



JUDY PATRICK PHOTOGRAPHY

Thank you Jason Stellmach; Paul Craig pleased with Elixir/ Emerald House deal with Entek; WoodMac, Saudi minister upbeat

ON DEC. 13 PETROLEUM NEWS RECEIVED AN EMAIL from long-time reader Wadeen Hepworth, who had something very nice to say about an Enstar employee that is appropriate to share in this holiday season.

"Today is a winter wonderland in Anchorage and the mail gal delivered a special letter from John Sims, president, Enstar Natural Gas. John wrote in response to a complimentary letter I wrote about Jason Stellmach, service supervisor, who provided an outstanding service to me that saved me over \$1,000.

"I learned, through John's letter, that Jason had a Hawaiian

see INSIDER page 8

Longan, Caltagirone named to Natural Resources leadership team

Alaska Department of Natural Resources Commissioner Corri Feige has named Sara Longan as a deputy commissioner and attorney Peter Caltagirone as special assistant.

"DNR has tremendous responsibilities for protecting our state's natural resources and developing them to benefit Alaskans," Feige said in a Dec. 14 statement. "Governor Mike Dunleavy has charged me with maximizing the potential of these resources, and these individuals have the professional experience and proven records of accomplishment that will help me lead 'Team DNR' to success," Feige said.

see DNR LEADERSHIP page 10

Fall Revenue Sources Book out; forecast down from preliminary

Bruce Tangeman, commissioner of the Department of Revenue, released the Fall 2018 Revenue Sources Book Dec. 14. A preliminary forecast, released Dec. 3 by outgoing Revenue Commissioner Sheldon Fisher, pegged Alaska North Slope crude oil prices at an average of \$76 per barrel for fiscal year 2019, which ends in June, and \$75 per barrel for FY 2020, which begins in July.

The Dec. 14 release estimates FY 2019 ANS crude oil at an average of \$67.96 per barrel, with a forecast of \$64 in FY 2020.

see SOURCES BOOK page 9

EXPLORATION & PRODUCTION

Group sues Liberty

9th Circuit appeal claims approval of Beaufort Sea project was illegal

By ALAN BAILEY
Petroleum News

On Dec. 17 a group of environmental organizations filed an appeal in the U.S. Court of Appeals for the 9th Circuit, claiming that the Bureau of Ocean Energy Management's approval of Hilcorp Alaska's Liberty oil field development in the Beaufort Sea was illegal.

The organizations allege that the project approval infringed the National Environmental Policy Act, the Outer Continental Shelf Lands Act and the Administrative Procedures Act. The organizations also allege that the U.S. Fish and Wildlife Service, when making its determination for the project,

The subsea pipeline concept involves a pipe-in-pipe design, with an outer pipe providing protection from an oil leakage into the sea should the inner oil pipeline rupture.

infringed the Endangered Species Act.

The organizations, which consist of the Center for Biological Diversity, Defenders of Wildlife, Greenpeace USA and Pacific Environment, have yet to file a court briefing, documenting in detail their arguments supporting their claim. Nor has BOEM or

see PROJECT LAWSUIT page 11

EXPLORATION & PRODUCTION

Drilling completed

Kitchen Lights POD approval indicates Furie carried out its 2018 program

By ALAN BAILEY
Petroleum News

Furie Operating Alaska completed its planned 2018 drilling program in the Kitchen Lights unit, offshore in Cook Inlet, according to a state notice approving the company's latest plan of development.

In 2017 Alaska's Division of Oil and Gas had issued the company a notice of default and opportunity to cure, because, the division said, the company had failed to meet drilling and development commitments. But, in this new plan approval, issued on Dec. 11, the division said that, with Furie now having complied with its commitments, the division was curing the default. Last January Furie had questioned the original default finding.

It its new plan of development Furie has also committed to submit by March 1 a proposal for the establishment of a participating area or areas in the unit.

Drilling conducted

The approval document says that this year Furie re-entered and completed the KLU A-1 development well in the Kitchen Lights gas field, and drilled an additional development well, the KLU No. 4. The company also drilled an exploration tail to this well, down into the Tyonek formation, to test a seismic

see FURIE DRILLING page 11

PIPELINES & DOWNSTREAM

Notley calls for bids

Hopes for investment in new or expanded refineries to gain full resource value

By GARY PARK
For Petroleum News

Alberta Premier Rachel Notley has issued an urgent plea for someone, anyone, with the financial means, to help build a new refinery in her province and pull her administration out of its financial swamp.

At the same time, anger in Alberta over the blockade mounted by other provinces against oil pipelines to tanker ports on the Pacific and Atlantic coasts has boiled over to the most strident talk in 40 years of the province leaving the Canadian confederation.

Notley announced her government has invited bids by Feb. 18 from companies willing to build a new refinery or expand an existing facility.



RACHEL NOTLEY

She said such an investment would help Alberta obtain full value for its energy resources.

"Let's stop the talk and start acting; let's start making, right here at home, more of the product that the world needs," Notley declared.

Without disclosing what role her government would take in such a venture, she said "the project must have a return on investment for Albertans and it must diversify the way we use the energy resources that we as Albertans all own."

Obvious candidate

The most obvious candidate for increasing Alberta's current refining capacity of about

see CALL FOR BIDS page 10

● EXPLORATION & PRODUCTION

AOGCC OKs Prudhoe-Put River commingling

Ruling allows production of some 6.9 million barrels of oil in place in Put River, above Prudhoe, which would otherwise be stranded

By KRISTEN NELSON
Petroleum News

The Alaska Oil and Gas Conservation Commission has approved a June request from Prudhoe Bay field operator BP Exploration (Alaska) to allow for commingled downhole production for wells completed in both the Put River and Prudhoe oil pools.

The Prudhoe oil pool has been in production since 1977, the commission said, with wells generally very productive due to high-quality reservoir rocks.

Put River overlies the Prudhoe oil pool and consists of three lobes — Central, Southern and Western — of the Put River sandstone, with a fourth lobe, the Northern, in hydraulic communication with the Prudhoe oil pool and included as part of the Prudhoe pool.

The Southern lobe of Put River has been in somewhat regular production since 1999 with an active waterflood. 2005 appraisal activities identified oil and gas condensate in the Western and Central lobes, respectively, the commission said, “but further development was not pursued at that time

“Since standalone production of the Central and Western Lobes is not viable due to hydrate deposition those reserves are essentially trapped.” —Alaska Oil and Gas Conservation Commission

in part due to low flowrates that resulted in operational challenges associated with hydrate deposition.”

The Central lobe contains an estimated 1.1 million to 2.7 million barrels of oil in place and the Western lobe contains an estimated 69.6 billion to 104.4 billion cubic feet in place with a condensate yield of approximately 40 barrels per million cubic feet, with a condensate in place value of between 2.8 million and 4.2 million barrels of oil.

The commission said Dec. 13 in revisions to conservation orders for the two oil pools that several wells penetrating the Prudhoe and Put River oil pools would be candidates for downhole commingling, which “should allow for increased flowrates and flow velocity in the tubing and

reduce the potential for the hydrate deposition that is problematic in production from wells completed solely in the (Put River oil pool). Since standalone production of the Central and Western Lobes is not viable due to hydrate deposition those reserves are essentially trapped. Commingling of production with the (Prudhoe oil pool) will allow these resources to be recovered.”

Commingling of production between the Prudhoe and Put River oil pools should allow for development of up to 6.9 million barrels of hydrocarbon liquids in place within the Put River oil pool “that would not be recoverable as a standalone development,” the commission said.

Commission data show that the Prudhoe oil pool has produced 11.9 billion barrels through October, the latest data available, while Put River has produced 3.1 million barrels.

