

page ANS June production 481,522 bpd; Cook Inlet crude averages 8,881 bpd

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Pikka project on track; Gardes leases transferred; Eni on move?

OIL AND GAS ACTIVITY in Alaska is picking up. Among other projects, Oil Search's North Slope Pikka development is still progressing; CIE/Gardes Holdings/Vision lease transfers in the Cook Inlet basin have been approved; and Eni is rumored to be pursuing as many as four new projects, including eastern North Slope exploration.



In Oil Search Ltd.'s second quarter results, released on July 27, acting CEO Peter Fredricson said the company's Alaska subsidiary's work on the "Pikka Phase 1 project is tracking in line with original expectations from a technical and permitting perspective." (Oil Search Alaska is in the FEED, or front-end engineering and design phase.)

Fredricson, who came onboard as the parent company's chief financial officer three and a half months ago, also said that "it is in everyone's interest — Oil Search, shareholders, JV partners — that we commit to FID (final investment decision) on this high quality asset only when appropriate funding and ownership levels — across upstream and infrastructure — are in place."

But during second quarter, Fredricson added, "considerable

see INSIDER page 11

State of Alaska grants OSA's Pikka development road easement

On July 26, Alaska's Division of Oil and Gas approved Oil Search Alaska's request to modify the existing ADL 421218 pri-

vate easement for the Pikka Development Access Road, formerly known as the Nanushuk Project Access Road, located on state land on the North Slope. It is yet another step forward in OSA's Pikka development plans.



The decision, signed by Director Tom Stokes, authorizes only the modifications described in OSA's May 11 application, asking that the easement acreage be increased in four areas adjacent to the TOM STOKES

Pikka Development Access Road by altering the footprint of the pump house pad at Lake MC7903, adding two valve pads on the north side of the access road and adding the East Miluveach Pipeline Crossing on the access road near the Mustang road.

see PIKKA EASEMENT page 10

Quebec nixes LNG venture; much enviro, First Nations opposition

A groundswell of opposition from First Nations and environmentalists may have scuttled plans for a C\$14 billion LNG project in Quebec, putting paid to yet another energy project in the anti-fossil fuel province.

Just four days after three Innu communities said they were ready to take measures, including legal action, to block GNL Quebec's Energie Saguenay venture from being built on their territories, the Quebec government refused to approve the plans to liquefy natural gas from Western Canada for shipment to overseas markets.

The verdict rocked the Energie Saguenay applicants who had already received a federal license to export the equivalent of 1.8 billion cubic feet per day to Europe.

Quebec Premier Francois Legault's government had initially been a proponent of the project, which it hoped would diversify the economy in a region largely reliant on aluminum and forest

see **QUEBEC LNG** page 10

EXPLORATION & PRODUCTION

KRU rig restart

ConocoPhillips says workover rig in Q3, CTD rig in Q4, rotary in Q2 2022

By KRISTEN NELSON

Petroleum News

ield operator ConocoPhillips Alaska says drilling will restart at the Kuparuk River unit with a workover rig in the third quarter, followed by the coiled tubing rig in the fourth quarter and rotary rig drilling in the second quarter of 2022.

In 2021 plans of development for the five participating areas at the Kuparuk River unit, approved July 23 by the Alaska Division of Oil and Gas, the company also said it will be shutting in the Meltwater participating area this year because of back-out issues at Central Processing Facility 2 and the PA's low productivity, some 300 barrels per day in 2020.

Division Director Tom Stokes said in the POD approval that ConocoPhillips announced cessation of Kuparuk drilling in March of 2020 due to COVID-19 public health concerns. In April, Stokes said, the company "announced its plan to curtail oil production of approximately 100,000 barrels per day for the month of June 2020 from the KRU and Western North Slope Units."

The ramp down began in late May, he said, and last July the company ramped production back up.

"CPAI now forecasts that about 50% of the production deferred by the curtailment will be recovered over the next three years with the remainder

see KUPARUK RESTART page 8

FINANCE & ECONOMY

Oil in sanguine \$70s

Motor fuel driven supply constrictions overcome Delta variant demand fears

By STEVE SUTHERLIN

Petroleum News

laska North Slope crude rose 47 cents July 28 to close at \$74.40 per barrel, Brent gained 26 cents to close at \$74.74 and West Texas Intermediate jumped 74 cents to close at \$72.39.

The trading sustained a pattern that found the major benchmarks hovering relatively sanguinely in the mid-\$70 range for the week, after rallying during the last four days of the previous week's trading in the wake of a mini-crash of prices July 19 — sparked by rising cases of the highly transmittable Delta variant of the COVID-19 virus.

WTI fell 16 cents Monday July 26, to close at

A federal lands leasing review ordered in January by President Joe Biden will have only muted impact on the U.S. production outlook, based on S&P Global Platts Analytics projections.

\$71.91, as global cases of COVID-19 infections surged in the United States, Brazil, India, Indonesia and the U.K. to a two-month high, according to a July 25 Bloomberg report. In Asia, countries saw more fatalities and renewed restrictions, and the U.S. raised a COVID19 travel warning for Spain to

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Seaview producing gas

Hilcorp Anchor Point field began production in June from 1st well; 2nd planned

By KRISTEN NELSON

Petroleum News

ilcorp has a new field in production. June oil $oldsymbol{\mathsf{L}}$ and gas production data, released in late July by the Alaska Oil and Gas Conservation Commission, show the company's Seaview gas field on the southern Kenai Peninsula came online in June, with production totaling 21,352 thousand cubic feet over the 30 days of the month, an average of 712 mcf per day.

Seaview is the first new field Hilcorp has brought online since it began operating in Alaska some 10 years ago, acquiring assets in Cook Inlet from Union Oil Company of California and, later, from Marathon. The company's forte is acquisition

When AOGCC issued approval for production from Seaview 8 last fall, it noted "commercial quantities of gas in four zones in the Tyonek formation."

of mature fields and development of remaining reserves, but it has been exploring in Cook Inlet, looking at prospects offshore and on the west side, as well as on the Kenai Peninsula. It plans to begin exploratory drilling at Whiskey Gulch, north of Seaview, this summer.

The company also has Interior stratigraphic tests planned for this summer.

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■ FINANCE & ECONOMY

Report shows impact of oil industry

PwC analysis quantifies importance of the industry to Alaska and the United States in terms of dollar value and employment in 2019

By ALAN BAILEY

For Petroleum News

recent report by PricewaterhouseCoopers for the American Petroleum Institute illustrates just how important the oil and gas industry is to the economy of Alaska and to the economy of the United States as a whole. The industry brings significant value both in dollar terms and in terms of providing gainful employment for people.

PwC conducted its analysis by assessing direct, indirect and induced impacts of the industry. Direct impacts consist of jobs, labor income and value added within the oil and gas industry itself. Indirect impacts consist of the same parameters throughout the industry's supply chain, as a consequence of operating and capital expenditures. And induced impacts result from the household spending of earnings by labor, proprietors and shareholders from the industry.

The value added, broadly equivalent to the industry's

In total in 2019, direct labor income from the oil and gas industry in the U.S. amounted to around \$318 billion, with the industry's total capital expenditures estimated at \$232 billion.

contribution to the gross domestic product, consists of the total output associated with the industry less the value of the industry's intermediate inputs.

A major impact

The report shows that in the U.S. in 2019 the industry, including its indirect and induced impacts, supported 11.3 million full-time and part-time jobs, amounting to 5.6% of total employment. The total value added to the economy amounted to about \$1,687 billion, or 7.9% of the U.S. GDP. In Alaska the industry created more than \$4.5 billion in wages, with 15,780 direct jobs in the industry and more than 31,000 indirect jobs in other sectors of the economy.

Particularly important in Alaska was the industry's valueadded impact, with \$19.4 billion in total economic impact amounting to 35.7% of the state's GDP.

In Alaska 9,300 direct jobs and 28,600 total jobs were attributable to the upstream, onshore sector of the industry.

The analysis does not consider what are referred to as "forward linkages," the impact of the industry on economic sectors that use oil and gas.

Wide range of employment impacts

In 2019 the share of total employment attributable to the oil and gas industry in individual states ranged from 2.6% in the District of Columbia to 16.7% in Oklahoma, with Alaska, at 10.3%, coming in sixth in that particular table. In terms of total employment, Texas and California were dominant, with Texas having 2.5 million jobs and California more that 1 million jobs supported by the oil industry. Alaska's total of around 47,000 jobs was much

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Rig Owner/Rig Type

Alaska-Mackenzie Rig Report

Rig No.

