



**page 4** April ANS averages 482,310 bpd, down 0.5%; Prudhoe down 2.9%

Vol. 28, No. 23 • www.PetroleumNews.com

A weekly oil & gas newspaper based in Anchorage, Alaska

Week of June 4, 2023 • \$2.50

## Ruling puts Alaska resource development back in state control

On May 25, the U.S. Supreme Court limited the federal government's authority to regulate wetlands under the Clean Water Act, issuing a narrow reading of the statute's scope and definition of Waters of the United States, or WOTUS, in *Sackett v. Environmental Protection Agency*.

The ruling has a significant impact on Alaska as the state has more than half the nation's wetlands, with more than 3 million lakes, nearly a million miles of rivers, more coastline than the rest of the Lower 48 combined, and, prior to the Court's ruling, 174 million acres of wetlands subject to federal oversight according to the now defunct definition by the EPA.

The ruling decreased the amount of wetlands covered by the Clean Water Act in Alaska, limiting the federal government's power to control community and resource development projects — and how Alaskans balance development with environmental protection, Alaska Gov. Mike Dunleavy's office said in a press release following the ruling.



MIKE DUNLEAVY

see **WOTUS RULING** page 7

## Alaska Supreme Court affirms in most part North Pole case ruling

In a May 26 decision the Alaska Supreme Court affirmed a superior court decision in a case brought by Williams Alaska Petroleum and The Williams Cos. against the state, Flint Hills Resources and Flint Hills Resources of Alaska over contaminants at the North Pole Refinery. The refinery, on leased state land, was owned and operated by Williams from 1977 until 2004 when it sold the refinery to Flint Hills.

In its decision the Alaska Supreme Court said following release of hazardous substances that contaminated local groundwater, the state and previous and current owners of the refinery litigated contract and statutory damage claims.

"The superior court rejected the previous owner's claims against the State and the current owner, found the previous owner strictly liable, and ordered it to pay damages to the State and make contributions to the current owner for its remediation costs." The previous owner, Williams, appealed the ruling, contending, among other things, that the court erred

see **REFINERY CASE** page 8

## First Alaska sustainability report published: The Alaska Standard

On May 24 the first ever Alaska sustainability report, The Alaska Standard, was released by the office of the governor.

"Beginning in 1957 with the historic oil discoveries at Swanson River, and the Prudhoe Bay discovery following shortly thereafter in 1968, Alaska established itself as the petrostate it is known for today. Alaska has managed its resource development processes responsibly through strict environmental regulations and the proactive implementation of anti-waste statutes prohibiting natural gas flaring or venting during full-scale operations. These practices contribute to the State of Alaska being ranked the lowest in carbon emissions from a petrostate and ranking as the 10th lowest US state in carbon emissions from human activities," the inaugural publication reads, this information from State Carbon Dioxide Emissions Data, U.S. Energy Information Administration, or EIA.

"Alaskans know that we've been doing resource development better than anyone since statehood by following our Constitutional mandates to develop our resources for the

see **ALASKA STANDARD** page 9

### EXPLORATION & PRODUCTION

# Seeking partner(s)

*Shell doesn't want to operate, wants company to share risk & operate*

By KAY CASHMAN

Petroleum News

Shell Offshore Inc., operator and 100% working interest owner of the nearshore West Harrison Bay unit, has made it clear that while it is not interested in operating in Alaska, neither does it appear to be interested in relinquishing the 81,000-acre unit that lies so close to major Nanushuk formation discoveries west of the central North Slope.

The West Harrison Bay unit lies northwest of Santos' Pikka unit and approximately 7 miles directly north of ConocoPhillips Alaska's Bear Tooth unit, which holds the big Willow discovery.

Shell is looking for a partner, or partners, to buy into the unit to share the exploration cost and risk

*Under its current plan of exploration, or POE, with Alaska's Division of Oil and Gas, Shell or the company it designates as operator, is obligated to drill its first exploration well in the West Harrison Bay unit this coming winter.*

— and to take over the role of operator.

Under its current plan of exploration, or POE, with Alaska's Division of Oil and Gas, Shell or the company it designates as operator is obligated to drill its first exploration well in the West Harrison Bay unit this coming winter.

see **PARTNER SOUGHT** page 11

### FINANCE & ECONOMY

# Russians are coming!

*Russia betrays OPEC+ production cut agreement and raises crude shipments*

BY STEVE SUTHERLIN

Petroleum News

Just as Alaska North Slope crude was mounting a recovery from near \$70 per barrel and closing in on \$80, Russia has been caught surreptitiously flooding the market with cheap seaborne crude, in direct violation of its agreements with the Organization of the Petroleum Exporting Countries and its allied exporting nations — of which Russia is part.

Russian crude sales to international markets are edging lower, but the 500,000-barrel-per-day output cuts Russia agreed to in mid-May have not materialized, Bloomberg revealed in a May 30 report. In fact, Russian shipments are 270,000 bpd higher than in February, the baseline month for the

*Oil was further pressured by moribund Chinese demand recovery data, and a rising U.S. dollar, which causes oil to be more expensive for buyers that must convert local currency to dollars to purchase oil.*

promised cut.

Russian oil shipments remain some 1.4 million bpd higher than levels at the end of 2022, despite slipping for the first time in six weeks during the period ending May 28, to settle at 3.64 million bpd.

see **OIL PRICES** page 10

### FINANCE & ECONOMY

# Thomson valuation issue

*State Assessment Review Board partially approves Point Thomson valuation*

By KRISTEN NELSON

Petroleum News

The Alaska State Assessment Review Board has partially supported the Alaska Department of Revenue's 2023 property tax assessment for the Point Thomson unit while requiring adjustments in two areas.

Revenue's assessment of \$1.25 billion was appealed by the North Slope Borough, which argued for an assessment of \$3.24 billion.

In a May 22 decision, the board ordered two adjustments to Revenue's assessment based on the department's use of depreciation based on reservoir underperformance and too broad an application of superadequacy.

*The board said it "finds that DOR's consideration of fully operational days to determine peak production is not contrary to the regulatory definition of production decline" and agreed with Revenue's determination that 2022 production was at least 10% less than peak production.*

The board said it found "the Assessment is excessive and improper to the extent it depreciated based on reservoir underperformance and to the extent it depreciated based on superadequacy of property other than the airstrip, camps, and dock."

see **VALUATION ISSUE** page 10



● EXPLORATION & PRODUCTION

# State approves operation plan amendments

Two for Hilcorp for Cook Inlet platforms A, Granite Point; 2 for ConocoPhillips at North Slope Colville River, Kuparuk River units

By **KRISTEN NELSON**  
*Petroleum News*

**A**mendments to plans of operations in Cook Inlet and on the North Slope have been approved by the Alaska Department of Natural Resources’ Division of Oil and Gas.

Two of the plan amendments are for work proposed by Hilcorp Alaska in Cook Inlet; two are for work by ConocoPhillips Alaska on the North Slope.

In Cook Inlet, Hilcorp plans to install anode sleds at two platforms: Platform A in the Middle Ground Shoal unit and the Granite Point Platform in the Granite Point unit.

Work at the two platforms is the same: the company plans to install five anode sleds for cathode protection at each platform, with the anode sleds in each case to be placed by divers some 200 feet away from the platform legs. The divers will also place Sea-Crete bags to stabilize and protect the anodes from tidal forces, the division said in its May 25 approvals of the work. Heavy duty cables will run along the sea floor to connect the sleds to

the platform legs and up through the J-tube. Platform A is some 8 miles west of Boulder Point; the Granite Point Platform is some 3-1/2 miles south of Granite Point.

### North Slope approvals

On May 24 the division approved a plan of operations amendment for ConocoPhillips Alaska, operator of the Kuparuk River unit, for an air monitoring station installation at the KRU CPF-1, on the western side of the CPF-1 pad, east of the KOC reservoir.

Air monitoring will be conducted for up to 18 months, the division said, and then the station and equipment will be removed.

Typical construction equipment will be used, with all work, which is expected to begin by July 1, on the existing gravel pad.

On May 25 the division approved a request from ConocoPhillips to update portable tanks on the inventory list for pads CD1, CD2, CD3, CD4, CD5 and the Kuukpik pad at the Colville River unit. The division said the authorization allows the company to move existing


portable tanks from site to site to respond to operations, production and drilling activities.

The tanks have capacities up to 600 barrels. The division said they would contain standard liquids for North Slope operations, “such as diesel, crude, drilling wastes (e.g. cuttings and muds) and other hydrocarbon products, recycled water, mineral oil, brine, seawater, methanol, corrosion inhibitor, scale inhibitor, emulsion breaker, glycol, mutual solvent, and foam inhibitor, as well as other fluid used in well drilling, well workovers, well treatments, and associated well operations.”

The tanks are temporary and will be used for projects until the contents have been depleted or are no longer in use and will be “removed from service and left in place until they are required elsewhere,” the division said.

