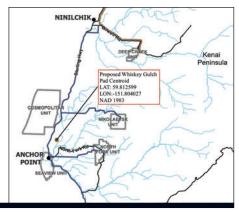
Petroleum, s



page Hilcorp flips script: developmentknowledge also used to explore

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Unalaska geothermal power plant Construction begins summer 2021

Ounalashka Corp. and Chena Power LLC, OCCP, plans to begin the first stages of construction in 2021 of an 18-to-30-megawatt geothermal energy plant on the eastern flank of the Makushin Volcano on Unalaska Island, to supply electrical power to the City of Unalaska power grid.

The partnership intends to substantially complete access road and work pad construction in the 2021 summer season, having completed environmental, archaeological, biological and physical field surveys for the road from Broad Bay to the power plant site last year, according to a May update on the project.

Mother Nature gave the project a helping hand during the 2020-21 winter, bringing storms that shifted the river mouth 200 meters north to form a new beach at the Broad Bay landing site, OCCP said.

see UNALASKA GEOTHERMAL page 10

RCA has SB 123 regulations out for public comment; close June 1

The Regulatory Commission of Alaska has issued proposed regulations necessary to implement Senate Bill 123, enacted last year, which authorized certification and regulation of regional electric reliability organizations by the commission. SB 123 required adoption of regulations by July 1 of this year.

Comments on the proposed regulations must be filed with RCA by June 1.

In addition to authorizing RCA to certify regional electric organizations, EROs, SB 123 defined the duties of those organizations and mandated RCA's reapproval of certain interconnected large energy facilities.

see SB 123 REGS page 8

Oil Search shareholders reject climate res by 90% at annual meet

At Oil Search Ltd.'s annual meeting in Melbourne on April 30, a climate change resolution directing the company to spell out plans to phase out oil and gas operations was rejected by 90% of the votes cast. A renumeration report was likewise voted down by 54% despite the fact the company reduced board and management fees and salaries by 20% for six months following last year's oil price crash.



KEIRAN WULFF

Oil Search's chief executive, Managing Director Keiran Wulff, also told virtual and actual attendees of

see SHAREHOLDER VOTES page 10

Canada, US, head to showdown; Enbridge ponders Line 5 alternates

The United States and Canada seem to be stumbling blindly into an energy showdown without precedent as the clock runs down on Michigan Governor Gretchen Whitmer's order for Enbridge to shut its Line 5 on May 13.

If Whitmer succeeds in her resolve to cut off 540,000 barrels per day of shipments from the Alberta oil sands to Ontario and Michigan, the Canadian government of Prime Minister Justin Trudeau has given no indication how it will respond and what options are at its disposal.

There have been only inconclusive attempts to open discussions at the highest level between the administrations of Trudeau and President Joe Biden, casting a shadow over the relationship between the two leaders.

see LINE 5 SHOWDOWN page 9

FINANCE & ECONOMY

ANS, Brent near \$70

Summer travel beckons in US, Europe; April ends with oil 7.5% higher

By STEVE SUTHERLIN

Petroleum News

Alaska North Slope crude slipped 42 cents May 5, to close at \$68.84 per barrel, while West Texas intermediate crept 6 cents lower to \$65.63, and Brent rose 8 cents to \$68.96.

Prices settled lower after spirited trading earlier in the day that saw Brent prices loft to \$69.81, just 19 cents shy of the \$70 mark. WTI traded above \$66 before falling back.

The surge reflected positive pandemic news from the United States and Europe that lifted hopes of a strong summer travel season.

The May 5 action capped two strong days of gains to open the week that featured ANS notching a clos-

ing price above \$69 and the indexes hitting sevenweek highs.

ANS jumped \$1.45 May 4 to close at \$69.26, while WTI and Brent each gained \$1.20 to close at \$65.69 and \$68.88, respectively.

On May 3, ANS rose 98 cents to \$67.81, WTI rose 91 cents to \$64.49, and Brent rose 31 cents to \$67.56.

Each of the three indexes gained just over a dollar on April 29 to the highest level in six weeks but gave the gains — and a few cents more — back April 30. Nonetheless, April was positive for oil prices, with WTI up 7.5% for the month.

U.S. domestic air travel was up in April as well. The number of passengers processed by the U.S. Transportation Security Administration averaged 1.4

see OIL PRICES page 11

EXPLORATION & PRODUCTION

Conoco Q1 earnings up

In Alaska, GMT2 progresses, Willow FID on hold pending resolution of legal issues

By KRISTEN NELSON

Petroleum News

ConocoPhillips issued first quarter results May 4, including an update on its activities in Alaska, with 2021 corporate earnings up from first quarter 2020.

In Alaska, the company RYAN LANCE said, drilling at CD5 contin-

ued, with progress on Greater Mooses Tooth 2 infrastructure in advance of planned second quarter drilling.

At Willow, however, work toward a final investment decision is on hold pending resolution of legal



NICK OLDS

issues

Ryan Lance, the company's president and chief executive officer, said in response to a question during the Q&A segment of the analysts' call that the company is still looking at potentially marketing some of its Alaska position, but said that, more broadly, ConocoPhillips is combing

through its portfolio and continually high grading.

Lance said they would have more to say on that in June. ConocoPhillips had previously planned a

see CONOCO EARNINGS page 11

INTERNATIONAL

China's threat to Arctic

Canadian official: China will 'stop at nothing' to gain access to resources

By GARY PARK

For Petroleum News

As China spreads its sphere of influence and control around the globe, unease is growing within the Canadian government, especially when it comes to Arctic sovereignty.

A leading Defense Department official told an Ottawa conference on security and defense that Beijing is turning its attention to the Northwest Passage as the rapidly shrinking icepack opens up Arctic sea lanes to shipping and resource development, including fish, petroleum and rare minerals.

Deputy Minister Jody Thomas said, "we should not underestimate at all the threat of resource exploitation in the Arctic by China in particular."

"China has a voracious appetite and will stop at

nothing to feed itself," she said, putting the pressure on Canada to exploit the untapped Arctic resources faster than the Chinese.

Joint strategy

China's aims of taking advantage of minerals in Canada's Far North prompted a joint U.S.-Canada strategy to reshape global critical mineral supply chains and reduce reliance on China for the rare minerals

Indicating its concern in December over its national security in the Arctic, Canada rejected the takeover of an Arctic gold mine that would have given Shandong Gold Mining, a state-controlled Chinese company, a foothold in the Northwest

see ARCTIC THREAT page 10

EXPLORATION & PRODUCTION

Hilcorp submits 42nd POD for Cannery Loop

Production averaged 5.1 million cubic feet per day in 2020, 1.86 billion cubic feet for the year, an increase from 1.77 bcf in 2019

By KRISTEN NELSON

Petroleum News

ilcorp Alaska has submitted the 42nd plan of development for the Cannery Loop unit on the Kenai Peninsula, a POD covering Aug. 1, 2021, through July 31, 2022.

Cannery Loop produces natural gas.

In 2020, Hilcorp said, production averaged 5.1 million standard cubic feet per day, with cumulative production for the year of 1.86 billion cubic feet.

Alaska Oil and Gas Conservation Commission records show cumulative production of 208.25 bcf over the life of the field. Production in 2019 totaled 1.77 bcf. In March, the most recent month for which AOGCC data is available, Cannery Loop accounted for 2.2% of Cook Inlet natural gas production.

2020 plan work

Hilcorp said in a summary of 2020 activity that it is evaluating new information from the November 2019 drilling of the CLU 14, along with the CLU 15 well in progress, both

targeting the eastern portion of the structure in the Middle/Lower Beluga sands. There are secondary targets in the Sterling sands. The company said data from the wells "will provide new insight into the shape and size of the eastern flank of the Beluga and Tyonek structures."

The company re-perforated the UT-5A sand in the CLU 1RD and saw a production increase of some 160 thousand cubic feet, mcf, per day. A rig workover pulled existing tubing in the CLU 14 and installed a smaller tubing "to aid in unlading produced water." The project, finished in October, was successful in reducing water slugging in the well, the company said, but production dropped slightly. In December, additional perforations were added in the Lower and Middle Beluga sands and productivity was increased by some 2,200 mcf per day. The company said additional perforations were planned in April.

