing Frontier through the

regulatory review process," a company spokesman told the Financial Post.

"Any further decision around the project will depend on factors including the outcome of that process, market conditions and other considerations," including partnership options, said a spokesman.

FID in mid-2019

Given the current regulatory framework, Teck is counting on making a final investment decision by mid-2019, CIBC World Markets analyst Oscar Cabrera said in a research note.

RIBC Capital Markets analyst Stephen Walker said his firm has a "positive impression of the Fort Hills operation and it can become a key cash flow generator within Teck's portfolio."

That confidence is bolstered by Teck's plan to market its own Fort Hills production and the fact that it has secured pipeline capacity to send 20 percent of its volume to refineries on the U.S. Gulf Coast.

On the issue of transportation infrastructure, a Teck spokesman said Frontier would not be dependent "on any particular pipeline."

Oil sands analyst Kevin Birn said that by the time the Frontier mine achieves its first oil in 2026 Canada should have a new pipeline to deliver crude bitumen to coastal export points.

Before embarking on regulatory hearings Teck has been consulting with

see **SANDS BLUEPRINT** page 5

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CORRECTION

Tyonek formation

A sentence in the article titled "Drilling progresses" in the Sept. 30 issue of Petroleum News incorrectly stated that the drilling of Furie Operating Alaska's A-4 well in the Kitchen Lights gas field was progressing towards the Sterling formation. The drilling was, in fact, progressing towards the Tyonek.



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GOVERNMENT

BSEE issues final safety systems rule

New rule for offshore production systems rolls back or revises some Obama administration regulations deemed to be too restrictive

By **ALAN BAILEY**
Petroleum News

The federal Bureau of Safety and Environmental Enforcement has published its final rule for offshore oil and gas production safety systems. The new rule, which was originally proposed last December, rolls back or modifies some of the offshore safety regulations introduced by the Obama administration in 2016, in response to the Deepwater Horizon disaster. BSEE says that the changes will reduce unnecessary regulatory burdens while ensuring continued safe and environmentally responsible operations. Of 484 individual provisions in the original 2016 rule, the agency determined that 84 were appropriate for revision or deletion. The new rule also adds seven new provisions, BSEE says.

The rule applies to safety and pollution prevention equipment, subsea safety devices and safety device testing associated with the production of oil and gas on the federal outer continental shelf.

Examples of the changes to the original rule include the addition of gas lift shutdown valves to the list of equipment types covered by the regulations, and the replacement of a requirement for certification of safety equipment by a third-party organization by a different procedure — under the new procedure there are requirements for device design testing, and an operator would need to hold documentation describing how the operator has ensured that the safety equipment works as required, with third-party review and certification required if a device is moved from one location to

another. According to the Federal Register entry for the new rule, the rule also clarifies some of the requirements in the original rule.

Deepwater Horizon recommendations

The agency says that it has compared the provisions in its final rule with the recommendations and reports that came from 14 different organizations in response to Deepwater Horizon. The regulatory changes encompassed in the new rule “will not contradict or ignore any of those recommendations, nor will they alter any provision of the 2016 rule in a way that would make the result inconsistent with those recommendations,” BSEE says.

“BSEE has incorporated industry innovation, best science and best practices in the Oil and Gas Production Safety Systems Rule to ensure safety and environmental sustainability,” said BSEE Director Scott Angelle when announcing the new rule. “When critical energy resources are produced safely and responsibly, we build a stronger energy future for the nation. We can achieve robust energy production only if operations are conducted in a safe and environmentally sustainable manner.”

The Federal Register entry for the rule says that BSEE received 733 sets of comments on the proposed rule that was issued in December, with some of those comments having more than 60,000 signatures added. ●

Contact Alan Bailey
at abailey@petroleumnews.com

continued from page 4

SANDS BLUEPRINT

indigenous communities in the Frontier area to avoid the pitfalls that have tripped up previous resource undertakings, claiming it has obtained 12 participation deals with Cree, Dene and Metis communities — a record for an oil sands project of Frontier’s size.

Allan Adam, chief of the Athabasca Chipewyan First Nation, said an agreement with Teck “respects our treaty right and uses innovative approaches to mitigate the impacts on our land, waters and wildlife,” describing the fact as a “turning point” for the First Nation’s desire to determine its own future. ●

Contact Gary Park through
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continued from page 2

AMAROQ OUTPUT

Development

Amaroq appears to be developing a similar work plan for the coming year.

The biggest projects on the agenda are the rig workover of the Nicolai Creek No. 10 well and any other economically and logistically feasible workover projects at other wells.

In its 45th plan of development for the Nicolai Creek unit, the local company formerly known as Aurora Exploration LLC also acknowledged the potential of the proposed Nicolai Creek No. 12 well. Former operator and unassociated company Aurora Gas LLC proposed the well in its 44th plan of development, submitted to state officials last year.

“Additional evaluation of geologic and seismic data will be necessary to determine the economics of this well,” Amaroq President G. Scott Pfoff wrote in the newest plan.

The proposed well would target deeper sands to the north of the unit, in an area beyond the reach of the existing Nicolai Creek No. 3 well. The 5,650-foot well would target the Beluga and Upper Tyonek sands found in the Nicolai Creek No. 3 and No. 10 wells.

In addition to development activities aimed toward increasing production, Amaroq is also considering an earlier plan to convert the Nicolai Creek No. 2 and Nicolai Creek No. 9 wells into a gas storage operation capable of holding between 2.5 billion and 3 billion cubic feet. The plan could potentially include a new horizontal well. “While there has been renewed interest in this project, studies have not yet commenced.

Amaroq also said it remains interested in a plan to explore for deeper oil and natural gas deposits beneath the Nicolai Creek unit but is not planning to pursue the project in 2019

Commencement of feasibility studies, leasing, permitting, and implementation are all possible during this 45th Plan period but are not planned at this time,” Pfoff wrote in the development plan.

Without additional investment, either through development drilling or gas storage, the Nicolai Creek unit will likely become uneconomic in 2022, according to Amaroq.