All the tanks will have secondary containment. Work will be performed on pad, with project work scheduled to begin June 1, with tanks in use until the end of field life. ●

Contact Kristen Nelson  
at knelson@petroleumnews.com

contents		Petroleum News	Alaska’s source for oil and gas news
<b>ON THE COVER</b>		<b>4</b>	<b>April ANS averages 482,310 bpd, down 0.5%</b>
<b>Seeking partner(s)</b>			Prudhoe Bay has largest month-over-month decline, down 2.9%, down 1.9% year-over-year; Colville River has largest gain, up 9.9%
<b>Russians are coming!</b>			<b>SIDEBAR, PAGE 4:</b> Cook Inlet gas down 2.6%
<b>Russians are coming!</b>		<b>7</b>	<b>US rotary rig count drops again, down by 9</b>
<b>Russia betrays OPEC+ production cut and raises crude shipments</b>			Week of May 29 4th week in a row of decreases; steepest, down 17 rigs, reported May 12; 6 states down this week, while only 2 up
<b>Thomson valuation issue</b>		<b>THIS MONTH IN HISTORY</b>	
<b>Assessment Review Board partially OKs Point Thomson valuation</b>		<b>6</b>	<b>Multiple buyers look at Williams refinery</b>
<b>Ruling puts Alaska resource development back in state control</b>			20 years ago this month: Company says sale of \$500 million Alaska assets likely by end of year, including North Pole refinery
<b>Alaska Supreme Court affirms in most part North Pole case ruling</b>			
<b>First Alaska sustainability report published: The Alaska Standard</b>		<b>Trusted upstream coverage &gt;&gt;</b> www.petroleumnews.com	
<b>EXPLORATION &amp; PRODUCTION</b>			
<b>2</b>	State approves operation plan amendments		



Surface Logging Services  
Drilling Solutions  
Lab Studies  
Innovation Hub



**22 Years of Surface Logging Excellence in Alaska**

GEOLOG, servicing the energy industry’s pre- and post-digital cuttings needs

301 East 92nd Ave., Suite 2, Anchorage, AK 99515 | James R. Carson, Alaska District Manager | +1 907-227-3365 | j.carson@geolog.com

www.geolog.com





**ALWAYS LEGENDARY**

NO MATTER THE CONDITIONS

**BREAKING TRAIL FOR OVER 40 YEARS**



**NORTH SLOPE  
TELECOM, INC.**

**(907) 751-8200**

WWW.NSTIAK.COM



# Alaska-Mackenzie Rig Report

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

## Alaska Rig Status

### North Slope - Onshore

<b>All American Oilfield LLC</b>			
IDECO H-37	AAO 111	Stacked in MagTec's Yard	Available
<b>Doyon Drilling</b>			
Dreco 1250 UE	14 (SCR/TD)	Milne Point, M-63	Hilcorp Alaska LLC
Dreco 1000 UE	16 (SCR/TD)	Standby	Available
Dreco D2000 Uebd	19 (SCR/TD)	Demobilizing	Available
AC Mobile	25	Alpine, MT7-95	ConocoPhillips
OIME 2000	141 (SCR/TD)	Standby	Available
	142 (SCR/TD)	Alpine, 1C-156	ConocoPhillips
TSM 700	Arctic Fox #1	Demobilizing	Available
ERD	26	Alpine, CD4-588	ConocoPhillips
<b>Hilcorp Alaska LLC</b>			
Rotary Drilling	Innovation	Prudhoe Bay, Z Pad	Hilcorp Alaska LLC
<b>Nabors Alaska Drilling</b>			
AC Coil Hybrid	CDR-2 (CTD)	Prudhoe Bay, L4 Pad	Hilcorp Alaska LLC
AC Coil	CDR-3 (CTD)	Kuparuk	ConocoPhillips
Dreco 1000 UE	7-ES (SCR-TD)	Kuparuk	ConocoPhillips
Dreco 1000 UE	9-ES (SCR/TD)	Stacked	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Stacked	Brooks Range Petroleum
Emsco Electro-hoist			
Oilwell 2000 Canrig 1050E	27-E (SCR-TD)	Stacked	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Stacked	Available
OIME 2000	245-E (SCR-ACTD)	12 Acre Pad, stacked	Available
Academy AC electric CANRIG	105AC (AC-TD)	Stacked	Available
Academy AC electric Heli-Rig	106AC (AC-TD)	Stacked	Available
<b>Nordic Calista LLC</b>			
Superior 700 UE	1 (SCR/CTD)	Deadhorse	Available
Superior 700 UE	2 (SCR/CTD/TD)	Deadhorse, stacked	Available
Ideco 900	3 (SCR/TD)	Kuparuk	ConocoPhillips
Rig Master 1500AC	4 (AC/TD)	Oliktok Point	ENI
<b>Parker Drilling Arctic Operating LLC</b>			
NOV ADS-10SD	272	Deadhorse Yard, undergoing maintenance/upgrades	Santos
NOV ADS-10SD	273	Deadhorse, Stacked	Available

### North Slope - Offshore

<b>Doyon Drilling</b>			
Sky top Brewster NE-12	15 (SCR/TD)	Spy Island SP42-NE4 L1	ENI
<b>Nabors Alaska Drilling</b>			
OIME 1000	19AC (AC-TD)	Oooguruk, Cold Stacked	ENI

### Cook Inlet Basin – Onshore

<b>BlueCrest Alaska Operating LLC</b>			
Land Rig	BlueCrest Rig #1	Stacked	BlueCrest Alaska Operating LLC
<b>Nordic Calista LLC</b>			
	Rig 37	Kenai, stacked	Available
Land Rig	36 (TD)	Kenai, stacked	Available
<b>Hilcorp Alaska LLC</b>			
TSM-850	147	Beluga River Unit, F Pad	Hilcorp Alaska LLC
TSM-850	169	Pearl Pad	Hilcorp Alaska LLC

### Cook Inlet Basin – Offshore

<b>Hilcorp Alaska LLC</b>			
National 110	C (TD)	Platform C, Stacked	Hilcorp Alaska LLC
	Rig 51	Steelhead Platform, Stacked	Hilcorp Alaska LLC
	Rig 56	Monopod A-13, stacked	Hilcorp Alaska LLC
<b>Spartan Drilling</b>			
Baker Marine ILC-Skidoff, jack-up		Spartan 151, Tyonek Platform	Hilcorp Alaska LLC
<b>Glacier Oil &amp; Gas</b>			
National 1320	35	Osprey Platform, activated	Glacier Oil & Gas

## Mackenzie Rig Status

### Canadian Beaufort Sea

<b>SDC Drilling Inc.</b>			
SDC Mobile Offshore Drilling Unit Rig #2		Set down at Roland Bay	Available

The Alaska-Mackenzie Rig Report as of May 31, 2023.  
Active drilling companies only listed.

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

This rig report was prepared by Marti Reeve



JUDY PATRICK

### Baker Hughes North America rotary rig counts\*

	May 26	May 19	Year Ago
United States	711	720	727
Canada	87	85	103
Gulf of Mexico	20	21	15

<b>Highest/Lowest</b>		
US/Highest	4530	December 1981
US/Lowest	244	August 2020

\*Issued by Baker Hughes since 1944

The Alaska-Mackenzie Rig Report  
is sponsored by:





• EXPLORATION & PRODUCTION

# April ANS averages 482,310 bpd, down 0.5%

Prudhoe Bay has largest month-over-month decline, down 2.9%, down 1.9% year-over-year; Colville River has largest gain, up 9.9%

By KRISTEN NELSON  
Petroleum News

Alaska North Slope production averaged 482,310 barrels per day in April, down 2,629 bpd, 0.5%, from a March average of 484,939 bpd and down 1.7% from an April 2022 average of 490,741 bpd. Crude averaged 426,014 bpd, 88.3% of the total, down 538 bpd, 0.1%, from an April average of 426,551 bpd and down 1.3% from an April 2022 average of 431,681 bpd. Natural gas liquids averaged 56,296 bpd in April, 11.7% of the total, down 2,091 bpd, 3.6%, from a March average of 58,387 bpd and down 4.7% from an April 2022 average of 59,061 bpd.

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

### Prudhoe

The largest month-over-month decline was at the Hilcorp North Slope-operated Prudhoe Bay unit, the Slope's largest.

### Cook Inlet gas down 2.6%

Natural gas production from Cook Inlet averaged 209,499 thousand cubic feet per day in April, down 5,569 mcf per day, 2.6%, from a March average of 215,068 mcf per day but up 1.8% from an April 2022 average of 205,786 mcf per day.

This data is from the Alaska Oil and Gas Conservation Commission, which reports production on a month-delay basis. For natural gas AOGCC reports measurements in thousands of cubic feet, mcf.

Some 78% of inlet gas in April came from the six largest fields, those producing 10,000 mcf per day or more.

Hilcorp Alaska's Ninilchik averaged 43,214 mcf per day in April, 20.6% of the

see **INLET GAS** page 5

Prudhoe production averaged 269,475 bpd in April, down 2.9%, 7,956 bpd, from a March average of 277,431 bpd and down 1.9% from an April 2022 average of 274,574 bpd. Crude production at Prudhoe averaged 216,992 bpd, 80.5% of the total, down 5,706 bpd, 2.7%, from a March average of 222,699 bpd and down 1.4% from an April 2022 average of 220,075 bpd. Prudhoe NGL production averaged 52,483 bpd in April, 19.5% of the total,

down 2,250 bpd, 4.1%, from a March average of 54,732 bpd and down 3.7% from an April 2022 average of 54,458 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.

Eni's Nikaitchuq averaged 15,920 bpd in April, down 449 bpd, 2.7%, from a March average of 16,369 bpd and down 11.7% from an April 2022 average of 18,034 bpd.

The ConocoPhillips Alaska-operated Kuparuk River field was down marginally month-over-month, averaging 78,231 bpd, down 21 bpd, 0.03%, from a March average of 78,252 bpd and down 4.7% from an April 2022 average of 82,090 bpd.

