Petroleum ne w s



page Igiugig system longest operatingUS water current energy converter

Vol. 25, No. 42 • www.PetroleumNews.com

A weekly oil & gas newspaper based in Anchorage, Alaska

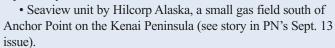
Week of October 18, 2020 • \$2.50

Alaska gets 4 new unit apps; NAPE Summit back! US icebreaker down

THE ALASKA DEPARTMENT of Natural Resources' Division of Oil and Gas has four new applications to form units — three on the North Slope and one in the Cook Inlet basin.

"They're the first unit applications we've received in three years," division Director Tom Stokes told Petroleum News Oct. 12.

The four applications were previously reported by PN and are as follows:



• Alkaid and Talitha, two adjacent North Slope units south of

see **INSIDER** page 8

Hilcorp gets approvals for gas production, unitization at Seaview

Hilcorp Alaska has told state agencies it plans to bring its newest Cook Inlet gas field, Seaview, online Nov. 1, and is gaining regulatory approvals necessary to begin production.

The Alaska Department of Natural Resources' Division of Oil and Gas issued a partial approval of the Seaview unit application Oct. 7, noting that tracts within the boundaries where mineral rights owners have not agreed to participate are not included in the unit.

The division has also received an application from Hilcorp for a participating area at the unit. The PA defines the area within the unit from which production is expected to occur and is required before production can begin.

And on Oct. 12 the Alaska Oil and Gas Conservation

see **SEAVIEW FIELD** page 3

Hilcorp looks to drill 17 wells in the Milne Point unit in 2021

On Oct. 14 Hilcorp Alaska filed the 39th plan of development for the North Slope Milne Point unit with Alaska's Division of Oil and Gas, for the period of Jan. 13, 2021, through Jan. 12, 2022.

The company told the division that it anticipates drilling up to 17 new wells, completing as many as 20 well workovers with the ASRI rig, and undertaking six major facility projects during the 39th POD period, including polymer facility installation and startups at Moose Pad, I Pad and E Pad, as well as a fuel gas compressor installation and start-up and a G Pad replacement test separator installation.

Other 39th POD projects might include, but are not limited to:

see MILNE POINT page 4

Irving Oil said to have abandoned plans for Newfoundland refinery

There are those who think it's time to re-label Newfoundland's Come By Chance refinery to Come By Slim/No Chance.

In its 47-year history the facility, which has the capacity to process 135,000 barrels per day of crude, has experienced a wild roller-coaster existence.

And that history shows no signs of turning around, despite a major boost in May when Irving Oil announced its intention to buy North Atlantic Refining, the operating company, from the United States investment firm Silverpeak and reopen the refinery.

Siobahn Coady, at that time Newfoundland's Natural Resources Minister and now Finance Minister, said she had

see REFINERY PLANS page 9

EXPLORATION & PRODUCTION

The magic number

Two companies say they'll drill a total of 3 ANS exploration wells, 7 possible

By KAY CASHMAN

Petroleum News

Two junior oil companies are planning to drill a total of three exploration wells this winter on the North Slope — and a senior might drill as many as four wells if Ballot Measure 1 is defeated.

Australia independent 88 Energy Ltd., a Perthbased ASX and AIM listed firm, is moving forward with plans to drill two exploration wells in the National Petroleum Reserve-Alaska on acreage it acquired in an off-market takeover from XCD Energy. The wells will be drilled by one of 88 Energy's three operating subsidiaries, Accumulate Energy Alaska, which is run by long-time Alaska geologist Erik Opstad.

Pantheon Resources, owner of Great Bear's North Slope oil and gas assets, is also planning to drill an exploration well in the 2020-21 winter season via its new Alaska operating arm, Great Bear Pantheon.

The timing of Talitha 1's drilling was initially subject to securing a farm-in partner, but Patrick Galvin, Great Bear Pantheon's chief commercial officer and general counsel, told Petroleum News Oct. 12 that the company is moving ahead on permitting the well without a partner. Galvin is a former commissioner of the Alaska Department of Revenue and former petroleum land manager for

see EXPLORATION WELLS page 11

● FINANCE & ECONOMY

Oil shortage ahead?

Aramco: supply crunch on under-investment; IEA, OPEC pare recovery views

By STEVE SUTHERLIN

Petroleum News

An oil shortage may be in the works due to underinvestment in the energy sector and rising demand, Saudi Aramco CEO Amin Nasser said Oct. 13.

"There is a concern that we might end up with a supply crunch over the mid to long term if this level of investment is not corrected looking forward," Nasser said in remarks to the Energy Intelligence Forum.

Nasser's remarks came as the International Energy Agency and the Organization of Petroleum Exporting Countries separately released revised projections which reflected an incremental bearish Spot crude oil prices averaged sharply lower in September, after four consecutive months of gains, OPEC said Oct. 13 in its Monthly Oil Market Report.

shift in outlook for oil market recovery.

Nasser said demand is recovering from the coronavirus pandemic slump.

"The worst is definitely behind us," Nasser said. "We are seeing a recovery; most of the demand comes from the developing countries. We see a big pickup from East Asia — especially China."

see OIL PRICES page 7

GOVERNMENT

Trudeau upends Alberta

Alberta to expand petrochemicals; federal government to ban single-use plastics

By GARY PARK

For Petroleum News

In rolling out its long-promised natural gas strategy, the Alberta government included a significant strategy to expand its plastic and petrochemical industry by attracting what Premier Jason Kenney claimed would attract tens of billions of dollars of investment.

"We think this could be a real ace in the hole for Alberta's future," he said.

Less than 24 hours later the Canadian government of Prime Minister Justin Trudeau flattened that strate-



JUSTIN TRUDEAU

gy by unveiling a plan Kenney suggested is aimed at tearing down the Alberta oil and gas sector. He said the result would be to cut off a major source of revenue that could ease the impact of a soaring federal debt.

The result is likely to be a feud between Canada and Alberta over an issue that boils

down to straws, cutlery, stir sticks, grocery bags and takeout containers.

They are all part of Trudeau's scheme to add "single-use" plastics to a list of toxic items under

see ALBERTA UPENDED page 10

FACILITIES

West Susitna Access Project progresses

Participants envisage the construction of a road that crosses the Susitna River, runs north to the north side of the Skwentna River

By ALAN BAILEY

For Petroleum News

he Alaska Industrial Development and Export Authority, the Matanuska-Susitna Borough and private partners are moving forward with the West Susitna Access Project, designed to develop road access to the western part of the huge Susitna Valley in southern Alaska. The concept is to build an industrial road for access to resources in the region. The project targets a wide range of different types of natural resource. The Susitna sedimentary basin that underlies the valley is prospective for natural gas.

Roads to resources

During an Oct. 8 presentation to the Alaska Support Industry Alliance, officials from AIDEA and the borough reviewed the status of the project. Jesse Peterson, AIDEA senior manager for financial asset management, said that the project has evolved from the state's 2014 road to resources program.

"There's incredible amounts of resources out west of the Big Su (River) that could really benefit Alaskans from responsible development," Peterson said.

Resources in the western part of the valley include copper, gold, silver, platinum and forestry. There is also potential for agriculture; for geothermal and hydroelectric energy; and for recreation, Peterson said, adding that

The Susitna sedimentary basin that underlies the valley is prospective for natural gas.

there is some oil and gas potential in the region.

Brad Sworts from the Capital Projects Department of the Matanuska-Susitna Borough said that since the 1980s the borough has been working on a plan for access to the borough's western region and has established some natural resource management areas in the region.

Driven by private sector

Peterson emphasized that the West Susitna Access Project will be "driven by the demands of the private sector for resource development." AIDEA and the borough have partnered with Alaska Operations LLC, a mining company with interests in the Yentna Mining District, a prospective region straddling the Yentna and Kahiltna rivers, running north from the Skwentna River, on the northwestern side of the Susitna Valley.

Phase one of the project, completed in the fall of 2019, involved the reconnaissance of potential road routes, to view the terrain and assess route feasibility, Peterson said. A resulting memorandum with recommendations for further route exploration led to phase two this year, with the objectives of assessing potential costs and conducting field work that can provide the underpinnings for Clean Water Act permit applications in the future.

"We should have the phase two study completed by the end of this year," Peterson said.

Likely route

As a consequence of work carried out so far, the likely route of an access road for the western valley would cross the Susitna River near the confluence of the Yentna River before running northwest, below the northeast sides of Mount Susitna and Little Mount Susitna, to the west of the Iditarod Trail. To the north the route would cross the Skwentna River, before heading west along the north side of that river. The road would end at a point not far south of Rainy Pass in the Alaska Range. As envisaged, the road terminus would be located towards the southern end of the Yentna Mining District.

Phase three of the project, if approved by AIDEA and the borough, will involve some further fieldwork and refinement of the engineering for a road route, Peterson said. This phase, anticipated to be completed by the end of next year, would also involve the identification of cultural and historic resources and figuring out appropriate mitigation measures. Phase three would also entail the identification and exploration of possible alternative routes, Peterson said.

> Contact Alan Bailey at abailey@petroleumnews.com

contents

ON THE COVER

The magic number

Two firms to drill a total of 3 ANS exploration wells, 7 possible

Oil shortage ahead?

Aramco: supply crunch; IEA, OPEC pare recovery views

Trudeau upends Alberta

Petrochemicals expanded; government to ban single-use plastics

Oil Patch Insider: Alaska gets 4 new unit apps; **NAPE Summit back! US icebreaker down**

Hilcorp gets approvals for gas production, unitization at Seaview Hilcorp looks to drill 17 wells in the Milne Point unit in 2021 Irving Oil said to have abandoned plans for Newfoundland refinery

Petroleum News

Alaska's source for oil and gas news

ALTERNATIVE ENERGY

Igiugig sees successful hydrokinetics

In-river turbine generator undergoes its summer maintenance after 10 months of successfully generating power for village

EXPLORATION & PRODUCTION

US rotary rig count up by 3, now at 269

FACILITIES

West Susitna Access Project progresses

Participants envisage construction of road that crosses the Susitna River, runs north to north side of the Skwentna River

SUBSCRIBE to Petroleum News



CONSULTING ENGINEERS, INC.