Exploration

Amaroq also said it remains interested in a plan to explore for deeper oil and natural gas deposits beneath the Nicolai Creek unit but is not planning to pursue the project in 2019.

Aurora Gas had sold those rights to Apache Alaska Corp, which acquired 3-D seismic over the acreage in early 2012. Apache withdrew from Alaska exploration activities without advancing the project. “Nonetheless, Amaroq Resources is interested in acquiring and/or accessing this new seismic with plans to interpret and evaluate; and along with other geologic data, determine possible exploration, development, and extension drilling targets at all depths,” Pfoff wrote, while noting that the work was unlikely in 2019. ●

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Operator, Central Gas Facility
BP Alaska

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THE NATIONAL SEA AND ICE DATA CENTER

The area in white depicts the Arctic sea ice extent on Sept. 23. The orange line shows the average extent for the same day between 1981 and 2010.

Arctic sea ice extent at minimum for year

The Arctic sea ice appears to have reached its minimum extent for this year on Sept. 19 and 23, the National Snow and Ice Data Center has announced. The minimum extent was 1.77 million square miles — this year ties with the 2008 and 2010 as the sixth lowest extent recorded since satellite observations began in 1979. The lowest ever extent recorded, 1.63 million square miles, was observed on Sept. 17, 2012. The lowest extents recorded have all happened in the last 12 years, the NSIDC said.

This year's minimum extent was reached twice within a few days and ties with 1997 as one of the latest occurring ice minima on record. The NSIDC attributes the late date at least partially to warm winds blowing north from the East Siberian Sea. In addition to being a source of warm air, these winds prevented ice from drifting or growing southward, the NSIDC said.

Long term trends for polar sea ice coverage form on of a number of indicators of global climate change.

—ALAN BAILEY

GOVERNMENT

Addressing climate change in Alaska

Climate Action Leadership Team delivers strategic recommendations, with actions the state plans to take in the near term

By ALAN BAILEY
Petroleum News

Alaska's Climate Action Leadership Team, established by Gov. Bill Walker's administration last October, has delivered a series of recommended policies for responding to climate change and mitigating its impacts in Alaska, Walker announced on Sept. 26. Walker has also announced a series of early climate change actions that state will take. The actions were developed in conjunction with the governor's Climate Cabinet, a working group tasked with evaluating state agencies' efforts to address climate change issues.

The Leadership Team includes representation from a wide variety of Alaska interests, including rural communities, the oil industry and academia.

"The Leadership Team's work is grounded in a vision for a healthy and sustainable Alaska for current and future generations," said Lt. Gov. Byron Mallott, chair of the Leadership Team. "The team's recommendations are a step along a journey that will continue to evolve. Our goals — the same goals of any good government — are to support resilience communities, healthy ecosystems, and continued economic opportunity in Alaska."

The team recommendations consist of a series of proposed state policies, with supporting actions, designed to guide the efforts of the state government to address climate change challenges.

Community resilience and sustainability

To strengthen community resilience and sustainability in the face of climate change, the state will support local and regional entities in their efforts to plan for and address climate change. In doing this,

And, to address investment in the state's climate change strategies, the state will increase funding for low carbon and energy efficiency activities; seek federal funding opportunities; and evaluate the development of a carbon fee mechanism to place a cost on carbon emissions.

the state will also support appropriate research and data gathering, strengthen efficient systems for community adaptation and relocation, and commit to long-term leadership in climate change issues.

Other recommended actions in support of communities include state facilitation of a network of municipal, local government and tribal entities to leverage resources and share knowledge. A formal interagency group would act as a liaison between communities and government agencies. And, as part of risk and resilience planning and adaptation, agreements would be developed between communities and agencies.

Health and ecosystem impacts

To better understand and address environmental and ecosystem changes, and impacts on human health and wellbeing as a consequence of climate change, the state will integrate western science and indigenous knowledge. The idea is to monitor and collect data to better understand climate change impacts, and to identify areas of high vulnerability and risk. The state would support appropriate research and monitoring programs, and the development of community and regional risk and resilience plans. An assessment would be conducted on the impacts of climate change on food security.

see CLIMATE CHANGE page 8

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GOVERNMENT

State wants suit against bonding dismissed

By **BECKY BOHRER**
Associated Press

A judge said Oct. 1 he wants both sides to submit additional briefs before deciding whether to dismiss a lawsuit challenging the constitutionality of Gov. Bill Walker's plan to pay Alaska's oil and gas tax credit obligations.

The state wants the case brought by Juneau resident Eric Forrer to be dismissed.

Superior Court Judge Jude Pate said a decision probably would not be made until early November.

The Legislature earlier this year passed a bill, proposed by Walker, to establish a new state corporation that would be empowered to sell up to \$1 billion in bonds to pay off the state's remaining tax credit obligations. Lawmakers had previously voted to end the tax credit program, which had been geared toward small producers and developers, because they said it had

The state constitution limits the power to incur state debt. But Attorney General Jahna Lindemuth has said that her office is confident the proposed bonds would be lawful.

become unaffordable.

How much to put toward paying down the obligation had, in recent years, become a political fight.

The state constitution limits the power to incur state debt. But Attorney General Jahna Lindemuth has said that her office is confident the proposed bonds would be lawful.

She said the proposed bonds would not be considered state debt subject to the constitutional restraints. The proposed bonds would be "subject-to-appropriation" bonds, she wrote, meaning that payment of the bonds would be contingent upon whether the Legislature sets aside money for them each year.

The state has pointed to an Alaska Supreme Court ruling involving a lease-purchase agreement. In that decision, the state says the court concluded the agreement did not constitute impermissible constitutional debt because the state's obligation was subject to appropriation.

Arguments before Pate Oct. 1 focused in part on procedural matters. But Pate also questioned Forrer's attorney, Joe Geldhof, over legal arguments, particularly surrounding that court decision.

Geldhof said the two cases — this one and the one involving the lease-purchase agreement — are different. The constitutional provisions on debt are narrow in scope, he said.