Operator or Status

Alaska Rig Status

Rig Location/Activity

North Slope - Onshore

North Slope - Olishore					
All American Oilfield LLC IDECO H-37	AAO 111	Deadhorse, Stacked in Cruz Yard	Available		
Doyon Drilling					
Dreco 1250 UE	14 (SCR/TD)	Standby	Hilcorp Alaska LLC		
Dreco 1000 UE	16 (SCR/TD)	Standby			
Dreco D2000 Uebd	19 (SCR/TD)	Standby			
AC Mobile	25	Alpine, MT7-06	ConocoPhillips		
OIME 2000	141 (SCR/TD)	Standby			
	142 (SCR/TD)	Standby			
TSM 700	Arctic Fox #1	Standby			
ERD	26	Alpine, CD2-310	ConocoPhillips		
Hilcorp Alaska LLC					
Rotary Drilling	Innovation	Milne Point, S Pad	Hilcorp Alaska LLC		
· · · , 5		, , , , , , , , , , , , , , , , , , , ,			
Nabors Alaska Drilling					
AC Coil Hybrid	CDR-2 (CTD)	Deadhorse, Cold Stacked			
		at Nabors Deadhorse Yard	Available		
AC Coil	CDR-3 (CTD)	Kuparuk, Cold Stacked			
		at 12 Acre Pad	ConocoPhillips		

Ideco 900 3 (SCR/TD) Deadhorse, Stacked Available 7-ES (SCR-TD) Oil Search Dreco 1000 UE Kuparuk, Cold Stacked Mid-Continental U36A Stacked Available Oilwell 700 E Available 4-ES (SCR) Stacked Dreco 1000 UE 9-ES (SCR/TD) Stacked ConocoPhillips Oilwell 2000 Hercules Deadhorse Available 14-E (SCR) Oilwell 2000 Hercules 16-E (SCR/TD) Stacked Brooks Range Petroleum Oilwell 2000 Canrig 1050E 27-E (SCR-TD) Stacked Glacier Oil & Gas Oilwell 2000 33-E Deadhorse Available Academy AC Electric CANRIG 99AC (AC-TD) Stacked Repsol 245-E (SCR-ACTD) 12 Acre Pad, stacked ENI Academy AC electric CANRIG 105AC (AC-TD) Stacked Oil Search Great Bear Petroleum Academy AC electric Heli-Rig 106AC (AC-TD) Stacked

Nordic Calista Services

Superior 700 UE 1 (SCR/CTD) Deadhorse Available Superior 700 UE 2 (SCR/CTD/TD) Deadhorse, stacked Available Ideco 900 3 (SCR/TD) Deadhorse, stacked Available Rig Master 1500AC Oliktok Point ENI

Parker Drilling Arctic Operating LLC

NOV ADS-10SD Deadhorse, Stacked Available NOV ADS-10SD Deadhorse, Stacked Available

North Slope - Offshore

Sky top Brewster NE-12 15 (SCR/TD) Spy Island, S126-NW2 ENI **Nabors Alaska Drilling** OIME 1000 19AC (AC-TD) Oooguruk, Stacked ENI

Cook Inlet Basin - Onshore

BlueCrest Alaska Operating LLC BlueCrest Rig #1 Stacked BlueCrest Alaska Operating LLC Land Rig Glacier Oil & Gas West McArthur River Unit Workover Glacier Oil & Gas Rig 37

Hilcorp Alaska LLC

Doyon Drilling

Hilcorp Alaska LLC TSM-850 Stacked TSM-850 169 Seaview Hilcorp Alaska LLC

Cook Inlet Basin – Offshore

Hilcorp Alaska LLC National 110 C (TD) Platform C Stacked Hilcorp Alaska LLC Hilcorp Alaska LLC Rig 51 Steelhead Platform, Stacked Hilcorp Alaska LLC Monopod A-13, stacked Rig 56

Nordic Calista Services Land Rig

Spartan Drilling

Kenai, stacked

36 (TD)

Baker Marine ILC-Skidoff, jack-up Spartan 151, Tyonek Platform Hilcorp Alaska LLC

Furie Operating Alaska

Randolf Yost jack-up Nikiski, OSK dock Available

Glacier Oil & Gas

National 1320 35 Osprey Platform, activated Glacier Oil & Gas

Mackenzie Rig Status

Canadian Beaufort Sea

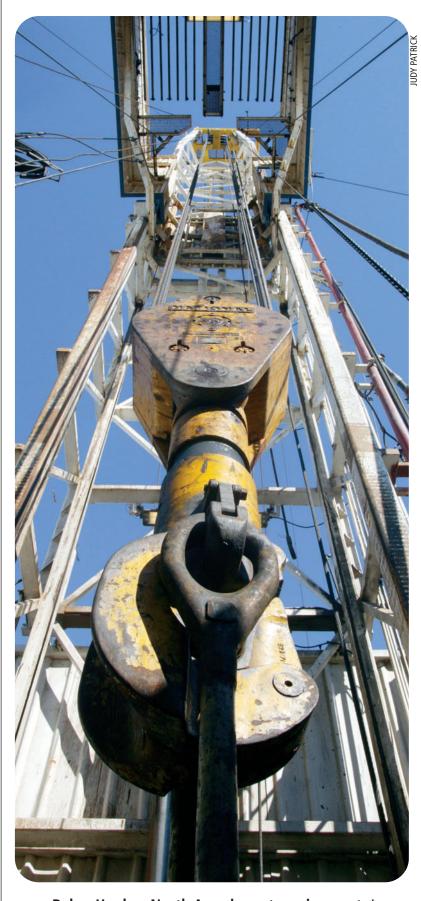
SDC Drilling Inc. SSDC CANMAR Island Rig #2 SDC

Set down at Roland Bay

The Alaska-Mackenzie Rig Report as of July 28, 2021. Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve



Baker Hughes North America rotary rig counts*

	July 23	July 16	Year Ago
United States	491	484	251
Canada	149	150	42
Gulf of Mexico	17	17	12

Highest/Lowest

Available

Available

US/Highest 4530 December 1981 US/Lowest August 2020 *Issued by Baker Hughes since 1944

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FINANCE & ECONOMY

Alberta faces paying for orphan wells

Upstream companies shrug off embarking on clean-up; Kenney government under pressure to tackle the multi-billion-dollar challenge

By GARY PARK

For Petroleum News

n a sudden joining of forces against their bread-and-butter industry, Alberta farmers, landowners and taxpayers are openly seething against the upstream petroleum sector's refusal to pay the costs of cleaning up abandoned oil and gas wells.

One new study by the Alberta Energy Regulator, AER, estimates that 97,000 wells haven't been properly closed and another 71,000 have been closed but not properly reclaimed. The agency expects another 6,014 wells will be added to the tally this year.

The Alberta Liabilities Disclosure Project, ALDP, paints an even more alarming picture, figuring a cleanup would involve 300,000 wells and cost C\$70 billion.

The University of Calgary's School of Public Policy said landowners have received the short end of the stick, watching their property values decline as the number of abandoned and inactive wells has soared.

The study said many companies have

The AER also found that about 10% of inactive wells and 7% of abandoned wells are leaking.

simply stopped paying rent to landowners, leaving the public to pick up the tabs.

In 2018, the Alberta Surface Rights Board, which adjudicates disputes between landowners and energy companies, ordered C\$6.4 million in payments from general government revenues, a 10fold increase from 2014.

Rural Municipalities Alberta says the amount of unpaid property taxes from the oil patch has tripled since 2019 to C\$245

AER sees large number of leaking wells

The AER also found that about 10% of inactive wells and 7% of abandoned wells are leaking.

The regulator's Chief Executive Officer Laurie Pushor said his agency is not about to start collecting municipal property taxes or rent owed to landowners, but it is beginning to collect information from producers about unpaid taxes and lease payments.

He said the AER is also taking steps to ensure companies better manage inactive and orphan wells.

The AER joined the call for action, declaring it will soon require oil companies to spend a specified amount each year on environmental activities.

In addition, it said that should companies want to pick up new wells as a cheap source of revenue or secure the transfer of an asset, the cash owed by those wells in property taxes and to landowners will determine whether or not such initiatives get the green light.

When Pushor took the helm at the AER 15 months ago he promised to focus on rebuilding confidence in an organization tarnished by scandal.

Jobs from concentrated cleanup

The ALDP said a concentrated cleanup presents a unique chance to create 10,000 industry-funded jobs but conceded that a concrete plan is required to enable oil workers to take advantage of those opportunities.

Parkland Institute, a research group based in the University of Alberta, said much of the C\$1.7 billion (C\$1 billion of which was tagged for Alberta) funded by the Canadian government last year may have simply replaced money that energy companies would have spent anyway.