Functional, Climate Appropriate Architecture and Engineering for Alaska Projects

- Industrial Facilities for North Slope
- Health Care Facilities
- Hospitality Facilities
- Commercial Buildings

ARCHITECTURE | CIVIL | STRUCTURAL | MECHANICAL PROCESS ENGINEERING

Office: 624 W International Airport Rd., Suite 104, Anchorage, Alaska 99518 Mailing: P.O. Box 92169, Anchorage, Alaska 99509-2169 Phone: 907.258.3231 | Fax: 907.272.1288 | Website: eeis.net

SEAVIEW FIELD

Commission approved production from Seaview No. 8, the field's first gas well. Because some mineral rights owners have not committed to the unit, AOGCC is requiring Hilcorp to establish and pay into an escrow account the royalties for those mineral rights owners who haven't signed leases with the company.

In its participating area, or PA, application, the company told the division that it has been actively exploring the Seaview prospect for six years, "conducting seismic, drilling stratigraphic well tests, and performing other confidential surveying of the area."

Hilcorp used what the division described in its unit decision as an innovative toolbox to map the Seaview area, including airborne gravity gradiometry and magnetic surveys, geologic field work, shallow logged stratigraphic test wells and 2D seismic. The company drilled the Seaview 8 exploratory well in 2018, testing the well for gas in May 2019

"Seaview 8 encountered commercial quantities of gas in four zones in the Tyonek formation," AOGCC said, and the company identified several additional prospective gas zones.

Multiple mineral owners

The Seaview prospect is at Anchor Point on the southern Kenai Peninsula and in addition to DNR leases there are hundreds of small mineral rights owners in the unit area. Of total unit acreage of 2,974.9 acres listed by Hilcorp, 86.7% of the acreage, 2,597.3 acres, is held by Hilcorp or individuals which have signed with Hilcorp. Mineral rights owners of the remaining 395.6 acres have not signed.

In an Oct. 7 decision Division of Oil and Gas Director Tom Stokes said: "The Division finds that the formation of the Seaview Unit promotes conservation of all natural resources, promotes the prevention of economic and physical waste, and provides for the protection of all parties of interest, including the State. ... However, portions of the proposed unit area have not ratified the Unit Agreement or Unit Operating agreement and cannot be included in the unit area."

In an Oct. 12 order, AOGCC granted an application from Hilcorp for regular production of the Seaview 8 well, which produces from an undefined as pool.

Participating area

In an Aug. 6 application to DNR for

approval of the Clark participating area Hilcorp told the division the proposed 640-acre PA, which encompasses the Seaview 8 well, includes one DNR lease and various private leases, "as well as various unleased private lands."

A listing of PA tracts and acreage shows that Hilcorp has a 95.05% working interest in the acreage, while 4.95% of the acreage is uncommitted.

The company said the PA "includes all land reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, or engineering data to be capable of producing or contributing to production of hydrocarbons in paying quantities."

"The proposed Clark PA boundary was determined using all available exploration data and well test data, and heavily relying on the stratigraphic well test data," Hilcorp said.

The Seaview 8 discovery well is on the Seaview Pad No. 1 on private landowner surface and DNR-owned subsurface.

"The proposed PA includes the governmental section where the Seaview No. 8 discovery well is located," Hilcorp said, with information from the company's seven stratigraphic test wells "used to determine gas is present throughout the entire proposed Clark PA," which includes the Lower Sterling, Beluga and Tyonek reservoirs, depths between 350 and 5,500 feet total vertical depth as shown in the Seaview 8 well.

Commission's order

In a 2018 order AOGCC allowed temporary production for "less than 15 calendar days" from the Seaview 8 exploratory well "in an Undefined Gas Pool within 1,500 feet of a property line where the owners and landowners are not the same on both sides of the line," but said Hilcorp could not place Seaview 8 in regular production "absent prior written approval from AOGCC."

In August, Hilcorp requested an amendment to the 2018 order "to allow regular production of gas" from Seaview 8. Hilcorp sent certified mail notices of the application to 118 owners, landowners and operators "within 3,000 feet of Seaview 8," AOGCC said.

The commission public noticed the application and set a tentative hearing date, but received no written comments, protests or requests for the hearing, which was vacated because of the lack of request for a hearing and because information from Hilcorp and AOGCC public records provided sufficient information for the commission to make a decision, it said.

In its Oct. 12 order AOGCC said: "Hilcorp has neither requested Pool Rules nor provided a pooling agreement regarding apportionment of the oil and gas to the leases" as part of its application to place the Seaview 8 well on regular production.

Escrow required

"Hilcorp proposes to hold in suspense 100% of the production royalties allocated to nonparticipating owners/landowners and uncommitted tracts within the proposed Clark PA — without deduction of any costs or expenses — until AOGCC issues Pool Rules governing the Seaview Development Area and providing a means of allocating costs and expenses to unleased tracts," the commission said.

"Hilcorp proposes to allocate production based on the DNR-approved Clark PA allocation schedule," AOGCC said.

The commission said that in similar situations it has used escrow accounts "for unresolved royalty and ownership issues."

It is requiring Hilcorp to establish an escrow account for nonparticipating owners/landowners and deposit, no later than the 10th day of each month, an amount equal to the total of nonparticipating owners/landowners interest percentage, multiplied by production attributed to those parcels for the previous month times the 12.5% royalty rate times the prevailing value for Cook Inlet natural gas as published by the Alaska Department of Revenue.

Seaview unit

In the division's decision on unitization Stokes said Hilcorp has executed leases with most of the landowners in the unit and those leases give Hilcorp the right to seek unitization from the state.

Hilcorp proposed that the division commit all lands to the unit, including those held by owners with whom Hilcorp has not reached agreement on leases.

"The Division does not have compulsory powers, and can only compel a lessee of State lands to join a unit," Stokes said, which means the division can only approve a unit consisting of state lands, "those who agree to become part of the unit by leasing with Hilcorp and therefore

agree to unitization by the state, and those who directly ratify the Seaview Unit Agreement and Seaview Unit Operating Agreement."

"The State's evaluation of the subsurface geology supports the configuration of the unit area as proposed. DNR's review of the geologic information supports the inclusion of all tracts identified in the unit application within the proposed unit area," Stokes said.

In its initial unit plan of exploration, submitted as part of the unit application, Hilcorp proposed to bring Seaview 8 into production and then drill the Seaview 9 well. Stokes said the division approves the proposed POE through May 31, 2021, with the second POE or first plan of development due 60 days or 90 days, respectively, before the current plan expires.

An approved schedule for allocating unitized production among the tracts is required, Stokes said, "ensuring correlative rights are protected. Unitized development maximizes oil and gas recovery, promotes conservation, prevents waste, and protects all parties of interest."

"The State has approved for inclusion in the Seaview Unit only those tracts that Hilcorp either represents have been partially or totally leased by Hilcorp or whose owners have ratified the Seaview Unit Agreement and Seaview Operating Agreement. This protects both the interest of Hilcorp and the private mineral and royalty owners who have an interest in production," Stokes said.

He said the company "provided evidence of reasonable effort to obtain joinder of any property party to the Agreement," and said Hilcorp has sufficient interest in the area "to give reasonably effective control of operations."

Tracts approved for inclusion, Stokes said, "include only those covered by a valid lease containing language that transfers the right to unitize to Hilcorp, tracts with mineral owners which have ratified the Seaview Unit Agreement, or State of Alaska leases proposed for inclusion."

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com

Keeping you covered.

To advertise in Petroleum News, contact Susan Crane at 907.770.5592





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

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

Mention

700 W Northern Lights Blvd., Anchorage, Alaska 99503

• Call for appointments • 229-6000

EXPLORATION & PRODUCTION

US rotary rig count up by 3, now at 269

The Baker Hughes U.S. rotary rig count was at 269 for the week ending Oct. 9, up by three from 266 the previous week but down by 587 from 856 a year ago.

The count hit 244 the week of Aug. 14, the lowest it has been since the Houston based oilfield services company began issuing a weekly U.S. rig count in 1944.

Prior to this year, the low was 404 rigs in May 2016. The count peaked at 4,530 in 1981.

At the beginning of the year the count was in the low 790s, where it remained through mid-March, when it began to fall, dropping below what had been the historic

low in early May with a count of 374 and continuing to drop through the third week of August when Prior to this year, the low it gained back 10 rigs.

This week's count includes 193 rigs targeting oil, up four from the previous week and down 519 from a year ago, 73 rigs targeting gas, down one from the previous week and down 70 from a year

was 404 rigs in May 2016. The count peaked at 4,530 in 1981.

ago and three miscellaneous rigs, unchanged from the previous week and up two from

Twenty-one of the holes were directional, 233 were horizontal and 15 were vertical.

Alaska count unchanged

The rig count for Texas (116), which has the most active rigs in the country, was up by three from the previous week, but down 304 from 420 a year ago.

New Mexico (45) was up by one rig from the previous week.

Pennsylvania (18) was down by one.

The rig counts in all other states remained changed from the previous week: Alaska (2), California (4), Colorado (5), Louisiana (40), North Dakota (10), Ohio (6), Oklahoma (12), West Virginia (7) and Wyoming (1).

Baker Hughes shows Alaska with two active rigs Oct. 10, unchanged from the previous week and down by six from a year ago.

The rig count in the nation's most active basin, the Permian (130), was up by one from the previous week.