"If this court wants to sanction that kind of creative financing, to transfer public wealth to private hands, then we'll all get out the black magic markers and start redacting big hunks of our constitution," he said. "Because that's where we're headed." ●

LAND & LEASING

State tells UltraStar Dewline has expired

By **KRISTEN NELSON**
Petroleum News

The Alaska Department of Natural Resources, Division of Oil and Gas, notified UltraStar Exploration Sept. 26 that the Dewline unit has expired. The small North Slope unit straddles the shoreline just west of the Prudhoe Bay unit.

There has been litigation over a 2014 decision by the DNR commissioner that UltraStar did not qualify for a unit extension and an appeal related to a plan of exploration.

Superior Court remanded the plan to the commissioner for a decision on the merits, but did not, the division said, remand the decision that Dewline did not qualify for a unit extension. The commissioner denied the company's plan appeal in early August.

The unit was approved by the division in 2009 with a five-year term allowing extension of three state leases covering 3,253 acres and requiring two exploration wells to be drilled to test the hydrocarbon potential of the Ivishak by May 31, 2013.

UltraStar had already completed its Dewline No. 1 well and was aiming to drill the North Dewline No. 1 in 2010 or 2011.

The division said earlier this summer that data from the 2009 Dewline 1 were scheduled to be released. The release is a result of companies making use of tax

UltraStar recently paid rent on the leases, and the division said it would return a prorated amount of rent when the leases expire and said relinquishing the leases sooner would result in a greater return of rent.

credits in support of exploration activities.

UltraStar

Jim Weeks, who died in 2013, became involved in the industry as an independent after he retired from ARCO in 1999, essentially running a one-man operation at UltraStar, founded in 2002, working with a group of investors. The division's Sept. 26 letter is addressed to UltraStar at a Dallas address.

As Winstar Petroleum, formed in the late 1990s with the same group of investors, Weeks drilled the Oliktok Point State No. 1 well in 2003. He formed UltraStar in 2002 to chase prospects west of Point McIntyre uncovered in a package of 3-D seismic he acquired.

The Dewline unit was expanded in 2011, bringing it to four leases, some 4,533 acres. For that expansion the state required an additional well — the N. Dewline No. 1 well by the end of 2013 and the N. Dewline No. 2 by the end of May 2014. Neither of the N. Dewline

wells were drilled.

Status of leases

The division said the leases automatically extended for 90 days after the June 4, 2014, unit expiration, but because of ongoing appeals, the division said it "did not give notice of the lease expiration and UltraStar was obligated to continue paying annual rent on the leases."

The division said with this renewed notice of unit expiration, the leases will

expire 90 days from the Sept. 26 letter.

UltraStar recently paid rent on the leases, and the division said it would return a prorated amount of rent when the leases expire and said relinquishing the leases sooner would result in a greater return of rent.

There is an appeal period of 20 calendar days for the current decision. ●

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LAND & LEASING

88 Energy adds 45,239 North Slope acres

88 Energy said Sept. 28 that it has executed agreements for an additional 45,239 North Slope acres, via its wholly owned subsidiary Accumulate Energy Alaska Inc.

Two parcels are involved, both adjacent to existing company acreage.

The first is an agreement with Arctic Slope Regional Corp. to lease hydrocarbon rights across 28,453 acres contiguous to the Western Fairway area of the company's Project Icewine acreage. This leasehold is 100 percent net to Accumulate, 88 Energy said, with lease terms consistent with those of the state.

"The agreement with ASRC in relation to the western leases is significant as they are partly covered by several prospects that are in our current conventional farm-out package," said 88 Energy Managing Director Dave Wall.

The second agreement is with Great Bear Petroleum for a 69.1 percent working interest in 24,269 acres adjacent to and north of the Central Play Fairway at Project Icewine with 16,786 acres net to Accumulate, with consideration of a cash payment of \$206,388 with \$167,663 to be directed to lease rentals due by Oct. 1.

Wall said, "the Central Fairway acquisition has delivered additional acres close to the road and pipeline that are considered prospective for both the HRZ and conventional plays."

88 Energy said the two acquisitions increase its lease position by 45,239 net acres to 371,478 net acres across its three main project areas on the central North Slope.

—KRISTEN NELSON

Two parcels are involved, both adjacent to existing company acreage.

continued from page 6

CLIMATE CHANGE

Economic opportunity

To seek economic opportunities associated with climate change, the state would support energy efficiency, the use of renewable energy and increased electrification. And, to reduce carbon emissions in the state, the state will develop a strategic plan for diversified growth in leveraging the state's ocean-related economy, and investigate incentives for business developments involving clean energy and energy efficiency

Clean energy in the state

To maximize the reduction of greenhouse gas emissions in the state, by 2020 the state will publish a comprehensive greenhouse gas reduction strategy. This policy will set targets for greenhouse gas emission reductions in different sectors of the economy, including a 30 percent reduction from the oil and mining industries, a 33 percent reduction from electricity generation and a 55 percent reduction associated with the used of thermal energy in buildings. The state will also seek ways of reducing carbon emissions associated with air, rail, road and marine transportation by, for example, preparing for a rapid transition to the use of electric vehicles and

by promoting the use of public transportation in certain more highly populated areas of the state.

Education and awareness

To expand awareness of climate and environmental science, the state will increase public familiarity with the issues involved, improve the relevant education curricula, strengthen appropriate research at the University of Alaska and facilitate appropriate training and workforce development.

Investment and funding

And, to address investment in the state's climate change strategies, the state will increase funding for low carbon and energy efficiency activities; seek federal funding opportunities; and evaluate the development of a carbon fee mechanism to place a cost on carbon emissions. The state also wants to explore opportunities for revenue generation through carbon sequestration, using, for example, sustainably managed forests, farms and wetlands to store carbon. The action plan envisages the formation of a "green bank" for the long-term, state-led financing of renewable energy and energy efficiency initiatives. ●

Contact Alan Bailey
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RCA sets Railbelt Reliability Council workshops

The Regulatory Commission of Alaska has scheduled the first of a series of informal workshops to discuss the proposed formation of a Railbelt Reliability Council, commission Chair Stephen McAlpine has announced. The workshop will take place at 1:30 p.m. on Oct. 9.