A rig workover was done at the CLU 5RD in July, but the company said the "project failed to produce sustained gas production," while additional perforations in the Upper Beluga in October "produced water and failed to sustain gas production. Additional perforations are being added in April 2021 to attempt to unload the well and

return it to production."

The company has perforations planned for the CLU 11 to unload and return the well to production.

A recompletion to the Beluga sands is planned for the CLU 1RD in May.

Also in the 2020 POD, the CLU 6RD was drilled and completed in the Sterling A and B sands, with several of the sands perforated, but the perforations all resulted "in a combination of water and sand production," and the company said it is evaluating the future utility of that well.

CLU Pad 3 was reactivated for operations, requiring infrastructure to be put back into operation.

A sales compressor had been planned for CLU Pad 1, but that compressor was not installed. Hilcorp said the project "was later deemed unnecessary at this time and no further plans are in place to execute this project."

2021 POD

Long-range development activities include evaluation of additional wells, with one potential a sidetrack of CLU 10 to

see CANNERY LOOP page 3

contents

Petroleum News

Alaska's source for oil and gas news

ON THE COVER

ANS, Brent near \$70

Summer travel beckons in US, Europe; April ends with oil up 7.5%

Conoco Q1 earnings up

GMT2 progresses, Willow FID on hold pending legal resolution

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EXPLORERS 2021 PREVIEW

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EXPLORATION & PRODUCTION

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Division OKs Nikolaevsk unit termination

Hilcorp will continue production of natural gas at field as lease operation from existing Red 1 well; no further drilling planned

3 Weekly US rotary rig count up by 2 to 440

PIPELINES & DOWNSTREAM

Yeager new hire at Alyeska Pipeline

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• EXPLORATION & PRODUCTION

Division OKs Nikolaevsk unit termination

Hilcorp will continue production of natural gas at field as lease operation from existing Red 1 well; no further drilling planned

By KRISTEN NELSON

Petroleum News

A April 26 request from Hilcorp Alaska to terminate the Nikolaevsk unit was approved May 3 by Alaska Division of Oil and Gas Director Tom Stokes.

In its termination request to the division, Hilcorp said it wanted to transition to lease operations at the field.

A single natural gas well at the unit on the Kenai Peninsula, Red No. 1 — the only producing well at the field — will continue to produce. Hilcorp Alaska is the operator and 100% working interest owner Nikolaevsk.

The Alaska Department of Natural Resources approved formation of the Nikolaevsk unit in January 2004, with Union Oil Company of California as operator. The unit initially included nine state leases and two Cook Inlet Region Inc. leases, a total of 15,811 acres.

Unocal drilled the Red No. 1 well in July 2004 and completed it as a single-completion Tyonek formation gas well, Hilcorp said. "The well was tested and no sustained production occurred," although there were indications of resource potential in the surrounding area.

Unocal drilled and completed the Red No. 2 in September 2004, but there were no measurable hydrocarbons present when the well was tested, Hilcorp said.

The Nikolaevsk unit was contracted in March 2006 to exclude four DNR leases, reducing its size to 7,686 acres and was further contracted in 2009 to some 5,766 acres, four DNR leases and two CIRI leases.

DNR approved an extension of the unit term for two years in 2009 but denied formation of the Red participating area in 2011. Hilcorp said DNR did not believe formation of the PA would bring the unit into sustained production as the Red No. 1 was shut-in. That same year, the unit was contracted to three DNR leases, some 2,565 acres, which, Hilcorp said, is the current size of the unit.

Hilcorp became operator of the unit in

The other existing well, Red No. 2, is shut-in, Hilcorp said, "and will be evaluated as a possible service well in the future."

2012 and later that year brought Red No. 1 into sustained production, following construction of a pipeline from the Red Pad. At that time, the company said, the well was producing on a tract-operation basis, with DNR approval, extending the term of the unit. Units have a 10-year mandatory term for contraction from the beginning of sustained production.

"Since Hilcorp found sustained unit production in the Red No. 1 Well, no other production from any other well has occurred," the company said. There is no existing participating area for the unit, so the Red No. 1 "continued to produce on a tract operation basis."

Plan going forward

Hilcorp said the plan going forward includes: terminating the unit; continuing production from Red No. 1 on a tract basis "under the existing lease terms"; Red No. 1 production allocated to two leases, 75% to 240 acres of the 320-acre ADL 390514 and 25% to 80 acres of the 320-acre ADL 389227; the terms of the two leases would be extended by production; current unit plan of development and plan of operations would be converted to lease POD and lease POO - with no changes in the current lease POD for 2021-22; Hilcorp would notify DNR prior to May 1 of each year of any changes in the lease POD.

Hilcorp said the plan proposed is intended to "reduce administrative burdens for both DNR and Hilcorp, and simplify the process moving forward." The company said it has no plans to drill additional wells at Nikolaevsk and believes current production, from Red. No. 1, "is the only likely production to occur from the NU area."

The other existing well, Red No. 2, is shut-in, Hilcorp said, "and will be evaluated as a possible service well in the

future."

Stokes said the division recognizes the unit POD and POA as the lease POD and POA, with the lease POD effective May 1, 2021, through April 30, 2022, and an annual update required each year on or before May 1.

Production history

Alaska Oil and Gas Conservation Commission records show annual production peaked at Nikolaevsk in 2013, the year after Hilcorp brought the field online, at 399,775 thousand cubic feet total for the year. A compressor was installed in 2014, with production totaling 171,852 mcf in that year, but continued to fall, totaling just 80,850 mcf in 2015, and dropping to 54,554 mcf in 2016.

A fracture stimulation in 2017 resulted in a total for that year of 210,968 mcf, but production again dropped, to 184,860 mcf in 2018, 160,754 mcf in 2019 and 131,422 mcf in 2020. ●

Contact Kristen Nelson at knelson@petroleumnews.com

EXPLORATION & PRODUCTION

Weekly US rotary rig count up by 2 to 440

The Baker Hughes U.S. rotary drilling rig count, 440 on April 30, was up by two from 438 the previous week and up by 32 from a count of 408 a year ago.

When the count bottomed out at 244 in mid-August last year, it was not just the low for 2020, but the lowest the count has been since the Houston based oilfield services company began issuing weekly U.S. numbers in 1944.

Prior to 2020, the low was 404 rigs in May 2016. The count peaked at 4,530 in 1981.

The count was in the low 790s at the beginning of 2020, 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 it gained back 10 rigs.

The April 30 count includes 342 rigs targeting oil, down by one from the previous week and up by 17 from 325 a year ago, 96 rigs targeting gas, up by two from the previous week and up by 15 from 81 a year ago, and two miscellaneous rigs, up by one from the previous week and unchanged from a year ago.

Twenty-three of the holes reported April 30 were directional, 398 were horizontal and 19 were vertical.

Alaska unchanged from previous week

Louisiana (49) was up by two rigs from the previous week; Texas (212) was up by one.

New Mexico (70) was down by a single rig.

Counts in all other states were unchanged from the previous week: Alaska (3), California (7), Colorado (10), North Dakota (15), Ohio (10), Oklahoma (21), Pennsylvania (18), Utah (8), West Virginia (11) and Wyoming (4).

Baker Hughes shows Alaska with three rigs active April 30, unchanged from the previous week and unchanged from a year ago, when the state's count also stood at three.

The rig count in the Permian, the most active basin in the country, was down by two from the previous week at 224 and up by five from a count of 219 a year ago.

—KRISTEN NELSON

continued from page 2

CANNERY LOOP

target Deep Tyonek sands, Hilcorp said, noting that potential timing for the well "is dependent upon current risked resource and economics, market demand, pipeline capacity, and competitiveness within Hilcorp's gas project portfolio."

The company is evaluating new information and production results from the CLU 6RD along with other "intervention/recompletion activity."

Hilcorp said it "will evaluate and execute additional well work opportunities as they arise," with rig workovers or additional perforations "evaluated as necessary to maintain and enhance existing CLU production."

No major facility projects or upgrades are planned for the 2021 POD period, the company said. ●

Contact Kristen Nelson at knelson@petroleumnews.com



EXPLORERS MAGAZINE PREVIEW

Hilcorp flips script to do some exploring

Company known for reviving aging fields increasing using development knowledge to explore, including old prospects, its own ideas

By ERIC LIDJI

For Petroleum News

Hilcorp Alaska LLC often blurs the line between exploration and development.