Megan Egler, author of a Parkland report, found that in 2019 Alberta's petroleum industry spent about C\$340 million on remediation, but that amount increased to only C\$363 million after the federal funding was announced.

Her research showed that almost 25% of the C\$800 million that has been distributed has so far gone to just five financially strong companies. One of them, Canadian Natural Resources, got more than \$100 million.

Egler noted that funding was not distributed on the basis of which wells had been unreclaimed the longest, or which posed the greatest environmental threat.

"The cleanup of the sites relieves both the defaulting owners and the government from paying compensation to landowners," her report said.

Egler estimated that each of the 1.700 jobs created so far in Alberta took almost C\$190,000 per worker in subsidies. which is C\$41,000 more than similar work done by the Orphan Well Association.

Assets vs liabilities

When Alberta started coming to grips with the historic problem of cleaning up its own mess it was noted that every well, whether or not it is actively producing, has a deemed asset value and an estimated liability value.

The ALDP report showed assets of C\$142 billion and liabilities of C\$30 billion, of which the healthiest 45 companies have 17.36 times more in asset values than liabilities, whereas 276 licensees in the worst financial shape have C\$39 million in assets and C\$701 million in liabilities, with no hope of raising the money needed for their cleanup work, let alone paying property taxes and leases.

A group calling itself Sustaining Alberta's Energy Network, SAEN, has suggested one alternative could involve a lower royalty credit to accelerate cleanups. That would over a long time pay 100% of the cleanup costs.

But so far the Alberta government has shown no desire to explore the idea, suggesting it hopes eventually to pass the problem on to a future government. And that could happen as soon as April 2023 if Premier Jason Kenney's growing unpopularity in the polls sees him defeated in the next provincial election by the New Democratic Party lead by Rachel Notley.

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OIL IMPACT

lower, albeit in a state with a very much smaller population.

Texas and California also dominated the table of total value added by state by the oil and gas industry: the value added for Texas was \$411 billion, while the value added for California was \$199 billion. Those compare with the figure of \$19.4 billion for Alaska.

Support for service industries

In the U.S. as a whole in 2019, the indirect and induced impacts of the oil and gas industry on employment were particularly notable in the services industries, with these industries accounting for 54.8% of the total impact. Employment impacts were also notable on the wholesale and trade industry, at 10.1%, and on the finance, insurance, real estate, rental and leasing industry, at

In total in 2019, direct labor income from the oil and gas industry in the U.S. amounted to around \$318 billion, with the industry's total capital expenditures estimated at \$232 billion.

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• EXPLORATION & PRODUCTION

ANS production at 481,522 bpd for June

Crude, NGLs down 1.3% from May, largest per-barrel drop at Prudhoe Bay; Cook Inlet crude averages 8,881 bpd, up marginally from May

By KRISTEN NELSON

Petroleum News

A laska North Slope production averaged 481,522 barrels per day in June, down 1.3%, 6,150 bpd, from a May average of 487,622, but up 21% from a June 2020 average of 398,003 bpd — a month in which production was severely impacted by the COVID-19 pandemic.

Crude oil accounted for 89.6% of ANS production, averaging 431,240 bpd in June, down 0.8%, 3,329 bpd, from a May average of 434,569 bpd but up 23.4% from a June 2020 average of 349,339 bpd. Natural gas liquids accounted for 10.4% of ANS production in June, averaging 50,282 bpd, down 5.3%, 2,821 bpd, from a May average of 53,102 bpd but up 3.3% from a June 2020 average of 48,663 bpd.

Production data come from the Alaska Oil and Gas Conservation Commission which reports production by field and well on a month delay basis.

Month-over-month declines

The largest month-over-month per-barrel production decline was at the Hilcorp North Slope-operated Prudhoe Bay field, the Slope's largest, which averaged combined crude and NGL production of 257,115 bpd in June, down 1.7%, 4,334 bpd, from a May average of 261,449 and up 2.2% from a June 2020 average of 251,505 bpd.

Crude production accounted for 82.1% of the Prudhoe volume, 211,109 bpd, down 0.7%, 1,474 bpd, from a May average of 212,582 and up 2.4% from a June 2020 average of 206,225 bpd.

At 46,007 bpd, NGLs were 17.9% of the field's production in June, down, 5.9%, 2,860 bpd, from a May average of 48,866 bpd and up 1.6% from a June 2020 average of 45,280 bpd.

In addition to the primary reservoir, production volumes from Prudhoe include Aurora, Borealis, Lisburne, Midnight Sun, Niakuk, Polaris, Point McIntyre, Put River, Raven and Schrader Bluff.

Production from ConocoPhillips Alaska's Colville River field averaged 43,825 bpd in June, down 3,013 bpd, 6.4%, from a May average of 46,838 bpd and up 136.8% from a June 2020 average of 18,505 bpd.

In addition to oil from the main Alpine pool, Colville production includes satellite production from Nanuq and Oannik

Other month-over-month declines were marginal.

The Hilcorp-operated Northstar field averaged 8,207 bpd in June, down 93 bpd, 1.1%, from a May average of 8,300 bpd and down 2% from a June 2020 average of 8,373 bpd.

Northstar has the highest percentage of NGL production of any Slope field.

Crude production at Northstar averaged 4,779 bpd, 58.2% of production volume, down 2.9%, 142 bpd, from a May average of 4,921 bpd and down 19.1% from a June 2020 average of 5,911 bpd.

Northstar NGL production, 41.8% of the field's volume, averaged 3,428 bpd in June, up 49 bpd, 1.5%, from a May average of 3,379 bpd and up 39.3% from a June 2020 average of 2,462 bpd.

Badami, operated by Savant Alaska, a Glacier Oil company, averaged 1,084 bpd in June, down 60 bpd, 5.2%, from a May average of 1,143. The field was not in production last June, so there is no year-over-year change.

Eni's Oooguruk averaged 6,846 bpd in June, down 10 bpd, 0.2%, from a May average of 6,856 bpd and down 17.1% from a June 2020 average of 8,256 bpd.

Month-over-month increases

Month-over-month production increases were led by Hilcorp's Milne Point, which averaged 37,478 bpd in June, up 2.3%, 841 bpd, from a May average of 36,637 bpd and up 14.3% from a June 2020 average of 32,786 bpd.

Eni's Nikaitchuq averaged 17,513 bpd in June, up 1.5%, 263 bpd, from a May average of 17,250 bpd but down 12.1% from a June 2020 average of 19,923 bpd.

The ExxonMobil Production-operated Point Thomson field averaged 9,467 bpd in June, up 1.3%, 117 bpd, from a May average of 9,350 bpd and up 0.3% from a June 2020 average of 9,440 bpd.

ConocoPhillips' Greater Mooses Tooth in the National Petroleum Reserve-Alaska averaged 2,501 bpd in June, up 2.1%, 52 bpd, from a May average of 2,449 but down 21.4% from a June 2020 average of 3,182 bpd.

The ConocoPhillips-operated Kuparuk River field averaged 90,907 bpd in June, up 0.1%, 51 bpd, from a May average of 90,855 bpd and up 134.6% from a June 2020 average of 38,747 bpd.

In addition to the main Kuparuk pool, Kuparuk produces from satellites at Meltwater, Tabasco and Tarn, and from West Sak.

The Hilcorp-operated Endicott field averaged 6,578 bpd in June, up 36 bpd, 0.6%, from a May average of 6,542 bpd but down 9.7% from a June 2020 average of 7,286 bpd. Crude production at Endicott averaged 5,731 bpd in June, 87.1% of the field's production, up 46 bpd, 0.8%, from a May average of 5,685 bpd but down 10% from a June 2020 average of 6,364 bpd. Endicott NGL production, 12.9% of the field's volume, averaged 847

see ANS PRODUCTION page 7

Cook Inlet natural gas production down

Natural gas production from Southcentral averaged 208,445 thousand cubic feet per day in June, down 12.2%, 12,179 mcf per day, from a May average of 219,932 mcf per day, but up 7.5% from a June 2020 average of 193,942 mcf per day.

The most significant news here is the addition of a new natural gas field: Hilcorp Alaska's Seaview field began production in June, and while its current production ranks it among the smallest of Cook Inlet fields, it is the only new field to come online in the inlet in many years, and represents Hilcorp's first discovery to be brought online (see story on page 1 of this issue).

Data are from the Alaska Oil and Gas Conservation Commission, which reports production on a monthdelay basis. For natural gas AOGCC reports measurements in thousands of cubic feet, mcf.

Eighty-seven percent of Cook Inlet natural gas production is from the area's largest fields, all but one operated by Hilcorp Alaska.