The Alaska Railbelt electric utilities are currently discussing the potential formation of an RRC, as proposed by the Alaska Cooperative Transmission and Electric Company Inc., a group of four of the utilities. The primary intent of the RRC would be to oversee the adoption and enforcement of reliability standards for the Railbelt electricity grid. Responsibilities for the RRC could also include regional integrated resource planning and ensuring open access to the electrical system, McAlpine said.

The commission intends to collaborate with stakeholders and interested parties in discussions over the issues relating to the formation, authority and operation of the RRC, and believes that the planned workshops will facilitate an ongoing dialogue. The first workshop will focus on the process for moving from a memorandum of understanding between the utilities for the RRC formation to a broader stakeholder consensus on what the RRC will do, and the legal and funding mechanism under which it will operate, McAlpine said.

—ALAN BAILEY

continued from page 1

TRANSCO PROGRESS

agreement is reached, the utilities will file an application to the RCA for a certificate of public convenience and necessity for the formation of a transco, or, if there is no general agreement, the utilities will likely file a final report on the transco assessment and specification process, Myers explained.

An exception to this general procedure is Municipal Light & Power, which is owned by the Municipality of Anchorage and does not, therefore, have a board. ML&P has discussed the transco proposals with the municipal administration, and the administration supports what is being done, Mark Johnston, ML&P general manager, told the commission.

The American Transmission Co., a Wisconsin transco, has been assisting the Railbelt utilities in figuring out how a transco could be implemented in the Railbelt. The Railbelt transmission system supports six independent utilities operating in the region. Currently ownership and operation of the grid, a consequence of the manner in which the electrical power system has evolved, is divided between the utilities. The state of Alaska owns a section of the transmission intertie between the Anchorage and Fairbanks regions.

Addressing inefficiencies

The fragmented nature of the grid operations leads to some significant inefficiencies that impact the cost of electricity for consumers and create obstacles for the shipment of power across the system. For example, the fact that each utility charges its own fees for the shipment of power across its sector of the grid leads to the stacking or "pancaking" of fees for the movement of power across multiple sectors. Another significant problem arises from the fact that a potential grid upgrade that can benefit multiple utilities typically has to be funded by a single utility, a situation that can render desirable investments in upgrades uneconomic.

Transco benefits

The operation of the entire transmission grid by a single transco can bring major benefits through the instigation, for example, of a single "postage stamp" rate for power transmission across the system, and by providing a mechanism for investing in transmission upgrades that benefit multiple utilities. Unfortunately, however, the economic case for transco formation, and the optimum rules for transco operation, vary considerably between the different utilities, depending on how each utility actually uses the grid: Determining

and agreeing on a transco structure and mode of operation is, therefore, a complex and difficult task.

RCA recommendations

In June 2015 the RCA issued a series of recommendations for a more unified approach to the operation of the Railbelt electrical system, including a recommendation for the formation of a transco. The commission has been encouraging voluntary efforts by the utilities to meet those recommendations and the utility managers have, among other things, been working towards a proposal for transco formation.

The state Legislature originally directed the commission to make recommendations on the future operation of the Railbelt electrical system — the commission plans to send a report to the Legislature ahead of the upcoming legislative session, explaining the status of electrical system unification efforts. In addition to transco formation, those efforts involve the formation of an operating entity to oversee the entire electrical transmission and generation system; the instigation of merit-ordered economic dispatch, to make continuous use of the cheapest available power generation; and the enforced implementation of comprehensive reliability standards for the electrical system.

Tentative agreement

During the Sept. 26 RCA meeting Myers reported that the utility managers have now reached tentative agreement, subject to board approvals, on the various elements of the transco structure and operation. However, the exact structure of the organization's executive leadership team has yet to be determined and will probably be decided on as part of the startup of the organization.

"Based on this level of consensus the general managers agreed that there was enough ... to take to their boards, to make a decision about whether or not to proceed," Myers told the commissioners.

That consensus encompasses the various aspects of the potential transco, including the board structure for the organization, service agreements with utilities, and the rate and the tariff structure. However, Myers declined to provide the details of what was being proposed, saying that utility management did not want to back the boards into a corner by making the terms and conditions public before the boards had an opportunity to consider them. The details will become public once a transco certificate application or a final report on the transco negotiations is filed, Myers said.

see **TRANSCO PROGRESS** page 9



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TRANSCO PROGRESS

Questions of governance

The question of how the overall electrical system should be governed has been a contentious issue, and this issue factored into some of the discussion during the Sept. 26 meeting. On the one hand, the utilities have a strong level of knowledge about the technicalities and technical limitations involved in operating the electrical system. And the utilities have duties to serve their own members and customers. On the other hand, general stakeholders in the system, including for example independent power producers and the state administration, may have different priorities than have the utilities.

In parallel with moves towards forming a transco, the utilities are moving towards forming an operating entity that they are calling the Railbelt Reliability Council, or RRC, that would oversee the electrical system, enforcing reliability standards and making, for example, decisions over major grid upgrades. The emerging concept is that the governing board of the RRC would have a broad composition, including a variety of stakeholders in addition to representation from the utilities. It appeared during the Sept. 26 meeting that the transco board would have a somewhat narrower composition. The concept is that the RRC and its board would have jurisdiction over the transco board, thus ensuring the appropriate checks and balances over transco actions.

But that leads to a timing issue. If the transco were to be formed prior to the RRC, could the transco forge ahead, making decisions without those broader checks and balances?

In sequence or in parallel?

Commissioner Antony Scott particularly homed in on this particular issue, asking if the RRC formation is a condition precedent to the formation of the transco. Scott also wondered if the RRC formation would require statutory changes, with the passage of any necessary legislation potentially delaying the point at which the RRC could be brought into operation.

"We're working these two paths in parallel," Brian Hickey, vice president of systems operations for Chugach Electric Association, told the commission in reference to proposals for transco and RRC formation. And, at this point, there is a memorandum of understanding between the utilities for the RRC, he said. From the perspective of Chugach Electric, the necessary checks and balances are best ensured through the RRC, and the transco implementation can be pursued in parallel with the RRC formation, he said.