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

### Colville River

The unit with the largest month-over-month increase — also up year-over-year — was ConocoPhillips's Colville River, which averaged 39,088 bpd in April, up 3,508 bpd, 9.9%, from a March average of 35,581 bpd and up 21.8% from an April 2022 average of 32,052 bpd.

In addition to oil from the main Alpine pool, Colville includes production from the Nanuq and Qannik oil pools.

There is production from five pads at Colville, and the month-over-month increase was most visible at CD2, which accounted for 13.6% of Colville production in March and 15.7% in April, and CD3, which accounted for 14.1% of Colville production in March and 15.4% in April. CD5 continues to account for the bulk of Colville production, 49.6% in April and 50.8% in March.

Year-over-year the largest change was at

see **ANS OUTPUT** page 5

CD4, where ConocoPhillips has its ultra-extended-reach CD4-595 in production. CD4 accounted for 10.8% of Colville production in April 2022 and 16% in April 2023.

Hilcorp Alaska's Milne Point averaged 39,629 bpd in April, up 655 bpd, 1.7%, from a March average of 38,974 bpd and up 8.5% from an April 2022 average of 36,529 bpd.

ConocoPhillips' Greater Mooses Tooth in the National Petroleum Reserve-Alaska averaged 12,772 bpd in April, up 561 bpd, 4.6%, from a March average of 12,211 bpd, but down 26.9% from an April 2022 average of 17,480 bpd, with 76.5% of production from the GMTU-2 pad (the Rendezvous pool) and 23.5% from the GMTU-1 pad (the Lookout pool).

Eni's Oooguruk averaged 7,488 bpd in April, up 529 bpd, 7.6%, from a March average of 6,959 bpd and up 49.8% from an April 2022 average of 5,000 bpd.

Hilcorp Alaska's Endicott averaged 6,294 bpd in April, up 376 bpd, 6.4%, from a March average of 5,919 bpd but down 11% from an April 2022 average of 7,074 bpd. Crude at Endicott averaged 5,551 bpd in April, 88.2% of the total, up 318 bpd, 6.1%, from a March average of 5,232 bpd, but down 6.9% from an April 2022 average of 5,958 bpd. Endicott NGLs averaged 744 bpd in April, 11.8% of the total, up 57 bpd, 8.4%, from a March average of 686 bpd but down 33.4% from an April 2022 average of 1,116 bpd.

The Hilcorp Alaska-operated Point Thomson field averaged 6,279 bpd in April, up 112 bpd, 1.8%, from a March average of 6,167 bpd but down 31.2% from an April 2022 average of 9,121 bpd.

Hilcorp Alaska's Northstar averaged 6,628 bpd in April, up 55 bpd, 0.8%, from a March total of 6,572 bpd, but down 14.6% from an April 2022 average of 7,760 bpd. Northstar crude averaged 3,558 bpd in April, 53.7% of the total, down 46 bpd, 1.3%, from a March average of 3,604 bpd and down 17.5% from an April 2022 average of 4,313 bpd. Northstar NGLs averaged 3,070 bpd in April, 46.3% of the total, up 101 bpd, 3.4%, from a March average of 2,968 bpd but down 10.9% from an April 2022 average of 3,447 bpd.

Savant Alaska's Badami averaged 505 bpd in April, flat from March, and down 48.8% from an April 2022 average of 986 bpd. Savant is a Glacier Oil and Gas company.

**www.OwlRidgeNRC.com**


**Regulatory & Ecological Support for Alaska**

Permitting  
Compliance  
Aquatic Monitoring  
Environmental Assessment  
Stakeholder Engagement  
Strategic Planning

**OWL RIDGE**  
NATURAL RESOURCE CONSULTANTS

**Petroleum**  
news

**www.PetroleumNews.com**

<b>Kay Cashman</b>	PUBLISHER & FOUNDER	<p><b>ADDRESS</b> P.O. Box 231647 Anchorage, AK 99523-1647</p> <p><b>NEWS</b> 907.522.9469 publisher@petroleumnews.com</p> <p><b>CIRCULATION</b> 281.978.2771 circulation@petroleumnews.com</p> <p><b>ADVERTISING</b> Susan Crane • 907-250-9769 scrane@petroleumnews.com</p> <p><i>Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals listed above work for independent companies that contract services to Petroleum Newspapers of Alaska LLC or are freelance writers.</i></p> 
<b>Mary Mack</b>	CEO & GENERAL MANAGER	
<b>Kristen Nelson</b>	EDITOR-IN-CHIEF	
<b>Susan Crane</b>	ADVERTISING DIRECTOR	
<b>Heather Yates</b>	BOOKKEEPER	
<b>Marti Reeve</b>	SPECIAL PUBLICATIONS DIRECTOR	
<b>Steven Merritt</b>	PRODUCTION DIRECTOR	
<b>Alan Bailey</b>	CONTRIBUTING WRITER	
<b>Eric Lidji</b>	CONTRIBUTING WRITER	
<b>Gary Park</b>	CONTRIBUTING WRITER (CANADA)	
<b>Steve Sutherlin</b>	CONTRIBUTING WRITER	
<b>Allen Baker</b>	CONTRIBUTING WRITER	
<b>Judy Patrick Photography</b>	CONTRACT PHOTOGRAPHER	
<b>Forrest Crane</b>	CONTRACT PHOTOGRAPHER	
<b>Renee Garbutt</b>	CIRCULATION MANAGER	

**OWNER: Petroleum Newspapers of Alaska LLC (PNA)**  
Petroleum News (ISSN 1544-3612) • Vol. 28, No. 23 • Week of June 4, 2023

Published weekly. Address: P.O. Box 231647 Anchorage, AK 99523-1647  
Subscription prices in U.S. — \$118.00 1 year, \$216.00 2 years  
Canada — \$206.00 1 year, \$375.00 2 years  
Overseas (sent air mail) — \$240.00 1 year, \$436.00 2 years

"Periodicals postage paid at Anchorage, AK 99502-9986."

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

**NANAWorley**

[nanaworley.com](http://nanaworley.com) |  



- Engineering & Design
- Project Management
- Procurement & Logistics
- Construction Support
- Laser Scanning
- Project Support Services
  - Controls, Scheduling, Estimating



continued from page 4

## INLET GAS

inlet total, down 2,943 mcf per day, 6.4%, from a March average of 46,157 mcf per day but up 32.9% from an April 2022 average of 32,528 mcf per day.

Hilcorp's North Cook Inlet averaged 38,539 mcf per day in April, 18.4% of inlet total, down 2,135 mcf per day, 5.3%, from a March average of 40,674 mcf per day but up 35.9% from an April 2022 average of 28,360 mcf per day.

Hilcorp-operated Beluga River averaged 35,447 mcf per day in April, 16.9% of inlet total, down 1,837 mcf per day, 4.9%, from a March average of 37,284 mcf per day but up 10% from an April 2022 average of 32,226 mcf per day.

Hilcorp's Kenai gas field averaged 20,241 mcf per day in April, 9.7% of inlet total, down 1,401 mcf per day, 6.5%, from a March average of 21,642 mcf per day and down 21.8% from an April 2022 average of 25,887 mcf per day.

Hilcorp's McArthur River averaged 15,492 mcf per day in April, 7.4% of inlet total, down 280 mcf per day, 1.8%, from a March average of 15,773 mcf per day and down 16.6% from an April 2022 average of 18,577 mcf per day.

Furie's Kitchen Lights averaged 10,388 mcf per day in April, 5% of inlet production, up 26 mcf per day, 0.3%, from a March average of 10,362 mcf per day, but down 9.7% from an April 2022 average of 11,500 mcf per day.

The remaining 15 fields with gas production in April produced a combined 22% of inlet gas.

Hilcorp's Swanson River averaged 9,428 mcf per day in April, up 4,120 mcf per day, 77.6%, from a March average

of 5,309 mcf per day, but down 18.5% from an April 2022 average of 11,561 mcf per day.

Hilcorp's Ivan River averaged 8,882 mcf per day in April, up 1,255 mcf per day, 16.5%, from a March average of 7,626 mcf per day, but down 6.1% from an April 2022 average of 9,455 mcf per day.

Hilcorp's Beaver Creek averaged 7,168 mcf per day in April, down 1,009 mcf per day, 12.3%, from a March average of 8,176 mcf per day and down 32.3% from an April 2022 average of 10,586 mcf per day.

Hilcorp's Cannery Loop averaged 5,626 mcf per day in April, down 321 mcf per day, 5.4%, from a March average of 5,947 mcf per day and down 19.7% from an April 2022 average of 7,006 mcf per day.

Hilcorp's Deep Creek averaged 3,929 mcf per day in April, down 60 mcf per day, 1.5%, from a March average of 3,989 mcf per day, but up 24.1% from an April 2022 average of 3,168 mcf per day.

Hilcorp's Granite Point averaged 3,256 mcf per day in April, down 19 mcf per day, 0.6%, from a March average of 3,276 mcf per day and down 6.9% from an April 2022 average of 3,498 mcf per day.

Vision Operating's North Fork averaged 2,479 mcf per day in April, up 4 mcf per day, 0.2%, from a March average of 2,475 mcf per day but down 21.7% from an April 2022 average of 3,167 mcf per day.

AIX's Kenai Loop averaged 1,854 mcf per day in April, down 440 mcf per day, 19.2%, from a March average of 2,295 mcf per day and down 49.4% from an April 2022 average of 3,665 mcf per day.