Total production from the Prudhoe Bay field — the Prudhoe oil pool and all other pools at Prudhoe combined — is more than 12.8 billion barrels through October. ●

Contact Kristen Nelson at knelson@petroleumnews.com

contents

Petroleum News

Alaska's source for oil and gas news

ON THE COVER

Group sues Liberty

9th Circuit appeal: approval of Beaufort Sea project was illegal

Drilling completed

Kitchen Lights POD approval indicates Furie carried out program

Notley calls for bids

Hopes for investment in refineries to gain full resource value

Oil Patch Insider: Thank you Jason Stellmach; Craig pleased with Elixir/ Emerald House deal

Longan, Caltagirone named to Natural Resources leadership team

Fall Revenue Sources Book out; forecast down from preliminary

ALTERNATIVE ENERGY

3 Making more use of Fire Island wind

ENVIRONMENT & SAFETY

4 The continuing trends for the Arctic

NOAA's 2018 Arctic Report Card points to rising temperatures, declining ice, new drivers of uncertain environmental change

EXPLORATION & PRODUCTION

2 OGCC OKs Prudhoe-Put River commingling

4 National drilling rig count down 4 at 1,071

7 Fractures as clues for oil potential

DGGS reports on patterns of rock fracturing in the Mesozoic of lower Cook Inlet as a potential factor in oil, gas exploration

7 Division approves Winx 1 operation plan

11 Coastal areas of NS open for tundra travel

FINANCE & ECONOMY

11 Conoco-BP Kuparuk, Clair field deal closes

GOVERNMENT

3 NPR-A plan scoping meetings rescheduled

NATURAL GAS

4 FERC denies cooperating agency request

UTILITIES

6 Concerns about Railbelt grid progress

Need for more widespread engagement, statutory clarity have slowed moves towards unification of regional electrical system



Petrotechnical Resources Alaska

Alaska's
Oil and Gas
Consultants

Geoscience
Engineering
Project Management
Seismic and Well Data



3601 C Street, Suite 1424
Anchorage, AK 99503
(907) 272-1232
(907) 272-1344
www.petroak.com
info@petroak.com

GOVERNMENT

NPR-A plan scoping meetings rescheduled

The federal Bureau of Land Management said Dec. 13 that it has rescheduled four remaining public scoping meetings for the new National Petroleum Reserve-Alaska plan.

The meetings, intended to gather public comments to help guide development of a new integrated activity plan and associated environmental impact statement for NPR-A, were postponed due to the Nov. 30 earthquake in Anchorage.

Earlier meetings were held Dec. 10-12 in Anchorage, Atkasuk and Anaktuvuk Pass; the Dec. 13 meeting in Fairbanks was to go ahead as scheduled, the agency said.

The rescheduled meetings are:

Utqiagvik, Jan. 4, 7-10 p.m. at the Inupiat Heritage Center;

Nuiqsut, Jan. 5, noon-5 p.m. at the Kisik Community Center;

Wainwright, Jan. 9, 7-10 p.m. at the Wainwright Community Center; and

Point Lay, Jan. 10, 7-10 p.m. at the Point Lay Community Center.

The Federal Register notice of intent was published Nov. 21, initiating a 45-day public scoping period, which has now been extended to Jan 22, BLM said, to accommodate the rescheduled meetings.

—PETROLEUM NEWS

• ALTERNATIVE ENERGY

Making more use of Fire Island wind

System in place allows MEA to buy wind power in excess of what Chugach Electric Association uses, which typically occurs in summer

By **ALAN BAILEY**

Petroleum News

Chugach Electric Association and Matanuska Electric Association have successfully implemented a technique that enables MEA to make use of excess power from the wind farm on Fire Island, offshore Anchorage, officials from the two Southcentral Alaska electric utilities told a meeting of the Regulatory Commission of Alaska on Dec. 12. Excess power comes available when Chugach Electric cannot make use of all of the wind farm output.

Chugach Electric is the only utility to have contracted to purchase power from the Fire Island facility, which is owned by Cook Inlet Region Inc. But the power output from the facility is extremely variable, changing along with the varying strength of the wind at Fire Island. If the amount of wind power exceeds what Chugach Electric can use, the output has to be curtailed, thus wasting a valuable energy resource and wasting the cost of the unused power.

Under a new arrangement that Chugach Electric and MEA have been successfully testing, Chugach Electric has set up a display in its dispatch center, showing the difference between the wind power that is available and the amount of wind power that the utility is actually using, Brian Hickey, vice president of systems operations for Chugach Electric, told the commission. This display also shows up in MEA's control system, he said. If MEA has capacity to take that excess power, it calls Chugach Electric and offers to take some amount of wind power at some offered price.

The procedure operates in the form of what is referred to as an economy energy transaction, a commonly used form of transaction in which the Alaska Railbelt utilities buy and sell each other's power. In this type of transaction, the two utilities normally split the savings between each other, Hickey said. The power has to be sold at more than its cost and at less than what it would cost to replace, commented Ed Jenkin, director of power delivery for MEA.



A Fire Island wind turbine

The challenge with an energy sale of this type is the variability of the wind power. Depending on the amount of wind power that Matanuska Electric takes relative to amount of power specified in the purchase agreement, either Chugach Electric or MEA has to regulate the wind power, counterbalancing the varying power with varying amounts of power from other generation facilities. And the power variations cause "inadvertants," power transfers that diverge from the volumes in the purchase agreement. Those inadvertants are tracked and paid back as part of the accounting for the next day.

"So there's a fair amount of energy accounting going on in the background to make this happen, and combining the real-time nature of the wind was quite challenging," Hickey said.

The utilities anticipate using the new protocol mainly during the summer, when electricity demand tends to be low but when the wind can, nevertheless, blow quite strongly at Fire Island. And the system has been set up, so that it could also be used by Homer Electric Association and Golden Valley Electric Association, two other Railbelt utilities, Hickey said. ●

Contact Alan Bailey
at abailey@petroleumnews.com



**BUILDING IS
OUR BUSINESS.**

**RURAL ALASKA
IS OUR SPECIALTY.**

- Pile foundations
- Telecommunications towers
- Bulk fuel systems
- Wind energy installations



**TURNING THE CHALLENGES OF BUILDING IN
RURAL ALASKA INTO OPPORTUNITIES.**

STGINCORPORATED.COM



A proud subsidiary of
CALISTA CORPORATION
www.calistacorp.com

EXPLORATION & PRODUCTION

National drilling rig count down 4 at 1,071

The number of rigs drilling for oil and natural gas in the U.S. was down up by four the week ending Dec. 14 to 1,071.

At this time last year there were 930 active rigs.

Houston oilfield services company Baker Hughes reported that 873 rigs targeted oil (down four from the previous week) and 198 targeted natural gas (unchanged).

The company said 73 of the U.S. holes were directional, 927 were horizontal and 71 were vertical.

Among major oil and gas producing states, Wyoming was up five rigs and Texas was up three.

California, Colorado and Louisiana were unchanged.

Alaska and Pennsylvania were each down by one rig; North Dakota and Oklahoma were each down two rigs; New Mexico was down five rigs.

Baker Hughes shows Alaska with six active rigs, up one from a year ago.

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

—PETROLEUM NEWS

NATURAL GAS

FERC denies cooperating agency request

The Federal Energy Regulatory Commission has denied a request from the state to become a cooperating agency in the environmental impact statement for the Alaska Liquefied Natural Gas Project.

In a Dec. 14 letter to Deputy Commissioner Heidi Hansen of the Alaska Department of Natural Resources, FERC said the project is proposed by the Alaska Gasline Development Corp., a wholly owned public corporation of the state of Alaska, and the state requested that it become a cooperating agency through the Alaska Office of Project Management and Permitting, OPMP.

FERC said its rules prohibit OPMP from acting as a cooperating agency in a matter in which AGDC is a party, even if, as the state suggested, a firewall was established between the entities for the purpose of this proceeding.

“Although we are not able to grant the state’s request for cooperating agency status, the state may nevertheless communicate its special expertise on the record and I hope that it will take the opportunity to do so,” FERC said.

FERC is expected to release a draft EIS for the project in February.

—PETROLEUM NEWS

ENVIRONMENT & SAFETY

The continuing trends for the Arctic

NOAA’s 2018 Arctic Report Card points to rising temperatures, declining ice and new drivers of uncertain environmental change

By ALAN BAILEY

Petroleum News

In its annual Arctic Report Card for 2018, the National Oceanic and Atmospheric Administration has documented the impacts of the continuing multi-year warming of the Arctic region. That warming is having environmental impacts, some of which are predictable, while some are unexpected — new emerging threats rapidly demonstrate the level of uncertainty over future environmental change, the report says.

Rising temperatures

In 2018 Arctic surface air temperatures continued along an upwards trend at approximately twice the rate of what is observed elsewhere in the world. Those air temperatures were the second highest on record since 1900, second only to the record high temperatures recorded in 2016. Air temperatures in the past five years have exceeded all previous records. Apparently, there is no consensus view on why the Arctic is warming so much more quickly than other parts of the world, although several theories have been proposed, including the effect of the loss of summer sea ice on heat absorption, changes in cloudiness, and changes in levels of pollution.