The company is best known for reviving aging oil and gas fields. But that doesn't mean it has been content to work exclusively within the boundaries of its existing properties.

Over the past 10 years, the Alaska unit of the large privately held Texas-based independent has increasingly pursued opportunities beyond its existing developments.

Sometimes this work has investigated promising prospects long-since abandoned by previous operators. Sometimes Hilcorp has followed-up on its own theories and ideas.

Hilcorp initially looked just beyond its units, but it is increasingly sniffing further afield.

Over the past 25 years, many new companies have come to Alaska with an urge to explore. The lucky ones make a discovery, and the diligent ones shifted to development.

In some sense, Hilcorp moved in the opposite direction.

It spent years studying the underlying geology of Alaska through development work, and then it applied that knowledge to its holdings to seek out



possible exploration prospects.

Case in point: its study of drainage

Through its initial acquisition of Alaska properties, Hilcorp became the operator of the legacy Swanson River oil field. Soldotna Creek circles an important producing section of the field. "It's hard to avoid seeing the importance of drainage anomalies when you see this," Hilcorp Senior Geologist Dave Buthman said. "A full half of the production of Swanson River has come from this circular drainage anomaly." The company found similar anomalies where Deep Creek flows at the Happy Valley field and around the Anchor River at the new Seaview field.

It can sometimes be difficult to deter-

Ninilchik was one of the first big projects Hilcorp undertook in Alaska. The company drilled four wells at the southern end of the unit under its 2013 plan of development.

mine which Hilcorp's projects are exploration and which are development. Only eight of the 767 Alaska Oil and Gas Conservation Commission drilling permits issued to Hilcorp have been listed as "exploratory" by the agency, with another 28 listed as "stratigraphic test" and one listed as "unclassified."

But when you look at the activity on the ground, a lot of the projects Hilcorp has undertaken in Alaska have the spirit of exploration: searching, without any guarantees.

To date, these exploration-like projects have generally been in the Cook Inlet, where Hilcorp started its Alaska career. But the company is also sniffing around exploration opportunities on the North Slope, including one of the big legacy projects in the basin.

Ninilchik

The earliest foray into exploration came in 2013 and 2014, just a few years after Hilcorp arrived in Alaska through its purchase of Unocal's and Marathon's Cook Inlet portfolios.

Included in the original Unocal acquisition was the Ninilchik unit. The onshore field runs along the coastline south of the city of Kasilof in the southern Kenai Peninsula. Chevron discovered natural gas in the Tyonek formation in June 1961. Marathon discovered two other nearby fields in 2001 and 2002 and subsequently pursued a development program.

The state formed the Ninilchik unit in 2001 and expanded it to include the former Falls Creek unit in 2003. At that time, the state also formed three Ninilchik participating areas: Falls Creek, Grassim Oskolkoff and Susan Dionne. Susan Dionne was expanded in 2007.

Ninilchik was one of the first big projects Hilcorp undertook in Alaska. The company drilled four wells at the southern end of the unit under its 2013 plan of development

Although the AOGCC only listed three of those wells as exploratory, all four were part of the same campaign: an effort to learn more about the existing gas fields and to explore the potential for oil. The oil exploration was non-commercial. But the results of the gas wells convinced Hilcorp to consider expanding participating areas and building new pads.

The overall results of the program encouraged Hilcorp. The company initially proposed a six-well exploration program in its 2014 plan and later expanded the program to 11 wells.

As before, the AOGGC classified the entire program as "development," although Hilcorp described the drilling as exploratory. The results of the program once again prompted the company to expand its existing development infrastructure by building new drilling pads.

With its 2015 plan, the nature of the work had shifted. Hilcorp was now describing its upcoming plans as development and delineation work, which has been the case since.

Deep Creek

The exploration needs at the Deep Creek unit were even more pressing than Ninilchik.

Contraction was pending at unit when Hilcorp acquired it. Around the time of the closing of the deal, the state Division of Oil and Gas and Cook Inlet Region Inc. gave Hilcorp six additional months to follow through on its predecessor's exploration commitments.

Existing data suggested the presence of a Middle Happy Valley prospect, south of the producing Happy Valley reservoir. A 2007 report from Netherland, Sewell & Associates estimated probable reserves of 22 billion cubic feet for the entire unit area, suggesting undiscovered reserves in the south. The state wanted exploration on those leases.

Union Oil Company of California brought the Deep Creek unit online in 2004 and drilled some 13 wells between 2003 and 2009. But the company soon lost interest. It included no exploration plans in the final plan of development it submitted for the unit, and the state was requiring exploration activities to be included in whatever unit plan was filed next.

Hilcorp made Deep Creek one of its early priorities. The company drilled three wells and worked over another four wells, added several producing horizons. A 3D seismic survey conducted over 50 square miles of the unit suggested that the resources at Happy Valley were "probably three to four times larger than the current participating area," Senior Vice President for Alaska John Barnes told the Anchorage Energy Task Force in June 2013.

Following the initial development work, Hilcorp shifted to exploration.

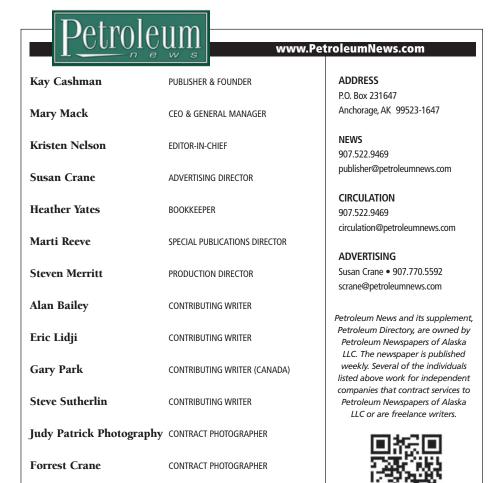
After unsuccessfully attempting to expand the unit to include nearby CIRI leases, the company proposed an exploration program from a newly constructed C pad in 2014 and a Middle Happy Valley No. 1 exploration well in 2015. Those projects would have satisfied work commitments, but the company delayed its plans, citing market conditions.

Greystone and Seaview

Hilcorp announced a standalone exploration effort in early 2016. The

see EXPLORERS PREVIEW page 6





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Thumbs up 88 Energy & Pantheon Resources!

We salute the work you did at the Merlin 1 and Talitha A wells.

Your Alaska subsidiaries were the only oil companies that drilled exploration wells this past winter on Alaska's North Slope. Your encouraging well results give Alaskans hope for the continued success of the oil and gas industry in this state.









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Lynden Inc.

Lynden International

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Maritime Helicopters

Nabors Alaska Drilling

NANA Worley

NEI Fluid Technology

Nordic Calista

North Slope Borough

North Slope Telecom

Northern Air Cargo

Northern Solutions

NRC Alaska, a US Ecology Co.

Oil Search

PND Engineers, Inc.

PRA (Petrotechnical Resources of Alaska)

Price Gregory International

Raven Alaska - Jon Adler

Resource Development Council

SALA Remote Medics

SeaTac Marine Services

Security Aviation

Shoreside Petroleum

Soloy Helicopters

Sourdough Express

Strategic Action Associates

Tanks-A-Lot

Weston Solutions

Wolfpack Land Co.

Yukon Fire Protection

continued from page 4

EXPLORERS PREVIEW

company drilled the 13,500-foot deviated Greystone No. 1 well from the new Bartolowitz pad that summer on Cook Inlet Region Inc. leases just beyond the southern border of the Deep Creek unit.

Although located on acreage outside any existing unit, the Greystone well supported unit development. The results convinced the state to defer a contraction at Deep Creek.

"Based on the Greystone well results, Hilcorp is narrowing its focus in the Middle Happy Valley area to target Undefined Sterling and Beluga formations," Division of Oil and Gas Director Chantal Walsh wrote in December 2016, in a decision to defer contraction until June 2017. "Hilcorp now plans to drill six to eight stratigraphic wells to shallow depths in the winter of 2017 in an attempt to better understand the formations' structure. All the stratigraphic wells will be drilled to the south of the Happy Valley Participating Area."

The appraisal program came the following year, when Hilcorp drilled seven stratigraphic test wells at the Seaview prospect, south of Anchor Point and the Cosmopolitan unit.