Hilcorp's Kenai gas field averaged 37,030 mcf per day in June (17.8% of inlet production), down an average of 5,423 mcf per day, 12.8%, from a May average of 42,453 mcf per day but up 11.5% from a June 2020 average of 33,225 mcf per day.

Hilcorp's Ninilchik averaged 30,133 mcf per day in June (14.5% of inlet production), up by an average 538 mcf per day, 1.8%, from a May average of 29,595 mcf per day, but down 0.8% from a June 2020 average of 30,364 mcf per day.

Hilcorp's McArthur River field averaged 23,204 mcf per day in June (11.1% of inlet production), down by 2,577 mcf per day, 10%, from a May average of 25,781 mcf per day and down by 0.8% from a June 2020 average of 23,380 mcf per day.

The Hilcorp-operated Beluga River field averaged 20,584 mcf per day in June (9.9% of inlet production), down 574 mcf per day, 2.7%, from a May average of 21,158 mcf per day but up 20.7% from a June 2020 average of 17,053 mcf per day.

Hilcorp's Swanson River averaged 19,102 mcf per day (9.2% of inlet production), down 1,814 mcf per day, 8.7%, from a May average of 20,916 mcf per day and down 14.4% from a June 2020 average of 22,306 mcf per day.

Hilcorp's North Cook Inlet averaged 14,828 mcf per day in June (7.1% of inlet production), down 258

see INLET GAS page 7





PIPELINES & DOWNSTREAM

Alyeska Pipeline wins wildlife award

On July 21, the U.S. Fish and Wildlife Service recognized Alyeska Pipeline Service Co. with an Outstanding Partner Award for contributions made by Alyeska to the conservation of natural resources in Alaska, where it operates the Trans-Alaska Pipeline System, or TAPS.

The award recognizes employees' recent work with USFWS to update and implement wildlife protection guidelines for oil spills, and their continuing commitment to protecting wildlife during all Alyeska activities.

"We are humbled and honored to be recognized with this environmental award from the U.S. Fish and Wildlife Service," said Alyeska President Brigham McCown. "Our people are innovative, collaborative, and at the top of their game. Environmental stewardship is a team effort and a responsibility we take very seriously.'

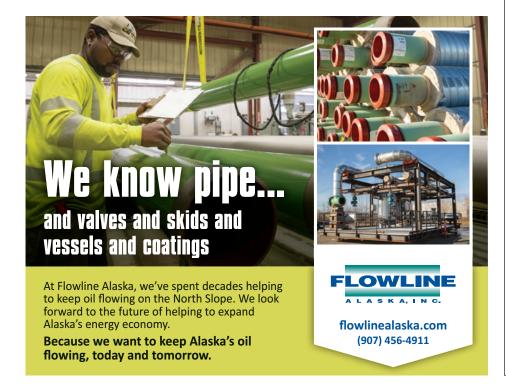


BRIGHAM MCCOWN

Alyeska personnel Ken Wilson and Stacia Miller were part of a multi-stakeholder effort to revise the Wildlife Protection Guidelines for Oil Spill Response in Alaska, a guidance document for minimizing the impacts of oil spills and response activities on wildlife. Throughout the process, Wilson and Miller worked with the USFWS and other stakeholders to update the guidelines and make them more user-friendly for on-the-ground responders. Alyeska personnel tested the usability of draft tools, forms, and checklists during response exercises and trainings.

"For more than two years, Ken and Stacia helped draft the Wildlife Protection Guidelines, worked to gain support to incorporate new processes into Alyeska drills and spills, and provided honest feedback on those processes," said Bridget Crokus, assistant oil spill response coordinator with USFWS Alaska Region. "The Wildlife Protection Guidelines would not be as useful as they are now without the enormous amount of effort (from) Ken and Stacia. I cannot overstate the importance of their involvement."

—PETROLEUM NEWS



PIPELINES & DOWNSTREAM

Tanker truck rollover on Sterling Highway

The Alaska Department of Environmental Conservation's Division of Spill Prevention and Response said in a July 27 situation report that there has been a crude oil spill from a tanker truck on the Sterling Highway.

A Carlile Transportation Systems tanker truck carrying 12,500 gallons of crude oil in two tanker trailers rolled over during a traffic accident at milepost 147 on the Sterling at 8 a.m. July 27, the division said.

The cause of the spill was a head-on collision between the tanker truck and another vehicle.

One of the tanker trailers was damaged, causing release of crude oil. The spill is estimated at 900 gallons.

The division said the damaged tanker is no longer leaking. Boom was placed to prevent further migration of product, with response action contractor U.S. Ecology on scene to remove product from the tanker.

It is likely that contamination extends beyond the Alaska Department of Transportation right of way, the division said, but the area is heavily vegetated and extent of the contamination will be investigated.

Following removal of product, the tanker truck and trailers will be righted and removed, the area affected delineated and affected soils removed for remediation.

—PETROLEUM NEWS

EXPLORATION & PRODUCTION

US rotary rig count grows again, up by 7

The Baker Hughes U.S. rotary drilling rig count was at 491 the week ending July 23, a gain of seven from the previous week's count of 484 and up by 240 from 251 a year ago. The count has increased every week in July.

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

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 July 23 count includes 387 rigs targeting oil, up by seven from the previous week and up 206 from 181 a year ago, 104 rigs targeting gas, unchanged from the previous week and up by 36 from 68 a year ago, and no miscellaneous rigs, unchanged from the previous week and down by two from a year ago.

Thirty-three of the rigs reported July 23 were drilling directional wells, 439 were drilling horizontal wells and 19 were drilling vertical wells.

Texas (228), with the most active rigs, was up by six from the previous week. Utah (12) was up by two and Oklahoma (30) was up by a single rig. Louisiana (52) was down by two rigs.

Rig counts in all other states were unchanged from the previous week: Alaska (5), California (6), Colorado (12), New Mexico (75), North Dakota (18), Ohio (10), Pennsylvania (18), West Virginia (10) and Wyoming (23).

Baker Hughes shows Alaska with five rigs active July 23, unchanged from the previous week and up two from a year ago, when the state's count stood at three.

The rig count in the Permian, the most active basin in the country, was up by four from the previous week at 242 and up by 116 from a count of 126 a year ago.

—KRISTEN NELSON



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ANS PRODUCTION

bpd in June, down 10 bpd, 1.2%, from a May average of 857 bpd and down 8.1% from a June 2020 average of 922 bpd.

Cook Inlet up marginally

Production from Cook Inlet, almost all crude with just 1.4% from NGLs, averaged 8,881 bpd in June, up 0.3%, 24 bpd, from a May average of 8,857 bpd but down 23.7% from a June 2020 average of 11,635 bpd.

The only month-over-month increase was at Hilcorp's McArthur River field, Cook Inlet largest, which averaged 3,452 bpd in June, up 373 bpd, 12.1%, from a May average of 3,079, but down 12.8% from a June 2020 total of 3,957 bpd.

The largest month-over-month decrease was at Hilcorp's Trading Bay, which averaged 866 bpd in June, down 197 bpd, 18.5%, from a May average of 1,063 bpd and down 36.6% from a June 2020 average of 1,365 bpd.

Hilcorp's Granite Point averaged 2,601 bpd in June, down 63 bpd, 2.4%, from a May average of 2,664

bpd and down 16.5% from a June 2020 average of 3,113 bpd.

Hilcorp's Swanson River averaged 864 bpd in June (738 bpd of crude and 125 bpd of NGLs), down 45 bpd, 4.93%, from a May average of 909 bpd and up 2.7% from a June 2020 average of 841 bpd (no NGL production was reported in that month).

Hilcorp's Beaver Creek averaged 181 bpd, down 21 bpd, 10.4%, from a May average of 202 bpd but up 67.2% from a June 2020 average of 108 bpd.

BlueCrest's Hansen field averaged 915 bpd in June, down 13 bpd, 1.4%, from a May average of 928 bpd and down 8% from a June 2020 average of 994 bpd.

Hilcorp's Middle Ground Shoal, where production temporarily ceased due to a leak in a fuel gas pipeline discovered in early April, showed an average of 3 bpd in June, down 10 bpd, 77%, from a May average of 13 bpd, and down 99.8% from a June 2020 average of 1,258 bpd.

ANS crude oil production peaked in 1988 at 2.1 million bpd; Cook Inlet crude oil production peaked in 1970 at more than 227,000 bpd. ●

Contact Kristen Nelson at knelson@petroleumnews.com

continued from page 5

INLET GAS

mcf per day, 1.7%, from a May average of 15,086 mcf per day but up 5.4% from a June 2020 average of 14,069 mcf per day.