—KRISTEN NELSON



Petroleum

Kay Cashman	PUBLISHER & FOUNDER	ADDRESS P.O. Box 231647
Mary Mack	CEO & GENERAL MANAGER	Anchorage, AK 99523-1647
Kristen Nelson	EDITOR-IN-CHIEF	NEWS 907.522.9469
Susan Crane	ADVERTISING DIRECTOR	publisher@petroleumnews.com
Heather Yates	BOOKKEEPER	CIRCULATION 907.522.9469 circulation@petroleumnews.com
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR	·
Steven Merritt	PRODUCTION DIRECTOR	ADVERTISING Susan Crane ● 907.770.5592 scrane@petroleumnews.com
Alan Bailey	CONTRIBUTING WRITER	2.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
Eric Lidji	CONTRIBUTING WRITER	Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska

lewspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals **Gary Park** CONTRIBUTING WRITER (CANADA) listed above work for independent companies that contract services to CONTRIBUTING WRITER Petroleum Newspapers of Alaska

Steve Sutherlin Judy Patrick Photography CONTRACT PHOTOGRAPHER

Forrest Crane CONTRACT PHOTOGRAPHER

Renee Garbutt CIRCULATION MANAGER

LLC or are freelance writers

OWNER: Petroleum Newspapers of Alaska LLC (PNA) Petroleum News (ISSN 1544-3612) • Vol. 25, No. 42 • Week of October 18, 2020 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.

continued from page 1

MILNE POINT

- •B Pad gas injection compressor installation and start-up.
 - •V-5304 grid replacement.
 - •S Pad test separator replacement.
- •S Pad polymer engineering and pro-
- •Solar Titan 130 power generator engineering and procurement.
- •Diesel tank to slop oil tank conver-

During the remainder of the 38th POD period, Hilcorp expects to complete up to eight additional workovers, as well as drill five new wells, including two L Pad Kuparuk injectors, one F Pad Kuparuk injector sidetrack, one F Pad Kuparuk producer sidetrack, and one I Pad Schrader Bluff producer.

In addition, Hilcorp anticipates finishing the following projects before the end of the 38th POD period:

- •F Pad Kuparuk polymer pilot installation and startup.
- •I Pad electrical infrastructure upgrade.
 - •I Pad test separator upgrade.
- •Installation of chemical storage tanks at B Pad.
- •Pad expansion at E, S and Moose pads.

Field production

From Jan. 1 through Aug. 31 of this year the average daily production rate from the Milne Point unit was 32,407 barrels of oil per day.

The unit consists of the Kuparuk reservoir in the Kuparuk participating area, the Schrader Bluff reservoir in the Schrader Bluff PA and the Sag River reservoir in the Sag River PA.

Additionally, the Milne Point unit includes the following tract operations: C-15A, S-90, C-23, K-33, MPS-37, MPS-39, MPS-41, MPS-43, B-30, C-46 and S-203.

38th POD drilling to date

Hilcorp anticipated drilling up to 28 new wells under the 38th POD from Jan. 13, 2020, through Jan. 12, 2021. To date the company has drilled 19 new wells, including:

·Moose Pad Schrader Bluff, four producers and three injectors.

- •L Pad Schrader Bluff, two producers and two injectors.
- •S Pad Schrader Bluff, one producer and one injector,
- •I Pad Schrader Bluff, two producers and three injectors.
- •K Pad Kuparuk, one producer (a side-

Hilcorp also expected to complete as any as 20 workovers under the 38th POD. To date, it has completed 13 of those workovers.

38th POD major projects

To date Hilcorp has completed the following major facility projects that were outlined in the 38th POD:

- •F Pad polymer facility installation and start-up.
 - •J and L pad polymer silo upgrade.
- •LM2500 turbine overhaul comple-
 - •Portable heater for test separation.
- •Solar Titan 130 power generator and associated infrastructure startup.
- •Moose Pad production segregation from F&L Separation.
 - •L Pad PLC upgrade.

Drilling candidates, and beyond

Under the 39th POD period the 17 new wells that Hilcorp anticipates include 14 I Pad Schrader Bluff wells (six injectors, eight producers) and three J Pad Schrader Bluff wells (two injectors, one producer).

The company is also evaluating the following possible long-term activities:

- •Future drilling opportunities both on undeveloped acreage in the northwest of the unit, particularly in the net profit share leases, and previously developed acreage from I, H and S pads in the Schrader Bluff PA.
- •Continued expansion of polymer injection into the Schrader Bluff reservoir in horizontal well patterns beyond current polymer injection pilots at J and L pads.
- •Evaluation of continued performance from Ugnu horizontal producing well S-203 to help determine future Ugnu development strategy.
- •Continue to evaluate infill drilling opportunities in the Kuparuk sands via conventional and coiled tubing drilling.

Hilcorp history in Alaska

A privately held independent, Hilcorp entered Alaska by acquiring a significant percentage of the producing Cook Inlet basin through two acquisitions in 2011 and 2012 — one from Union Oil Co. of California and the other from Marathon

Hilcorp was known for rejuvenating aging oil fields, and it quickly pursued that strategy in Cook Inlet. Its investments yielded flat or growing production at oil and/or natural gas fields that had long been in decline.

The 2014 deal between Hilcorp and BP seemed like a perfect marriage. It allowed an eager newcomer to grow, and it allowed an established company to focus.

Among other purchases, Hilcorp became the operator and 50% working interest owner of the Milne Point unit.

The company devoted considerable resources to Milne, just as it had done with its legacy Cook Inlet fields.

Drilling more wells in more places, Hilcorp renewed the focus on Milne's viscous oil. And it commissioned a new drilling pad — Moose Pad. In the six years since the sale in 2014, BP and Hilcorp as partners invested approximately \$700 million with Hilcorp drilling more than 60 new wells.

The results have been dramatic. Milne see MILNE POINT page 6



Full Line Steel and Aluminum Distributor Specializing in low temperature steel

6180 Electron Drive Anchorage, AK 99518

(907) 561-1188 www.alaskasteel.com

(800) 770-0969 Kenai • Fairbanks

ALTERNATIVE ENERGY

Igiugig sees successful hydrokinetics

In-river turbine generator undergoes its summer maintenance after 10 months of successfully generating power for the village

By ALAN BAILEY

For Petroleum News

Pollowing a full 10 months of successful operation, the hydrokinetic power generation system for the village of Igiugig, near the western end of Lake Iliamna in southern Alaska, has undergone its summer maintenance, Ocean Renewable Power Co., manufacturer of the system, announced Oct. 5. The system at Igiugig is now the longest operating water current energy converter in the United States — during its 10 months of operation the underwater turbine that drives the system completed more than 7 million revolutions, ORPC said.

Underwater turbine

The system involves the anchoring of an underwater turbine generator with helical shaped turbine blades to the bed of the fast-flowing Kvichak River. Igiugig is situated adjacent to the river. The idea is to use hydrokinetic power from the river to displace the use of diesel generators for power generation for the village.

Following successful testing of a prototype system at Igiugig, in 2019 the Federal Energy Regulatory Commission issued a 10-year pilot project license to the Igiugig Village Council.

Phase 1 of the project has involved the installation of a single 52-foot-long, 35-kW RivGen turbine generator in the river. Phase 2 would involve the installation of a second RivGen unit.

Challenging conditions

ORPC says that the first 10 months of operation of the system involved undergoing a mid-winter frazil ice occurrence that subjected the system to mobile debris without observed negative impacts. The system successfully underwent spring breakup, with ice from Lake Iliamna flowing down the river. Monitoring of the sys-



ORPC Engineers at work during retrieval and maintenance of the RivGen turbine generator at Igiugig.

tem has not uncovered any negative environmental impacts or direct impacts on adult sockeye salmon, ORPC said.

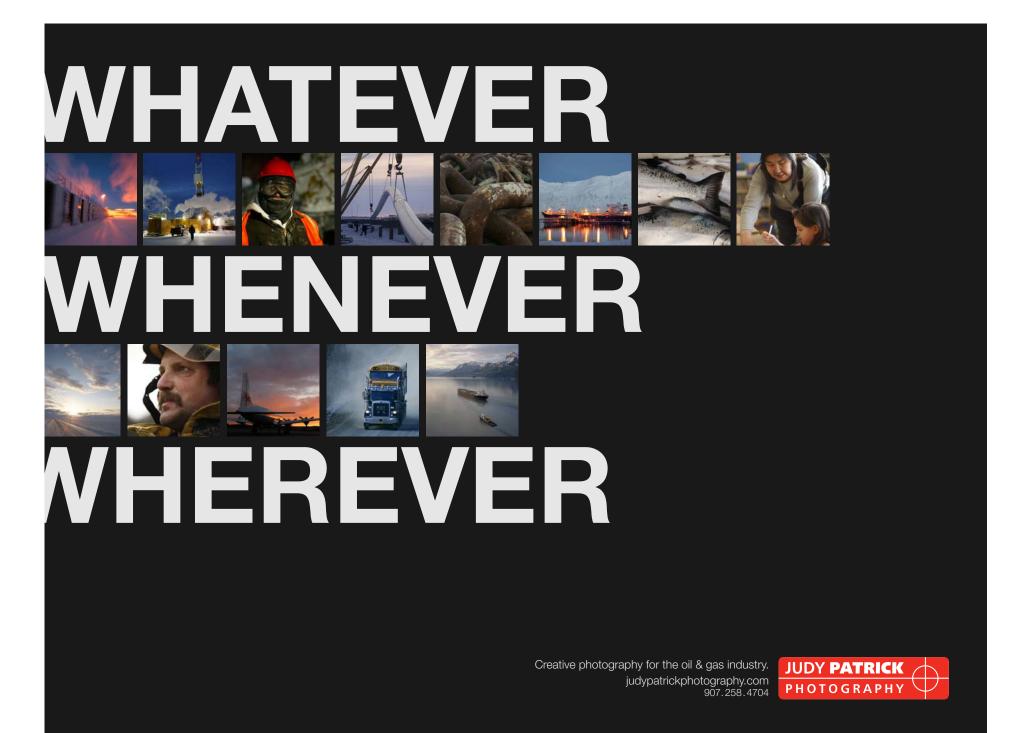
Lessons learned from the operation of the first RivGen device are being used in the design of a second device that is being built for installation at Igiugig, the company said.