Hilcorp had actually been interested in the area for a while. The company acquired an aerial gravity and magnetics survey in 2015 "in order to understand dry holes in the area," as the company later revealed, and also 20.54 miles of 2D seismic shot in 2016.

Following the shallow stratigraphic program, Hilcorp built the Seaview pad on private land and planned two 10,000-foot directional exploration wells. The Seaview No. 8 well targeted both oil and natural gas, and the Seaview No. 9 well targeted only natural gas.

The company described the wells as having three phases: a directional section through the Lower Sterling and Beluga formations; a deeper lateral through the Lower Tyonek, Hemlock and deeper formations; and perforation and flow-back testing on the wells.

Seaview No. 8 discovered commercial quantities of gas in four zones the Tyonek formation, leading Hilcorp to shift toward development activities at the prospect.

The company later explained that the shallow stratigraphic wells were a way of triangulating the ideal location for a deeper well. "We logged them, correlated them, mapped them, and we drilled our discovery well: Seaview No. 8," Hilcorp's Buthman told the Alaska Geological Society after the season.

Hilcorp originally intended to bring Seaview into production in November 2020, but construction delays on an associated 2-mile pipeline pushed the startup to this summer.

Hilcorp followed the Seaview program with two stratigraphic test wells near Deep Creek — Deep Creek SW 3 and Deep Creek SW 4. But the results of the Greystone and Seaview programs had

REDOUBT NIKISKI Peninsula isty Lee KENAI STERLING OLDOTNA egend - Southern Kenai Peninsula Proposed Whisky Gulch Pad Centroid NINILCHIK, lilcorp Pipelines (KBPL) **ENSTAR Pipelines** Kenai Peninsula Proposed Whiskey Gulch Pad Centroid LAT: 59.812599 NAD 1983 **ANCHOR** POIN HOMER KENAI NATIONAL Proposed Whiskey Gulch Pad Location Kenai Peninsula Borough Cook Inlet Alaska

made Hilcorp think differently about Deep Creek. "Both these new field wildcats changed our ideas about successful trap types and reservoirs," the company told the state. Instead of pursuing traditional exploration, the company wanted to combine seismic with shallow exploration in the Lower Sterling and Upper Beluga.

The state was unconvinced by the plan. In mid-2019, after years of deferrals, the Division of Oil and Gas contracted the unit down to its participating area and producing leases.

Seaview was among the first instances where Hilcorp applied its overall philosophy to a standalone Alaska exploration target. Buthman said Hilcorp had used modern airborne gravity gradiometry and magnetic surveys, along with geologic field surveys, drainage anomaly studies and seismic surveys to optimize well locations. In his talk, he said that the company would be considering other exploration opportunities such as the Blackbill prospect in the lower Cook Inlet, as well as possible opportunities in Iniskin Bay.

Whiskey Gulch

Hilcorp drilled five stratigraphic test wells at the Whiskey Gulch prospect on private land north of Anchor Point in late 2019 and with eight more the following year. Earlier this year, the company proposed a two-well exploration program at Whiskey Gulch. The 10,000-foot wells would target gas (and some oil) from a new Whiskey Gulch pad.

"The team is very excited about this one," Hilcorp Alaska Kenai team lead Jennifer Starck said on Feb. 19, at an Alliance Kenai digital luncheon. "The thing that's most exciting about this one is ... it's all on roads, with a very known, feasible connect point for Enstar, which gets that gas right off to market quickly; that being said, you're still talking about two to three years between right of way,



continued from page 6

EXPLORERS PREVIEW

installation, and permitting."

The state Division of Oil and Gas approved a plan of operation for the project in mid-March 2021. The plan includes a pad and two wells at ADL 392664 and ADL 392666.

Under the plan, Hilcorp would build a 2.75-acre gravel pad (300-foot by 400-foot) this April, drill the first well in May with testing in June and the drill the second well in July with testing in August, following by suspension of the wells and general demobilization.

The 10,000-foot Whiskey Gulch No. 1 well would target oil and gas to the southeast of the pad. The 10,000-foot Whiskey Gulch No. 14 well would target gas to the northeast.

The project should not be confused with the Whiskey Gulch unit formed on the North Slope by Brooks Range Petroleum Corp. in 2005 and terminated late the following year.

Iniskin Peninsula

The Iniskin Peninsula across Cook Inlet from Kachemak Bay is one of Alaska's known oil accumulations that has remained undeveloped for logistical reasons.

Despite surface indications of oil in the area, exploration drilling in the early 1900s, the 1930s and the 1950s all failed to make a commercial discovery. The problem was low rate of oil flow, a challenge that Hilcorp now suspects could be alleviated by technology.

Hilcorp brought modern exploration to the area in 2013, when it conducted a 2D seismic survey, providing the first information about subsurface structure and stratigraphy.

The survey suggested to Hilcorp that previous drilling might have missed a deeper crest of an anticline in the area. The earlier drilling reached a higher section of the anticline.

Compensating for the low flow rate is the nature of the rock. Current considerations are focusing on two sections — 1,292 and 300 feet thick — of the Middle Red Glacier formation of the Jurassic Tuxedni group, which sources most of the Cook Inlet oil fields

Those rock sections are within the thermal window for oil and also have fractures consistent with fluid transport. They share characteristics with the Wolfcamp shale in the Permian basin of Texas, opening the possibility of a tight oil development at the Iniskin Peninsula. The company is also interested in various sandstone formations in the area.

The Iniskin Unit Zappa No. 1 well drilled by Alaska Consolidated Inc. in 1958 had large gas shows and tested between 100 and 400 barrels of oil per day from the Tuxedni.

The next step for Hilcorp is an exploration well. While drilling in the area would be straightforward, moving equipment and personnel would present a logistical challenge.

"We don't like the reservoir, nobody does," Buthman explained, "but what we like is you've got about 9,000 feet of source rock there, right along the Bruin Bay fault in a similar structural position to the largest oil field in the basin which is McArthur River, which made about 650 million barrels of oil so far. That was our analog there."

Cook Inlet OCS

Hilcorp is also pursuing a prospect in the Cook Inlet outer continental shelf.

The company acquired 14 leases in the lower Cook Inlet southwest of Kachemak

Seaview was among the first instances where Hilcorp applied its overall philosophy to a standalone Alaska exploration target.

Bay in a June 2017 sale and has recently been permitting exploration over some of the acreage.

The U.S. National Marine Fisheries Service granted early permission for a multiyear program including a 3D seismic work, site clearance and drilling over several years.

Hilcorp conducted the offshore 3D seismic program in the summer of 2019, revealing a 65,000-acre, four-way closure with the oil discovery at the top. The company received a Bureau of Ocean Energy Management permit in May 2020 to conduct a geohazard site clearance survey over 11 leases in the area, covering approximately 88 square miles.

The work was ultimately delayed by the restrictions brought about during the coronavirus pandemic. Earlier this year, the company applied for a new permit for this summer.

The next step is using the Seadrill West Epsilon jack-up rig to drill between two and four exploration wells in the coming years. Although the Cook Inlet basin is currently home to two jack-up rigs — Spartan 151 and Randolph Yost — both are apparently restricted to drilling in shallower waters, whereas Seadrill West Epsilon can stand in nearly 400 feet.

The Blackbill prospect, as Hilcorp is calling it, would follow-up on the Raven No. 1 well drilled by ARCO Alaska in 1982. The prospect sits due west of the town of Homer.

Blackbill sits in a Cretaceous reservoir within the Mesozoic sequence and would be the first commercial production from a Cretaceous reservoir in the Cook Inlet basin.

Buthman described the four-way structure as "beautiful" but noted that the reservoir is shallow, "and that's why ARCO really didn't develop it at the time," he said.

OCS exploration is somewhat rare in Alaska and has been even rarer in Cook Inlet.

Blackbill lies considerably south of the current terminus of producing fields in the region — the Cosmopolitan unit and the Seaview unit. But it is north of the Augustine-Seldovia Arch, which serves as a geologic dividing line in the region. South of the arch, the Tertiary strata underlying the producing Cook Inlet fields begins to thin out.

The program is currently involved in some litigation.

The company applied in 2018 for National Marine Fisheries Service authorization under the Marine Mammal Protection Act to take marine mammals by harassment caused by noise generated by oil and gas activities, including 2D seismic exploration in Cook Inlet and drilling exploration and development wells from a rig to be transported by tugboats

The program covered drilling in the lower Cook Inlet and the Trading Bay region.