Furie's Kitchen Lights averaged 14,631 mcf per day in June (7% of inlet production), down 10.2%, 1,662 mcf per day, from a May average of 16,294 mcf per day but up 9.9% from a June 2020 average of 13,316 mcf per day.

Hilcorp's Ivan River averaged 11,358 mcf per day in June (5.5% of inlet production), up 1,176 mcf per day, 11.6%, from a May average of 10,182 mcf per day and up 4,115.4% from a June 2020 average of 269 mcf per day (0.1% of inlet production in that month).

Hilcorp's Beaver Creek averaged 10,258 mcf per day in June (4.9% of inlet production), up 283 mcf per day, 2.8%, from a May average of 9,975 mcf per day and up 4.1% from a June 2020 average of 9,851 mcf per day.

The inlet's small gas fields collectively account for 13.1% of production.

Hilcorp's Cannery Loop field averaged 5,255 mcf per day in June, down 314 mcf per day, 5.6%, from a May average of 5,568 mcf per day and down 11.1% from a June 2020 average of 5,011 mcf per day.

AIX's Kenai Loop averaged 4,105 mcf per day in June, down 711 mcf per day, 14.8%, from a May average of 4,816 mcf per day and down 14.7% from a June 2020 average of 4,813 mcf per day.

Hilcorp's Deep Creek averaged 3,961 mcf per day in June, down 281 mcf per day, 6.6%, from a May average of 4,242 mcf per day and down 0.6% from a June 2020 average of 3,986 mcf per day.

Hilcorp's Granite Point averaged 3,605

mcf per day in June, up 48 mcf per day, 1.3%, from a May average of 3,558 mcf per day but down 2% from a June 2020 average of 3,678 mcf per day.

Vision Operating's North Fork averaged 3,028 mcf per day in June, down 236 mcf per day, 7.2%, from a May average of 3,264 mcf per day and down 11.9% from a June 2020 average of 3,437 mcf per day.

BlueCrest's Hansen averaged 2,972 mcf per day in June, down 190 mcf per day, 6%, from a May average of 3,161 mcf per day and down 14.9% from a June 2020 average of 3,491 mcf per day.

Hilcorp's Trading Bay averaged 1,752 mcf per day in June, down 446 mcf per day, 20.3%, from a May average of 2,198 mcf per day and down 35% from a June 2020 average of 2,695 mcf per day.

Hilcorp's Lewis River averaged 1,111 mcf per day in June, up 19 mcf, 1.7%, from a May average of 1,092 mcf per day and up 4.6% from a June 2020 average of 1,062 mcf per day.

Hilcorp's Seaview, the inlet's newest field, averaged 712 mcf per day in June, its first month of production.

Amaroq's Nicolai Creek averaged 411 mcf per day in June, down 14 mcf per day, 3.4%, from a May average of 425 mcf per day but up 22.1% from a June 2020 average of 336 mcf per day.

Hilcorp's Nikolaevsk averaged 404 mcf per day in June, up 257 mcf per day, 174.5%, from a May average of 147 mcf per day but down 12.9% from a June 2020 average of 464 mcf per day.

Cook Inlet natural gas production peaked in the mid-1990s at more than 850,000 mcf per day.

—KRISTEN NELSON

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KUPARUK RESTART

recovered over the life of the field," Stokes said.

The current plan covers Aug. 1 through July 31, 2022.

2020 Kuparuk PA POD

At the Kuparuk participating area, the Kuparuk River unit's main producing area, ConocoPhillips said it completed some work in the 2020 calendar year prior to the shutdown, including a three well coiled tubing drilling program with two producers brought online and one well returned to injection service after sidetracked laterals "failed to encounter resource in a previously untargeted fault block that was found to be water saturated."

Two Kuparuk rotary wells were completed at drill site 3H, a producer and an injector

The non-rig well work fleet was maintained throughout the 2020 COVID-19 pandemic, the company said, to ensure "timely response to well integrity events," with non-rig wellwork adding some 9,000 barrels per day of gross oil in

ConocoPhillips said the drilling program at the Kuparuk PA may include sidetracking existing wells shut-in by mechanical problems or low production to new bottomhole

locations, with horizontal, multilateral and CTD sidetrack technologies playing an increasing role in the Kuparuk PA "to access incremental resources at reduced costs."

2020 compared to 8,000 bpd in 2019.

A turnaround was executed at Central Processing Facility 1, while a CPF2 TAR, scheduled for 2021, has been deferred to 2022.

On the exploration side, ConocoPhillips said it continues to monitor two existing horizontal producer/injector well pairs at the Torok (Moraine) reservoir for long-term deliverability and waterflood, using the information to determine optimal inter-well spacing

"Based on the performance of these wells, a new well pair is planned to be drilled in 2022," the company said.

2021 Kuparuk PA POD

ConocoPhillips said the drilling program at the Kuparuk PA may include sidetracking existing wells shut-in by mechanical problems or low production to new bottomhole locations, with horizontal, multilateral and CTD sidetrack technologies playing an increasing role in the Kuparuk PA "to access incremental resources at reduced costs. Cost reductions and efficiencies will be essential to unlock the full value of Kuparuk resources," the company said.

Kuparuk drilling is set to begin with startup of a workover rig and a CTD rig, followed by rotary drilling in 2022 "with an injector/producer pair in the Torok (Moraine) reservoir."

Enhanced oil recovery at Kuparuk, which switched to full-field miscible injection in 2019, has allowed additional targets to be added to receive solvent injection, ConocoPhillips said, with the oil rate from EOR estimated to be some 4,900 barrels per day.

"The tertiary flood at Kuparuk has historically prioritized immature, efficient patterns to maximize EOR benefit," the company said, but with natural gas production at Greater Kuparuk continuing to

decline, "the MI injection strategy now prioritizes mature patterns with minimal gas trapping to maximize return gas." Prudhoe Bay natural gas liquids are imported to Kuparuk but in the second half of the year, Prudhoe NGLs will be replaced with fuel gas imports to meet fuel demand at Kuparuk, as the Oliktok Pipeline is converted from NGL to fuel gas.

ConocoPhillips said it is evaluating options for after the OPL conversion. It said studies have shown oil rate benefits from lean gas in previously miscible gas flood areas, but "does not have specific timing for an official lean gas chase through the Kuparuk reservoir."

The company said water handling capacity has often been a constraint on Kuparuk oil production and said it is looking at seawater demands for end users and "continuously studies future demands and whether expansion is required to meet needs for current and potential future users."

There are also production constraints from gas handling limits and ConocoPhillips said it is studying forecast of total gas supply across the field after the Oliktok Pipeline conversion "and determining the ideal strategy to maximize EOR from gas injection while staying within critical gas handling compression limits."

The company continues to replace electronic equipment at the field as it is becoming obsolete "at an increasing rate as manufacturers introduce new equipment and no longer wish to support older equipment." Fire and gas systems have been upgraded at the central processing facilities and the seawater treatment plant, with upgrades at drill sites ongoing.

As of Dec. 31, 2020, there were 798 active wells, 434 producers and 364 injectors, with average 2020 oil production 62,700 barrels per day.

West Sak PA

Following the Kuparuk PA, largest volumes come from the West Sak PA, with 119 active wells in 2020, 56 producers and 63 injectors, and average daily production of 20,400 barrels.

ConocoPhillips said one new development well was drilled in 2020 prior to the suspension of drilling operations in the second quarter.

In 2014 the Alaska Oil and Gas Conservation Commission approved viscosity reducing water-alternating gas injection as an EOR process for West Sak. There were VRWAG injections in 2020, ConocoPhillips said, with early results suggesting positive results, and pattern-level surveillance efforts continuing.

There are also on-going trials of through-tubing conveyed electric submersible motor and pump systems, with six systems continuing to run "demonstrating the increasing potential of this technology to improve overall uptime with improved drawdown of West Sak producers. Assuming continued success with Rigless ESP field trials, additional systems may be considered for future wells."

In discussing the 2021 POD, ConocoPhillips said West Sak injection and production "is challenged by matrix bypass events or highly conductive conduits between an injector and producer," effectively short-circuiting waterflood "resulting in poor pattern sweep without remediation."

Remediation treatments will be prioritized in the 2021 POD period, the company said.

Two CTD sidetracks are planned as part of a pilot program testing the viabili-



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KUPARUK RESTART

ty of CTD at West Sak. Rotary drilling will be resumed following development of opportunities with future drilling focused on completion of the 3R well drilling program.

ConocoPhillips said it is evaluating candidates for West Sak well workovers, including future CTD sidetracks using Kuparuk donor wells.