"ORPC needed to prove the technology, and our village needed to prove that it didn't impact our fish resources, could survive our harsh environment, and be handled with equipment we have on hand," said Igiugig Village Council President AlexAnna Salmon following completion of the summer maintenance. "Together, what we've achieved to date is remarkable and worth sharing.

With the recent purchase of our battery energy storage system, we are looking at the potential to go diesels off in 2021."

"The valuable experience and training that our local workforce has gained through this project can't be understated," said Igiugig Village Council Vice President Karl Hill. "The Igiugig community now has the capabilities to deploy and retrieve the RivGen device with very little help from outside contractors. Our growing autonomy and skill set around operation and maintenance of the system make the project much more cost effective for us."

see HYDROKINETICS page 9







MILNE POINT

Point was producing 18,400 barrels per day when Hilcorp took over the field in November 2014. By early 2020, production had reached 34,000 barrels per day with forecasts suggesting 40,000 barrels per day by year-end.

Investing in technology

Speaking to Petroleum News toward the end of 2019, a retired unnamed BP Exploration (Alaska) executive pointed to the different management structures of the two companies as a source of change.

Hilcorp is thought to have roughly half the levels of management between lowlevel employees and top executives compared to BP, which could lead to greater investment in technology and equipment at the Prudhoe Bay oil field, which Hilcorp took over as operator on July 1. (The same deal made Hilcorp the 100% owner of the Milne Point unit.)

"That's what Hilcorp did at the Milne Point field when they took over from BP five years ago — they'll go after the big prize at Prudhoe, which is viscous oil. ... Lower operating costs ... will mean more oil for Hilcorp and the other Prudhoe partners (ExxonMobil and ConocoPhillips), but it will also mean more oil down TAPS and more revenues for the State of Alaska," the former executive explained.

As that comment suggests, the Prudhoe Bay field has always been seen as a keystone of the North Slope oil industry — and by obvious extension, the broader economy of Alaska.

Without the Prudhoe Bay unit, and by extension the trans-Alaska oil pipeline, the Kuparuk River unit and the Colville River unit (Alpine), it is hard to imagine how any of the smaller North Slope oil fields could have been developed. While many of those fields would be considered elite properties if they were in the Lower 48, their position in the wilderness of Arctic Alaska increased the cost of development, making many uneconomic on their own.

In fact, even today, more than 60 years after the discovery of the Prudhoe Bay oil field and the expansion of infrastructure in several directions, many significant North Slope oil fields remain stubbornly beyond the reach of economic development — at least as-of-yet.

Major technological advances and

The production increases at the Milne Point unit are "an important milestone for the State of Alaska and Hilcorp," Hilcorp Energy Co. President Jason Rebrook said in the first quarter of this year. "By empowering our employees closest to the wellhead, driving efficiencies, and innovating, we're increasing production at Milne Point and putting more oil in TAPS. Our goal is to apply these successes at Prudhoe Bay and beyond."

investments have allowed Prudhoe operators to keep the field alive — it is still the largest producing oil field in Alaska at some 260,000 barrels per day. That's 10,000-20,000 more barrels daily than it was two years ago, David Wilkins, the top Alaska executive at Hilcorp Alaska, said Sept. 24.

The production increases at the Milne Point unit are "an important milestone for the State of Alaska and Hilcorp," Hilcorp Energy Co. President Jason Rebrook said in the first quarter of this year. "By empowering our employees closest to the wellhead, driving efficiencies, and innovating, we're increasing production at Milne Point and putting more oil in TAPS. Our goal is to apply these successes at Prudhoe Bay and beyond."

Two rigs working at Milne

In the years since it first acquired assets from BP, Hilcorp has directed most of its North Slope resources toward Milne Point, increasing activity, infrastructure and production — and keeping two rigs working at the field, even through the COVID pandemic.

The company's work not only included increased attention to aging wells, Hilcorp also increased grassroots drilling activities and quickly announced new pad permitting efforts. With the new Moose Pad brought into production in just two years, under budget and without incident, Hilcorp is advancing preliminary work for a proposed Raven Pad and an expansion of its existing S Pad.

—KAY CASHMAN

Contact Kay Cashman at publisher@petroleumnews.com





OIL PRICES

Aramco slashed its 2020 investment by \$8 billion, versus 2019 spending of \$25 billion to \$30 billion.

Global energy investment this year is set to fall by 18%, the IEA said in its 2020 World Energy Outlook — released Oct. 13.

Global energy demand in 2020 is poised to fall 5%, led by an 8% drop in oil demand and a 7% drop in coal use, the agency said, adding that natural gas demand is set for a 3% drop and global electricity demand is expected to fall only 2%.

In its report, the IEA advanced a 10-year scenario in which COVID-19 is brought under control and the global economy rebounds to pre-crisis levels in 2021.

An alternate "delayed recovery scenario" reflects a prolonged pandemic with the economy returning to pre-crisis size in 2023, under which the pandemic ushers in a decade with the lowest rate of energy demand growth since the 1930s.

Pre-crisis, energy demand was projected to grow by 12% between 2019 and 2030, but the projection now has fallen to 9%, and to only 4% in the delayed recovery scenario.

In both scenarios, oil demand flattens out in the 2030s, but in a delayed recovery, an additional 4 million barrels per day comes out of the projections, holding total demand under 100 million bpd.

Behavioral changes resulting from the pandemic cut both ways, the agency said.

The longer the disruption, the more some changes become ingrained, such as working from home or avoiding air travel, it said. However, oil consumption benefits from a near-term aversion to public transport, the popularity of SUVs and the delayed replacement of older, inefficient vehicles.

Absent a larger shift in policies, it is still too early to foresee a rapid decline in oil demand, the IEA said, adding that rising incomes in emerging market and developing economies portend strong underlying demand for mobility, offsetting reductions in oil use elsewhere.

Oil use for cars peaks in both scenarios, due to continued improvements in fuel efficiency and sales of electric cars, while oil use for longer-distance freight and shipping varies according to the outlook for the global economy and international trade, the agency said.

Oil demand will increasingly depend on its rising use as a feedstock in the petrochemical sector, it said.

"With demand in advanced economies on a declining trend, all of the increase comes from emerging market and developing economies, led by India," the agency said. "The slower pace of energy demand growth puts downward pressure on oil and gas prices compared with pre-crisis trajectories, although the large falls in investment in 2020 also increase the possibility of future market volatility."

OPEC trims growth projections

Spot crude oil prices averaged sharply lower in September, after four consecutive months of gains, OPEC said Oct. 13 in its Monthly Oil Market Report.

The decline reflected a softening recovery of physical crude market fundamentals, bearish sentiment in the crude oil futures market amid new COVID-19 cases globally, and concerns about demand.

Moving with other benchmark crudes, the OPEC reference basket value softened in September by \$3.65 to \$41.54 per barrel, down by 8.1%.

Hedge funds and other money managers were less bullish on the oil price outlook in September and were net sellers of about 113 million barrels of crude in both Brent and West Texas Intermediate, OPEC said, adding that the Brent and WTI futures markets moved into a steeper contango.

The expected recovery in transportation fuel demand over the summer driving season disappointed, requiring a downward demand revision to Europe and the Americas for the second half of 2020.

Better-than-expected data from China, showing gains in industrial fuel use, "more than offset some of the losses seen in other regions," OPEC said.

In 2021, the world oil demand forecast was adjusted lower by 0.08 million from the previous month's report due to the slower economic growth projections.

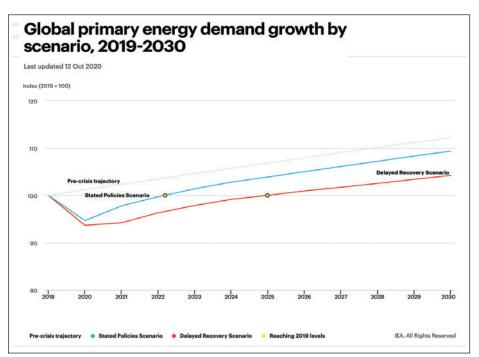
The OPEC forecast for 2021 oil demand growth is now 6.5 million bpd, with global total demand estimated to reach 96.8 million bpd.

All products are projected to see growth, given the current year's low demand levels, OPEC said.

"Oil demand growth in 2021 is expected to be capped by a number of factors, including the increase in teleworking and distance education; reduced international business and leisure travel; efficiency gains in the transportation sector; oil substitution policies in power generation; and reduced fuel subsidies," it said.

On Oct. 13, Alaska North Slope, WTI and Brent crudes climbed further into the lower \$40s after recent forays into the upper \$30s, with ANS closing up 86 cents to \$41.35 per barrel. Brent continued upward in Oct. 14 trading 98 cents to \$43.43, and WTI rose 84 cents to \$41.04. ●

Contact Steve Sutherlin at ssutherlin@petroleumnews.com







INSIDER

Prudhoe Bay, by Great Bear Petroleum Ventures I and Great Bear Ventures II and Borealis Alaska, respectively (see story in PN's Sept. 13 issue). Great Bear is owned by Pantheon Resources.

• West Harrison Bay unit by Shell Offshore Inc. in the shallow state waters of the Beaufort Sea (see story in PN's Sept. 6 issue). Shell told the division it does not intend to operate the unit's 18 leases; rather it filed for a unit application to prevent the leases from expiring, expecting to bring in a partner in 2021 to share the risks of exploration and possible development, and designating its partner as operator.

—KAY CASHMAN

NAPE Summit is back — in person and online!