The report says that atmospheric warming in the Arctic is causing the jet stream, the high-altitude global flow of air, to become sluggish and wavy, a phenomenon believed to be associated with abnormal weather in the Arctic and elsewhere, including severe winter storms in the eastern United States and severely cold weather last March in Europe.

The continuing warming of the atmosphere, an indicator of general climate change, has been notably impacting the Arctic region, the report says. Terrestrial snow cover is declining; the Greenland ice sheet and lake ice are melting; the ice melt is increasing Arctic river flows; and Arctic vegetation is greening and expanding. Although the amount of vegetation available for animal grazing has increased, the populations of caribou and wild reindeer living on the Arctic tundra have declined by nearly 50 percent over

Terrestrial snow cover is declining; the Greenland ice sheet and lake ice are melting; the ice melt is increasing Arctic river flows; and Arctic vegetation is greening and expanding.

the last two decades, the report says.

Loss of sea ice

In response to the warming of the ocean, Arctic sea ice is becoming thinner and younger, and is covering a smaller area than in the past, the report says. The winter maximum sea ice extent in 2018 was the second lowest recorded since satellite observations began in 1979. The minimum sea ice extent in September tied with 2010 as the sixth lowest extent on record, with the 12 lowest extents measured from satellite observations occurring in the last 12 years. And the disappearance of much of the thick, multi-year ice pack renders the ice more susceptible to summer melting and to unpredictable movement.

There also appears to be a long-term decline in land-fast ice, the ice that is anchored to the coast, the report says. This form of ice is critically important as a buffer, protecting the coast and coastal communities from erosion caused by winter storms. Land-fast ice is also extremely important as a platform for travel and hunting for Arctic communities.

The Bering Sea

The report particularly comments on the shortage of winter ice on the Bering Sea, one of the more notable features of the 2017-18 sea ice season. Apparently a persistent southerly circulation brought relatively warm surface water and air north into the region, pushing any sea ice that formed north. The low ice cover in the winter and spring then allowed the absorption of more solar energy into the seawater. The lack of sea ice triggered a 500 percent increase in the productivity of marine algae — increased concentrations

see ARCTIC TRENDS page 6

Petroleum
news

www.PetroleumNews.com

Kay Cashman	PUBLISHER & FOUNDER
Mary Mack	CEO & GENERAL MANAGER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
Heather Yates	BOOKKEEPER
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Alan Bailey	SENIOR STAFF WRITER
Eric Lidji	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Forrest Crane	CONTRACT PHOTOGRAPHER
Renee Garbutt	CIRCULATION MANAGER

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals listed above work for independent companies that contract services to Petroleum Newspapers of Alaska LLC or are freelance writers.



OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 23, No. 51 • Week of December 23, 2018
Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518

(Please mail ALL correspondence to:
P.O. Box 231647 Anchorage, AK 99523-1647)

Subscription prices in U.S. — \$118.00 1 year, \$216.00 2 years

Canada — \$206.00 1 year, \$375.00 2 years

Overseas (sent air mail) — \$240.00 1 year, \$436.00 2 years

“Periodicals postage paid at Anchorage, AK 99502-9986.”

POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.



Our success is determined by your success.

opti
STAFFING GROUP

Alaska's Premier
Placement Service

Phone: 907.677.9675

CHOOSE OPTI STAFFING

- Oil & Gas
- Skilled Trades
- Administrative Support
- Accounting

www.OptiStaffing.com

Congratulations

Congratulations Lagniappe AK, North Slope's newest player

Hats off to Lagniappe AK, a newly formed limited liability company that successfully submitted winning bids on a 195,000-acre block of leases on the eastern North Slope, spending a whopping \$14.1 million at the latest state of Alaska lease sale. The company, whose registered agent is in Louisiana, is committed to an aggressive exploration program in an area that is vastly under-explored.



Founder of Lagniappe has not yet revealed himself to the general public.

- | | | |
|---|---------------------------------|--|
| Afognak Leasing LLC | CMS, Inc./Hepworth Agency | Lynden Logistics |
| Airgas, an Air Liquide company | Colville Inc. | Lynden Transport |
| Alaska Energy Services, LLC | Computing Alternatives | Mapmakers of Alaska |
| Alaska Dreams | CONAM Construction | MAPPA Testlab |
| Alaska Frac Consulting LLC | Cruz Construction | Maritime Helicopters |
| Alaska Frontier Constructors (AFC) | Denali Universal Services (DUS) | Motion & Flow Control Products |
| Alaska Marine Lines | Dowland-Bach Corp. | Nabors Alaska Drilling |
| Alaska Materials | Doyon Anvil | Nalco Champion |
| Alaska Railroad | Doyon Associated | NANA WorleyParsons |
| Alaska Rubber & Rigging Supply Inc. | Doyon Drilling | NEI Fluid Technology |
| Alaska Steel Co. | Doyon, Limited | Nordic Calista |
| Alaska Tent & Tarp | exp Energy Services | North Slope Telecom |
| Alaska Textiles | F. R. Bell & Associates, Inc. | Northern Air Cargo |
| Alaska West Express | Fairweather | NRC Alaska |
| Alpha Seismic Compressors | Flowline Alaska | Oil Search |
| American Marine | Fluor | Opti Staffing |
| Arctic Catering & Support Services | Foss Maritime | PENCO |
| Arctic Controls | Fugro | Petro Star Lubricants |
| Arctic Fox Environmental | Geotemps | Petroleum Equipment & Services, Inc. |
| Arctic Slope Telephone
Assoc. Coop (ASTAC) | GMW Fire Protection | PRA (Petrotechnical Resources of Alaska) |
| Arctic Wire Rope & Supply | Greer Tank & Welding | Price Gregory International |
| ARCTOS Alaska, Division of NORTECH | Guess & Rudd, PC | Raven Alaska – Jon Adler |
| Armstrong | ICE Services, Inc. | Resource Development Council |
| ASRC Energy Services | Inspirations | SAExploration |
| AT&T | Judy Patrick Photography | Security Aviation |
| Avalon Development | Klondike Exploration | Sourdough Express |
| Aviator Hotel | Kuukpik Arctic Services | Strategic Action Associates |
| Bombay Deluxe | Last Frontier Air Ventures | Tanks-A-Lot |
| BP | Little Red Services, Inc. (LRS) | The Local Pages |
| BrandSafway Services | Lounsbury & Associates | Udelhoven Oilfield System Services Inc. |
| Brooks Range Supply | Lynden Air Cargo | Unique Machine |
| Calista Corp. | Lynden Air Freight | Volant Products |
| Chosen Construction | Lynden Inc. | Waste Management |
| | Lynden International | Weston Solutions |

• UTILITIES

Concerns about Railbelt grid progress

Need for more widespread engagement and statutory clarity have slowed moves towards unification of regional electrical system

By **ALAN BAILEY**

Petroleum News

During a Dec. 12 meeting of the Regulatory Commission of Alaska commissioners expressed concern about a slowing of progress towards achieving a more unified approach to the management and operation of the Alaska Railbelt electricity grid. The utilities have signed a memorandum of understanding for the formation of a Railbelt Reliability Council, to govern how the Railbelt grid operates and to oversee reliability standards for the grid. But further progress in RRC implementation has yet to happen. And efforts to form a transmission company, or transco, to operate the transmission grid have also yet to bear fruit.

The overall objective is to minimize the cost of electricity for Railbelt consumers by improving the efficiency of the electrical system.

“That process right now is a bit stalled,” Commissioner Antony Scott commented about the RRC initiative. “The MOU contemplated actions by other parties who were part of the process of negotiating it ... some of these parties, including the commission, haven’t lapped at the chance of playing in the role that was defined for them.”

Statutory issues

Scott also commented that the signing of the MOU for the RRC had been in many ways a remarkable achievement that he would not have predicted three or four years ago. He said that one issue the commission is trying to figure out is the extent to which there may need to be any statutory changes for the RRC to come into existence as envisaged — the concept involves commission jurisdiction to regulate the new organization. But that jurisdiction would be awkward under the terms of the

statute that governs the commission’s regulatory role, Scott said.

In particular, while the RRC would oversee several Railbelt utilities in terms of issues such as transmission grid planning, the statutory wording tends to be geared towards relationships between the commission and individual utilities. And there are issues relating to enforcement actions for an organization like an RRC.

RRC funding

Another issue relates to the mechanism whereby the RRC would be funded. The concept that has emerged would involve the recovery of RRC costs through ratepayer bills, rather like the regulatory cost charge for recovering the commission’s costs.