Cook Inletkeeper and the Center for Biological Diversity challenged the approval, saying that it violated several federal laws, including the National Environmental Policy Act.

In late March, U.S. District Judge Sharon L. Gleason upheld the authorization but required some additional mitigation measures to account for noise cause by the tugboats.

North Slope

Through a separate series of deals with BP Exploration Alaska Inc., Hilcorp Alaska expanded its holdings in the state to include a large portfolio of North Slope properties.

Through the two stages of the sale, Hilcorp acquired operatorship of the Prudhoe Bay unit, the Milne Point unit, the Northstar unit and the Liberty unit, as well as major interests in the ExxonMobil-operated Point Thompson unit and exploration leases in the 1002 area of the Arctic National Wildlife Refuge — plus a range of midstream assets.

As with Cook Inlet, Hilcorp has been focusing on reviving existing assets, particularly those at Milne Point and to a lesser extent Northstar and Duck Island. And with the recent acquisition of acreage in and operatorship of the Prudhoe Bay unit, Hilcorp's workload increased considerably.

The most notable exploration prospect to come from the acquisition is ANWR.

When Congress created the 19 million acre refuge in 1980, it marked 1.57 million acres of coastal plain for resource development, known as Area 1002, after a section of the law.

To date, only one well has been drilled in the area. Chevron and BP partnered in the mid-1980s on the 15,193-foot KIC No. 1 well, drilling the \$40 million well over two winter seasons on a 92,000-acre lease of Native land in the 1002 area. Arctic Slope Regional Corp. owns subsurface rights at the lease and local village corporation Kaktovik Inupiat Corp. owns surface rights. The KIC well was named after the village corporation.

In the three decades since, the KIC No. 1 well has become mythic for its secrecy. Only select people at Chevron, BP and

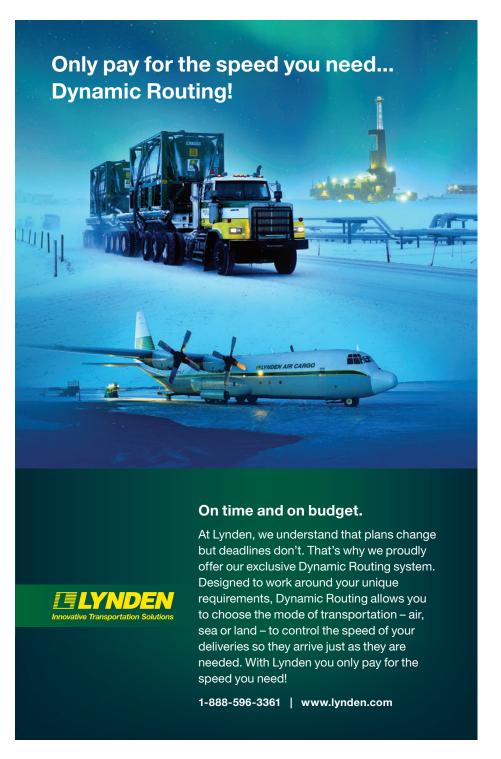
ASRC, as well as a few State of Alaska geoscientists, are believed to have seen the well results. A slightly larger group of companies — BP, Chevron, Anadarko, ConocoPhillips, ExxonMobil, Hess, Marathon, Murphy, Oxy, Shell and Total — have also seen the results of a 2D seismic survey conducted over the area.

When the two companies renewed the KIC No. 1 lease in 1999, executives vaguely touted the quality of the prospect. In a press release at the time, then-Exploration Vice President for BP Exploration Alaska Neil Ritson said, "ANWR offers the greatest potential for a world-class oil discovery on the North Slope," while then-Exploration Manager for Chevron Dave Birsa said, "The ANWR coastal plain ... is on trend with the prolific oil fields of the central North Slope and has significant geological potential."

Over the course of its existence, the ANWR coastal plain has become a symbol in the debate over American energy and environmental policy. Some see ANWR as a major source of domestic energy and jobs. Others see it as a plunder of wild lands at a time when the world should be shifting away from extracting hydrocarbons for energy.

Those opinions are increasingly aligned with parties. Today, it is generally understood that Democratic administrations will limit ANWR development while Republican administrations will advance it. The needle moved toward extraction in the mid-2000s, during the Bush administration, and again in recent years, during the Trump administration, and away from it during the Clinton, Obama and now the Biden administrations. •

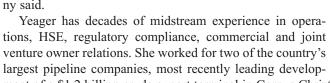
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PIPELINES & DOWNSTREAM

Yeager new hire at Alyeska Pipeline

Alyeska Pipeline Service Co. said May 5 that Danika Yeager has joined the company as vice president of operations and maintenance. Yeager will be responsible for safe, effective and efficient maintenance and operations of Trans Alaska Pipeline System facilities, including pump stations, response bases and the Valdez Marine Terminal, the company said.





DANIKA YEAGER

ment of a \$1.2 billion crude export terminal in Corpus Christi, Texas.

"I am thrilled that Danika has joined Alyeska," said Alyeska President Brigham McCown. "She brings a diversity of advanced knowledge about our industry, with experience leading successful teams and overseeing complex systems. She is looking forward to the challenge and opportunity to work at Alyeska, and we are excited to have her skills and commitment on TAPS."

—PETROLEUM NEWS

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continued from page 1

SB 123 REGS

After opening a single proceeding to develop regulations the commission said April 29 in the order on the regulations, it "decided to stagger consideration of implementation issues related to SB 123, opening three separate dockets to separately consider aspects of the regulations necessary to implement SB 123."

The separate dockets focused on:

- •ERO board composition and competency issues;
- •Integrated resource planning and project preapproval; and

•Issues related to tariff provisions and enforcement procedures for reliability standards, open access and transmission, transmission cost recovery and certain ERO rules and regulations.

The commission has held technical conferences to solicit input on regulations and said it has received numerous com-

Proposed regulations

RCA said the draft regulations "propose a comprehensive regulatory scheme

Under SB 123 RCA regulations must allow an ERO to recover its costs through surcharges on rates of participating LSEs and the regulations address tracking ERO operating costs and the allocation of those costs to LSE customers.

for the activities of regional EROs operating in Alaska," and address establishment of EROs and provide oversight to ensure the EROs that are established meet requirements under SB 123.

Interconnected load-serving entities, LSEs, may seek a waiver from the requirement to form an ERO or petition for the formation of an ERO and the regulations address those procedures.

If an ERO is not formed the regulations also address circumstances under which RCA could be required to form an

There are requirements related to ERO operations "including provisions intended to ensure members of the board of directors for an electric reliability organization act independently of the users, owners, and operators of the interconnected network."

There are also provisions for enforcement of reliability standards approved by the ERO and RCA and related penalties. Integrated resource plans are required and the regulations include development of those IRPs.

The regulations address preapproval parameters and requirements for large energy projects when RCA approval is required and the required content for an ERO tariff.

Under SB 123 RCA regulations must allow an ERO to recover its costs through surcharges on rates of participating LSEs and the regulations address tracking ERO operating costs and the allocation of those costs to LSE customers.

The statute requires that ERO tariffs "must include standards for nondiscriminatory open access transmission and interconnection, and for transmission system cost recovery."

RCA said it will post a copy of comments received on its website.

-KRISTEN NELSON

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continued from page 1

LINE 5 SHOWDOWN

Meanwhile, Whitmer has dug in on her deadline, citing the environmental risk of a possible leak in a 4-mile stretch of Line 5 that passes under the Straits of Mackinac in the Great Lakes, while refusing to engage in any public discussion or answer media questions.

In operation almost 70 years

Line 5 has been in operation for almost 70 years without ever leaking into the straits, although the U.S. Pipeline and Hazardous Material Safety Administration has logged eight minor spills from the pipeline since 1980

The Trudeau government has pledged to wage a public fight to keep Line 5 open and save a key link in deliveries of heating fuels to Michigan and to Ontario, catering to a combined population of 40 million.

The issue comes less than four months after Biden unilaterally halted work on the Keystone XL pipeline as part of his climate change strategy to reduce greenhouse gas emissions. His refusal since then to engage in bilateral talks on energy matters has troubled and frustrated law-makers at Canada's federal and provincial levels.