MESSAGE FROM LE'ANN Callihan, director of NAPE:

When we hosted NAPE Summit back in February, we had no idea what challenges would lie ahead. Just a month post-Summit, the entire world changed, and we were all forced to face a "new normal." Unable to host
Summer NAPE as
planned, we adapted
the original NAPE
concept — a central
marketplace that
brings buyers and
sellers together — to
an online platform,
the NAPE Network.
As we look ahead to



LE'ANN CALLIHAN

2021, we are adapting NAPE once again. 2021 NAPE Summit will be a hybrid event. We will host NAPE Summit in person at the George R. Brown Convention Center in Houston and virtually on the NAPE Network. The in-person event will feature many of the NAPE staples exhibits booths, Prospect Preview Presentations, the Global Business Conference, the NAPE Charities industry event and much more. The NAPE Network will allow virtual attendees to livestream speaker events, browse the exhibit booths and prospects available at NAPE, as well as chat online with other attendees. All in-person attendees and exhibitors will also have access to the NAPE Network.

The health and safety of all NAPE participants is extremely important. We are

working closely with the GRB Convention Center and the Houston First team to ensure we provide a safe and secure environment for our attendees. Numerous new safety provisions are being added, such as: modifying the expo floor to allow for 10-foot separation between each booth; implementing new sanitation and disinfection measures; enhancing the registration process to enable faster badge pickup; and requiring temperature screenings and face masks for entrance and ensuring social distancing protocols are followed throughout the event.

Although NAPE Summit may look different, our goal remains the same — to serve the industry by bringing professionals together to connect and reconnect with industry colleagues, conduct business and help invigorate the industry and economy in the safest way possible. NAPE Summit — in Houston and on the NAPE Network — will be the place to discover new opportunities, gain insight from industry experts, form connections and make deals happen.

We are excited to provide the flexibility of a hybrid event and invite you to participate in all that NAPE Summit has to offer.

Registration opens Oct. 21. Whether you choose to attend in person or online,

we can't wait to bring the energy of NAPE to you!

Engine fire takes out only US icebreaker touring Arctic 'til 2021

THE ONLY U.S. ICEBREAKER patrolling the Arctic faces extensive repairs after an electrical fire on Aug. 18 that damaged the main propulsion system. The U.S. Coast Guard has not said how long the repairs will take but has said the cutter is expected to be operational again for its next Arctic patrol in 2021.

"Healy was 60 nautical miles off of Seward, Alaska, en route to the Arctic when an electrical fire was reported at 9:30 p.m. A fire team disconnected the affected motor, and the fire was confirmed extinguished by 9:56 p.m." The cause of the fire is currently unknown the service said in an Aug. 25 statement.

"Due to the fire, Healy's starboard propulsion motor and shaft are no longer operational." There were no reported injuries.

The ship is sailing back to its homeport in Seattle for repairs.

On Oct. 13 ArcticToday reported that the previous week "the Coast Guard hauled out a 23-year-old engine, weighing 106 tons, from a storage facility in Baltimore. Next, a barge will carry the engine from the U.S. East Coast to the West Coast, traversing the Panama Canal."

"We don't have an estimated time of repair yet; that will be negotiated with shipyard depending the exact scope of work," NyxoLyno Cangemi, an assistant public affairs officer with the Coast Guard, told ArcticToday.

The Healy, a medium duty icebreaker often used as a base for polar research, was commissioned in 2000 and is currently the only icebreaker in the U.S. fleet to regularly conduct Arctic patrols., with the only other Arctic icebreaker, the 42-year-old Polar Star, a heavy duty icebreaker, most often working to support the annual breakup and resupply of McMurdo.

Congress approved a funding appropriation for the construction of a new heavy polar icebreaker for the U.S. Coast Guard, signed into law by President Donald Trump on Feb. 15, 2019. It included \$655 million for the construction of the vessel.

The appropriation followed the passage in August 2019 of a national defense authorization act, authorizing among other things the construction of six heavy polar-class icebreakers for the Coast Guard. The new appropriation accounts for the first of these vessels. In addition, the appropriation includes another \$20 million to cover the acquisition cost of long lead-time materials for the second of the icebreakers.

Construction of the first icebreaker will begin in 2021 and could take three years to finish.

Trump's budget request for fiscal year 2021, which began on Oct. 1 without an approved budget, included \$555 million in funding for a second new icebreaker.

In February, Adm. Karl L. Schultz, commandant of the U.S. Coast Guard, announced plans for a third heavy icebreaker as well as three medium breakers — but he did not provide a timeline.

Schultz has also emphasized the lack of communications in the Arctic, ArcticToday reported.

In February, he said, "When Healy sails this summer, it will do so, yet again, without reliable communications for large portions of its multi-month patrol."

—KAY CASHMAN



IN ALASKA,
PEOPLE
PROSPER
AND THRIVE,
BECAUSE
NATURE
PROVIDES

CORPORATE COUNCIL ON THE ENVIRONMENT

These business leaders want to ensure Alaska continues to provide—not only for us, but for future generations.

To join us visit nature.org/alaska

1 natureconservancyalaska

nature_ak

715 L Street, Suite 100 Anchorage, Alaska 99501 907-865-5700 Photo: Heather Genovese/ TNC Photo Contest 2019



Corporate Catalysts | \$50,000+ ConocoPhillips Alaska Inc.

Corporate Leaders | \$25,000+

Petroleum News

Corporate Partners | \$10,000+ Alaska Airlines and Horizon Air

Corporate Members | \$1,000+

Alaska Wildland Adventures Inc. Bristol Bay Native Corporation Camp Denali and North Face Lodge Chugach Alaska Corporation Coeur d'Alene Mines Corporation GCI

Jacobs Engineering
Price Gregory International

Contact Kay Cashman at publisher@petroleumnews.com

REFINERY PLANS

been assured by Irving that Come By Chance would be a big part of Irving's future as owner of a refinery in Saint John, New Brunswick, Canada's largest crude processing facility at 360,000 bpd.

"Their intent is to ramp back up to full operation," she said.

Privately owned Irving said it had "proudly served the people of Newfoundland and Labrador since 1950, providing a secure supply of energy to its customers across the province" and intended to extend that role.

It also raised hopes for crude producers in Western Canada saying it planned to buy feedstock from them and "contribute to our long-time objective of helping Canada be even more competitive in the international landscape."

Deal collapses

ADVERTISER

Those high-flying goals lasted only until early October when sources told the Canadian Broadcasting Corp. that the deal to sell the refinery had collapsed and that the idled plant could close permanently.

Newfoundland Industry, Energy and Technology Minister Andrew Parsons said Silverpeak was continuing to explore its options.

He said his government, which had relied on Come By Chance for 5% of its revenues, would give Silverpeak whatever support it could.

Frazer Russell, the mayor of Clarenville, a half-hour drive west of the refinery, said he was "shocked" by the developments, while observing that the weeks of silence since the Irving deal was announced had made local people uneasy.

"We're all scrambling for information," he said.

Facility opened in 1973

That has been the life story of the facility since it opened in 1973 under Shaheen Resources through a financing arrangement that forced two premiers out of office.

The refinery closed in 1976 after Shaheen went bankrupt. It was purchased

ADVERTISER

and restarted by Petro-Canada in 1980.

In 1994, Vital Group acquired the refinery and launched North Atlantic Refining as the operating company.

Ownership was bought for C\$1.6 billion in 2006 by Harvest Energy Trust, which survived for only three years when the reins were turned over to Korea National Oil Corp.

Irving Oil wasn't the only company to

express interest in the refinery. In a June letter to Coady, U.S.-based Origin International said it intended to pursue a deal, insisting it was ready to resume its bid for North Atlantic Refining, but has not been available for comment since then.

Contact Gary Park through publisher@petroleumnews.com

continued from page 5

HYDROKINETICS

Renewable energy potential

"The success of Igiugig's hydrokinetic turbine in the Kvichak River demonstrates MHK (marine hydrokinetic) technology's promise to make significant contributions to the renewable energy mix," commented Chris Rose, executive director of Renewable Energy Alaska Project.

ORPC CEO Stuart Davies said that, with the appropriate support, the deployment of MHK technology could grow

rapidly, potentially providing power for more than 100 million people and creating hundreds of thousands of new manufacturing, engineering and marine industry jobs. The technology can provide reliable, baseload renewable energy, he said.

In addition to the use of private investment, the Igiugig hydrokinetic project is supported in part by funding to the Village of Igiugig from the U.S. Department of Energy's Water Power Technology Office and Office of Indian Energy Policy and Programs, ORPC said. ●

Contact Alan Bailey at abailey@petroleumnews.com



Oil Patch Bits



PAGE AD APPEARS

Seward & Alaska Railroad awarded \$20 million grant

As reported by the Alaska Congressional Delegation Oct. 9, U.S. Sens. Lisa Murkowski and Dan Sullivan, and Congressman Don Young, welcomed the announcement of a roughly \$19.78 million port infrastructure grant issued by the United States Maritime Administration for the City of Seward and the Alaska Railroad Corp. to improve the freight dock and corridor in Seward, Alaska. The Alaska congressional delegation wrote a letter to Secretary of Transportation Elaine Chao supporting the grant application in May.

"This grant announcement by MARAD is an exciting development for the people of Seward and the industries that form the backbone of our economy, particularly fisheries and tourism," the delegation said. "An expanded and revitalized port at the southern tip of Alaska's Railbelt will unleash new economic opportunities for Alaskans on the Peninsula

PAGE AD APPEARS

and throughout the state, while also expanding vital transportation services to a number of rural communities. We also can't overstate the importance of this infrastructure to our maritime security and Coast Guard operations, with Seward soon poised to host a new fast response cutter, in addition to the fueling and maintenance work already conducted at this important port. Mayor Terry, the community and the railroad made a strong case for the wide-ranging benefits of this project, and we thank Secretary Chao for heeding the voices of Alaskans."