“But right now I don’t see any good statutory mechanism by which that could happen,” Scott said. “I think at minimum there’s some parallel work around creating

a statutory approach that will ultimately facilitate whatever comes out of that RRC process ... some of us had hoped that by this time we would have issued a definitive order clarifying exactly what our path forward would be and how we would engage in a process, and we’re not there today.”

Scott said that he and Commissioner Robert Pickett had held meetings with most people who have an interest in the Railbelt grid issues.

Reliability standards

Pickett commented on progress towards establishing a unified and mandatory set of reliability standards for the electricity grid. In April the Railbelt utilities filed a unified set of standards with the commission, and the utilities are developing a set of cybersecurity standards to add to those existing standards. Pickett said that the commission has conducted meetings with the utilities on the reliability standards issue and still sees a number of questions that need to be addressed. These questions include the protection of critical infrastructure; physical security and cybersecurity; the enforcement of the standards; and the mechanism for updating or changing the standards.

Pickett said that, from the commission’s perspective, one challenge at the moment is the commission’s workload, given the number of dockets with tight timelines that the commission is having to deal with. The commission is also in the process of preparing a report to the Legislature on the status of moves towards grid unification. And the fact that a new Legislature and governor are coming into office may impact the speed at which initiatives can move ahead.

On the other hand, the utilities have made much more progress than Pickett had anticipated in 2015, when the commission had made recommendations for a more unified approach to operating the Railbelt electrical grid.

“I am cautiously optimistic,” Pickett said. “It’s at a point where we can’t let stuff just stop.” ●

Contact Alan Bailey
at abailey@petroleumnews.com

continued from page 4

ARCTIC TRENDS

of algal toxins were measured in the tissues of various marine creatures, including Arctic clams, seals, walrus and whales, the report says.

Microplastics

The relatively high concentration of microplastics in marine waters of the Arctic is also becoming a significant environmental concern — concentrations of these pollutants, formed from the breakdown of various plastic materials, have been found to be higher in the Arctic than in any other ocean basin around the world. Concentrations are particularly high in the Atlantic sector of the Arctic, probably as a consequence of the transportation of marine debris by ocean circulation. The plastic pollutants pose a threat to birds and other marine life that may ingest them, the report says. ●

Contact Alan Bailey
at abailey@petroleumnews.com



Safer. Smarter.



Better.

Our CDR2-AC rig reflects the latest innovations in Arctic drilling to provide our customers with incident free performance and operational and technical excellence.

CDR2-AC is the first Arctic rig designed and built by Nabors specifically for Coil Tubing Drilling operations. The rig was built to optimize CTD managed pressure drilling to provide precise control of wellbore pressures for improved safety, decreased costs, and increased wellbore lengths.

Combining safety and environmental excellence with greater efficiency means CDR2-AC can deliver the high value results customers have come to expect from Alaska’s premier drilling contractor.

Learn more about Nabors’ new drilling technologies at Nabors.com.

 **NABORS – MISSION TO ZERO**
Safer, Smarter - Incident Free

Contact Alan Bailey
at abailey@petroleumnews.com

• EXPLORATION & PRODUCTION

Fractures as clues for oil potential

DGGS reports on patterns of rock fracturing in the Mesozoic of the lower Cook Inlet as a potential factor in oil and gas exploration

By **ALAN BAILEY**

Petroleum News

Alaska's Division of Geological and Geophysical Surveys has published a report on an investigation into the fracturing of Mesozoic rock in the lower Cook Inlet region, near the Iniskin Peninsula. The rock sequence contains known oil source rocks and potential oil reservoirs. However, because of a combination of rock compaction as a result of deep burial, and of the clogging of rock pores by the degradation of volcanic material into clays, there are questions over the quality of those possible reservoirs. But fractures are commonly observed in the rocks, and these fractures could act as both conduits for the subsurface flow of hydrocarbons, and as spaces within which hydrocarbons could accumulate.

The producing oil and gas fields of the upper Cook

Inlet have reservoirs in rock strata of Tertiary age, younger and shallower than the Mesozoic strata. But the Mesozoic strata are thought to have significant petroleum potential — a better understanding of the fracturing of these rocks may shed light on potential exploration strategies.

In general the folding and faulting of rocks in the Cook Inlet basin has resulted from the interaction between plates of the Earth's crust over an extended period of time through to recent history, in a tectonically active region. And the DGGS team discovered that the fracturing in the Mesozoic is consistent across all of the rock units in the stratigraphic sequence, with the fracturing appearing to relate to movement of geologic faults and the opening of large fractures rather than to the rock types.

The team identified four distinct sets of fractures with different orientations along compass bearings of 310,

210, 250 and 360 degrees north. Fractures in each set occurred at broadly similar frequencies, although the 310-degree set showed a wider overall range of frequencies and the highest recorded frequencies. It appears that fractures in this set have the greatest potential to open or re-open when subject to modern geologic stresses and may, therefore, have the greatest influence over fluid migration in the Cook Inlet basin, the team concluded.

The team also investigated the potential to use the frequency of micro-fractures observed in microscope slides of the rocks to project the likely frequency of larger fractures in the rocks, thus enabling an assessment of subsurface fracture frequency that cannot be directly observed. There is a mathematical relationship between the frequency of micro-fractures of a given fracture set and the frequency of larger fractures in that same set. ●

Contact Alan Bailey at abailey@petroleumnews.com

• EXPLORATION & PRODUCTION

Division approves Winx 1 operation plan

Australian consortium of 88 Energy, Otto Energy, Red Emperor Resources, drilling on acreage currently held by Great Bear Petroleum

By **KRISTEN NELSON**

Petroleum News

The Alaska Division of Oil and Gas has approved the lease plan of exploration for the Winx 1 exploration well. In a Dec. 14 letter to Great Bear Petroleum, the operator of record at Winx, the division said the proposed schedule called for ice pad construction in January, rig and camp mobilization in the first two weeks of February and drilling and testing the Winx 1 well beginning in mid-February.

The well will be drilled from a 750 foot by 250-foot ice pad, an area of about 4.3 acres. Some 10.7 miles of ice road will be required. There will also be an ice staging pad constructed at the start of the temporary winter road adjacent to the Drill Site 2P access road.

The well is projected to be as deep as 12,000 feet true vertical depth to test stacked conventional Nanushuk formation objectives. The division said the well may be tested and hydraulically stimulated and flow tested, and may include lateral, sidetrack or additional penetrations from the

same exploration wellbore.

The well would be plugged and abandoned or suspended.

It will be drilled on ADL 391720.

Australian consortium

An Australian consortium of companies — 88 Energy Ltd., Otto Energy and Red Emperor Resources — are

see **WINX PLAN** page 8

ALASKA IS OUR FUTURE

OUR O&M TEAM IS TACKLING ALASKA'S TOUGHEST JOBS

As Alaska's largest operations & maintenance provider, we have more than 1,500 team members working year-round in the oil fields.

ASRC ENERGY SERVICES
a subsidiary of Arctic Slope Regional Corporation
asrcenergy.com

ONE CREW. ONE JOURNEY.

continued from page 1

INSIDER

vacation departure date of Dec. 4, but, when the (Nov. 30) earthquake hit (Southcentral Alaska) he cancelled the trip. It was also nice to read that the president knew Jason 'repeatedly exceeds expectations.'

"I send you this because I believe there are more positive people in this world than negative and that the Jason's are out there every day caring. Too often we complain and forget to compliment the nice guys to their bosses, a nice tradition to begin in 2019."

—KAY CASHMAN

Craig: Elixir/Emerald deal with Entek positive next step

PAUL CRAIG, VETERAN OIL AND GAS INVESTOR and independent in Alaska, is pleased with the recent deal the Australian oil company Elixir Petroleum (ASX:EXR) made with another Australian firm, Entek Energy (ASX:ETE), for the South Nanushuk prospect that Craig sold to Elixir.

Elixir's wholly owned subsidiary Emerald House is the company's operating entity in Alaska.

Elixir closed on 100 percent working interest in the 35,423-acre parcel on three leases in mid-November. The leases lie south of Armstrong's Nanushuk discovery at Pikka and Horseshoe and south of ConocoPhillips' Willow oil find, all west of the central North Slope.