Tony Izzo, CEO of Matanuska Electric Association, expressed agreement with Chugach Electric's perspective. Checks and balances in the governance of the system are absolutely essential, but these should be implemented outside the transco governance structure, he said. Various pieces of the puzzle are coming together simultaneously — the utilities will look to the commission for guidance, in

terms of ensuring that the needs for checks and balances are met, Izzo said.

Izzo also commented that there are no major electrical system projects on the horizon, for at least the next couple of years, and said that the time envisaged as needed to resolve the various issues is prudent. He also commented that a tremendous amount of work had gone into the proposals now being put to the utility boards and that MEA has become increasingly confident in its understanding of the situation, and of how to address the Railbelt's future needs.

Interdependence

In terms of the relative timing of RRC and transco formation, there was also discussion about the interdependence of these two organizations, and hence the need to implement both. For example, if the RRC wants to enact a policy of improved capacity scheduling across the Railbelt, or perhaps open new power markets, that would depend on actions taken by the transco, Dan Chay, president of the board of Homer Electric Association, suggested.

The RCA has scheduled two other public meetings, one on Oct. 10 and one on Oct. 24, to review other aspects of electrical system unification: economic dispatch, RRC formation and reliability standards. Commissioner Robert Pickett said that in November he plans to institute a new rule-making docket that will specifically address the enforcement of unified reliability standards. ●

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Oil Patch Bits



John Horjes signs with investment banking firm

Alaska Materials President John Horjes has joined Paulson Investment Co. LLC.

Horjes will serve as senior vice president to work with accredited investors only.

"This is a strategic move that's been in the works for some time," said Horjes. "I'll continue to work on a few select projects, but my active role in Alaska Materials will be reduced significantly, as required to fulfill my duties at Paulson," he added.

Founded in 1970 in Portland, Oregon, Paulson Investment Co. LLC has earned national distinction as a premier boutique investment bank. Focusing on the small to mid-cap markets, Paulson's management teams have 100-plus years of combined experience participating in both public and private offerings. For more information visit www.paulson-investment.com.



JOHN HORJES

ASRC leads 49ers list for 24th consecutive year

Arctic Slope Regional Corp. said Sept. 29 that it is pleased to once again be recognized by the Alaska State Chamber of Commerce, Alaska Business magazine and local business leaders as the top Alaska-owned and operated corporation. This is the 24th consecutive year that ASRC has ranked No. 1 on the "Top 49ers List," based on the prior year's gross revenues.

"2017 was another year of growth and expansion for ASRC," said Rex A. Rock Sr., ASRC president and CEO. "With the local and national economies continuing to pose challenges in many areas of our lines of business, diversification and teamwork have been keys to our success. To the other distinguished Alaska-based businesses on this list, my congratulations for a successful year."

In 2017 ASRC's revenues came in at nearly \$2.7 billion. ASRC has six major business segments, including government contract services, petroleum refining and marketing, energy support services, industrial services, construction and resource development.

Companies involved in Alaska's oil and gas industry

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SATELLITE PRODUCTION

June 30, 2017, furthering the sense that the previous development year was something of an outlier for the company.

BP files three plans of development each year for the Prudhoe Bay unit — one for the Initial Participating Areas early in the year, one for the Greater Point McIntyre Area in the middle of the year and one for the Western Satellites toward the end of the year.

Aurora

BP made no firm drilling commitments at the Aurora field for the coming year but said it expected to continue its existing workover regimen. The company is evaluating potential infill drilling targets identified from its geological models, including recent well results.

The company performed 55 workover operations on existing producers and injectors at the satellite. The projects included tree change out, gas lift optimization, hot oil treatments, safety valve work and vertical support member work. Fourteen of the 55 jobs added production. The remainder either sustained production or were for maintenance.

In the plan, the company listed several projects: It sidetracked the S-200A well in mid-2017 and brought the well into production before the end of that year. It performed hydraulic fracturing on the S-129 well in May 2018 and the S-113B well in June 2018.

As part of a tertiary recovery process underway at the field over the past 15 years, the company also injected miscible injectant into five water-alternating-gas injectors.

The Aurora field came online in November 2000 after several months of initial development drilling. As of the end of June 2018, Aurora had 33 active wells from S pad (18 producers and 15 injectors) with oil processed at Gathering Center No. 2.

Aurora field produced 4,609 barrels per day in the year ending June 30, 2018, down from 4,696 bpd the previous year. Cumulative production reached 45.1 million barrels.

Borealis

BP made no firm drilling commitments at the Borealis field for the coming year but said it expected to workover wells and cycle high gas-to-oil ratio wells “as needed.”

“The Borealis owners will continue to evaluate the optimal number of development wells and their locations throughout the life of the reservoir,” the company wrote. “The dynamic model for the Borealis field will be used to evaluate potential drilling targets.”

The company performed 37 workover operations at Borealis in the year ending June 30 for purposes similar to those at the Aurora field. Nine of those operations added production, while the remainder sustained production or addressed maintenance issues.

BP drilled the V-137 grass roots well in the fourth quarter of 2017 but ultimately suspended drilling operations “due to structure coming in deep.” The company drilled the L-118L1 lateral in the first quarter of 2018 and brought the well online in the third quarter. The company also plugged and abandoned the V-119 well during the year.

As part of its tertiary recovery program begun at the Borealis field in June 2004, the company also injected miscible injectant into seven water-alternating-gas injectors.

The Borealis field came online in November 2001, following several months of initial drilling. As of the end of June 2018, Borealis had 49 active wells: 22 wells at L pad (13 producers and nine injectors), 19 wells at V pad (11 producers and eight injectors) and eight wells at Z pad (four producers and four injectors) and was processed at GC-2.

Borealis produced 7,914 bpd during the year ending June 30, up considerably from 6,040 bpd the previous year. Cumulatively, the field had produced 86 million barrels

through the end of June, according to figures from BP.

Midnight Sun

BP is not planning new wells at the Midnight Sun field for the coming year, although it plans to convert the E-100 injector to an Ivishak producer and could begin sidetracking maturing wells at the field as the benefits of water-alternating-gas injection are realized.