According to the grant announcement, the project will lengthen and widen the primary freight dock at the Port of Seward "to accommodate growing freight cargoes and minimize operational conflicts between freight and cruise movements, both onshore and in the harbor." Additionally, the project will include a roadway connection between the dock and Airport Road, facilitating the safe and efficient movement of passengers and cargo.

ADVERTISER

PAGE AD APPEARS

Companies involved in Alaska's oil and gas industry

Denali Universal Services (DUS) Doyon Anvil ABR Inc. **Nabors Alaska Drilling Doyon Associated** Acuren **NANA Worley Doyon Drilling AES Electric Supply, Inc** Nature Conservancy, The8 Doyon, Limited Afognak Leasing LLC **NEI Fluid Technology Nordic Calista** Egli Air Haul Airgas, an Air Liquide company North Slope Borough exp Energy Services **Airport Equipment Rental North Slope Telecom Alaska Dreams Northern Air Cargo** Fairweather Alaska Frontier Constructors (AFC) **Northern Solutions** Flowline Alaska **Alaska Marine Lines** NRC Alaska, a US Ecology Co. Alaska Materials Oil Search Frost Engineering Service Co. – NW6 Alaska Railroad **Pacific Power Group** PND Engineers, Inc. Alaska Tent & Tarp G-M Alaska Textiles6 Petroleum Equipment & Services, Inc. GCI Alaska West Express PRA (Petrotechnical Resources of Alaska) **GMW Fire Protection American Marine Price Gregory International Greer Tank & Welding Arctic Controls** Guess & Rudd, PC **ARCTOS Alaska, Division of NORTECH** HDR Engineering, Inc. Armstrong Raven Alaska - Jon Adler ICE Services, Inc. AT&T **Resource Development Council Inlet Energy Avalon Development SALA Remote Medics** B-F **Security Aviation** Judy Patrick Photography5 **Shoreside Petroleum Bombay Deluxe LONG Building Technologies Soloy Helicopters BrandSafway Services Lounsbury & Associates Brooks Range Supply** Lynden Air Cargo C & R Pipe and Steel **Strategic Action Associates** Calista Corp. Lynden Air Freight Summit ESP, A Halliburton Service Lynden Inc. Tanks-A-Lot Carlile Lynden International ChampionX The Local Pages **Lynden Logistics Chosen Construction TOTE – Totem Ocean Trailer Express Lynden Transport** Colville Inc. **Weston Solutions** M-W Drilling **Computing Alternatives** Wolfpack Land Co. **Maritime Helicopters CONAM Construction** All of the companies listed above advertise on a regular basis **Cruz Construction** Matson with Petroleum News

A message from the publisher

Online readers outnumber print readers more and more each year

Dear readers,

We are required by the U.S. Postal Service to publish the following information as part of our periodical's mailing permit. The numbers are for print copies only and represent a fraction of our readers because the weekly Petroleum News and affiliated annual and semi-annual publications delivered with it — The Producers, The Explorers, and the Arctic Oil & Gas Directory — are largely distributed online (readership of 8.073).

The easy-to-read electronic version of weekly Petroleum News is available the evening before the newspaper is printed and mailed via the U.S. Post Office — usually three days before the print copies reach readers

Another factor attracting readers to the electronic version is our online archive, which contains more than 34,144 articles from 1998 to today (does not include pre-1998 articles because Petroleum News was not available online prior to that).

In addition to individual subscriptions, almost all Alaska oil and gas explorers and producers with 10 employees or more have bulk online subscriptions to Petroleum News for their staff. Many pipeline, drilling and service and supply companies have followed suit, as have several local, state/province and federal government offices.