ConocoPhillips' projected expenditure on Alaska exploration in 2019 will particularly focus on the further appraisal of Willow, which is in the northeastern National Petroleum Reserve-Alaska, where the company plans to drill four to six appraisal wells this winter. (In a recent investor presentation, company officials said ConocoPhillips was assuming a West Texas Intermediate oil price of below \$40 per barrel, noting that at \$40 per barrel, the company's cash flow would exceed the level of sustaining capital investment and dividend payments.)

Immediately after the closing with Craig, a coalbed methane prospect in Mongolia that Elixir had given up on due to bureaucratic obstacles got the green-light from the government. The small independent immediately started negotiations with fellow independent Entek,



PAUL CRAIG

which had cash but was looking for an investment opportunity.

"It was a logical next step," Craig told Petroleum News Dec. 19. "I am very happy with the deal. If you had been sitting at the table you would understand. ... Elixir thought its Mongolian project, which they had worked very hard at, seemed permanently mired down, so they made the deal with me. Suddenly they had two very promising projects, but not enough cash to fund the next step for both; Entek had the cash to move the Alaska project forward, but no prospects."

Entek reported cash of approximately \$4.2 million and no debt or substantial expenditure commitments in its September quarterly.

The deal between the two "small, scrappy independents" is a throwback to Richfield (predecessor to Atlantic Richfield/ARCO/ConocoPhillips), which was the company that initially pushed development of the giant Prudhoe Bay oil field, Craig said.

Entek and Elixir have entered into a binding agreement granting Entek an exclusive option to purchase the acreage through the acquisition of Emerald House. The proposed transaction allows Entek to acquire the Elixir subsidiary for up to 200 million shares, which Elixir will then distribute on a pro rata basis to shareholders.

The option agreement said any additional leases acquired by Emerald House would be included in the potential acquisition by Entek.

In the Dec. 12 BLM lease sale Elixir subsidiary Emerald House was high bidder on 10 more leases. Emerald House bid \$1.1 million on 114,167 acres in NPR-A, giving it 149,590 total North Slope acres.

A Dec. 13 stock exchange filing said Elixir paid a 20 percent deposit to BLM of approximately US\$225,000 which will be subject to a 25 percent uplift in value if Entek exercises its option to acquire Emerald House.

Elixir and Entek are "working towards the potential completion of the transaction in Q1 of 2019," the filing said, noting later in the filing that it would close in March.

The recent BLM lease sale bidding "represents the last significant expenditure" Elixir expects to make on the Alaska acreage as its focus "shifts back" to its Mongolian CBM acquisition that it's in the process of completing.

According to Craig, per the example set by Armstrong, which has brought in several larger partners to fund oil developments

on the North Slope, including those at Oooguruk, Nikaichuq, Pikka and Horseshoe, "it can take billions of dollars to fund a really big North Slope development," and that is likely what Entek will have to do as a logical next step.

It will take a major oil company or a really large independent, such as the Australian independent Oil Search, currently the operator of Pikka and Horseshoe, to bring the Elixir/Emerald House and soon-to-be Entek leases into production, Craig said.

According to a Nov. 14 statement by Elixir, the price for Craig's three leases was US\$653,859, which had been placed in escrow awaiting confirmation that the lease assignments had been approved by BLM. Elixir had posted a US\$300,000 cash backed bond with the agency.

Prior to Entek stepping in and the news from Mongolia, Elixir's chief executive, Managing Director Dougal Ferguson, said Nov. 14, "With the acquisition of the Alaskan leases now completed (closed), work has begun on interpretation of all the existing data with significant progress being made on our Alaskan exploration strategy over the last two months."

If the Entek deal closes, Ferguson will move to Entek as its GM.

In a July 15 Oil Patch Insider interview, Craig said he was negotiating with a publicly traded oil and gas company interested in completing a 3-D seismic program over the South Nanushuk prospect.

Stay tuned...

—KAY CASHMAN

continued from page 7

WINX PLAN

drilling Winx 1.

In a Dec. 17 statement 88 Energy Ltd. said it was the drilling manager on the project and said all major permits except the permit to drill have been received. The application for the drilling permit will be submitted prior to the end of the year, 88 Energy said, with approval expected in January, prior to the February spud date.

The company said preparations for ice road and pad construction are underway.

88 Energy said in late August that its wholly owned subsidiary Captivate Energy Alaska had contracted the Nordic-Calista Services rig 3 to drill the Winx well and said at that time that Otto Energy had used seismic data acquired from the division to identify a prospect at a depth of some 5,000 feet in the Nanushuk.

Otto said in a Dec. 17 statement that it is paying 25 percent of the well costs to earn 22.5 percent working interest, and said 88 Energy has 36 percent interest, Red Emperor has 31.5 percent and Great Bear, currently the operator of record on the leases, has a 10 percent interest. Great Bear has the opportunity to back-in for an additional 10 percent interest. If that occurs, Otto said, working interest would be Otto 20 percent, 88 Energy 32 percent, Red Emperor 28 percent and Great Bear 20 percent.

Red Emperor Resources said Dec. 17 that the Winx prospect "is a 3D seismic defined conventional oil prospect in the successful Nanushuk play fairway with a gross mean unrisks prospective resource of 400 (million barrels)" adjacent to the Horseshoe 1/1A discovery well drilled in 2017. ●

Contact Kristen Nelson
at knelson@petroleumnews.com

SHIP BEYOND THE RAILS.
FROM RAIL TO SEA TO ROAD, WE DO IT ALL.

The Alaska Railroad does more than you might expect. We ship freight to and from anywhere in North America. Even places without rail access. And we handle all the logistics along the way. So whatever it takes to get it there - barge, train, truck - you only need to deal with one point of contact and one invoice. So, next time you need to ship, sit back, relax and let us handle all the weight.

Call for a free quote today: 800.321.6518 | alaskarailroad/freight

ALASKA
RAILROAD

Saudi Oil Minister upbeat on oil price

KHALID A. AL-FALIH, SAUDI ARABIA'S MINISTER OF ENERGY, industry and mineral resources and chairman of Saudi Aramco, told reporters Dec. 19 he expects global oil inventories to drop by the end of the first quarter next year and oil prices to improve and stabilize in 2019.

The current oil price is not linked to fundamentals and what happened to the oil market was political, macroeconomic and speculative trading, the energy minister of OPEC's largest producer said.

All OPEC countries are committed to 3 percent production cuts in 2019 in order to draw down the global oversupply, with non-OPEC members, including Russia, committed to 2 percent cuts, al-Falih said.

A balance between supply and demand will occur in 2019, he said, assuring reporters that OPEC's position is very balanced, measured and strong.

Al-Falih's comments came the day after oil prices plummeted again amid market sell-offs and fears of oversupply as oil prices hit their lowest in the previous year. At market closing on Dec. 18, Alaska North Slope crude had dropped another \$2.93 to \$56.29, with West Texas Intermediate falling \$3.64 to \$46.24 and Brent crude dropping \$3.35 to \$56.26, with "We remain focused on fundamentals, I can tell you we will achieve balance between supply and demand in 2019," al-Falih noted, as quoted by Reuters.

"What has happened in my opinion recently is a confluence of many non-oil fundamental issues including the geopolitical issues, especially around the sanctions and the waivers that were granted by the United States," al-Falih was quoted as saying in a Bloomberg report on Dec. 19. "It also includes the trade tension between the U.S. and China."

On Dec. 19 oil prices seemed to steady and had begun to crawl up at the time this issue of Petroleum News closed late morning.

continued from page 1

SOURCES BOOK

“In recent weeks, oil prices have dipped below the mid-\$60s from a multi-year high price of over \$85.00 per barrel at the beginning of October 2018,” Tangeman said in a letter to Gov. Mike Dunleavy accompanying the release of the Revenue Sources Book. “This forecast accounts for these recent swings in price. As a result, the revenue forecast is based on an annual average ANS oil price of \$67.96 per barrel for FY 2019 and \$64.00 per barrel for FY 2020.”

The Revenue Sources Book estimates FY 2019 North Slope production at 526,800 barrels per day, compared to 529,800 bpd in the preliminary forecast. ANS volumes for FY 18 (518,400 bpd) and the FY 20 (533,200 bpd) are the same.

Petroleum revenue

Total petroleum revenue, \$2.450 billion in FY 2018, is forecast to be \$2.714 billion in FY 2019 (up 11 percent) from FY 2018 and \$2.245 billion in FY 2020 (down 17 percent from FY 2019).

Those numbers are based on the forecast prices and volumes, and also on lease expenditures.