BlueCrest's Hansen averaged 1,420 mcf per day in

April, down 25 mcf per day, 1.8%, from a March average of 1,446 mcf per day and down 9.2% from an April 2022 average of 1,564 mcf per day.

Hilcorp's Trading Bay averaged 1,212 mcf per day in April, down 89 mcf per day, 6.9%, from a March average of 1,301 mcf per day and down 1.1% from an April 2022 average of 1,224 mcf per day.

Amaroq's Nicolai Creek averaged 258 mcf per day in April, down 246 mcf per day, 48.8%, from a March average of 503 mcf per day and down 29.1% from an April 2022 average of 364 mcf per day.

Hilcorp's Lewis River averaged 214 mcf per day in April, down 154 mcf per day, 41.8%, from a March average of 367 mcf per day and down 73.1% from an April 2022 average of 795 mcf per day.

Hilcorp's Nikolaevsk averaged 198 mcf per day in April, down 45 mcf per day, 18.5%, from a March average of 243 mcf per day but up 68.9% from an April 2022 average of 117 mcf per day.

Cook Inlet Energy's Redoubt Shoal averaged 156 mcf per day in April, up 24 mcf per day, 18.3%, from a March average of 132 mcf per day but down 30.6% from an April 2022 average of 225 mcf per day. CIE is a Glacier Oil and Gas company.

CIE's West McArthur River averaged 98 mcf per day in April, up 6 mcf per day, 6.6%, from a March average of 92 mcf per day and up 168.1% from an April 2022 average of 37 mcf per day.

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

—KRISTEN NELSON

continued from page 4

## ANS OUTPUT

### Cook Inlet down 2.7%

Production from Cook Inlet averaged 8,510 bpd in April, down 239 bpd, 2.7%, from a March average of 8,750 and down 14.7% from an April 2022 average of 9,977 bpd. With the exception of a small volume of NGLs from the Swanson River field, all Cook Inlet liquids production is crude oil.

Hilcorp Alaska's Beaver Creek averaged 399 bpd in April, down 52 bpd, 11.6%, from a March average of 451 bpd and down 55.2% from an April 2022 average of 891 bpd.

Hilcorp's Granite Point averaged 2,244 bpd in April, down 37 bpd, 1.6%, from a March average of 2,282 bpd and down 7.4% from an April 2022 average of 2,423 bpd.

BlueCrest's Hansen averaged 718 bpd in April, down 9 bpd, 1.3%, from a March average of 727 bpd and down 5.6% from an April 2022 average of 760 bpd.

Hilcorp's McArthur River averaged 2,539 bpd in April, down 256 bpd, 5.1%, from a March average of 2,795 bpd and down 11.5% from an April 2022 average of 2,870 bpd.

Cook Inlet Energy's Redoubt Shoal averaged 600 bpd in April, up 63 bpd, 11.8%, from a March average of 537 bpd, but down 47% from an April 2022 average of 1,132 bpd. CIE is a Glacier Oil and Gas company.

Hilcorp's Swanson River averaged 757 bpd in April (700 bpd crude and 57 bpd NGLs), down 12 bpd, 1.6%, from a March average of 769 bpd and down 12.7% from an April 2022 average of 867 bpd.

Hilcorp's Trading Bay averaged 852 bpd in April, up 45 bpd, 5.6%, from a March average of 806 bpd, but down 0.7% from an April 2022 average of 858 bpd.

CIE's West McArthur River averaged 401 bpd in April, up 19 bpd, 4.9%, from a March average of 382 bpd and up 128.9% from an April 2022 average of 175 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](mailto:knelson@petroleumnews.com)

# A TON MORE GO FOR YOUR CARGO.



We're expanding our fleet, our capacity, and more.

Say hello to more go-power, with new Boeing 737s that give you an extra 2,000 lbs. of capacity per passenger flight. And with new freighters that increase shipping capabilities by 40%. Add to that 100+ destinations, including same-day, coast-to-coast connections, and you now have more get-up-and-go for cargo than ever before.\*

LET'S  
GO

For more information or to book your shipment online, go to [go.alaskacargo.com/lets-go](https://go.alaskacargo.com/lets-go). Or call us at 1-800-225-2752.

Alaska

AIR CARGO

\*Per departure capacity based on allowable or maximum payload of new 737-9MAX and 737-800BCF vs. existing fleet.



• THIS MONTH IN HISTORY

# Multiple buyers look at Williams refinery

20 years ago this month: Company says sale of \$500 million Alaska assets likely by end of year, including North Pole refinery

*Editor's note: This story appeared in the June 1, 2003, issue of Petroleum News Alaska.*

By ALLEN BAKER

For Petroleum News

Williams Cos. now has multiple buyers looking at its North Pole refinery, which has been on the market since last June along with the company's other Alaska assets.

"At this time, there is more than one potential buyer," said Jeff Cook, Williams Alaska's vice president for external affairs. Arctic Slope Regional Corp., owner of the Petro-Star refinery next door to Williams as well as another small operation in Valdez, has been rumored as a potential buyer. Cook wouldn't confirm that Arctic Slope was one of the bidders, and he didn't indicate just how many companies were showing serious interest.

## Royalty deal a complication

The sale process has complicated negotiations with the state over Williams' contracts for buying royalty oil; an issue that could be important for a potential buyer looking for a dependable supply of crude.

"There's some legitimate concern by the administration that if there's going to be a new owner, they should be part of the negotiations," Cook said. "If we don't get a buyer soon, we'll have to go ahead" on the negotiations for a royalty oil contract. Williams wants to buy about 70,000 barrels of state oil a day.

"It just happened that all of our contracts expire at the end of 2003," Cook said.

The state has to give North Slope pro-

ducers six months advance notice of how much of its royalty oil it wants as oil and how much as cash, so the matter probably has to be resolved by the end of June.

Cook said the Murkowski administration is cooperating with Williams and the lease issue has not been a stumbling block for the sale process.

"Williams had some other assets that were more pressing to sell and got busy with that," he said. As for the timing of the Alaska refinery sale, "the best the company is saying now is by the end of the year."

## Other sales providing needed cash

For now, other sales are providing the cash Williams has needed to repay loans coming due this year and even to buy back some preferred stock. The company said

assets sales expected to close in May and June will yield about \$2 billion to help pay down Williams' long-term debt, which stood at \$10.5 billion at the end of the first quarter.

Estimates of the value of the Alaska assets are in the \$500 million range.

In addition to the refinery, Williams has a tank farm in Anchorage and a network of convenience stores in the state. A part ownership in an air cargo venture at the Anchorage airport is likely to go to Williams' partner there.

The company may be fortunate that the sale didn't go through earlier, when refineries were going through a period of squeezed margins.

## Alaska shows profit

For much of last year, refining operations at major oil companies were showing losses. Independent refiners such as Williams' major Alaska competitor, Tesoro, were showing major amounts of red ink. But the market turned in the first quarter, which was quite profitable for the Williams operations in Alaska.

Williams' petroleum services unit, which now consists of the Alaska operations and the company's interest in a couple of liquids pipelines, showed a profit of \$22.1 million for the quarter. That was nearly even with the \$22.6 million earned in the same quarter a year ago despite an \$8 million impairment charge the company took to write down the value of the Alaska properties.

And jet fuel sales at the Anchorage airport continue to be strong, despite the downturn in the world economy and the concerns about SARS in Asia. That's good news for Williams, which has about 60% of that market.

"Last year was a record year for sales and production," Cook said. Jet fuel sales in Anchorage grew 12% overall and Williams' sales there grew 9%, he said.

In 2002, Cook said, the Anchorage airport went through 51,967 barrels of jet fuel each day, or nearly 2.2 million gallons.

That was up from 46,254 barrels a day in 2001. A strike that idled West Coast seaports provided a little spurt last fall.

But even after that strike was settled and on into this year, he said, jet fuel sales have been holding up. ●



# Better.

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

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

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

Learn more about Nabors' new drilling technologies at [Nabors.com](http://Nabors.com).



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

## WHAT'S THE BIG ATTRACTION?



- A. an industry institution
- B. quality, accurate reporting
- C. attractive, readable design

To advertise in Petroleum News, call Susan Crane at 907-250-9769



● EXPLORATION & PRODUCTION

# US rotary rig count drops again, down by 9

Week of May 29 4th week in a row of decreases; steepest, down 17 rigs, reported May 12; 6 states down this week, while only 2 up

By KRISTEN NELSON  
Petroleum News

The Baker Hughes’ U.S. rotary drilling rig count was down by nine to 711 the week ending May 26, from 720 on May 19. The steepest recent drop was 17 on May 12, the steepest drop since June of 2020. The May 26 count is down by 16 from a count of 727 for the same period a year ago, and the lowest the count has been since early May 2022.

The count dropped in six of the past eight weeks, with the current count down from 751 eight weeks ago and down from a high so far this year of 771 on Jan. 20. The high for 2022 was a count of 784 rigs at the beginning of December.

When the count dropped to 244 in mid-August 2020, it was the lowest the domestic rotary rig count had 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 prior to the COVID-19 pandemic, 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 2020 when it gained back 10 rigs.

The May 26 count includes 570 rigs targeting oil, down by five from the previous week and down by four from 574 a year ago, with 137 rigs targeting natural gas, down by four from the previous week and down 14 from 151 a year ago, and four miscellaneous rigs, unchanged from the previous week and up by two from a year ago.