Sincerely, Kay Cashman

Petroleum New			015-339		10/1/2020
Issue Frequenc	у		5. Number of Issues Publish	ned Annually 6. Annu	al Subscription Price
Complete Mailin	ng Add	lress of Known Office of Publication (Not printer			Person
PO Box 231647 Anchorage, AK 99523-1647					ne (Include area code) 907-522-9469
Complete Mailing O Box 231647 Anchorage, AK	7	lress of Headquarters or General Business Offic 3-1647	ce of Publisher (Not printer)		
		olete Mailing Addresses of Publisher, Editor, an	d Managing Editor (Do not leave bl	ank)	
Kay Cashman PO Box 231647 Anchorage, AK	9	mplete mailing address) 3-1647			
ditor (Name and Kristen Nelson PO Box 231647 Anchorage, AK		ete mailing address)			
lanaging Editor (i Kay Cashman PO Box 231647	Name	and complete mailing address)			
names and add	leave	blank. If the publication is owned by a corporates of all stockholders owning or holding 1 percei	nt or more of the total amount of sto	ck. If not owned by a co	propration, give the
each individual	owne	is of the individual owners. If owned by a partner, if the publication is published by a nonprofit of	organization, give its name and additional Complete Mailing Address	ress.)	ess as well as those of
Barbara Lasley,	Men	nber; John Lasley, Member	PO Box 231647 Anchor		
		ber Mgr.; Mary Mack, Member Mgr.	PO Box 231647 Anchor	age, AK 99523-1647	
		er Mgr.: Steve Sutherlin, Member	PO Box 231647 Anchora	2	
Al Hastings, Me	mbei		PO Box 231647 Anchora	age, AK 99523-1647	
		, Mortgagees, and Other Security Holders Owni		Total Amount of Bonds	, Mortgages, or
Other Securitie	s. If n	one, check box	Complete Mailing Address	S	
	_				
The purpose, f	unctio	pletion by nonprofit organizations authorized to n, and nonprofit status of this organization and d During Preceding 12 Months tring Preceding 12 Months (Publisher must sub	the exempt status for federal incom	e tax purposes:	
The purpose, f Has Not Cl Has Chang 3. Publication Til Petroleum New	function hange ged Du tle /s	n, and nonprofit status of this organization and d During Preceding 12 Months iring Preceding 12 Months (Publisher must sub	the exempt status for federal incom	te tax purposes: statement) 14. Issue Date for Circ	culation Data Below nber 6, 2020
The purpose, f Has Not Cl Has Chang 3. Publication Tit	function hange ged Du tle /s	n, and nonprofit status of this organization and d During Preceding 12 Months iring Preceding 12 Months (Publisher must sub	the exempt status for federal incom	te tax purposes: statement) 14. Issue Date for Circ	No. Copies of Single
The purpose, f Has Not Cl Has Chang 3. Publication Til Petroleum New 5. Extent and N	nange ped Du tle /s	n, and nonprofit status of this organization and d During Preceding 12 Months iring Preceding 12 Months (Publisher must sub	the exempt status for federal incom	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During	No. Copies of Single
The purpose, f Has Not Cl Has Chang 3. Publication Ti Petroleum New 5. Extent and N a. Total Numb	nange ped Du tle /s	n, and nonprofit status of this organization and d During Preceding 12 Months uring Preceding 12 Months (Publisher must sub-	the exempt status for federal incommit explanation of change with this	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month	No. Copies of Single Issue Published Nearest to Filing Da
The purpose, 1 Has Not Ci Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail	tunction hange ged Dutte ys ature	n, and nonprofit status of this organization and d During Preceding 12 Months uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stal	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid oof copies, and exchange copies)	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619	No. Copies of Single Issue Published Nearest to Filing Da
The purpose, 1 Has Not Ct Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation	dunction hange ged Dutte //s ature	n, and nonprofit status of this organization and d During Preceding 12 Months tring Preceding 12 Months (Publisher must sub- of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stat distribution above nominal rate, advertiser's pro-	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers,	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66
The purpose, 1 Has Not Ct Has Not Ct Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail and Outside	ature (1)	n, and nonprofit status of this organization and d During Preceding 12 Months tring Preceding 12 Months (Publisher must sub- of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stat distribution above nominal rate, advertiser's pro- Mailed In-County Paid Subscriptions Stated on distribution above nominal rate, advertiser's pro- Paid Distribution Outside the Mails Including St	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) IPS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, it Distribution Outside USPS®	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66
The purpose, f Has Not Ci Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail and Outside the Mail)	er of (1) (2) (3) (4)	n, and nonprofit status of this organization and d During Preceding 12 Months tring Preceding 12 Months (Publisher must sub- of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stat distribution above nominal rate, advertiser's pro- Mailed In-County Paid Subscriptions Stated on distribution above nominal rate, advertiser's pro- Paid Distribution Outside the Mails Including Street Vendors, Counter Sales, and Other Paid Paid Distribution by Other Classes of Mail The	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) IPS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, it Distribution Outside USPS®	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 64 480	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66
The purpose, 1 Has Not Ci Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail and Outside the Mail) c. Total Paid d. Free or Nominal	er of (1) (2) (3) (4)	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Statistibution above nominal rate, advertiser's promise in the process of the mailed In-County Paid Subscriptions Stated on distribution above nominal rate, advertiser's promiser in the process of the mailed In-County Paid Subscriptions Stated on distribution above nominal rate, advertiser's promiser in the process of the mailed Distribution Outside the Mails Including Street Vendors, Counter Sales, and Other Paid (e.g., First-Class Mall®)	ted on PS Form 3541 (Include paid por copies, and exchange copies) IPS Form 3541 (Include paid por copies, and exchange copies) IPS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46
The purpose, f Has Not Cl Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail Autside the Mail) c. Total Paid I d. Free or Nominal Rate Distribution (By Mail	unctionange ded Double ss ature (1) (2) (3) (4) Distrib	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated distribution above nominal rate, advertiser's prediction above nominal rate, advertiser's predicti	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 55 458
The purpose, for Has Not for Has Not for Has Changes. 3. Publication Til Petroleum New Service Servic	unctionange ded Double ss ature (1) (2) (3) (4) Distrib	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stat distribution above nominal rate, advertiser's preceding in the process of th	ted on PS Form 3541 (Include paid por copies, and exchange copies) IPS Form 3541 (Include paid por copies, and exchange copies) IPS Form 3541 (Include paid por copies, and exchange copies) ID istribution Outside USPS® Included on PS Form 3541 Ided on PS Form 3541	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46
The purpose, for Has Not for Has Not for Has Not for Has Chang 3. Publication Til Petroleum New 5. Extent and Note that I have been seen to be the form of the for	unctionange ged Du de //s ature (1) (2) (3) (4) Distrib	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated Stribution above nominal rate, advertiser's preceding the subscriptions Stated on distribution above nominal rate, advertiser's preceding the subscriptions Stated on distribution above nominal rate, advertiser's preceding the subscriptions Stated on distribution above nominal rate, advertiser's preceding the subscriptions Stated on distribution above nominal rate, advertiser's preceding the subscriptions Stated on distribution above nominal rate, advertiser's preceding the subscriptions of the subscription of	the exempt status for federal incommit explanation of change with this mit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, Distribution Outside USPS® rough the USPS included on PS Form 3541 ded on PS Form 3541	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 55 458
The purpose, for Has Not Cl. Has Changes. 3. Publication Til Petroleum News. 5. Extent and No. a. Total Numb. b. Paid Circulation (By Mail and Outside the Mail) c. Total Paid I d. Free or Nominal Rate Distribution (By Mail and Outside the Mail)	(1) (2) (3) (4) (4) (4)	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated distribution above nominal rate, advertiser's preceding of the properties of the prope	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46 3 3
The purpose, for Has Not Cl. Has Changes. 3. Publication Til Petroleum News. 5. Extent and No. a. Total Numb. b. Paid Circulation (By Mail and Outside the Mail) c. Total Paid I and Outside the Mail and Outside the Mail and Outside the Mail) e. Total Free or Nominal Rate Distribution (By Mail and Outside the Mail)	unctionange ped Du hange ped Du lile //s ature (1) (2) (3) (4) Distribution (3) (4) (4)	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated in distribution above nominal rate, advertiser's preceding in the paid Subscriptions Stated on distribution above nominal rate, advertiser's preceding in the paid Distribution Outside the Mails Including Statest Vendors, Counter Sales, and Other Paid Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Free or Nominal Rate Outside-County Copies Free or Nominal Rate In-County Copies Includings, First-Class Mail) Free or Nominal Rate Distribution Outside the Preceding Including States (e.g., First-Class Mail)	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3 2 64	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46 3 3 3 10
The purpose, for Has Not Cl. Has Not Cl. Has Changes. 3. Publication Til Petroleum New St. Extent and Note that the Note of Circulation (By Mail and Outside the Mail) d. Free or Nominal Rate Distribution (By Mail and Outside the Mail) e. Total Free of Total Free St. Total Free St. Total Free St. Total Free St. Total Distribution (By Mail and Outside the Mail)	unctionange ped Du hange ped Du lile //s ature (1) (2) (3) (4) Distrib (1) (2) (3) (4)	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stat distribution above nominal rate, advertiser's prevaid of the county Paid Subscriptions Stated on distribution above nominal rate, advertiser's prevaid Distribution Outside the Mails Including State Vendors, Counter Sales, and Other Paid Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Puttion [Sum of 15b (1), (2), (3), and (4)] Free or Nominal Rate Outside-County Copies Free or Nominal Rate Copies Mailed at Other (e.g., First-Class Mail) Free or Nominal Rate Distribution Outside the minal Rate Distribution (Sum of 15d (1), (2), (3)	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS and (4))	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3 2 64 111	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46 3 3 10 62
The purpose, for Has Not Cl. Has Not Cl. Has Changes. 3. Publication Til Petroleum New St. Extent and Note that the Mail and the Mail	unctionange ped Du hange ped Du lile //s ature (1) (2) (3) (4) Distrib (1) (3) (4) Distrib Distrib Distrib	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated distribution above nominal rate, advertiser's preceding in the paid Subscriptions Stated on distribution above nominal rate, advertiser's preceding in the paid Distribution Outside the Mails Including State Vendors, Counter Sales, and Other Paid Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Free or Nominal Rate Outside-County Copies Free or Nominal Rate Copies Mailed at Other (e.g., First-Class Mail) Free or Nominal Rate Distribution Outside the minal Rate Distribution (Sum of 15d (1), (2), (3) (Sum of 15c and 15e) Duted (See Instructions to Publishers #4 (page)	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS and (4))	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3 2 64 111 591	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46 3 3 10 62 520
The purpose, f. Palas Not Cl Has Not Cl Has Not Cl Has Not Cl Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numt b. Paid Circulation (By Mail and Outside the Mail) c. Total Paid I d. Free or Nominal Rate Distribution (By Mail and Outside the Mail) e. Total Free f. Total Distril g. Copies not h. Total (Sum i. Percent Pa	unctionange ped Du de le	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated distribution above nominal rate, advertiser's preceding in the paid Subscriptions Stated on distribution above nominal rate, advertiser's preceding in the paid Distribution Outside the Mails Including State Vendors, Counter Sales, and Other Paid Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Free or Nominal Rate Outside-County Copies Free or Nominal Rate Copies Mailed at Other (e.g., First-Class Mail) Free or Nominal Rate Distribution Outside the minal Rate Distribution (Sum of 15d (1), (2), (3) (Sum of 15c and 15e) Duted (See Instructions to Publishers #4 (page)	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid por copies, and exchange copies) PS Form 3541 (Include paid por copies, and exchange copies) ales Through Dealers and Carriers, I Distribution Outside USPS® rough the USPS included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS and (4))	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3 2 64 111 591	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46 3 3 10 62 520 10
The purpose, f. Has Not Cl Has Not Cl Has Not Cl Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail and Outside the Mail) c. Total Paid I d. Free or Nominal Rate Distribution (By Mail and Outside the Mail) e. Total Free f. Total Distril g. Copies not h. Total (Sum i. Percent Pa (15c divide) 7. Publication of	unctionange ed Du hange ed Du	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated distribution above nominal rate, advertiser's preceding of the paid Subscriptions Stated on distribution above nominal rate, advertiser's preceding of the paid Distribution Outside the Mails Including Stated Vendors, Counter Sales, and Other Paid Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Paid Distribution by Other Classes of Mail The (e.g., First-Class Mail®) Preceding of 15b (1), (2), (3), and (4)] Free or Nominal Rate Outside-County Copies Free or Nominal Rate Copies Mailed at Other (e.g., First-Class Mail) Free or Nominal Rate Distribution Outside the minal Rate Distribution (Sum of 15d (1), (2), (3) (Sum of 15c and 15e) Duted (See Instructions to Publishers #4 (page final g))	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid poof copies, and exchange copies) IPS Form 3541 (Include paid poof copies, and exchange copies) ales Through Dealers and Carriers, it Distribution Outside USPS® rough the USPS Included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS P Mail (Carriers or other means) and (4))	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3 2 64 111 591 10 601 81.2%	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 5 458 46 3 3 10 62 520 10 530
The purpose, f. Has Not Cl Has Not Cl Has Not Cl Has Chang 3. Publication Til Petroleum New 5. Extent and N a. Total Numb b. Paid Circulation (By Mail and Outside the Mail) c. Total Paid I d. Free or Nominal Rate Distribution (By Mail and Outside the Mail) e. Total Free f. Total Distril g. Copies not h. Total (Sum i. Percent Pa (15c divide) 7. Publication of	unctionange ped Du hange ped Du lile //s ature (1) (2) (3) (4) (4) (3) (4) (5) (6) (7) (8) (9) (9) (9) (1) (1) (1) (2) (3) (4) (4) (5) (6) (7) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	n, and nonprofit status of this organization and d During Preceding 12 Months (Publisher must sub uring Preceding 12 Months (Publisher must sub of Circulation Copies (Net press run) Mailed Outside-County Paid Subscriptions Stated on distribution above nominal rate, advertiser's processor of the Mails Including Stated Vendors, Counter Sales, and Other Paid Street Vendors, Counter Sales, and Other Paid (e.g., First-Class Mall®) Paid Distribution by Other Classes of Mail The (e.g., First-Class Mall®) Pree or Nominal Rate Outside-County Copies Free or Nominal Rate In-County Copies Including Free or Nominal Rate Distribution Outside the minal Rate Distribution Outside the minal Rate Distribution (Sum of 15d (1), (2), (3)) (Sum of 15c and 15e) Duted (See Instructions to Publishers #4 (page of and g)) Stimes 100) ment of Ownership	the exempt status for federal incommit explanation of change with this led on PS Form 3541 (Include paid poof copies, and exchange copies) IPS Form 3541 (Include paid poof copies, and exchange copies) ales Through Dealers and Carriers, it Distribution Outside USPS® rough the USPS Included on PS Form 3541 ded on PS Form 3541 Classes Through the USPS P Mail (Carriers or other means) and (4))	e tax purposes: statement) 14. Issue Date for Circ Septen Average No. Copies Each Issue During Preceding 12 Month 619 410 64 0 6 480 42 3 2 64 111 591 10 601 81.2%	No. Copies of Single Issue Published Nearest to Filing Da 550 387 66 0 0 5 458 46 3 3 10 62 520 10 530 88.07%

continued from page 1

ALBERTA UPENDED

the Canadian Environmental Protection Act, a designation that follows a scientific assessment that determined plastics are harmful

Trudeau would like Canadians to believe that his administration is taking bold steps on the global stage, but his Environment Minister Jonathan Wilkinson conceded his department had looked to Europe for inspiration in developing the plastic ban for implementation at the end of 2021.

"To be honest, we're not leading the world on this," he said, in a rare moment of political candor.

Alberta looked to petrochem revenues

Having come to terms with the fact that Trudeau has no intention of helping a desperate oil and gas sector Alberta decided its petrochemical sector could generate C\$30 billion in annual revenues by 2030, of which one-third would come from corporate and personal income taxes, and create more than 90,000 direct and indirect jobs.