North Slope operating lease expenditures were \$2.649 billion in FY 2018 and are estimated to be \$2.715 billion in FY 2019 and \$2.823 billion in FY 2020. Capital expenditures were \$1.729 billion in FY 2018 and are estimated to be \$1.901 billion in FY 2019 and \$2.604 billion in FY 2020.

Revenue said that in recent years companies have reduced spending in response to oil market developments and changes in state tax policy. “Looking forward,” the department said, “there are several potential new developments on the horizon that could lead to increased investment in future years, such as Mustang, Pikka, Willow, and others. This forecast tentatively includes some production from several of these new opportunities.”

Production forecast

The department lists production by groups of fields and pools, and because its forecast goes out to 2028, some of the fields are not yet in production.

Prudhoe Bay production, including natural gas liquids from the Central Gas Facility shipped to the trans-Alaska oil pipeline, averaged 218,200 bpd in FY 2018, and is forecast to average 221,900 bpd in FY 2019, dropping to 218,400 bpd in FY 2020.

Prudhoe Bay unit satellites — Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff and Ugnu, along with the Milne Point field — averaged 41,800 bpd in FY 2018 and are forecast to average the same in FY 2019, dropping to 40,500 bpd in FY 2020.

The Greater Point McIntyre Area (Lisburne, Niakuk, Point McIntyre, Raven, West Beach and West Niakuk) averaged 30,500 bpd in FY 2018, is forecast to average 25,900 bpd in FY 2019 and 22,100 bpd in FY 2020.

Kuparuk averaged 82,800 bpd in FY 2018, is forecast to average 79,700 bpd in FY 2019 and 82,500 bpd in FY 2020.

Kuparuk satellites (Meltwater, NEWS, Tabasco, Tarn and West Sak) averaged 27,500 bpd in FY 2018 and are forecast to average 36,500 bpd in FY 2019 and 35,500 bpd in FY 2020.

Endicott (including Minke, Sag Delta, Eider and the Badami field) averaged 8,100 bpd in FY 2018 and is forecast to average 9,100 bpd in FY 2019 and 8,100 bpd in 2020.

Alpine (including Fiord, Nanuq, Qannik and Fiord West and the Mustang field which is not yet online) averaged 64,600 bpd in FY 2018 and is forecast to average 58,400 bpd in FY 2019 and 70,600 bpd in FY 2020.

Offshore fields — Northstar, Oooguruk and Nikaitchuq and the not-yet-developed Liberty — averaged 40,400 bpd in FY 2018 and are forecast to average 38,600 bpd in FY 2019 and 33,600 bpd in FY 2020.

The National Petroleum Reserve-Alaska averaged 100 bpd in FY 2018 and is forecast to average 10,400 bpd in FY 2019 and 15,400 bpd in FY 2020.

Point Thomson averaged 4,400 bpd in FY 2018 and is forecast to average 4,500 bpd in FY 2019 and 6,600 bpd in FY 2020.

Other fields (Pikka, Placer, Smith Bay, Guitar and Narwhal), which the department says are under evaluation and are outside other areas discussed in the forecast, are not forecast to have production in the next few years. Volumes from these projects first shows up at 200 bpd in FY 2023 and reaches 71,900 bpd by the end of the forecast period, FY 2028.

—KRISTEN NELSON

continued from page 8

INSIDER

WoodMac: Oil companies prepared to capitalize, build

AS 2018 DRAWS TO A CLOSE, international consulting firm Wood Mackenzie reported “the stage is already set for a fascinating 2019 in the upstream industry.”

In its recently published 2019 upstream and corporate outlook reports, WoodMac highlights how well prepared the industry is to adapt and thrive in tumultuous times.

“Oil and gas companies can cope with whatever’s thrown at them in 2019,” said Tom Ellacott, senior vice president. “Portfolios are set to weather low prices, and the recent slide in prices justifies the sector’s conservative mindset. In our view the commitment to capital discipline

will not budge entering the new year.

“But the temptation to relax the purse strings will grow if prices bounce back,” added Ellacott. “If oil prices return to US\$70/bbl or above, the cash windfall generated is huge and will inevitably drive sentiment back in favour of growth. It will also increase pressure to return surplus cash to shareholders.”

But companies will be cautious about raising shareholder distributions and investment too quickly, WoodMac said in a press release, noting, “many will favour deleveraging to absorb any future shocks, and keep their powder dry for opportunistic M&A (mergers and acquisitions).”

But one area where the capital will continue to flow is the U.S. tight oil, spearheaded by major oil and gas companies.

“Permian mega-deals defined 2018, and we expect more in 2019,” said Angus Rodger, upstream research

director. “After spending nearly US\$35 billion on tight oil acquisitions in 2018, the supermajors and bigger Independents are serious about ensuring long-term success.”

That said, above-ground challenges will moderate Permian tight oil growth in 2019 to just 650,000 barrels per day after eclipsing 1 million bpd of growth in 2018. WoodMac does not see relief for operators until third quarter 2019, when new pipeline capacity comes online to relieve infrastructure bottlenecks.

It is not known whether Alaska was mentioned in the report. WoodMac had not yet replied to a query about what was said about the state at the time this issue of Petroleum News closed on Dec. 19.

—KAY CASHMAN

Contact Kay Cashman
at publisher@petroleumnews.com



Advertiser Index

Companies involved in Alaska's oil and gas industry

ADVERTISER	PAGE AD APPEARS	ADVERTISER	PAGE AD APPEARS	ADVERTISER	PAGE AD APPEARS
A					
Afognak Leasing LLC		Colville Inc.		Maritime Helicopters	
Airgas, an Air Liquide company		Computing Alternatives		Motion & Flow Control Products	
Alaska Energy Services, LLC		CONAM Construction		N-P	
Alaska Dreams		Cruz Construction		Nabors Alaska Drilling	.....6
Alaska Frac Consulting LLC		Doyon Anvil		Nalco Champion	
Alaska Frontier Constructors (AFC)		Doyon Associated		NANA WorleyParsons	
Alaska Marine Lines		Doyon Drilling		Nature Conservancy, The	
Alaska Materials		Doyon, Limited		NEI Fluid Technology	
Alaska Railroad	.....8	exp Energy Services		Nordic Calista	
Alaska Rubber & Rigging Supply Inc.		F. R. Bell & Associates, Inc.		North Slope Telecom	
Alaska Steel Co.		Fairweather		Northern Air Cargo	
Alaska Tent & Tarp		Flowline Alaska		NRC Alaska	
Alaska Textiles		Fluor		Oil Search	
Alaska West Express		Foss Maritime		Opti Staffing	.....4
Alpha Seismic Compressors		G-M			
American Marine	.....11	G COMM		PENCO	.....11
Arctic Controls		Geotemps		Petro Star Lubricants	
ARCTOS Alaska, Division of NORTECH		GMW Fire Protection		Petroleum Equipment & Services, Inc.	
Armstrong		Greer Tank & Welding		PRA (Petrotechnical Resources of Alaska)	.....2
ASRC Energy Services	.....7	Guess & Rudd, PC		Price Gregory International	
AT&T		ICE Services, Inc.		Q-Z	
Avalon Development		Inspirations	.....10	Raven Alaska – Jon Adler	
Aviator Hotel		Judy Patrick Photography		Resource Development Council	
B-F					
Bombay Deluxe		Little Red Services, Inc. (LRS)		SAExploration	
BP		Lounsbury & Associates		Security Aviation	
BrandSafway Services		Lynden Air Cargo		Sourdough Express	.....11
Brooks Range Supply		Lynden Air Freight		Tanks-A-Lot	
Calista Corp.	.....3	Lynden Inc.		The Local Pages	
Chosen Construction		Lynden International		Volant Products	
		Lynden Logistics		Weston Solutions	
		Lynden Transport			
		Mapmakers of Alaska			

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

continued from page 1

DNR LEADERSHIP

"I share Governor Dunleavy's commitment to using our natural resources to build a stronger economy and provide jobs for Alaskans, and I'm confident we are building the team that will help fulfill that commitment," Feige said.

Longan will serve as deputy commissioner responsible for DNR's oil and gas activities, which generate the vast majority of the revenue that funds state services. Caltagirone will have special responsibilities for hydrocarbon development and regulation, including monetization of Alaska's natural gas.