Fifty-two of the rigs reported May 26 were drilling directional wells, 642 were drilling horizontal wells and 17 were drilling vertical wells.

### Alaska rig count down by 1

Texas (359) was up by two rigs from the previous

week and Wyoming (16) was up by one.

Oklahoma (46) was down by five rigs week over week. Louisiana (54) and Utah (12) were down by two rigs.

Alaska (7), Colorado (17) and New Mexico (108) were each down by a single rig.

Rig counts in other states were unchanged from the previous week: California (2), North Dakota (37), Ohio (10), Pennsylvania (24) and West Virginia (15).

Baker Hughes shows Alaska with seven rotary rigs active May 26, down by one from the previous week and down by one from a year ago when eight rigs were active. Seven of the Alaska rigs were onshore, down by one from the previous week, and no rigs working offshore, unchanged the previous week.

The rig count in the Permian, the most active basin in the country, was up by one from the previous week at 350 and up by eight from 342 a year ago. ●

Contact Kristen Nelson  
at knelson@petroleumnews.com

continued from page 1

## WOTUS RULING

Alaska’s departments immediately began to redefine what lands will be subjected to Clean Water Act permitting requirements.

“Today’s ruling puts Alaska back on the map,” Dunleavy said on May 25. “There is no doubt, thanks to today’s ruling, that Alaska is once again open for business.”

Under Dunleavy the state has advocated for limiting the expansion of the definition of WOTUS. The state argued to the Supreme Court in a friend-of-the-court brief that an expansive WOTUS definition exceeded the authority granted to the federal agencies under the Clean Water Act.

In addition, the state recently urged exemptions for unique types of wetlands such as permafrost in comments it submitted last year as part of EPA’s WOTUS rule-making.

Earlier this year, Alaska and 23 other states won a preliminary injunction of the EPA’s revised WOTUS definition.

“The State of Alaska has been in a non-stop fight to limit federal overreach since the start of the Biden administration,” said Alaska Attorney General Treg Taylor. “I’m proud of the efforts both now and over the past two decades of our state lawyers who contributed to today’s ruling that clarifies the scope of the Clean Water Act and will no longer unnecessarily hamper Alaska’s ability to manage its own land and water. The clarity provided by this decision will help to end this unlawful federal expansion and

bring certainty and predictably to Alaskan development.”

“Of late, federal agencies have exploited the ambiguous WOTUS definition to expand their jurisdictional reach to cover wetlands in Alaska with only a remote connection to traditionally navigable waters. Not any longer,” said Alaska Department of Environmental Conservation Commissioner Jason Brune.

### Justices comment

Justice Samuel A. Alito, writing for the majority in the 5 to 4 opinion, said the EPA’s interpretation of its powers went too far.

“We hold that the CWA extends to only those wetlands with a continuous surface connection to bodies that are ‘waters of the United States’ in their own right, so that they are ‘indistinguishable’ from those waters,” Alito wrote.

Justice Elena Kagan wrote for the court’s liberals, comparing the ruling to last term’s decision limiting the EPA’s ability to combat climate change.

“The vice in both instances is the same: the Court’s appointment of itself as the national decision-maker on environmental policy,” she wrote, joined by Justice Sonia Sotomayor and Ketanji Brown Jackson.

Trump appointee Justice Brett M. Kavanaugh wrote separately to object to the majority’s reading of the law. He said that the majority’s decision “departs from the statutory text ... from this Court’s precedents.”

### The Sacketts

All of the justices thought the lower

court got it wrong regarding the couple who brought the case, which is why the court reheard the case.

The justices were reviewing for a second time the plans of Michael and Chantell Sackett, who want to build a home on their property near Priest Lake, one of the Idaho’s largest lakes.

The EPA said that there are wetlands on the couple’s 0.63-acre lot, which makes it subject to the Clean Water Act and allows the government to require permits and impose penalties for violations.

The Sacketts obtained a local building permit 15 years ago to begin construction on their land, about 300 feet from the lake.

Their plot is bounded on two sides by roads and separated from the lake by a row of homes.

The EPA put the plans on hold, threatening fines of more than \$40,000 per day if the Sacketts did not stop construction. The couple went to court to block the EPA order and asked the justices to narrow the definition of “waters of the United States” so that their land was not covered by the Clean Water Act.

—KAY CASHMAN

Contact Kay Cashman  
at publisher@petroleumnews.com





# PRICE GREGORY

A QUANTA SERVICES COMPANY

Thousands of **Miles of Experience**

Committed to **Client Satisfaction**

Dedicated to **Safety Excellence**

Pipeline Construction & Maintenance | EPC Contracting | Powerplant Construction | General Contracting

Anchorage | Deadhorse | 907.278.4400 | [www.pricegregory.com](http://www.pricegregory.com)

## Thank You Alaska!

Thank you to our friends, neighbors, and valued customers for your ongoing support and partnership, and special thanks to each of our dedicated employees for their continued care, expertise, and ingenuity as we all work together to keep Alaska moving. We look forward to continuing to serve our communities by providing multi-modal transportation and logistics solutions across the entire state!



**LYNDEN**  
Innovative Transportation Solutions



continued from page 1

## REFINERY CASE

in concluding the substance at issue was hazardous and in awarding costs and damages for loss of groundwater access.

“We affirm the superior court’s decision except that we remand the grant of injunctive relief for more specificity as required by rule,” the Supreme Court said in its ruling.

### Sulfolane, PFAS

The court said Williams began using sulfolane in its refining process in 1985. The court described sulfolane as “highly soluble in water” and easily able to seep into groundwater, with low volatility so it does not readily evaporate and remains in groundwater without attaching to soil.

Williams allowed sulfolane to migrate into groundwater at the refinery through various means — it was recycled to the extent feasible, but some remained in water from the refinery process and was diverted into the wastewater system, the court said, citing poor upkeep at the refinery, with foot-wide tears in wastewater lagoon linings repaired with pieces of lumber, and several wastewater storage units leaked sulfolane into soil and groundwater. There were also, the court said, direct sulfolane spills, with multiple accidental releases of solutions containing sulfolane involving hundreds of gallons of solutions from 60% to 100% sulfolane.

In 1996, the court said, Williams’ lab manager found sulfolane in samples of groundwater in concentrations of 250,000 to 2,700,000 parts per million, not reported to the Alaska Department of Environmental Conservation until October 2001, when a consultant for Williams prepared a report for the company to address environmental concerns

*Williams sold the refinery to Flint Hills in 2004 in an agreement which, among other things, made Flint Hills responsible for sulfolane releases beginning after the sale. Later that same year DEC informed Flint Hills that it considered sulfolane a regulated contaminant and said it would be adopting regulations.*

about the refinery.

By 2001 sulfolane was generally recognized in the scientific community for low levels of toxicity, “but there otherwise was a dearth of available information about sulfolane, and DEC did not regulate it as a hazardous substance,” the court said, although DEC did advise “Williams about this uncertainty regarding sulfolane’s toxicity and cautioned Williams about sulfolane’s high mobility in groundwater,” instructing the company to continue groundwater sampling until it found the source of the contamination.

DEC told Williams that if the data didn’t change and it couldn’t find a contamination source it could reduce sampling frequency. “Williams was not able to determine the specific source and stopped sampling altogether in July 2002.”

The court said Williams used aqueous foams in fire response practices, foams which contained “per- and polyfluoralkyl substances, commonly called ‘PFAS,’” which included a wide range of synthetic chemicals, including perfluorooctanesulfonic acid, PFOS, and perfluorooctanoic acid, PFOA.

“Testing of the groundwater and soil at the refinery shows that, at the time of trial, they contained several PFAS, including PFOA and PFOS,” the court said.

### Flint Hills

Williams sold the refinery to Flint Hills in 2004 in an agreement which, among other things, made Flint Hills responsible for sulfolane releases beginning after the sale. Later that same year DEC informed Flint Hills that it considered sulfolane a regulated contaminant and said it would be adopting regulations.

The court said that by April 2019 sulfolane in the groundwater had traveled laterally, “creating a plume approximately two miles wide, three and a half miles long, and over three hundred feet deep, and spreading offsite from the refinery,” extending into groundwater in the City of North Pole and expected to continue to flow away from the refinery.

A variety of steps have been taken — by the state and Flint Hills — to mitigate damages, the court said, including alternative water sources, well testing, community outreach and drafting site characterization and correction action plans, with the most significant action expansion of North Pole’s piped water system.

### State suit

In 2014 the state sued Williams and Flint Hills over oil and sulfolane discharges.

In response, Williams claimed the state was the responsible landowner and couldn’t transfer sulfolane liability to Williams because the state hadn’t regulated sulfolane while Williams owned the refinery.

Flint Hills claimed the state and Williams were the responsible parties.

The City of North Pole also filed suit in 2014, a suit, along with one brought earlier by a North Pole resident, were consolidated with the state’s suit.

The Supreme Court ruled in 2016 in a case brought by Flint Hills against Williams, finding that Flint Hills’ claims “were time-barred with respect to onsite sulfolane contamination, but not offsite sulfolane contamination.”

Flint Hills settled with the state and the city in 2017, “agreeing to partially fund an extension of piped water to affected residents,” the court said.

Meanwhile, the court said the state and Flint Hills added claims against Williams for offsite PFAS following its discovery in 2018, with the offsite PFAS claims ultimately referred to DEC.

In 2019 the superior court deconsolidated the state and North Pole cases against Williams, with the state’s case proceeding to a bench trial.