Midnight Sun was initially developed in 1997. As of the end of June the field had six active wells: the E-101 and E-102 producers, the E-100, E-103 and E-104 water injectors and the P1-122 water-alternating-gas well. The most recent was drilled in early 2015. Oil production is comingled at E pad and processed at Gathering Center No. 1.

Midnight Sun produced 1,158 bpd in the year ending June 30, up from 983 bpd the previous year. Cumulatively, the field had produced 21.6 million barrels through the end of June, according to figures provided by the company.

Orion

BP made no firm drilling commitments for the Orion field for the coming year but said it would continue its workover program and would evaluate sidetrack options at L pad.

The company performed 75 workover jobs at Orion in the year ending June 30 for purposes similar to those at other satellites. Eleven of those jobs added production, while the remainder either sustained existing production or addressed maintenance issues.

The company changed out waterflood regulating valves on 13 injection wells. The company also started drilling the L-205A sidetrack in the fourth quarter of 2017 and brought the well into production in the second quarter of this year. The well is the first vertical frack packed producer in the Orion participating area, according to the company.

BP is planning several near-term projects at Orion, some of which have been on the agenda for years. Several of these projects address sand production at the field.

The company is studying possible improvements to sand-handling technology installed at GC-2 in 2012 and 2013. The technology was intended to address sand-laden viscous oil from Orion but, so far, has failed to yield the level of improvement desired by BP.

Additionally, BP is looking for ways to address the significant downtime affecting viscous wells in the northwest portion of the

Orion participating area. Those wells have been down nearly half the time in recent years due to sand production, matrix bypass events and downhole equipment failures. The company is studying alternate well designs.

In the recently completed development year, BP tested some alternate well designs on the L-200 and L-203 producers, which have often been hampered by sand production.

One of the longest-desired and longest-delayed projects at Orion is the proposed I pad, which the company claims is dependent “upon the results of sand control technology deployed in the Schrader Bluff Formation and the business environment.” Work on the recent L-205A project provided some information in that regard, according to BP.

The Orion field came online in April 2002, following several months of initial development drilling dating back to December 2001. As of the end of June, the field had 33 active wells: 12 wells at L pad (four producers and eight injectors) and 21 wells at V pad (five producers and 16 injectors). Orion oil production is processed at GC-2.

Orion produced 3,900 bpd in the year ending June 30, up from 3,469 bpd the previous year. Cumulatively, the field had produced 35.1 million barrels through the end of June, according to figures provided by the company.

Polaris

BP made no firm drilling commitments for the Polaris field for the coming year but said it would continue its workover program with an eye toward mitigating declines.

The company did not drill or complete any new wells at Polaris during the year ending June 30 but performed 27 workover jobs on existing producers and injectors to minimize declines in oil production. Twelve of those jobs added production, while the remainder either sustained existing production rates or addressed maintenance issues.

Many of the projects occurring at Polaris and planned for the immediate future, particularly those involving viscous oil and sand control, overlap with those at Orion.

BP is studying ways to use existing well designs as M pad and S pad to access areas at Polaris with good oil mobility. The company began evaluating two new waterflood enhanced oil recovery patterns at S pad during the reporting year ending June 2018.

“If proven to be viable, development of additional areas at S pad with good oil mobility would be limited to the number of donor wellbores and surface slots available that are able to reach the target without anti-collision issues. The modeling and completions studies work at S pad will transfer to other areas in both the Orion (participating area) and Polaris (participating area),” the company wrote in its plan. A wider viscous oil development at M pad and S pad is contingent on sand control in the Schrader Bluff.

The Polaris field came online in November 1999, after two years of development drilling.

As of the end of June 2018, the field had 24 active wells: four wells at S pad (one producer and three injectors) and 20 wells at W pad (seven producers and 13 injectors).

Polaris oil production is processed at GC-2.

Polaris produced 4,158 bpd in the year ending June 30, up from 3,891 bpd the previous year. Cumulatively, the field had produced 23.2 million barrels through the end of June, according to figures provided by the company.

—ERIC LIDJI




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ML&P SALE

cient use of resource and the elimination of duplicated functions.

Anticipated timeframe

A series of public meetings have now been scheduled to review the proposed terms — the ballot measure for the sale required the Anchorage Assembly to approve final terms for the deal by Dec. 31. The term sheet envisages the assembly and the Chugach Electric board approving the terms of the sale by early December. That would be followed within 60 days by a petition to the Regulatory Commission of Alaska for approval of the sale. The sale would then close within 120 days of RCA approval being obtained. Chugach Electric anticipates this complete process concluding in mid-to-late 2019.

“The term sheet is a product of rigorous review, vigorous discussion and adheres to the parameters outlined by the assembly and ratified by more than 65 percent of the voters of Anchorage,” said Anchorage Mayor Ethan Berkowitz. “It represents an important milestone, and we are looking forward to a completed transaction.”

“We’re pleased to be moving forward with this acquisition and are looking forward to the public discussion over the next few months as we move toward final approval by the Chugach Board of Directors and the Assembly,” said Chugach Electric CEO Lee Thibert.

Payment schedule

Under the agreed terms, Chugach Electric would make a payment to the Municipality of Anchorage of \$767.8 million at the close of the purchase. Of this, \$170 million would be a cash payment, with the remaining \$542 million being used for the repayment of all of ML&P’s outstanding debt. Chugach Electric would obtain all of ML&P’s assets, except for the utility’s interests in the Eklutna hydroelectric power station. Assets transferred would include ML&P’s interest in the Beluga River gas field in Cook Inlet.

The municipality is offering Matanuska Electric Association the option to either purchase or enter into a power purchase agreement for a portion of ML&P’s interests in the Eklutna facility. Chugach Electric would then have the right to enter into a power purchase agreement with the Municipality of Anchorage, to buy the municipality’s Eklutna power not transferred or allocated to MEA. Depending on what, if any, arrangement is agreed on with MEA, the net present value of Chugach Electric’s power purchase agreement is estimated to be in the range of \$48.8 million to \$75 million. Chugach Electric already owns a 30 percent interest in the Eklutna facility.