Longan

Longan has 20 years' experience in the resource man-

agement, regulatory and environmental science fields in private, academic and government settings, DNR said. She has 14 years of state service, most recently serving nearly 10 years as director of the Office of Project Management and Permitting, serving as liaison to industry and coordinating the regulatory review of large energy and transportation projects including the Point Thomson development. Longan returns to DNR after two years as executive director of the North Slope Science Initiative, a joint federal-state project to coordinate science priorities for federal, state and local government agencies. She earned three degrees from Oklahoma State University: a bachelor's degree in natural resources, a master's degree in environmental toxicology and a doctorate in public health with an emphasis on health, safety and environmental issues relating to Arctic oil development.

Caltagirone

Caltagirone is an experienced trial lawyer who has handled litigation throughout Alaska and the Lower 48. He has represented DNR as an assistant attorney general for the Alaska Department of Law in oil and gas royalty, leasing and tax litigation. He has also served as counsel to DNR on development of the Alaska LNG project and provided advice on proposed legislation and regulations. He returns to state service after briefly working with the Alaska Oil and Gas Association as regulatory and legal affairs manager. Caltagirone earned a bachelor's degree in government and economics from Claremont McKenna College and a law degree at Villanova University School of Law and is licensed to practice law in five states.

—KRISTEN NELSON

Contact Kristen Nelson
at knelson@petroleumnews.com

continued from page 1

CALL FOR BIDS

500,000 barrels per day is the long-delayed North West Sturgeon — a joint partnership by North West Refining and Canadian Natural Resources that is scheduled, after six years of construction, to finally start commercial operation in 2019 at 50,000 bpd and expected to peak at 80,000 bpd.

The cost so far is C\$9.7 billion, a substantial overrun from the original price tag. Even with support from the Alberta government, which will refine a portion of the bitumen it collects through a royalty-in-kind program, plans for two more phases of 20,000 bpd each have been withdrawn by North West until the company has a chance to evaluate the changing economic environment facing the oil industry and demonstrate that the initial phase is working as expected.

As the first new refinery in Canada since 1984, North West Sturgeon also poses to added uncertainty as the world's only facility designed to minimize its environmental footprint through carbon capture and storage, while producing the cleaner, high-value products needed to meet North America's energy demand.

No shortage of doubters

Although Notley said "we know companies are interested; we've heard it first hand," there is no shortage of doubters that Alberta can achieve its goal of finding new outlets for heavy crude through the refinery business, which is currently operating at near capacity in North America.

So far her plans to buy 7,000 new rail tanker cars and 80 locomotives, subsidize petrochemical plants and impose an 8.7 percent cut of 325,000 bpd on production have attracted extensive and solid backing.

Embarking on the refining sector, widely viewed as the riskiest element of the petroleum industry, is another matter.

Even the obvious candidates to build and operate a refinery have treated the idea with skepticism, notably Suncor Energy, by far the largest oil sands producer, which already upgrades or refines 70 percent of its production of close to 800,000 bpd in Alberta.

The company said the decision to impose a production cutback of 8.7 percent has "resulted in winners and losers in the market, shutting in valuable upgrading (of bitumen for further refining to fuels) throughout and has made transporting crude out of the province by rail uneconomic."

It said government intervention "creates long-term market uncertainty and reduces any incentive for market participants to invest in crude oil processing facilities or commit to long-term transportation agreements."

Plentiful refined oil

Jean-Sebastien Rioux, a University of Calgary professor, said North America is awash in refined oil, while new Alberta refineries would be far removed from potential customers and would also need new pipelines.

He said it was "hard to comprehend who would stick their necks out in the current environment."

Richard Masson, at the School of Public Policy at the University of Calgary and a former head of the Alberta Petroleum Marketing Commission, said he is not aware of any companies lined up to build a refinery.

"That's not an easy thing to accomplish," he said, noting the risks associated with Alberta's harsh climate.

Roger McKnight, chief petroleum analyst with En-Pro International, said

Notley's gambit "sounds, if I may be so blunt, like a little bit of desperation," while Drew Barnes, the finance spokesman for the opposition United Conservative Party, said the announcement suggests the premier's plan to expand pipeline capacity is in doubt.

Production cuts

Against this tide of opposition, Notley is refusing to step back, insisting her announcement of production cuts in 2019 is already working, as the price differential between Alberta heavy crude and the West Texas Intermediate benchmark has fallen from US\$50 a barrel to as low as US\$12.50.

"At least so far we've seen the right result, but you never want to shut down production as an economic plan. It's counter-intuitive. It's not a long-term solution," she conceded.

Opposition from Quebec

While that debate rolls on, another issue seized the attention of Albertans when Quebec Premier Francois Legault hardened his opposition to any talk of TransCanada reviving plans for its Energy East pipeline to ship 1.1 million bpd of Alberta and Saskatchewan oil through Ontario and Quebec to New Brunswick, with a large portion earmarked for export to Europe and Asia.

"It is very clear," he told a meeting of Prime Minister Trudeau with Canada's 10 provincial premiers and three territorial leaders, "there is no social license in Quebec for a pipeline running through Quebec."

"I'm not ashamed at all of refusing dirty energy, while we're offering clean (hydro power) energy at a very competitive price," he said, ignoring the C\$11 billion a year it costs Quebec to import crude from Saudi Arabia, Africa and

Venezuela as feedstock for Montreal and Quebec City refineries.

That stand coincided with word that under Canada's equalization program, which sees "have" provinces (currently the oil producing regions of Alberta, Saskatchewan and Newfoundland) transfer a portion of its federal tax revenues to "have-not" provinces, the latest allocation shows Quebec will receive C\$13.1 billion in 2019, compared with a combined C\$11 billion for the other "have not" provinces.

Surplus vs deficit

Quebec is currently sitting on a budget surplus of C\$3 billion, although it has the second largest ratio of net debt to gross domestic product after Ontario, while Alberta is grappling with a budget deficit of C\$7.8 billion, reflecting the sharp decline in oil and natural gas revenues.

Paula Simons, an Alberta member of the Canadian Senate said "our fellow Canadians are holding us hostage" by opposing the Energy East, Northern Gateway and Trans Mountain pipeline projects.

"It seems that every time we see a way to get our oil to (tanker ports) we are stymied by a broken regulatory model," she said. "Small wonder if Albertans are starting to feel that Confederation itself is broken."

Doug Black, also an Alberta Senator, said that for the first time in his life he hears talk of separation by Alberta from the Canadian Confederation.

"People are basically angry, frightened, disillusioned, but more importantly they have lost confidence in this ability of this country to work for them and their families," he said. ●

Contact Gary Park through
publisher@petroleumnews.com

INSPIRATIONS

Hair & Nail Salon

We offer personalized service, catering to the busy professional.

- 11am — 7pm (Late night appointments by pre-arrangement only)
- Each stylist has a separate, enclosed work area for your privacy and comfort

700 W Northern Lights Blvd., Anchorage, Alaska 99503

• Call for appointments • 229-6000

Mention
this ad and
receive a 10%
discount on
hair services!

EXPLORATION & PRODUCTION

Coastal areas of NS open for tundra travel

Both the eastern and western coastal areas of state land on the North Slope are open for winter off road tundra travel, the Alaska Department of Natural Resources has announced. The eastern area opened on Dec. 17 and the western area on Dec. 19. Other areas of state land north of the Brooks Range remain closed. Anyone wishing to travel off road in the eastern and western coastal areas does, however, require an off-road travel permit from DNR.

Soil temperatures and snow cover in the two areas have now met the opening criteria of at least a 6-inch depth of snow and soil temperatures of minus 5 C or below at a 30-centimeter depth, DNR said. However, DNR also cautioned that there may be some areas where the snow cover is still thin. People should either avoid these areas or use special construction methods to protect the tundra.

And the Division of Mining, Land and Water requires appropriate frost and snow cover along a route to be driven over and approval of individual travel routes.

—ALAN BAILEY

FINANCE & ECONOMY

Conoco-BP Kuparuk, Clair field deal closes

ConocoPhillips said Dec. 18 that it has completed its sale to BP of a ConocoPhillips subsidiary that holds a 16.5 percent interest in the BP-operated Clair field and the simultaneous acquisition of BP's interests at Kuparuk.

The Clair field was a 16.5 percent interest; ConocoPhillips retains a 7.5 percent interest in the field.

At Kuparuk, ConocoPhillips acquired BP's 39.2 percent interest in the Greater Kuparuk area and BP's 38 percent interest in the Kuparuk Transportation Co.