### Superior court decision

The superior court found sulfolane a hazardous substance and found Williams liable for its release as well as for onsite

PFAS and oil releases, allocating responsibility for 75% of offsite sulfolane and onsite PFAS and oil releases to Williams and ordered the company to pay the state’s costs for response and oversight, “as well as the natural resource damages caused by the loss of the public’s access to groundwater due to sulfolane contamination.”

The superior court also found Williams responsible for 75% of the state’s future costs for the piped water system and DEC’s future oversight costs.

Flint Hills was found not responsible for PFAS contamination at the refinery.

The superior court found that Williams retained liability for offsite sulfolane existing at the time Flint Hills acquired the refinery and granted Flint Hills recovery from Williams for its share of past offsite sulfolane response costs and its share of future costs for the piped water system and other offsite sulfolane costs.

The superior court dismissed all of Williams’ claims against the state and against Flint Hills.

### Supreme Court ruling

The Supreme Court said it found that the superior court “did not err” in concluding that sulfolane is a hazardous substance under Alaska statutes. It also found that the superior court correctly awarded response costs to the state and Flint Hills. It agreed with the superior court in awarding damages for loss of access to groundwater due to sulfolane.

The court did find, however, that: “It was error to issue injunctive relief by reference to supporting documents, but the superior court did not err by granting declaratory relief.” It remanded the injunctive relief judgment to superior court “for more clarity and to explicitly incorporate — not by reference — the language from the Memorandum of Decision, statutes, administrative code, and other documents to which the superior court refers.”

The court said Williams’ due process right was not violated.

“Imposing civil liability for past releases was not an unconstitutional taking,” the court said.

On Flint Hills’ claims, the court agreed with the superior court that Flint Hills’ liability was limited by the purchase agreement, and also agreed that “Williams retained responsibility for offsite sulfolane” and that Flint Hills “could pursue contribution” and said the contribution allocations by the superior court “were not erroneous.”

—KRISTEN NELSON

Contact Kristen Nelson  
at knelson@petroleumnews.com



**Proudly Serving The Oil & Gas Industry Since 1980**

**AR INDUSTRIAL** Proud to be Employee Owned.

**Shop over 60,000 items anytime**

- Real-time Inventory & Availability
- Customer Specific Pricing
- Personalized Shopping Lists
- Multi-Level Approval Functionality
- Rich Product Information Including High-Res Pictures & Spec Sheets

**➔ Spend \$100 Online, Get 3% Off Every Time**

**www.AlaskaRubberGroup.com**

**Danfoss**

**NAHAD** NATIONAL ASSOCIATION OF HOSE AND ACCESSORIES DISTRIBUTORS

**Connect Anywhere, Anytime!**

## Bombay Deluxe

*The Spice of Life...*

*Serving the finest Indian Cuisine in Alaska*



Traditional chicken, lamb, seafood dishes  
& Indian naan bread cooked in our  
Tandoor (clay oven).

**Vegetarian Specialties**  
**Delicious Appetizers — Samosas, Pakoras**

**SOUTH ANCHORAGE**  
1120 Huffman Road, Suite 5  
Open seven days a week: 3-9 p.m.  
**907-644-4521**  
www.BombayDeluxe.com

**MIDTOWN ANCHORAGE**  
555 W. Northern Lights (Valhalla Center)  
Monday through Friday: 11 a.m.-9 p.m.  
Saturday & Sunday: 12-9  
**907-277-1200**

**Order on-line for pick-up or delivery at www.FoodOnTheWay.com**



continued from page 1

ALASKA STANDARD

maximum benefit of our people, adhere to the sustained yield principle, and to safeguard the public interest,” Alaska Gov. Mike Dunleavy said.

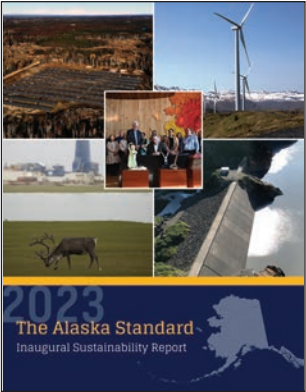
“However, for far too long we’ve allowed our story to be told by others, often to the detriment of our ability to develop those resources. This report allows us to tell our story to the world and demonstrate that the standards ratified by our people at statehood and put into action since then have set the bar for best practices that should be adopted across the globe,” he said.

From Alaska’s legacy resource industries of oil and gas that “will sustain us for decades to come, to our investments in renewables and emerging energy technologies, we want the world to know that Alaska is the best place on the planet to do business

that strikes the right balance between what’s best for both people and our environment,” Dunleavy said.

The Alaska Standard was produced by Chicago-based Bridge House Advisors under a contract with the governor’s office and includes contributions by multiple state agencies and corporations, the University of Alaska, and independent stakeholder groups including the ANCSA Regional Association and the Voice of the Arctic Iñupiat.

Bridge House Advisors is an ESG and sustainability consulting firm, which has more than 50 technical experts from varied backgrounds with extensive and varied environmental and sustainability experience.



“In my opinion, for the last 6+ decades, the State of Alaska has demonstrated the spirit and intent of the UN’s Sustainable Development Goals and the State and its people are uniquely positioned to lead on the global energy transition,” said Jeff Gibbons, chief growth officer of Bridge House Advisors.

The report covers Alaska’s history of resource development since statehood and how this development has benefited the people of Alaska through state services, infrastructure, jobs and economic opportunities, reduced poverty rates, increased lifespans, and nearly \$30 billion in Permanent Fund Dividend distributions since 1982.

“Alaska Native corporations steward and sustain lands for subsistence use as well

as resource development that helps our state and its people,” said ANCSA Regional Association President Kim Reitmeier. “Alaska Native people garner strength, purpose and a connection to our history through our lands. It allows a sense of place and a tie to our ancestors that will never be broken.”

The report also covers the work of the Alaska Energy Authority to reduce the cost of energy and displace diesel fuel in communities off the main power grids.

“The Alaska Energy Authority has a proven track record of increasing the reliability and resiliency of energy in communities across Alaska. Throughout our 47-year history, AEA has collaborated with local and regional partners to implement innovative energy solutions that positively affect rural and urban Alaskans,” said AEA Executive Director Curtis W. Thayer.

—PETROLEUM NEWS

Petroleum news

Oil Patch Bits

Doyon Ltd. announces new VP of lands

Doyon Ltd. said May 22 that it is pleased to announce that Dr. Molly Redilla has joined its leadership team as the new VP of lands. “We are excited to promote Molly into this role,” said Aaron Schutt, Doyon president and CEO. “As Doyon is the largest private landowner in Alaska and the largest indigenous landowner in the nation. This role is critical to Doyon’s mission of strengthening our way of life and protecting and enhancing our land and resources.”

Redilla has served as Doyon’s lands and natural resources specialist IV since November of 2022 and has overseen its carbon forestry project and leads other forestry, fire and invasive species-related programs within the lands department. Prior to joining Doyon, she led the collection of various environmental data products across Alaska’s taiga and tundra for multiple years. Redilla earned her Bachelor of Science in fisheries and wildlife with a concentration in wildlife biology and management and a Doctor of Philosophy in forestry and spatial ecology from Michigan State University. Redilla was a postdoctoral research fellow at North Carolina State University where she researched ways to help stop the spread of the most invasive forest insect in North America to date. She has spent years studying and researching forest health and ecology and modeling landscape changes across space and time. Redilla has been working in this field for 12 years and has devoted much of her time and career thus far to understanding the land we live on and determining ways we can help manage it.



DR. MOLLY REDILLA

Airgas celebrates anniversary with Operation Homefront

Airgas, an Air Liquide company, said May 24 that it is pleased to recognize its 15th

consecutive year of partnership with Operation Homefront, a non-profit organization whose mission is to support military families so they can thrive in their communities. Since 2008, Airgas has donated \$1.5 million to Operation Homefront and Airgas associates have participated in local Operation Homefront activities and fundraisers to support the organization, including holiday collections, food and donation drives, golf and bowling tournaments and more.

Donations to Operation Homefront fund a variety of life-changing programs for military families that address short-term and critical financial assistance needs, long-term stability, and recurring family support programs, like holiday meals for military and holiday toy drive.

As a company, Airgas employs nearly 900 veterans and active-duty associates and recruits associates with military experience. In addition, Airgas incorporates policies and provides tools that support employees currently in the service.

Stamy Paul, Airgas senior VP of human resources, commented: “We admire Operation Homefront’s mission to support military families. At Airgas, the mission-driven focus of our nearly 900 veterans with military backgrounds has helped us to fill our potential throughout the years and bring our company to greater heights. We are honored to celebrate 15 years of work with Operation Homefront to give back to active-duty military members and their families.”

Jill Eskin-Smith, Operation Homefront VP of corporate and foundation partnerships, commented: “We are thrilled to celebrate 15 years of partnership with Airgas and are proud of our collective efforts to provide a brighter future for countless military families who may face financial challenges. We are grateful for their unwavering commitment to those military families who have done so much for all of us and look forward to continuing to jointly serve these very deserving fellow Americans for years to come.”