Canada's Ambassador to the U.S. Kirsten Hillman and federal Infrastructure Minister Catherine McKenna have met separately with Whitmer, but on both occasions the governor refused to budge.

Canada exports

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Computing Alternatives

Canada has been a mainstay of U.S. imports of oil and

natural gas since the 1960s, currently exporting 3.7 million barrels per day of crude to the U.S., about 80% of Canada's output.

A spokesman for Canada's Natural Resources Minister Seamus O'Regan said in late April that the fate of Line 5 has been discussed at 23 virtual meetings involving members of Trudeau's cabinet and high-level officials and the U.S. Congress, without yielding any results

O'Regan has said the future of Line 5 is "non-negotiable," while limiting himself to only vague hints that Canada is prepared to invoke an obscure 1977 bilateral treaty to stop the U.S. or Canada from impeding the cross-border flow of oil.

However, the Canadian Environment Minister Jonathan Wilkinson has also indicated there is less than unity within the Trudeau cabinet.

"Clearly Line 5 is an important issue for the government of Canada," he said. "At the same time, we need to be advancing on a cooperative basis the work we're doing on climate action."

To Canada's petroleum industry and the Alberta government, those remarks are viewed as clear evidence that the balance of opinion among Trudeau's domestic allies, including within his own government, tilts decisively to Biden's climate priorities.

Wilkinson spoke to Biden's climate envoy John Kerry on Feb. 24, without making any headway on Line 5.

"The issue in Michigan is the governor," Wilkinson said following the discussion.

Since then Kerry and the White House have refused requests for comment.

Calgary-based Enbridge has insisted it will not shut

the pipeline unless Whitmer gains the support of a judge in the U.S. federal court.

Involvement in court fight?

A Canadian government source said the Trudeau administration is considering whether to take part in the U.S. court action by filing an amicus, or "friend of the court" brief, which would lay out the reasons for backing Enbridge.

Enbridge has said shutting Line 5 would cause fuel shortages and gas price spikes and require 25,000 trucks and 800 rail cars a day to replace the 540,000-bpd capacity of Line 5.

The company also said Michigan would need truck transport to cover lost propane shipments, while refineries in Michigan and Ohio would need to secure feedstock from other suppliers, which Whitmer has insisted can be arranged.

In addition there has been talk that Enbridge could deliver crude through its mainline system to the Great Lakes and use tankers to complete the journey to its Ontario destinations.

Scott Archer, business agent with Local 663 Pipefitters Union of Sarnia, home to three Ontario refineries, told a committee of the Canadian Parliament that Line 5 is the "spinal cord of Ontario's infrastructure."

"Shutting down Line 5 will in effect kill my hometown (with a population of 71,500) ... and many more places like it in Canada and the U.S.," he said.

—GARY PARK

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Oil Patch Bits

ADVERTISER



Employees compete in sled dog races

As reported by Lynden News April 30, congratulations to Lyndensponsored racers and Knik Construction employees Richie Diehl (right) and Pete Kaiser (left), taking first and second place respectively in the Kuskokwim 300 Sled Dog Race in February. The race route was changed this year to avoid contact with three remote villages for COVID-19 precautions. Diehl won on the revised course with a record-breaking time of 36 hours and 8 minutes.

"This is a race I grew up on, and I love it. It's the biggest accomplishment in my mushing career right now," he says. Due to a schedule change he was also able to compete in and won the Bogus Creek 150 sled dog race three weeks earlier, which is customarily held the same weekend as the Kuskokwim 300.

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Maritime Helicopters

In March, Knik employees Diehl, Kaiser and Dakota Schlosser all battled harsh, negative degree weather while competing in the 2021 Iditarod. Diehl placed ninth in his ninth race outing. Kaiser, who won the race in 2019, was forced to scratch out of precaution for his dog team's health. Schlosser finished 35th in his first Iditarod race. The Iditarod course was also shortened this year due to COVID-19 restrictions with start and end points in Willow, Alaska. After the race, Lynden Air Cargo donated space on its Hercules aircraft for Iditarod race dogs flying from McGrath back to Anchorage.

In addition to his race wins, Diehl has a new beer named after him at Old Man Rush Brewery in Eagle River, Alaska. The new IPA is called the Real Diehl. "We wanted to give Richie some help and sponsor him in some way," says Reid McDonald, owner of the brewery.

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continued from page 1

ARCTIC THREAT

Passage by purchasing TMAC Resources.

The TMAC mine site is only about 60 miles from a North American Air Defense radar station in Cambridge Bay, Nunavut, that is part of a chain installations between the Pacific and Atlantic.

Thomas said Canada is sending a message to China by deploying warships in the South China Sea, a vital artery for global commerce that Beijing is trying to bring under its

control.

She said Russian activities in the Arctic are also troubling, including the construction of military bases in the Arctic region and the development of 13 polar icebreakers.

"Nobody would invest the kind of money needed to build up military capacity in the Arctic without reason, intent or purpose," Thomas said. "We should not be naïve about that."

As part of their new partnership pacts for the Arctic, Russia and China are making substantial investments in Arctic LNG exports through newly created ports, marine corridors, icebreaker tankers and nuclear icebreakers that point the way to year-round shipping.

Retired Canadian Major-General David Fraser has urged the Canadian government to establish a larger military presence in the Arctic, including round-the-clock surveillance operations using underwater vehicles and regular Navy and Coast Guard patrols.

He noted that Canada's orders for Arctic and offshore patrol vessels are of little importance since they will have only limited ice-breaking capability. •

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continued from page 1

UNALASKA GEOTHERMAL

A new geothermal resource reconfirmation well will be drilled at the site and tested in 2021, OCCP said.

Ultimately OCCP plans to drill three 13 5/8-inch diameter production wells and two 10 3/4 inch diameter injection wells to depths of approximately 2,000 feet.

OCCP said it will finalize subsea cable routing and permit requirements in 2021. Contractor TerraSond Precision Geospatial Solutions has commenced work in April with the Dutch Harbor based F/V Miss Alyssa, to perform the geophysical route survey for the project's subsea cable.

A pair of power cables and a pair of communication transmission cables will be buried underground onshore, with a subsea portion traversing 3.2 miles of the 14-mile route from the power plant to the City of Unalaska.

Unalaska power purchase agreement signed

OCCP signed a 30-year power purchase agreement with the City of Unalaska for geothermal power in 2020, it said.

The geothermal electrical generation facility is designed with a 30-year design life, to provide wholesale power which will replace existing diesel generation with zero car-



In time for summer construction, a winter storm formed an ideal new beach at the Broad Bay landing site.

bon emission green energy for the City of Unalaska and its industry, OCCP said. The target date to begin commercial operations is Oct. 13, 2023.

OCCP completed its project design criteria in 2020, establishing the specification framework for project development participants, it said.

"There is significant infrastructure at Unalaska, and it will be utilized as a base for our development scheme," the partnership said.

OCCP said it has assembled a world-class team of pro-

☐ fessionals and research for "the management and successful execution of an alternative energy solution."

The partnership has developed a class 3 level project development budget for financial investors, it said, adding that in 2021 its goal is to secure long term project financing independently or through collaborative partnership.

OCCP is an LLC partnership 51% owned by Ounalashka Corp., an Alaska Native Village corporation with approximately 500 shareholders, and 49% owned by Chena Power LLC, a privately held Fairbanks-based entity that installed the first geothermal power plant in Alaska, which serves as a demonstration of the Organic Rankine Cycle technology for rural Alaska, OCCP said.

The land and subsurface rights around the resource are controlled by Ounalashka Corp.

The project will be financed by a combination of debt and equity, OCCP said. Options currently being explored, and combinations thereof, are a sale of up to 30% equity in the LLC; 80% debt financing; financing via energy related bonds; and grants.

—STEVE SUTHERLIN

Oil Search

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continued from page 1

SHAREHOLDER VOTES

the meeting that the company, as previously announced, started a divestment process in late March in cooperation with its joint venture partner Repsol SA to offer 15% from Oil Search or 29% jointly in the Pikka project to a potential third partner.

Project operator Oil Search is simultaneously working to ensure it has long-term financing once the project is fully sanctioned, even without a new partner, by engaging in discussions with potential lenders at various commercial banks and funding organizations.

The divestment process is being managed from the United States.