Some 4D seismic is being used to understand some of the dynamic changes in the reservoir, the company said, with one survey in 2005 and one in 2011. "The 4D processing applied to these two surveys demonstrated reservoir changes and fault compartmentalization in and around the existing developments," ConocoPhillips said, with the West Sak reservoir appearing conducive to 4D technology, and efforts underway to "understand the potential areas and timing for additional application and acquisition."

Eight Kuparuk drill sites currently have West Sak production. "New developments at existing drill sites in the West Sak/NEWS area may require facilities upgrades such as the addition of heaters, electrical upgrades, and pipelines," with additional facility requirements adding to the economic challenge of further West Sak/NEWS development "in the current business environment."

The company said it is also "evaluating potential solutions for sand control within West Sak."

Tarn PA

ConocoPhillips said there are 61 active wells at the Tarn PA, 38 producers and 23 injectors, with average oil production of 5,900 bpd in 2020.

No development wells were drilled during 2020; a producer was converted to gas lift service from jet pump service; a producer which developed annular communication was shut in; two injectors which were shut-in were brought online again after successful wellwork.

The company said routine paraffin scrapes and hot diesel flushes were conducted on many Tarn wells to maintain production.

Tarn was initially developed with miscible injectant for pressure maintenance and EOR, with miscible water alternating gas, MWAG, not recommended due to lower permeability in exploration wells and signs of water damage in laboratory tests of exploration well core.

But higher quality reservoir was discovered during

ConocoPhillips said there are 61 active wells at the Tarn PA, 38 producers and 23 injectors, with average oil production of 5,900 bpd in 2020.

development drilling from the 2N and 2L pads, reopening the potential for MWAG, which compared to continuous MI injection, is expected to yield higher recovery due to improved mobility control. Immiscible water-alternating gas using lean gas was applied to the Tarn reservoir from 2014-18, following cessation of NGL imports from Prudhoe, but when those imports returned in 2018, the field was returned to MWAG flood.

ConocoPhillips said there are no current plans for drilling at Tarn in the current plan period.

The majority Tarn wells have been converted to gas lift due to well integrity issues from jet pump power fluids, with paraffin scrapes and hot diesel flushes used to mitigate paraffin deposition to some extent — mitigation measures expected to continue to be applied in the plan period.

The three remaining wells on jet pump are being considered for conversion to gas lift.

Plans are in place to recomplete wells at Tarn with new perforations or by isolating high water cut zones, with feasibility of fracking or refracking the wells also being considered.

ConocoPhillips said "there is potential to further develop Tarn through new development well drilling" provided economics are competitive.

As a first step a new full field model for Tarn is being history matched and once complete, the FFM will be used to identify drilling opportunities and the associated economics and to compare then with other Kuparuk opportunities

Tabasco PA

The Tabasco PA has just eight active wells, five producers and three injectors, and 2020 oil production averaged 1,100 barrels per day. Water production averaged 14,200 bpd

There were no development wells drilled at Tabasco during 2020 and one well was shut-in when a high shut-in bottomhole pressure was measured.

The company said there are no plans for drilling activity

at Tabasco during the 2021 plan period.

Waterflood operations will continue to be optimized, with plans to use artificial neural network machine learning in two wells in 2021.

"The reservoir management strategy is predicated upon injecting water deep into the central canyon and producing from the periphery," ConocoPhillips said.

Meltwater PA

ConocoPhillips said it will be shutting-in the Meltwater PA south of the unit at drill site 2P. As of the end of 2020 it had 16 active wells, nine producers and seven injectors, with average oil production of just 300 barrels per day. Production is expected to continue at least through this summer, the company said in the 2021 POD for the Meltwater PA.

The company said shutting in Meltwater will "eliminate backout impacts to the rest of CPF2 production."

In 2020, there were no development wells drilled; two producers were converted to jet pump operations, one of which had to be subsequently shut down due to low productivity.

The company said the nature of the reservoir requires reduced injection pressure, not enough to maintain reservoir pressure, resulting in a steady decline. "Insufficient pressure support and limited connectivity between producers and injectors impacted Meltwater well production, and low rates, frequent freezing, and no-flow situations have impacted Meltwater well uptime." Some wells were converted to jet pump artificial lift but with limited success.

Some 15,000-17,000 barrels of water per day is cycled to and from DS2P to keep the line warm.

"This additional water cycling causes backout at CPF2, which significantly exceeds all existing and expected Meltwater oil production," ConocoPhillips said, with daily backout at CPF2 caused by Meltwater estimated at 600 bpd, compared to Meltwater production of 300 bpd last year.

ConocoPhillips said it is working on detailed plans for the indefinite shut-in, which will address a timeline to plug and abandon the wells, possible movement of pigging equipment at DS2P, suspension of the surface kit, potential reuse of some surface kit elsewhere and potential use of DS2P gravel and pipelines for other developments.

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PIKKA EASEMENT

The construction easement will increase by 12.2 acres for a total of 658.2 acres, and the operational easement will increase by 6.8 acres for a total of 215.7 acres.

The easement modifications are on oil and gas leases held by Mustang Holding and OSA and are consequently contingent upon reasonable access to State of Alaska surface lands adjacent to OSA's Pikka unit and Mustang's Southern Miluveach unit lease boundaries.

Surface activities will occur on Mustang leases ADLs 390691 and 390692 and OSA lease ADL 392964.

Per OSA's application, the components will be constructed during the winter using ice roads and existing gravel roads.

The project access road was built in the winter of 2019-20. The access road, operations pad, processing facility pad and the ND-B drill site are also in place.

OSA asked to increase the easement for the remaining components of the project that aren't covered in the previously authorized Pikka Development Access Road

The construction start date is listed in OSA's application as Nov. 1 with a potential finish date of Dec. 31, 2023.

Decision and finding

The division, which is part of the Alaska Department of Natural Resources, or DNR, found that the easement modification was "necessary for the practicable development and production of the OSA's Pikka unit resources" and that granting the easement modification "makes the land available for the maximum use and benefit consistent with the public interest."

The easement modification will be authorized under AS 38.05.850, with the division updating the previously issued entry authorization, or EA, to reflect the increase in acreage pursuant to AS 38.05.850.

OSA must meet the requirements of the EA before the easement will be granted, the decision said.

During the term of the EA, periodic inspections may be conducted at the discretion of DNR to ensure compliance.

Survey and usage fees

OSA must submit an as-built survey "acceptable to the standards of the division prior to the expiration of the EA. The asbuilt survey will include surface infrastructure (road, pump house pad, NPF, and NOP) over state surface and submerged lands within Southern Miluveach and Kuparuk River unit and non-unitized leases. Survey instructions must be obtained from the DNR Survey Section," the decision said, adding "advance planning facilitates the survey process, saving time and money for both the state and the grantee. Therefore, the division recommends coordination with the DNR Survey Section prior to beginning construction on state land."

Finally, a draft of the project as built must be submitted to the DNR Survey Section prior to expiration of any EA issued by the division for ADL 421218 and must be approved by the division before issuance of the final easement document, the decision

Annual fees for a private non-exclusive easement are subject to 11 AAC 05.070(d)(2) and the Division of Mining Land & Water director's fee order #3, which is \$240 per acre, per year.

The EA authorization for construction and survey activities within the road easement will be updated to reflect the 12.2-acre increase, resulting in a total authorization of 658.2 acres. OSA will be charged an annual fee of approximately \$157,968.00 for the term of the EA and any extensions to the EA, in accordance with 11 AAC 05.070(d)(2), the decision said.

Upon completion of construction and survey activities in accordance with the director's decision and all terms and conditions of the EA, a 215.7-acre private nonexclusive easement will be issued for the road for operation and maintenance of the infrastructure.

No agency, public response

The project description was circulated for agency review on May 25 through June 8. No comments were received.

Public notice and solicitation of comments for the road easement application has appeared in the DNR Public Notices and Division websites; the Barrow, Nuigsut, and Deadhorse Post Offices on June 14, the Arctic Sounder on June 17 and 24; and the Anchorage Daily News on June 14 and 21, with a comment deadline of July 14. No comments were received.

-KAY CASHMAN

Contact Kay Cashman at publisher@petroleumnews.com

continued from page 1

QUEBEC LNG

Final ratification withheld

But the government withheld final ratification of the venture unless the proponents could demonstrate their proposal would accelerate the transition to greener forms of energy, lower greenhouse gas emissions and attract sufficient public backing.

Environment Minister Benoit Charette said an analysis by his ministry concluded that the Energie Saguenay project had no

chance of meeting the first two criteria.