Companies involved in Alaska’s oil and gas industry

ADVERTISER

PAGE AD APPEARS

ADVERTISER

PAGE AD APPEARS

ADVERTISER

PAGE AD APPEARS

A

ABR, Inc.	
Acuren	
AES Electric Supply, Inc.	
Ahtna, Inc.	
Airgas, an Air Liquide Company	
Airport Equipment Rentals	
Alaska Air Cargo	5
Alaska Dreams	
Alaska Frontier Constructors (AFC)	
Alaska Fuel Services	
Alaska Marine Lines	7
Alaska Materials	
Alaska Railroad	
Alaska Steel Co.	
Alaska Textiles	
Alaska West Express	7
Arctic Controls	
ARCTOS Alaska, Division of NORTECH	
ARG Industrial	8
Armstrong	3
ASTAC (Arctic Slope Telephone Assn. Coop, Inc)	
AT&T	
Automated Laundry Systems & Supply	

B-F

Bombay Deluxe Restaurant	8
Brooks Range Supply	
C&R Pipe & Steel, Inc.	
Calista Corp.	
ChampionX	
Coffman Engineers	
Colville Inc.	

Computing Alternatives	
CONAM Construction	
Construction Machinery Industrial (CMI)	12
Cook Inlet Tug & Barge	
Cruz Construction	
Denali Industrial Supply, Inc.	
Denali Universal Services (DUS)	
Doyon Anvil	
Doyon Associated	
Doyon Drilling, Inc.	
Doyon, Limited	
EEIS Consulting Engineers, Inc.	
EXP Energy Services	
F. R. Bell & Associates, Inc.	
Flowline Alaska	
Frost Engineering, a division of PumpTech LLC	10

G-M

GCI	
GeoLog	2
Greer Tank & Welding	
Guess & Rudd, PC	
Inspirations	
Judy Patrick Photography	
Little Red Services, Inc. (LRS)	
Lounsbury & Associates	11
Lynden Air Cargo	7
Lynden Inc.	7
Lynden Logistics	7
Lynden Oilfield Services	7
Lynden Transport	7
Maritime Helicopters	
Matson	

N-P

Nabors Alaska Drilling	6
NANA Worley	4
Nature Conservancy, The	
NEI Fluid Technology	
Nordic Calista	
North Slope Borough	
North Slope Telecom	2
Northern Air Cargo	
Northern Solutions	
Oil Search	
Owl Ridge Natural Resource Consultants	
Petroleum Equipment & Services, Inc.	
PND Engineers, Inc.	
PRA (Petrotechnical Resources of Alaska)	
Price Gregory International	7

Q-Z

Resource Development Council	
SeaTac Marine Services	
Strategic Action Associates	
Surepoint Technologies Group US	
Tanks-A-Lot	
TorcSill	
Udelhoven Oilfield System Services Inc.	
US Ecology Alaska	
Weston Solutions	

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



continued from page 1

## VALUATION ISSUE

Infrastructure installed for what is called the initial production system, IPS, includes:

- Gravel pads, roads, camps, airstrip;
- Production facilities, including those to separate condensate from gas, process waste, compress gas for reinjection; and
- Four wells: a production well, two reinjection wells for gas and one for waste disposal.

The board said that while some of the infrastructure was designed for a potential full-field development, “most of the property assessed here is scaled for and supports the IPS, which was designed to produce approximately 10,000 barrels per day.”

### NSB challenges

The board said production property is assessed by determining the replacement cost less depreciation based on economic life of proven reserves. It said NSB is challenging three aspects of the department’s depreciation of the Point Thomson unit property: “applying the depreciation for a reservoir in production decline, applying depreciation for an immediately underperforming reservoir, and applying depreciation for non-reservoir circumstances that significantly alter production.”

The board said Revenue “applied depreciation for a field with one or more reservoirs in production decline,” based on production being 90% or less of the historic production peak.

NSB argued based on total annual volume, which was highest in 2021 and for 2022 had decreased by less than 2%.

Revenue and Hilcorp, Point Thomson’s current operator, argued that “compressor issues masked what would otherwise have been the annual production and that by removing days when one or both compressors were not operating, peak production actually occurred from 2017 through 2019 with annual production of around 10,000 bbl per day on those fully operational days,” the board said.

Revenue compared that 10,000 barrel per day rate with 2022 average daily production of 8,724 bpd and determined the field is in production decline.

The board said it “finds that DOR’s consideration of fully operational days to determine peak production is not

contrary to the regulatory definition of production decline” and agreed with Revenue’s determination that 2022 production was at least 10% less than peak production.

### Not immediately underperforming

The board did not agree with Revenue’s finding that the Point Thomson reservoir immediately underperformed.

The NSB argued that difficulties the operator initially had at Point Thomson “were facility issues, not underperformance of the reservoir itself.” The board said NSB noted numerous statements by the operator that the Point Thomson reservoir was performing as expected and the fact that when the facilities were fully operational the field produced at the 10,000 bpd for which the facilities were designed.

The board said Revenue looked at what production could have been under the expansion project describe in the 2012 settlement agreement under which the field was brought into production. The expansion envisioned adding a minimum of 10,000 bpd.

The board said Revenue noted a presentation to the Alaska Oil and Gas Conservation Commission by a reservoir engineer for Exxon, the field’s original operator, that under a gas depletion plan, with seven new wells, there would be an initial peak of 57,000 bpd of condensate, a volume with Revenue averaged with the 20,000 bpd in the settlement agreement to come up with 38,500 bpd. On that basis, the board said, Revenue found that the reservoir had underperformed because it had only ever produced up to 10,000 bpd.

The board said Revenue’s finding was unsupported by facts.

“There is no evidence in the record that the Point Thomson Reservoir immediately or significantly underperformed,” the board said.

Reservoir underperformance refers to the reservoir being less productive than expected, not to facilities issues. The board said that in its most recent plan of development the Point Thomson operator told the state that reservoir performance was in line with expectations. Hilcorp has described the recent drop in production as possibly reservoir related, but this is a recent production decline, the board said, “not an underperformance that was immediate upon first production in 2016.”

The working interest owners have not pursued an expanded or full field development, the board said, some-

thing they have had the option to do since the 1977 formation of the unit.

While expansion requirements of the 2012 settlement agreement were suspended in the 2018 amendment, the working interest owners have been free to expand at any time. They have not done so, the board said, but “That choice is not a reservoir underperformance.”

The board found that the portion of the assessment based on depreciation for reservoir underperformance “is excessive and improper. The assessment should be adjusted to remove depreciation based on reservoir underperformance.”

### Some superadequacy

The board found there are some non-reservoir circumstances which have altered production, resulting in some superadequacy — where facilities were built in excess of what was needed.

NSB argued that there are no non-reservoir circumstances which significantly alter expected production, the board said. ExxonMobil has said some infrastructure at Point Thomson was sized in expectation of production being expanded. But the working interest owners have not chosen to expand beyond the initial production system.

“The fact that they have chosen not to after encountering significant operational difficulties with this unique, high-pressure field indicates that these non-reservoir circumstances significantly altered the anticipated production from an expanded production project,” the board said, making it appropriate for Revenue to consider superadequacy of facilities. The board did disagree with Revenue and Hilcorp that the gravel pile was superadequate.

The board said Revenue “correctly depreciated for superadequacy of the airstrip, camps, and dock.”

But it said Revenue also applied superadequacy to wells and processing facilities and said “the assessment should be adjusted to remove depreciation based on superadequacy other than for the airstrip, camps, and dock.”

The board concluded that the assessment may not be based on reservoir underperformance and many only include superadequacy for the airstrip, camps and dock.

Parties have 30 days to file with the Alaska Superior Court for judicial review. ●

Contact Kristen Nelson  
at knelson@petroleumnews.com

continued from page 1

## OIL PRICES

Oil prices cratered on the news. ANS nosedived \$3.13 May 30 to close at \$73.34, while West Texas Intermediate plunged \$3.21 to close at \$69.46 and Brent plummeted \$3.41 to close at \$73.54.

The carnage continued May 31, taking ANS down \$1.55 to close at \$71.79, as WTI slumped \$1.37 to close at \$68.09 and Brent shed 88 cents to close at \$72.66.

Despite oil prices near 2023 lows, investors are betting OPEC+ won’t respond by cutting production when it meets June 4, Barron’s reported May 31, adding, “If investors are right, oil prices — and stocks — could be in a rut all summer.”

Since October, OPEC+ slashed production by 3.5 million bpd, a significant amount given typical levels near 100 million bpd of global consumption.

Since the October cuts were

announced, Brent tumbled from \$83 to \$72.78 on May 31, less than 1% above its 2023 lows.

The weak price performance to end the month of May was exacerbated by a surprise inventory build. U.S. commercial crude oil inventories for the week ending May 26 leapt 5.202 million barrels, American Petroleum Institute data showed May 31, while analysts had expected a 1.22-million-barrel drop, according to Oil Price.com.

Inventory in the Strategic Petroleum Reserve fell, however, for the ninth week in a row, down 2.6 million barrels for the week ending May 26. The SPR now contains 355.4 million barrels — the lowest level since September 1983.

U.S. Energy Information Administration data was not available May 31 due to Memorial Day market and federal office closures May 29.

Oil was further pressured by moribund Chinese demand recovery data, and a rising U.S. dollar, which causes oil to be more expensive for buyers that must convert local currency to dollars to purchase oil.

***Oil caught a bit of air under its wings taking WTI and Brent slightly higher in Asian trading early June 1 as Petroleum News went to press. The debt ceiling bill passed the House by a commanding majority. The bill must pass in the Senate before President Biden can sign it into law.***

On May 26, markets edged higher as the Biden Administration and congressional Republicans announced an agreement to lift the debt ceiling to allow the U.S. to meet its obligations, pending approval by the House of Representatives and the Senate. ANS rose 80 cents to close at \$76.47, as WTI rose 84 cents to close at \$72.67, and Brent rose 69 cents to close at \$76.95.