"Given the halving of the capex costs to approximately US\$3 billion of which only US\$2.4 billion is required to first oil, we are encouraged by the interest shown to date and we expect to be able to finalize project financing arrangements in the second half ahead of an FID," Wulff said.

According to The Australian Financial Review, national oil companies, U.S. firms and Asian companies have shown keen early interest in buying a slice of Oil Search's Pikka project, per Wulff.

Two days after Oil Search's annual meeting, Repsol CEO Josu Imaz confirmed the two companies were "working together" to find a third partner to step into the project, per a Seeking Alpha transcript of Repsol's Q1 2021 earnings call.

The Oil Search climate change resolution was proposed by the Australian activist group Market Forces. The group is aligned with environmental organization Friends of the Earth's Australia chapter. It is trying to shut down fossil fuel production from the inside, working with lenders, investment groups and communities to prevent investment in projects that Market Forces decides would harm the environment and increase global warming.

Launched in January 2013, Market Forces believes that the banks, superannua-

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World class resources



Commercialising our discovered resources

- >30 years of high value production from 2P+2C resource base
- Near field expansion opportunities with low-cost tiebacks
- Net production > 150,000 boe/d in the second half of the decade
- Development costs/bbl targeting lowest quartile

Markets & infrastructure



Large resource base close to infrastructure and markets

- Resources with secure and direct routes to market
- PNG LNG market is North Asia:
- ~ 30% of global energy use - ~ 60% of electricity from coal
- Countries that announced net zero targets need gas for reliable power
- Pikka located between two producing fields with pipeline ullage

Sustainable



Climate, Environment, Safety, People, Economic, Integrity and Community

- 30% operated GHG intensity reduction by 2030
- Aim to be net zero by 2050
- Carbon abatement program underway in PNG
- Growth projects aligned with Paris Agreement
- Deleveraging balance sheet after PNG LNG debt repayment and Pikka 1st oil
- 2025+ free cashflow > US\$1.5 billion per year

World class capability



Provenoperating and developmentexpertise

- Operating in PNG since 2003
- Highly experienced Alaskan team with a proven history of safe delivery
- World class drilling operations in Alaska and PNG
- Strong support from partners, communities and host governments

tion funds and governments that "have custody of our money" should use it to "protect not damage our environment."

Oil Search Chairman of the Board Richard Lee said the company's Pikka oil project on Alaska's North Slope and its liquefied natural gas projects in Papua New Guinea are aligned with the Paris Agreement to limit global warming to well below 2 degrees C compared to pre-industrial levels. (To achieve this long-term temperature goal, countries that signed the treaty aim to reach global peaking of greenhouse gas emissions to achieve a climate neutral world by mid-century.)

Currently "our assessment is that the demand for LNG and for oil will be material for quite some decades," Lee said, noting the company's LNG supply would help in the transition from fossil fuels.

"Fortunately, our assets are low cost, low greenhouse gas intensity and are located strategically very close to major centers of demand that have announced zero carbon commitments by 2050," Lee said, referring to both Pikka and Papua New Guinea.

Since establishing a dedicated sustain-

embedding sustainability across the compathat covers climate, environment, community, health and safety, people, integrity and economic sustainability, Wulff said.

One of the slides he used said Oil Search has been "executing projects identified within a carbon abatement marginal cost curve aimed at prioritizing the activities which will reduce emissions intensity" in its existing operations.

The company has also been designing the Pikka project to be a global leader and model for efficient low emission intensity developments by designing GHG intensity targets agreed on by the joint venture, Wulff said, referring to Oil Search's arrangement with partner Repsol.

Wulff's slide also noted that through its sustainability team, which is led by Executive VP Beth White, Oil Search is continuing its "tradition of clearly and transparently reporting" its progress against initiatives through its "comprehensive sustainability report and climate resilience addendum as well as transparency, voluntary prin-

ability team last year Oil Search has been ciples, basis of preparation disclosures and updated and detailed data center which ny through a seven-pillar model for action includes multi-year performance data across social, environment and governance indicators."

> According to a Reuters report, Oil Search and its Australian rivals Woodside Petroleum and Santos Ltd have agreed to non-binding votes on their climate reporting at their 2022 annual meetings.

> Lee said "as a voluntary measure, in the spirit of transparency and good governance, we put forward the remuneration report to members for an advisory vote. We understand from your response (rejected down by 54% of the votes cast) that some concerns remain, and the company will take this on board for future consideration."

> Oil Search is listed on the Australian (ASX) and PNG (OSH) security exchanges and its ADRs trade on the US Over the Counter market (OISHY).

—KAY CASHMAN

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continued from page 1

CONOCO EARNINGS

market update this November but moved that forward to June 30. The company said further information on the virtual meeting would be made available soon on the company's website.

GMT, Willow

Nick Olds, the company's senior vice president of global operations (a segment which includes Alaska along with international interests), called Greater Mooses Tooth 2 progress over the past several months "significant" and said facility and construction costs were running some 10% below budget this year — the third and final year of project construction.

Production at GMT2, expected to come online at the end of the year, will be some 10,000 barrels per day, Olds said, with peak production from GMT2 expected at 35,000 bpd.

He said ConocoPhillips is back to development drilling on the North Slope and commissioning has restarted on the new extended reach drilling rig, Doyon 26, with drilling expected in the second quarter. A May 4 release from ConocoPhillips Alaska said the company expects to have four rigs drilling on the Slope by the end of the year, along with one non-operated rig.

Olds said front end engineering and design continues on the company's Willow project, and the company is taking actions to address legal challenges to the project. He said the 600 million barrel Willow discovery continues to remain very competitive in the company's portfolio, but, he said, ConocoPhillips won't take a final investment decision or make significant long-lead investments until legal issues have been resolved.

He said the target is FID, a final investment decision, later this year.

There are two lawsuits in federal court challenging Bureau of Land Management and Corps of Engineers records of decision on the project. An injunction by the 9th Circuit Court stopped what limited construction was planned for the project this winter, Olds said, with that work deferred to 2022. There are contingencies in the schedule, he said, so the delay into 2022 won't impact the overall timeline

A decision is expected from the court in the third quarter, he said, and noted that there has been significant stakeholder intervention in favor of the project.

Willow is still a great project and ConocoPhillips has the ability to extend the schedule, he said.

Olds noted that turnarounds are expected on the North Slope in the third quarter, mainly at the company's western North Slope facilities and also at Greater Prudhoe Bay.

First-quarter financial results

Net income for ConocoPhillips Alaska was \$159 million in the first quarter, ConocoPhillips Alaska said.

That compares to \$81 million in the first quarter of 2020, the company's earnings report shows. There were Alaska losses in the other three quarters of 2020, \$141 million in the second quarter, \$16 million in the third quarter and \$643 million in the fourth quarter, for a full-year loss of \$719 million

For the first quarter, ConocoPhillips Alaska "incurred an estimated \$227 million due to the State of Alaska in the form of production taxes, royalties, property taxes and state income tax," the company said. It invested \$235 million in capital in the state in the first quarter, some 20% of the corporation's global capital spend.

ConocoPhillips reported first-quarter 2021 corporate

earnings of \$1 billion, compared to a first-quarter 2020 loss of \$1.7 billion. Excluding special items, the company said, first-quarter adjusted earnings were \$0.9 billion, compared to first-quarter 2020 adjusted earnings of \$0.5 billion, with first-quarter 2021 special items including unrealized gain on Cenovus Energy shares and a gain from the Australia-West divestiture, partially offset by previously announced transaction and restructuring expenses from the Concho acquisitions, and realized losses on the Concho hedging program.

Production

Alaska production, combined crude oil, natural gas liquids and natural gas, was 208,000 barrels oil equivalent per day in the first quarter, the company's data shows, compared to 218,000 boe in the first quarter of 2020, 167,000 boe in the second quarter 2020, 201,000 boe in the third quarter and 208,000 boe in the fourth quarter.

Alaska crude, 190,000 barrels per day in the first quarter of 2021, was 91% of the company's production in the state.

The corporation's total production, crude oil, NGLs and natural was, was 1,488,000 boe per day in the first quarter of 2021, compared to 1,278,000 boe in the first quarter of 2020, 981,000 boe in the second quarter, 1,066,000 boe in the third quarter and 1,144,000 in the fourth quarter (all exclude Libya).

In the first quarter the corporation's crude production, 818,000 bpd, was 55% of its total production.