Ministry officials opted not to bother analyzing the third, partly because a petition against the project was signed by 120,000 Quebecers, along with 648 scientists, 250 health professionals and 40 economists.

In addition, more than 2,500 briefs were filed with the environment bureau opposing the venture.

Charette told a news conference that the 'project has more disadvantages than advantages," and would, if it proceeded, discourage natural gas buyers elsewhere from moving to cleaner energy sources.

He conceded the decision made it unlikely that a planned pipeline to carry gas from Western Canada to a liquefaction plant and tanker terminal at Port Saguenay on the St. Lawrence River would proceed.

Innu nation opposition

The chances of the pipeline surviving were already in trouble when the three Innu nations spurned any attempt by GNL Quebec to continue negotiations.

Quebec's government environmental bureau said in a 500-page report that LNG "would effectively serve as a substitute to polluting fuels already used in targeted export markets."

Charles-Edouard Verreault, a vice chief of one First Nation, said it "would be impossible for GNL Quebec to meet its commitment in terms of reducing greenhouse gas emissions."

GNL Quebec said it would welcome the opportunity "to explain our commitments and demonstrate that Energie Saguenay would provide LNG with the lowest carbon footprint in the world, thus making it an important contribution to the fight against climate change."

Verreault said the Innu nations is the "territory where our ancestors have been settled for centuries and where we hold ancestral rights and Innu titles."

'People-powered victory'

Julia Levin, a senior official at the advocacy group Environmental Defense, said the government rejection is a "people-powered victory" against the notion that hydraulic fractured gas should be used as a bridge

The ideas that Canada "can help global decarbonization by doubling down on fracked gas is a lie. It's irresponsible for premiers in other provinces to continue to latch on to that lie."

Levin said other provinces such as British Columbia, which continue to approve LNG projects makes it hard for those premiers "to not say they are climate deniers."

Charette said he expects premiers in Western Canada, especially Alberta, will be disappointed by Quebec's decision, but he stressed that Quebec is not the only jurisdiction in the world that is looking critically at natural resource projects.

"To our friends in Alberta we say let's work together on other kinds of projects, on cleaner project," he said.

Quebec had previously dealt a blow to TC Energy's plans for the 1 million barrels per day Energy East pipeline to Canada's Atlantic coast, the bulk of which was tagged for Europe and has declined to support Enbridge's battle with Michigan Gov. Gretchen Whitmer to complete an upgrading of its Line 5 to deliver crude bitumen to refineries in Quebec, Ontario and the U.S. Midwest.

—GARY PARK

CUTTING BOXES

BOTTLE RACKS

DRUM RACKS

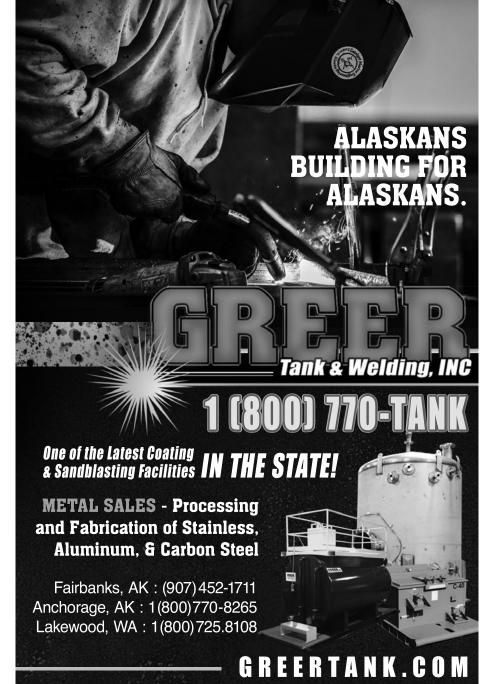
PALLET RACKS

CARGO BOXES

CARGO RASKETS

TANKS NFC & GPS

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INSIDER

progress was made on several funding opportunities which are expected to strengthen Oil Search's balance sheet ahead of the upcoming investment programs for Pikka and Papua LNG."

This is in line with what an Oil Search Alaska executive told Tom Stokes, director

of Alaska's Division of Oil and Gas on July 19, hours after Oil Search Ltd. announced the resignation of its CEO. Keiran Wulff. Some analysts interpreted Wulff's resignation as managing director as a setback for the BRUCE DINGEMAN



company's plans to develop Pikka, given Wulff had previously been president of Oil Search Alaska, leaving in February 2020 to take over leadership of Oil Search Ltd, where he said he would continue to be a strong proponent for the company's North Slope assets, including Pikka. Shortly thereafter Bruce Dingeman took Wulff's place as president of Oil Search Alaska.

The Oil Search Alaska executive who called Stokes assured him that "nothing has changed" on the development timeline of the Pikka project. The goals, including the financing package needed for FID, or final investment decision, remained the same.

But goals are just that, Fredricson said

"We've always said that we wanted to ensure that both ourselves and Repsol ... have taken some of the risk of this project off our own balance sheets. That ...process has begun in the context of the sell-down of an equity holding, an equity interest, of between 14% and 15% for each of us. ... But we're not going to put ourselves in a position where we say that it has to be completed by 1 November to go to FID, just so that we go to FID on that date ... these sorts of projects don't always run to a timetable like a bus."

Fredricson said the company and its people are as passionate about Alaska as Wulff had been.

Gardes gets its leases

The transfers of the North Fork leases requested by new Cook Inlet basin natural gas player Gardes and the former leaseholder Cook Inlet Energy were recently approved by Alaska's Division of Oil and

Gas, effective Jan. 1, 2021. That's the same date the division used when it approved a change in operatorship in May.

The working interest and royalty interests requested were transferred first to Gardes Holdings and then from Gardes to Vision Resources, which is owned by a Gardes concern and based in Alaska.

Eni picking up pace?

Rumors — a few from credible Petroleum News sources — say that Eni is taking on as many as three new projects on Alaska's North Slope.

One might very well be connected to the Italian major's most recent plan of development for its Nikaitchuq unit, in which the company told Alaska's Division of Oil and Gas it would likely be doing facility upgrades to support the planned Nikaitchuq North exploration well (NN-02), the two remaining Spy Island Drillsite injection wells and the "potential" of six new wells discovered from the SP03-NE2 pilot-hole analysis from an earlier development plan.

While Eni's Nikaitchuq and Oooguruk producing units are west of the Hilcorpoperated Prudhoe Bay unit, the company also holds approximately 350,000 undeveloped acres it purchased from Caelus in August 2018 on the eastern North Slope between Prudhoe and ExxonMobil's Point Thomson unit. The word on the street is that Eni is considering exploring it.

At the time of the purchase, Eni said it planned to "apply its business model and experience," involving "fast-track exploration" and "a short time to market" for the "potential new discoveries."

Containing 124 state leases in two blocks, the acreage is relatively unexplored and close to existing infrastructure and to the trans-Alaska oil pipeline. It is approximately 20 miles southeast of Deadhorse, which is an unincorporated community consisting mainly of facilities for oilfield workers and firms that have contracts with the nearby oil fields, including Prudhoe. Deadhorse is accessible via the Dalton Highway and the Deadhorse Airport.

Shortly after acquiring the eastern North Slope leases in 2015, Caelus acquired 175 square miles of new 3-D seismic data and reprocessed another 275 square miles of existing 3-D to image prospects in the acreage.

"Adjacent infrastructure with available capacity reduces threshold volumes required for developing discoveries in the sub-100 MMBO recoverable range," Caelus said. "Multiple play types within

proven stratigraphic horizons provide significant upside potential in previously poorly-imaged structural trends and/or subtle stratigraphic traps."

Surrounding legacy wells "confirm deeper petroleum system elements and derisked shallower Brookian reservoirs and hydrocarbon charge and phase within the area," Caelus said, much of which was mostly ignored in drilling until Armstrong and Repsol discovered big light oil finds in the shallow Brookian Nanushuk at Pikka and Horseshoe west of the central North

Armstrong and Oil Search also have a huge block of undeveloped acreage near Eni's 350,000 acres.





RADA KHADJINOVA

THOMAS WALSH

SPE announces 2021 regional awards

ON JULY 25 the Society of Petroleum Engineers announced the recipients of its regional awards, which are designed to recognize members who have contributed exceptional service and leadership to the society, as well as those who have made major professional contributions to their technical disciplines at the regional level.