Prices for the transaction were not disclosed. ConocoPhillips said that excluding customary adjustments the transaction prices were cash neutral to both companies.

The production associated with BP's share of Kuparuk averaged 39,000 barrels of oil per day in the first nine months of the year, ConocoPhillips said, while production from the divested 16.5 percent of the Clair field was 4,000 bpd.

ConocoPhillips said the expected net contribution to fourth-quarter production was less than 5,000 bpd, based on the Dec. 18 closing date.

—PETROLEUM NEWS

continued from page 1

FURIE DRILLING

anomaly there for potential gas — the exploration tail had not been required under the plan of development for the unit. Drilling was conducted using the Spartan 151 jack-up drilling rig, cantilevered over the Julius R offshore production platform.

Additional work conducted in 2018 included adding perforations in the Beluga formation to the KLU No. 3 well and closing perforations at a shallower depth in that well. The work program included the replacement, upgrading and repair of some equipment on the platform; the installation of sand monitors on each producing well flowline; and conducting a cathodic protection survey to test the integrity of the subsea pipeline that carries produced gas to shore. Furie also conducted repair and maintenance work on the gas dehydration system, in the onshore production facility for the Kitchen Lights field, the division approval document says.

The Kitchen Lights field has been producing gas from the KLU No. 3 and KLU No. A-2A wells. Completion of the A-1 and A-4 wells will presumably allow the field to produce from four wells, a contractual requirement for Furie's gas supply agreement with Enstar Natural gas Co., the main gas utility in Southcentral Alaska. The Julius R. platform has six well slots.

Plan for next year

The approval document says that for 2019 Furie has committed to acquire the

The company has also committed to conduct development operations, including the adding of new perforations, in the KLU No. A-2A and KLU No. 3 wells.

logs and data necessary to evaluate the possibility of drilling a fifth development well from the platform, and to present a plan for that well to the division. Depending on the results of data interpretations, the additional well would likely target the stratigraphic equivalents of Sterling formation zones flow tested in the KLU No. 3 well. The company has also committed to conduct development operations, including the adding of new perforations, in the KLU No. A-2A and KLU No. 3 wells.

Furie would also like to drill additional exploration wells in the Kitchen Lights unit but, to do this requires additional financing and the payment of state tax credits it is owed, the approval document says. By February 2019 the company plans to mature two prospects outside the Corsair block of the unit, and to present the results to the division, together with evidence that reasonable efforts are underway to drill these wells in 2019 or 2020. The unit is divided into four blocks, all offshore in the Cook Inlet, with development drilling for the Kitchen Lights field taking place in the Corsair block.

It its new plan of development Furie has also committed to submit by March 1 a proposal for the establishment of a participating area or areas in the unit. ●

continued from page 1

PROJECT LAWSUIT

Hilcorp yet made any response.

However, in a press release announcing the appeal several environmental organizations gave some indication of the nature of the claims.

"We can't let this reckless administration open the Arctic to offshore oil drilling. It threatens Arctic wildlife and communities and will only make climate chaos worse around the world," said Kristen Monsell, oceans legal director with the Center for Biological Diversity. "Liberty is the bad step down a very dangerous path. An oil spill in the Arctic would be impossible to clean up in a region already stressed by climate change."

"When it rubber-stamped this project, the administration illegally failed to take a hard look at the consequences it will bring for imperiled polar bears. It misled the public about this project's contribution to climate change. According to the agency's

fuzzy math, drilling for oil will actually reduce climate change," said Rebecca Noblin, staff attorney with Earthjustice. "Nor did it account for climate-change impacts already happening in the Arctic like permafrost melt, sea-ice melt and increasing storms that make this an exceedingly dangerous prospect and increase the potential for oil spills."

Hilcorp plans to develop the Liberty oil field from a small artificial gravel island in 19 feet of water in the Beaufort Sea, about five miles offshore, some 15 miles east of Prudhoe Bay. A buried subsea pipeline would carry sales grade crude oil to shore, to connect with the existing Badami pipeline. Under the environmental protection requirements specified in the environmental impact statement for the project, Hilcorp will only be allowed to drill into the oil reservoir in winter conditions. The subsea pipeline concept involves a pipe-in-pipe design, with an outer pipe providing protection from an oil leakage into the sea should the inner oil pipeline rupture. ●



American Marine Services Group

6000 A Street, Anchorage, AK 99518

907-562-5420

Deadhorse, AK

907-659-9010

www.amarinecorp.com • www.penco.org
alaska@amarinecorp.com



- Commercial Diving
- Marine Construction Services
- Platform Installation, Maintenance and Repair
- Pipeline Installation, Maintenance and Repair
- Underwater Certified Welding
- NDT Services
- Salvage Operations
- Vessel Support and Operations



- Environmental Services
- Oil-Spill Response, Containment and Clean-Up
- Hazardous Wastes and Contaminated Site Clean-Up and Remediation
- Petroleum Vessel Services, e.g. Fuel Transfer
- Bulk Fuel Oil Facility and Storage Tank Maintenance, Management, and Operations

Anchorage

Honolulu

Los Angeles

SOURDOUGH

EXPRESS

moving freight since 1898

Dependable Service Since 1898

Visit www.SourdoughExpress.com

Thank you Alaskans

Thank you to all Alaskans

There has been, and continues to be, an amazing response to Alaska's Nov. 30 earthquake and its many aftershocks, by city, state and federal offices, as well as utility companies, charities, businesses and individual citizens. Thank You from Petroleum News and Alaska's oil and gas industry for your amazing emergency response efforts. We have a lot to be thankful for — and proud of — in this great state.

Top right: Nov. 30, 8:29 a.m.: Minnesota Drive on-ramp to International Airport Road in Anchorage collapsed in the 7.0 earthquake. Bottom right: A few days later, the ramp was reopened between 1:30 and 3:30 a.m. on Dec. 4, said the Alaska Department of Transportation and Public Facilities.

Photos courtesy AK DOTPF



Afognak Leasing LLC
Airgas, an Air Liquide company
Alaska Energy Services, LLC
Alaska Dreams
Alaska Frac Consulting LLC
Alaska Frontier Constructors (AFC)
Alaska Marine Lines
Alaska Materials
Alaska Railroad
Alaska Rubber & Rigging Supply Inc.
Alaska Steel Co.
Alaska Tent & Tarp
Alaska Textiles
Alaska West Express
Alpha Seismic Compressors
American Marine
Arctic Catering & Support Services
Arctic Controls
Arctic Fox Environmental
Arctic Wire Rope & Supply
ARCTOS Alaska, Division of NORTECH
Armstrong
ASRC Energy Services
AT&T
Avalon Development
Aviator Hotel
Bombay Deluxe
BP
BrandSafway Services
Brooks Range Supply
Calista Corp.
Chosen Construction
CMS, Inc./Hepworth Agency
Colville Inc.
Computing Alternatives
CONAM Construction

Cruz Construction
Denali Universal Services (DUS)
Dowland-Bach Corp.
Doyon Anvil
Doyon Associated
Doyon Drilling
Doyon, Limited
ExxonMobil
exp Energy Services
F. R. Bell & Associates, Inc.
Fairweather
Flowline Alaska
Fluor
Foss Maritime
Fugro
Geotemps
GMW Fire Protection
Greer Tank & Welding
Guess & Rudd, PC
ICE Services, Inc.
Inspirations
Judy Patrick Photography
Kuukpik Arctic Services
Last Frontier Air Ventures
Little Red Services, Inc. (LRS)
LONG Building Technologies, Inc.
Lounsbury & Associates
Lynden Air Cargo
Lynden Air Freight
Lynden Inc.
Lynden International
Lynden Logistics
Lynden Transport
Mapmakers of Alaska
MAPPA Testlab
Maritime Helicopters

Motion & Flow Control Products
Nabors Alaska Drilling
Nalco Champion
NANA
NANA WorleyParsons
NEI Fluid Technology
Nordic Calista
North Slope Telecom
Northern Air Cargo
NRC Alaska
Nutrien
Oil Search
Opti Staffing
PENCO
Petro Star Lubricants
Petroleum Equipment & Services, Inc.
PRA (Petrotechnical Resources of Alaska)
Price Gregory International
Raven Alaska – Jon Adler
Resource Development Council
SAExploration
Security Aviation
Sourdough Express
Strategic Action Associates
TTT Environmental
Instruments and Supplies
Tanks-A-Lot
The Local Pages
Unique Machine
VION Investments
Volant Products
Waste Management
Weston Solutions