Alaska's combined production in the first quarter represented 14% of the corporation's total boe, but, because Alaska production is mostly oil, it represented 24% of the corporation's crude oil production. ●

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continued from page 1

OIL PRICES

million per day, up from 1.2 million per day in March.

Jet fuel consumption rose accordingly.

The U.S Energy Information Administration in its Weekly Petroleum Status Report said that four-week average consumption of jet fuel from April 9 through April 23 was more than 1.2 million barrels per day, 200,000 bpd higher than the four-week average that ended on March 26.

The government expects jet fuel use to jump 30% this summer from where it was in the first quarter, Bloomberg reported May 5.

Airlines are gearing up for a surge in leisure travel, adding capacity and non-stop flights to popular destinations.

A prospect of war

The China threat has become a point of focus in commodity markets according to Forbes contributor Bryan Rich.

Rich said saber rattling is adding steam to a 7%, two-week oil price surge which Rich largely attributes to President Biden's remarks to 30 world leaders attending the virtual Climate Summit April 22.

"I see workers capping hundreds and thousands of oil and gas wells," Biden said.

The Sydney Morning Herald ran a headline May 4 quoting a general saying, "War with China is likely," Rich said, adding that the U.S. media has officially done a flipflop on China, with a NY Times headline "Is there a war coming between China and the U.S.?"

"60 Minutes interviewed the Secretary of State (May 2) where he talked tough on China; this is all just over the course of a few days," Rich said. "Add to this, the G7 foreign ministers are meeting in the U.K., where China relations has been the big focus."

"With the specter of a China confrontation being introduced, expect the move in commodities to kick into another gear, especially oil prices," Rich said.

The big six companies — ExxonMobil, BP, Shell, Chevron, Total and Eni — are seeing proven oil and gas reserves fall at an

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Rystad said in a May 5 release that its analysis showed the companies lost 15% of their "stock levels in the ground" in 2020, and that remaining reserves are set to run out in less than 15 years unless more new commercial discoveries are made.

"The task is becoming more and more challenging as investments in exploration shrink and success rates slump," Rystad said. "The declining proven reserves could create serious challenges for Big Oil to maintain stable production levels in coming years."

The group of six companies experienced a drop in proven reserves of 13 billion barrels of oil equivalent in the last year as the companies took large impairment charges, Rystad said, adding that global first quarter discovered volumes for the industry were 1.2 billion boe, the lowest in seven years.

Pandemic related investment cuts could "aggravate the challenge of many major operators as they strive to boost their proven reserves," the consultancy said.

Business models will continue to be dominated by the sale of oil and gas even for European majors focused on the energy transition, it said.

"The ability of Big Oil to generate future revenues will continue to depend on the volume of oil and gas the companies have at their disposal to sell," said Parul Chopra, Rystad vice president of upstream research. "If reserves are not high enough to sustain production levels, companies will find it difficult to fund expensive energy transition projects, resulting in a slowdown of their clean energy plans."

ExxonMobil's proven reserves fell 30% or 7 billion boe from 2019 levels in 2020, mainly on reductions in Canadian oil sands and U.S. shale gas properties, Rystad said.

Shell's proven reserves fell by 20% to 9 billion boe last year, Rystad said, adding that liquid reserves — mostly from U.S. and

South American projects — accounted for one-third of total reductions.

Chevron had reserve losses due to impairments, despite adding 2 billion boe of proven reserves through the Noble Energy acquisition, Rystad said.

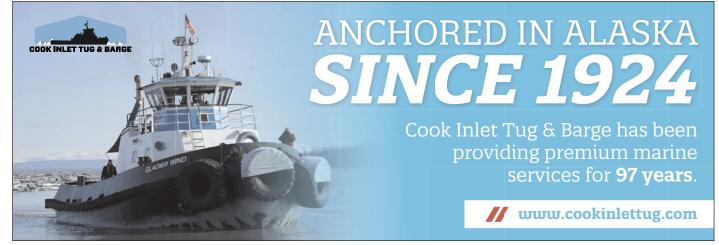
BP's proven reserves dropped from 19 billion boe in 2019 to 18 billion boe in 2020, mainly due to asset sales and a lack of major new discoveries, it said.

Total and Eni have been able to avoid any reduction in proven reserves over the past decade, Rystad said.

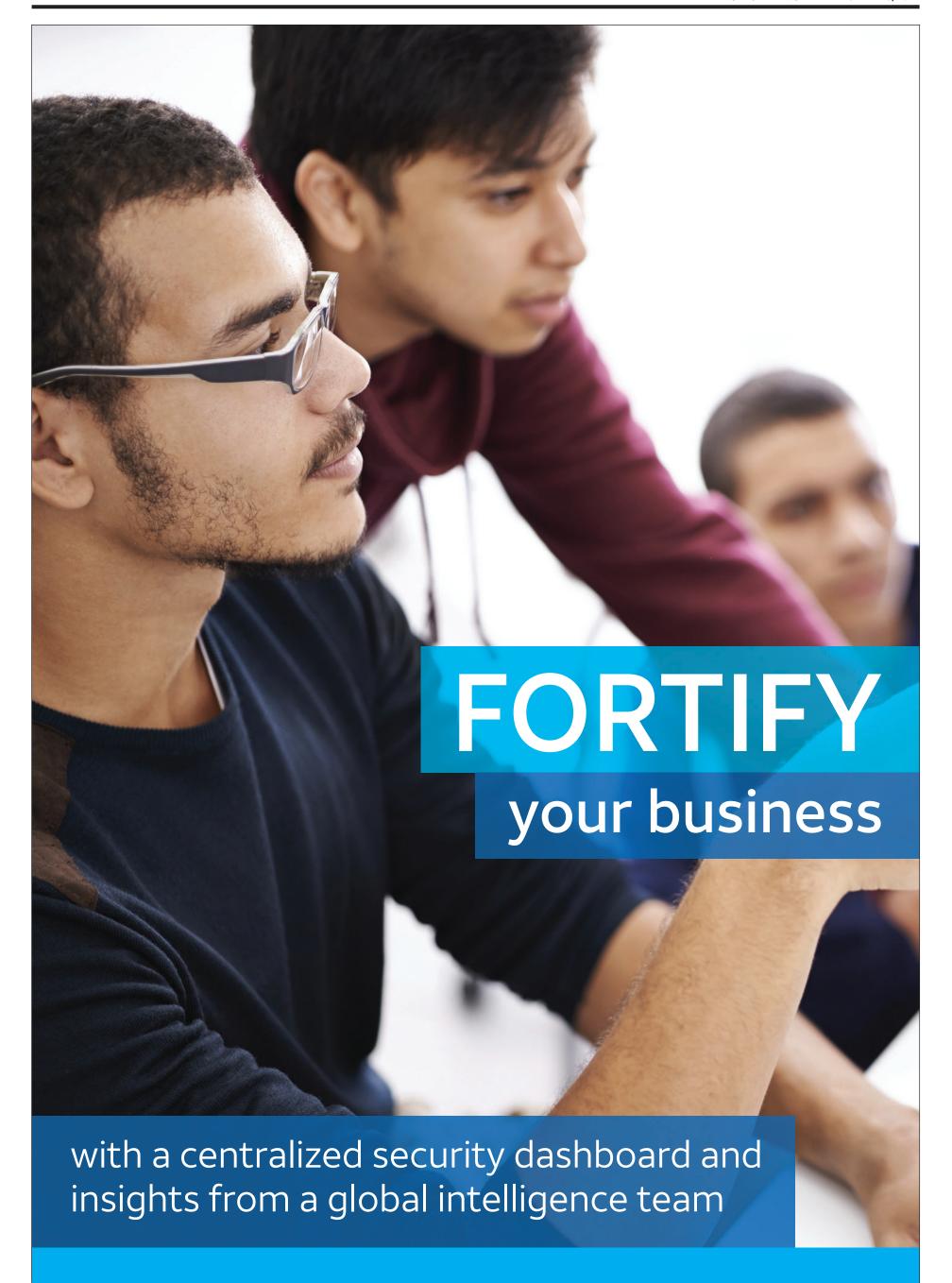
"Amid the proven reserve reductions — due to impairments and a lack of new discoveries — companies are seeing a negative impact on their ratio of proven reserves to production," Rystad said. ●

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12



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