In the process, Alberta hopes to use its proven strength in technological innovation and create a domestic plastic recycling system and become what Kenney believes could be a center for repurposing and recycling old plastic.

Bob Masterson, chief executive officer of the Chemical Industry Association of Canada, said Wilkinson's strategy does contain some positive news by supporting more recycling investment and "building a circular economy for plastic." However, he said the ban on specific items is arbitrary.

He asked why the Canadian government would "want to ban (items) that can and are being recycled," noting that the Trudeau Liberals are also stimulating investment in companies that recycle the same materials it aims to ban.

"The inconsistency of that has to be seen as frustrating to businesses," Masterson said, urging the federal government to concentrate more on national waste legislation.

He said it will not be easy for Alberta to attain its goal of joining the world's top 10 petrochemical producers, "but it is doable."

Wilkinson tried to downplay potential friction between the federal government and Alberta by noting that Alberta's recovery plan puts a focus on plastic recycling.

Alberta focus on 'full life cycle' approach

Alberta Energy Minister Sonya Savage said her government's focus is on a "full life cycle approach for plastics," making a point that "we use plastics in every single thing we do, every minute of the day."

She said the Kenney administration is prepared to fight if the federal plastics strategy infringes on the province's constitutional responsibilities or economic recovery plan.

"One thing we know for sure is that we have a very robust petrochemical plan here in Alberta. It's part of our natural gas strategy. It's part of our need to recover as a province and create jobs and diversify our economy," said Savage, leaving little doubt that Alberta is bracing for a battle.

Comments on the federal plan, outlined in a 20-page discussion paper, will be accepted until Dec. 9, meaning the next two months will indicate whether the two governments are headed for a showdown.

Contact Gary Park through publisher@petroleumnews.com



The Talitha 1 well will require a 7-mile ice road.

EXPLORATION WELLS

the Alaska Department of Natural Resources.

The North Slope's most active explorer, ConocoPhillips Alaska, could drill as many as four exploration wells this coming winter, but the company put almost all of its North Slope investment plans on hold until after the Nov. 3 vote on Ballot Measure 1, which would increase the state's severance tax by 150-300% depending on the price of oil.

The ballot measure "is targeted specifically at Prudhoe, Kuparuk and Colville. It is targeted at the backbone of industry. If those three fields aren't healthy nothing is going to work very well," ConocoPhillips Alaska President Joe Marushack said in a recent presentation to the Alaska State Chamber.

In the previous winter of 2019-20, the company drilled three of its planned six to seven exploration wells before it cut the season short because of concerns for worker safety connected to COVID-19. The three wells drilled were two Tinmiaq wells near the company's big Willow discovery and a rank exploration well in the Harpoon prospect.

ConocoPhillips had hoped to complete up to three wells at Harpoon and four Tinmiaq wells in the season.

At the time the company had all its permits to drill the additional three to four wells.

88 targeting Nanushuk

The main target of 88 Energy's two wells is the prolific Nanushuk reservoir.

The Harrier and Merlin prospects, where the wells will be drilled, are in XCD Energy's 195,000-acre Peregrine block. On Jan. 21, 2020, XCD managing director Dougal Ferguson told Petroleum News that Merlin is considered a direct analogy to ConocoPhillips' Willow oil discovery, while ConocoPhillips' Harpoon prospect "is interpreted to lie on the same sequence boundaries as the Harrier prospect."

Harrier and Merlin lie between the Umiat oil field to the south and Willow and Harpoon to the north.

Opstad told PN that the Nanushuk can be reached at less than 5,000 feet in the area, while a third prospect in the Peregrine block, Harrier Deep, has a Torok objective at about 10,000 feet. It will not be drilled in the 2020-21 winter season.

The shallower Nanushuk wells, Harrier 1 and Merlin 1, do not require the use of a rotary rig, or an ice road that is needed to transport the heavier traditional North Slope exploration rigs, allowing Accumulate to use a less expensive lightweight workover or coiled tubing rig that can be moved off-road in pieces by tundra-safe track vehicles on snow trails. Although the use of lightweight, portable rigs and snow roads was studied and con-

sidered by XCD, Armstrong, and Oil Search, 88 Energy will be the first to conduct such a program on the North Slope.

Early production the goal

Galvin said the Talitha 1 well will require a 7-mile ice road from the Dalton Highway west to the well location.

It will be followed by a development well at Great Bear Pantheon's Alkaid project, but the timing of Alkaid drilling is subject to securing a farm-in partner.

A new Alkaid well has the potential to be completed as a producer via the "installation of an Early Production Unit facility," Galvin earlier told Petroleum News in an email.

Alkaid, which has the advantage of being located along the Dalton Highway and trans-Alaska oil pipeline, factors that "could expedite low cost early production," he said.

The Talitha project contains "three mutually exclusive and independent geological formations with different reservoir trap geometries, qualities and risk profiles," Galvin said.

All three formations were penetrated and confirmed to be oil bearing in the Pipeline State No. 1 well drilled in 1988 by ConocoPhillips Alaska predecessor ARCO Alaska. The Talitha 1 well will offset Pipeline State No. 1.

In late March 2020, Great Bear Pantheon announced that it had completed its analysis of the shallowest of these three horizons, the "Shelf Margin Deltaic," a Brookian aged reservoir, which it estimated to contain 1.8 billion barrels of oil in place with a P50 technically recoverable resource of 483 million barrels of oil. These numbers were "significantly higher" than pre-analysis expectation, Galvin said.

The two deeper zones at Talitha, the Brookian Slope Fan System and the Kuparuk "also offer significant potential," with the company due to complete its analysis of the Kuparuk and provide resource estimates "in the near future," he said.

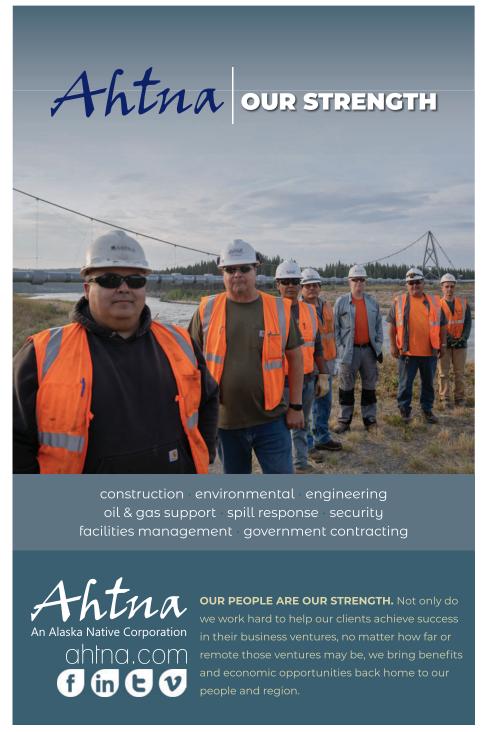
Great Bear has drilled three wells off the Dalton Highway to date — two are plugged and abandoned (Alcor 1 and Merak 1) and one well, Alkaid 1, is suspended.

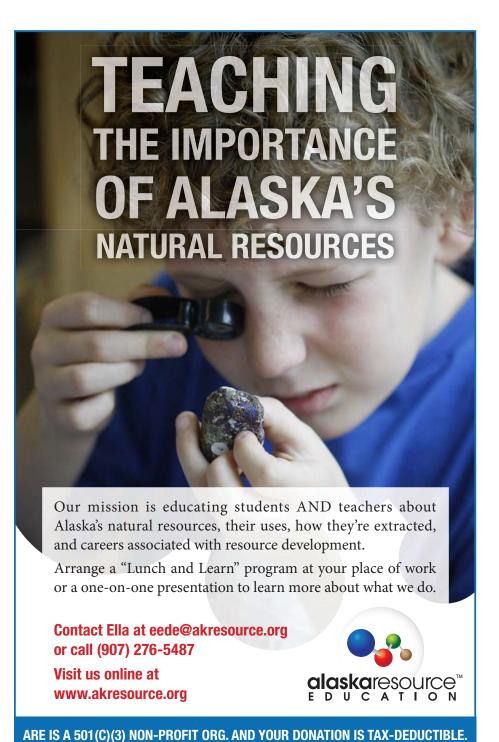
The Alcor and Merak wells were drilled in 2012, Alkaid 1 was in 2015 and re-entered and flow tested in the 2018-19 winter season.

The suspended Alkaid 1 well is some 2-1/2 miles west of the Dalton Highway and northwest of the Phecda Road Pad site. That well was drilled from an ice pad.

Pantheon said after the well was flow tested in 2019 that it confirmed a new Brookian light oil discovery just west of the Dalton Highway. The company now views the Phecda prospect as part of Alkaid.

Contact Kay Cashman at publisher@petroleumnews.com





NEED TO STRETCH YOUR DOLLAR?

Becoming a contracted advertiser

To become a Petroleum News 'contracted advertiser' you simply have to agree to run 12 ads of any size over a 12-month period. In return we'll give you this additional marketing exposure:

Exposure in the weekly Petroleum News

- You make the List
- Your employees are spotlighted
- Your news gets in Oil Patch Bits

OIL PATCH BITS



Exposure in the semiannual Arctic Oil & Gas Directory



PHOTO FEATURES

- Your news gets featured
- Company photos promote your business
- You're included in the buyer's guide
- LISTINGS SECTION



Exposure in co-op ads for your customers

As a contracted advertiser your company would be listed in the co-op ads that run at least 12 times a year in Petroleum News, congratulating oil companies for new discoveries, field start-ups, entering Alaska, and welcoming new oil company presidents or managers to the state.

If your annual contract exceeds \$7,100

We'll profile your company We'll work with you on a two-page Q&A company profile that will appear in the Arctic Oil & Gas Directory. Afterwards, you can frame it or use it as a company brochure or flyer.

We'll give you free online advertising When Petroleum News readers click on articles each week they will see your ad, which will appear in rotation on the current story pages. The size of your annual contract determines the size of your online ad.