Alaska is part of SPE's Western North America Region, with the following individuals receiving awards for work in the

- · Andrew Bond, Oil Search Alaska, the Regional Completions Optimization and Technology Award.
- · Arthur Moritz, Oil Search Alaska, the Regional Data Science and Engineering Analytics Award.
- Yin Zhang, University of Alaska-Fairbanks, the Regional Distinguished Achievement Award for Petroleum Engineering Faculty.
- · Mohabbat Ahmadi, University of Alaska–Fairbanks, the Regional Production and Operations Award.
- · Timothy Nagy, the Regional Management Award.
- · Rada Khadjinova, Fugro, the Regional Projects, Facilities

Construction Award.

- · Thomas Walsh, Petrotechnical Resources-Alaska, the Regional Public Service Award.
- Christopher May, Golder Associates, the Regional Service Award.
- Ian Johnecheck, ConocoPhillips Alaska and Sydney Deering, ConocoPhillips Alaska, both received the Regional Young Professional Member Outstanding Service Award.

Chugach Electric CEO Thibert retiring

CHUGACH ELECTRIC Association CEO Lee Thibert has decided to retire in April 2022. Thibert, 66, has been with Chugach for more than 30 years and has served as CEO for five years.

"Working for Chugach and our members has been an incredible opportunity," Thibert said. "I am very proud of the work we have done together, continuing to build a strong, vital utility, providing power to thousands of Alaska homes and businesses."

Thibert's career at Chugach began in 1987 and he held a variety of senior management positions before being named CEO in July 2016. As CEO, he has led Chugach through several sigevents nificant



including the acquisition of Municipal Light & Power, the purchase of an ownership interest in the Beluga River gas field and interest in Cook Inlet's first commercial gas storage facility, and successfully navigating the utility through the recent COVID-19 pandemic.

"Lee has been a steady and accomplished CEO, leading Chugach through many significant changes over the years," Rachel Morse, Chugach board chair, said. "We will miss him, but his retirement is well-deserved, and he leaves Chugach a strong and resilient utility."

Morse said the board's goal is to have a smooth transition next year and is immediately beginning a search for Thibert's replacement.

-INSIDER IS COMPILED BY KAY CASHMAN

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OIL PRICES

the highest level.

ANS and Brent eked out a small gain July 26, but on July 27, ANS fell 25 cents to close at \$73.93, Brent fell 2 cents to close at \$74.48, and WTI fell 26 cents to close at \$71.65.

Although traders remained wary about demand, supply forces pushed prices upward to a two-week high as U.S. crude, gasoline and distillate storage levels fell in a rebounding summer driving season.

The U.S. Energy Information Administration said July 28 that U.S. crude inventories fell by 4.1 million barrels for the week ended July 23, the ninth weekly decline in 10 weeks. Gasoline inventories also moved lower, by 2.25 million barrels.

Brent rose above \$75, and WTI made gains toward \$73 in early trading July 29 as Petroleum News went to press.

"There appears to be quite a bit of hesitancy to push the market in either direction, leaving it in a holding pattern," said Warren Patterson, the head of commodities strategy for ING in Singapore. "There is still uncertainty over the demand picture, with COVID-19 cases continuing to tick higher."

Crude inventories in Cushing, Oklahoma — delivery hub for WTI — fell to the lowest level since January 2020, down 1.27 million barrels, Patterson said.

Federal leasing review drags on

A federal lands leasing review ordered in January by President Joe Biden will have only muted impact on the U.S. production outlook, based on S&P Global Platts Analytics projections.

Onshore shale output is expected to reach to 8.5 million barrels per day by the end of 2022, up from 7.3 million bpd in July 2021, pushing overall U.S. production to 12.4 million bpd by end-2022, up from 10.9 million bpd in July 2021.

Interior Secretary Deb Haaland drug her feet in a July 27 Senate hearing, on committing to restarting oil and gas lease sales on federal lands and waters by the end of September.

Lawsuits over Interior's leasing review brought by 14 petroleum producing states prompted an order in June from a U.S. district court judge in Louisiana to end to the moratorium.

The judge granted a preliminary injunction in the case and ordered Interior to re-calendar Lease Sale 258 in Alaska's Cook Inlet, and Lease Sale 257 in western and central Gulf of Mexico.

"There's a lot of work that goes into moving that forward," Haaland said. "The review is being finalized internally and we hope to get it out very soon."

Alaska Sen. Lisa Murkowski chided Haaland's noncommitment after previously promising a report by early summer

"Last month you testified before the House Natural Resources Committee that it will be coming soon; last week you were quoted again that it will be soon," Murkowski told Haaland, adding that Haaland had testified earlier in the morning that the report would be coming soon.

"I'm not going to ask you when it's going to be coming because I think I know what your answer is; none of us know what your answer is," Murkowski said. "I hope you can sense the frustration that so many of us have in anticipating this and wondering when we will be able to expect that you'll be in compliance with the judge's order."

Murkowski requested that Haaland provide in writing a list of all stakeholders and entities Haaland has met with in Alaska including state officials, Alaska Native corporations, tribes, and private companies. •

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SEAVIEW GAS

Hilcorp is the inlet's largest oil and gas producer. It already operates 15 Cook Inlet fields — Seaview makes 16.

On the North Slope, Hilcorp is the operator at Prudhoe Bay, Endicott, the Liberty prospect, Milne Point and Northstar. It initially partnered with BP on Endicott, Milne Point and Northstar, and then acquired BP's Alaska assets when that company left the state, with field acquisition closing last summer.

The new Cook Inlet field, Seaview, is producing from the No. 8 well, drilled in 2018 and tested in 2019. Scheduled to begin

last year, production was delayed awaiting completion of a 2-mile pipeline which required horizontal directional drilling at two crossings beneath the Anchor River. The HDD work was not completed until this summer.

Hilcorp has permitted a second well, Seaview 9, with drilling scheduled for this summer, following stratigraphic tests in 2019 and 2020.

Gas pipeline

In a February presentation, Jennifer Starck, Hilcorp Alaska Kenai team lead, discussed the Seaview pipeline situation.

She said production, expected to begin in late 2020, was delayed by difficulties in

The new Cook Inlet field, Seaview, is producing from the No. 8 well, drilled in 2018 and tested in 2019. Scheduled to begin last year, production was delayed awaiting completion of a 2-mile pipeline which required horizontal directional drilling at two crossings beneath the Anchor River.

making two horizontal directional drilling crossings under the Anchor River.

"Because of the location of this pad, we've got some very difficult connections to get this gas into market," Starck said.

The HDD crossings under the Anchor River were attempted by a local contractor in 2020, but that work was unsuccessful, so Hilcorp is bringing up a specialist company from the Lower 48, she said.

Hilcorp secured the services of a worldclass HDD contractor, Michels Corp. "Fortunately for us, they were one of the pipeline contractors that were secured for the Keystone pipeline and now they've got some free space in their calendar, and they're going to be coming up and helping us install our HDD under the Anchor River," Starck said. On its website, Michels said it was contracted to install two sections of a 10-inch pipeline at Anchor River, one section some 1,700 linear feet and the other some 2,100 linear feet. Timeline for the work was March and April, Michels said.

Starck said crews would mobilize in March to complete the pipeline work, with Seaview anticipated to come online in the summer.

"Once we get the pipeline in place, we'll be drilling additional penetrations in Seaview to get more gas to market," she said

Seaview wells

In its application for a spacing exception for Seaview 9, Hilcorp told AOGCC that the well would be drilled from the Seaview pad on privately owned property within the field, which is near Anchor Point. Drilling operations were expected to begin in mid-June, the company said, but would have begun later, as the well was not permitted until June 24. The company said Seaview 9 would be a grassroots delineation well some 1.5 miles south of Anchor Point targeting potential gas-bearing sands in the Beluga and Tyonek formations. AOGCC has classified Seaview 9 as an exploratory well.

Seaview 8, drilled in 2018 and completed in 2019, reached a measured depth of 10,621 feet. In a May 20 hearing before the commission on proposed pool rules for Seaview, Hilcorp told the commission the Beluga and Tyonek formations are the main gas source at Seaview.

The Sterling, Beluga and Tyonek formations are generally accepted, Hilcorp said in a geologic report submitted prior to the pool rules hearing, to be "part of a self-sourcing natural gas petroleum system — that is, the substantial Tertiary coal measures of the Sterling, Beluga and Tyonek formations generate dry methane gas that migrates into, and is trapped within, adjacent sandstone reservoirs."

The geologic report and an accompanying reservoir report both said economic production at Seaview would require commingling gas from the Beluga and Tyonek sands. Since the gas-bearing sands are discontinuous and there will be commingling of sands within wellbores, "it will be difficult to accurately measure depletion and recovery of individual sands."

When AOGCC issued approval for production from Seaview 8 last fall, it noted "commercial quantities of gas in four zones in the Tyonek formation." •



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