As part of the agreed terms of the sale of ML&P to Chugach Electric, Chugach Electric would make payment in lieu of taxes, or PILT, payments to the Municipality of Anchorage for the next 50 years (originally there was a commitment of 30 years for the PILT payments, but in the course of negotiations that increased to 50 years). Those payments, in effect property tax payments, would be calculated annually, using the book value of ML&P plant that is in service multiplied by the property tax mill rate. Using current mill rates and an assumed 5 percent annual discount, the net present value of the PILT payments over 50 years is estimated to be \$166.8 million.

Thus, the total net present value cost to Chugach Electric of the ML&P purchase, including the NPVs of the Eklutna power purchase agreement and the PILT payments, is estimated to be just over \$1 billion.

No service fee increases

The utilities have agreed that their customers’ electricity service fees will not increase as a consequence of the ML&P purchase. And, through to the end of 2033, the fuel gas cost component of the electricity bills for customers in the current ML&P service area will use the ML&P price formula for the cost of gas from the Beluga field.

Chugach Electric guarantees that no ML&P employees will be made redundant as a result of the purchase transaction. Nor will any Chugach Electric employees be laid off. However, the total number of employees would presumably decline over time through attrition.

The utility has previously said that the aims of the consolidation include the establishment of a single headquarters complex, with all functions combined. Consolidation would include call centers and customer billing. There would be consolidated functions for power distribution and transmission; for warehousing; for vehicle fleet operations; and for legal, regulatory, environmental and insurance support. Other areas with scope for the elimination of duplication include participation in the oversight of some hydroelectric generation facilities and of the Alaska transmission intertie that connects the Southcentral Alaska with the Interior segment of the Railbelt grid.

Schedule of meetings

Chugach Electric anticipates an ordinance for approval of the sale being introduced to the Anchorage Municipal Assembly on Oct. 9. There may be a discussion of the ordinance during an Assembly work session on Nov. 2. The first public hearing is expected during the Nov. 7 Assembly meeting. And the ordinance will be discussed during the Assembly Utility and Enterprise Committee meeting on Nov. 15. A further public hearing and final Assembly action on the ordinance is anticipated during the Dec. 4 Assembly meeting.

The Chugach Electric board also has to approve the term sheet and the asset purchase agreement — the utility anticipates taking a vote on this in October, Julie Hasquet, Chugach Electric manager for corporate communications, has told Petroleum News.

—ALAN BAILEY

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LNG CANADA

ship and indigenous interests.”

Two postponements ended

The partners’ announcement and a joint news conference by Canadian Prime Minister Justin Trudeau and British Columbia Premier John Horgan — both one-time outspoken opponents of any fossil fuel development — ended two postponements of the project in 2016 and an ownership shuffle to make room for Malaysia’s Petronas which scrapped its own plans for the Pacific Northwest proposal.

In the end, the prospect of losing 10,000 construction jobs, 900 full-time employees and billions of dollars in royalties and revenues over the lifetime of LNG Canada was too much for the governments to swallow in the name of climate change plans.

For now, Canada is ready to play global Boy Scout, insisting that LNG Canada will assist Asia in replacing grubby coal-fired power plants with cleaner natural gas, lowering carbon dioxide emissions from comparable generators by 70 percent.

As LNG Canada made seemingly inexorable advances to a final investment decision, the camouflage was removed Sept. 28 when PetroChina (with a 15 percent stake) and South Korea’s Kogas (with 5 percent) said they were ready to proceed.

They were quickly followed Oct. 1 when operator Shell (which controls 40 percent), Petronas (25 percent) and Japan’s Mitsubishi (15 percent) climbed on board.

In a tweet, LNG Canada said that when all of its partners signed on “you can be sure ... we will be the first to let you know.”

In truth, Shell was about the last to remove a veil of secrecy that was rapidly being ripped to shreds.

Contractors had long since started clearing a site for a camp to house 4,500 workers at Kitimat on the northern British Columbia coast where a liquefaction facility will be built. They have also begun to deepen a shipping berth to handle two LNG carriers at a time.

Kitimat Mayor Phil Germuth was

LNG Canada will open what is regarded as the fastest shipping route from North America to Asia, delivering cargoes to Tokyo in eight days compared with 20 days from the U.S. Gulf.

unable to contain his enthusiasm, noting “gravel trucks have been going back and forth at where the camp would be.”

“There’s more smiles in this community and everyone is looking forward to what the future might bring,” he cheerfully reported.

First Nation participation

One of the most encouraging breakthroughs involved the unanimous backing of 25 elected First Nations along the pipeline right of way.

They have all signed on for benefits agreements, with operator TransCanada conditionally awarding C\$640 million worth of contracting and employment opportunities to indigenous businesses, but a company spokeswoman would not say whether those deals include revenue sharing from the pipeline’s profits.

The 420-mile Coastal GasLink pipeline from huge gas fields in northeastern British Columbia to Kitimat also got an official green light Oct. 2 from builder and operator TransCanada.

Of the two fields, Shell owns 80 percent of the Groundbirch play, while the remaining 20 percent is held by PetroChina. The other vital gas source is the Cutbank Ridge play, owned 60 percent by EnCana and 40 percent by Mitsubishi.

Initial capacity 2.1 bcf per day

The line will have initial capacity of 2.1 billion cubic feet per day when it comes into service in 2023 and eventually grow to 5 bcf per day.

LNG Canada will open what is regarded as the fastest shipping route from North America to Asia, delivering cargoes to Tokyo in eight days compared with 20 days from the U.S. Gulf.

The partnership plans to eventually export 26 million metric tons of LNG a year, although the initial investment is

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INSIDER

executive Scott Jepsen overviewed his company's current exploration and development plans in Alaska, and the resulting major uptick in the company's expectations for its future Alaska oil production, which he referred to as a North Slope renaissance.

An environmental impact statement scoping process is underway for ConocoPhillips' proposed major Willow project, in the Bear Tooth unit, to the west of Greater Mooses Tooth in the National Petroleum Reserve-Alaska. That development could result in peak production of some 100,000 bpd, with first oil around 2024 to 2025. Initial development of Willow will likely cost \$2 billion to \$3 billion, with a further \$2 billion to \$3 billion required for full field development.

Six to eight wells this winter

Jepsen said that following a particularly successful exploration drilling program last winter, in this coming winter's drilling season the company is planning an aggressive six-to-eight well exploration and appraisal drilling program. At Willow, ConocoPhillips will drill some horizontal wells to better understand the potential productivity from the field, and some vertical wells to test inter-well communication, Jepsen said. The company wants to further delineate the field and to conduct further well tests.

Two other wells will be drilled by the end of the year, testing prospects reachable from existing oil field well pads. One of these is 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 in the Nanushuk formation, to the east of the Colville River.

During last winter's exploration drilling, ConocoPhillips drilled two wells, the Putu 2 and 2A wells, in the Putu prospect. Those wells, which tested successfully for oil, targeted two distinctive seismic amplitude anomalies, Jepsen explained. But there is a third anomaly, immediately west of the two tested anomalies — the plan for later this year is to drill into this third anomaly from the CD-4 pad in the Colville Delta unit.

Looking further ahead, from 2020 onwards, ConocoPhillips anticipates drilling into that remaining 75 percent of its North Slope prospects that have not yet been tested, Jepsen said.

—KAY CASHMAN

Alaska's Tara Sweeney named head of BIA

FORMER ASRC EXECUTIVE AND CHAIRMAN of the Arctic Economic Council, Republican Tara Sweeney, 45, was quietly sworn in on July 30 as the first Alaska Native to take the helm of the U.S. Interior Department's Bureau of Indian Affairs.

No official announcement came from the Trump administration or BIA at that time, but in late September Sweeney's name and title, "Assistant Secretary — Indian Affairs," appeared on two documents that were published in the Federal Register.

A few days ago photos of Sweeney's inauguration were released by Interior.

But while Sweeney has been quiet on the public front, she has reportedly been active at BIA in Washington, D.C., where she has been meeting with top staff and, according to indianz.com, "diving deep into the BIA's organization and structure in advance of her pledge to spend the first few months in the field with Indian Country."

Sweeney is an Inupiaq who grew up in various rural communities: Noorvik, Wainwright, Bethel, Unalakleet and mainly Barrow. She graduated from Cornell's School of Industrial and Labor Relations in 1998.

—KAY CASHMAN



Tara Sweeney, the newly installed Assistant Secretary for Indian Affairs, poses with Secretary of Interior Ryan Zinke at Interior Department's headquarters in Washington, D.C.

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LNG CANADA

for an initial two LNG trains totaling 13 million metric tons.

National Bank of Canada analysts led by Greg Colman have forecast that a doubling of capacity is "all but an inevitability" if the first two trains are brought into service.

Having rebounded from two postponements in 2016 when the outlook for LNG was increasingly bleak, LNG Canada received another lift in September when the Canadian government agreed the coastal terminal should not be subject to tariffs on Asian steel that would have added C\$1 billion to the capital budget.

The consortium filed a request last year with the federal Finance Department, for a "duty remission" that would exempt the project from import duties of up to 45.8 percent on the steel

modules.

The British Columbia Green Party, whose three members in the provincial legislature are vital to keeping the New Democratic Party administration of Premier John Horgan in power, said it will continue to oppose LNG exports on environmental grounds, but will not attempt to topple the Horgan administration.

Green leader Andrew Weaver seems confident that Horgan will rally enough support from the Liberal party, which was the sole backer of LNG development until it was toppled by Horgan 21 months ago, to pass any related project legislation. Otherwise, Weaver could be responsible for defeating the NDP government in the provincial legislature and, most observers agree, bring out the demise of his own party. ●

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OIL SEARCH

Oil Search said special core analysis of the Qugruk 8 well "identified key uncertainties with respect to reservoir quality distribution and water saturation as predicted by capillary pressure experiments," and the objective of the core analysis on the Pikka 2 and 2A was "to reduce these uncertainties and narrow the range of outcomes in the Nanushuk reservoir model."

Drilling operations proposed in the third POE were deferred due to then ongoing negotiations with Oil Search (which acquired Armstrong's working interest in the unit and took over as operator in March) and continuing negotiations with Kuukpik Corp. on a surface access agreement.

Fourth POE

Oil Search said "it is actively engaged with Kuukpik regarding a comprehensive Land Use Agreement" for Pikka unit appraisal and development operations.

On the drilling side, the company said it will begin construction of ice roads and two ice pads on or about Dec. 1, with the ice roads starting from the Mustang Pad in the Southern Miluveach Unit; two rigs will be mobilized from Deadhorse on or about Jan. 15.

Pikka B and Pikka C drilling is planned to begin on or about Feb. 1.

Oil Search said it is in the pre-front-end engineering and design phase for Pikka development. The Pikka B and C wells are necessary to further appraise the

reservoir prior to the start of FEED "and will inform our subsurface basis of design for planning of development wells and production infrastructure."

Pikka B is planned to a depth of some 6,513 feet true vertical depth and the Pikka B deviated sidetrack to a depth of some 4,923 feet TVD "in the southwestern portion of the PKU in sections 34 and 35 of T11N, R5E," the same area where Pikka 2 and 2A were proposed.

Routine and special core analysis is planned, and fluid sampling is planned for the Pikka B deviated sidetrack.

Oil Search said it has been modeling enhanced recovery through miscible gas injection but needs additional testing of single-phase oil samples to confirm results.

The Pikka C well is planned to a depth of some 4,919 feet TVD, with the Pikka C horizontal sidetrack to a depth of some 4,175 feet TVD. The location is in the central portion of the unit, Oil Search said, in sections 8, 9 and 16 of T12N, R6E.

"The Pikka C wells are critical to delineate the northern limit extension of the reservoir and have the potential to have significant impact on the subsurface basis of design," the company said. Conventional core will be acquired and fluid sampling where appropriate.

A full suite of logs is planned for the Pikka C sidetrack, "and a production test is planned, contingent upon results of the log evaluation," the company said. ●

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