Those gains came on the heels of a sharp decline May 25 as traders fretted over the lack of a debt ceiling deal. ANS slumped \$2.15 on the day to close at \$75.67, while WTI dropped \$2.51 to close at \$71.83 and Brent gave up \$2.10 to close at \$76.26.

From Wednesday to Wednesday, ANS declined \$6.03 from its May 24 close of \$77.82 to close at \$71.79 May 31.

On May 31 Brent widened its price premium over ANS to 87 cents. Refineries on the West Coast — where ANS is sold — can’t feast directly on the cheap Russian oil due to a federal ban on importing Russian crude. Asian buyers can. China and India are eagerly buying excess Russian crude which otherwise might have gone to Europe, limiting their ability to support West Coast prices by

sopping up excess Pacific cargoes of oil.

Oil caught a bit of air under its wings taking WTI and Brent slightly higher in Asian trading early June 1 as Petroleum News went to press. The debt ceiling bill passed the House by a commanding majority. The bill must pass in the Senate before President Biden can sign it into law. If that is not accomplished by June 5, the resulting turmoil could rattle international markets.

### Air travel gets a lift

Americans took to the skies Memorial Day weekend: air travel surpassed pre-pandemic levels.

The Transportation Security Administration screened 9.79 million passengers from Friday through Monday, up from the holiday weekend in 2019, CNBC reported.

More than 2.7 million people passed through TSA checkpoints over the weekend, setting a post-pandemic record, the TSA said.

A strong start to the summer travel season portends strong consumer demand for vacations and other trips, despite vaulted interest rates, food inflation and housing cost increases, CNBC said.

In 2022, dicey weather, staffing shortages and system snafus caused an increase in flight disruptions over the peak period.

Good flying weather over the 2023 holiday helped to get passengers into the sky; only 16% of flights arrived late from Friday through Monday, according to FlightAware. Delays were fewer compared to the same weekend last year. ●

Contact Steve Sutherland  
at ssutherland@petroleumnews.com



**FROST ENGINEERING**  
a Division of **PumpTECH LLC**

We have been providing  
compressor lubrications systems  
since 1954 in lower 48 and since  
1986 on the slope.

425-644-8501 | www.frostnw.com

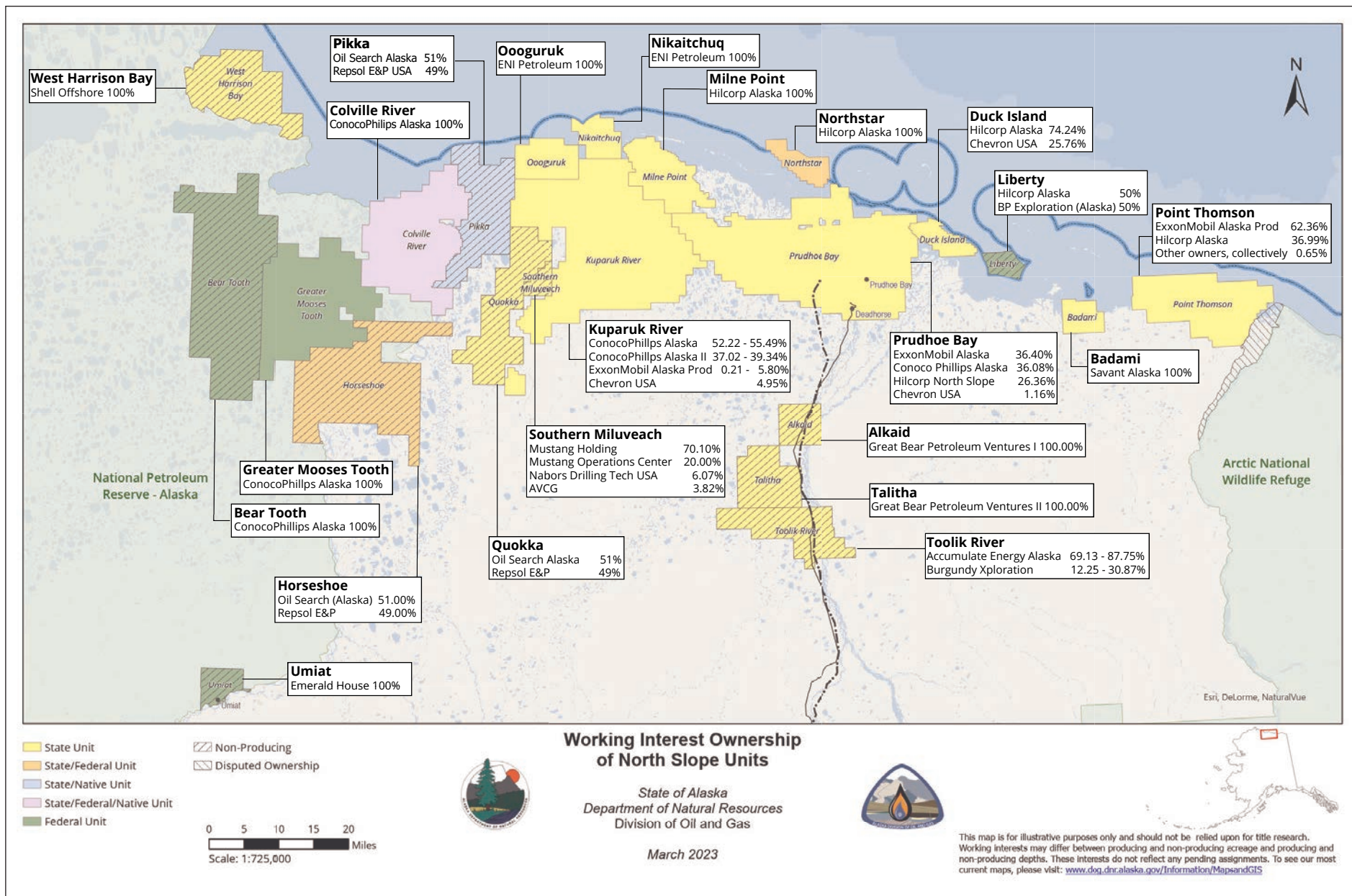
**FIELD SERVICES**

- Equipment Installation & Calibration
- Plant Surveys
- Startup/Commissioning Assistance
- Equipment Training
- Rental Equipment

**ENGINEERING SERVICES**

- Equipment Application Engineering
- "As Built" Drawings
- Equipment Skid Design/Build
- Product Integration
- Project Management





continued from page 1

## PARTNER SOUGHT

In its Oct. 6, 2021, filing of a second plan of exploration application with Alaska's Division of Oil and Gas, Shell said that "over the last year, Shell has worked diligently to identify another company(ies) to acquire an interest in the West Harrison Bay unit leases, take-on the role of unit operator and share the exploration risk and cost associated with advancing the understanding of the resource potential of the WHBU leases."

The company told the division that it "had made solid progress toward that objective prior to the Covid-19 pandemic and the resulting collapse in oil prices."

While oil projects on the North Slope "remain attractive ... the continuing economic uncertainty resulting from the Covid-19 pandemic have impacted Shell's ability to bring another company(ies) to this project in a number of ways," Shell told the division in that 2021 filing.

"Finding more shallow Nanushuk oil has the potential to be quickly brought into development and production alongside the two other large Nanushuk discoveries in the vicinity" (Pikka and Willow) would "greatly benefit the state and local communities in terms of increased reserves leading to increased future royalties and taxes, greater competition for state acreage, and expanded employment opportunities and demand for services on the North Slope," Shell said.

### Approved in November 2021

On Nov. 18, 2021, the division approved a 2021 plan of exploration amendment/second plan of exploration for the West Harrison Bay unit.

The approval was to allow Shell time "to finalize commercial arrangements with other prospective project participants and designate a new unit operator."

The second POE would allow the operator until the end of the 2023-24 winter drilling season to complete the first of two proposed wells required under the August

2020 unit agreement, "focusing on the Nanushuk formation as the primary target rather than the Torok formation as previously required, and also eliminate a requirement in the unit agreement that the unit operator acquire additional seismic over the flex wave area by the end of September 2022."

Upon evaluation of drilling completed in the 2023-24 and 2024-25 drilling seasons, the new operator would submit either a further POE for the West Harrison Bay unit or a plan of development no later than the end of 2025.

### Per division and Shell

In response to Petroleum News regarding the status of the West Harrison Bay unit, on May 26 the division said the unit formation decision was effective Dec. 7, 2020, so the expiration would be Dec. 7, 2025, given the standard five-year primary term in the unit agreement.

Further, the division said Shell's "plan of exploration was also extended through 2025 and their 2022 work commitment deadlines were removed, so they have until the end of the 2023-2024 drilling season to do specific work. If such work commitment deadlines are missed, the division "will issue a notice or decision regarding that situation."

The most recent comment Shell Global has made about the West Harrison Bay acreage was in August 2022: "In the USA, Shell holds one license interest in the North Slope area of Alaska. In December of 2020, Shell received regulatory approval to combine our near-shore leases in West Harrison Bay into a single unit and Shell is currently seeking a co-owner to operate the unit."

In addition, "Shell ended frontier offshore exploration drilling operations in Alaska in 2015," Shell Global said, referring to the company's remote Chukchi Sea leases.

Finally, Shell Global said: "We also hold a number of licenses from our previous activities in the Canadian Arctic, although we do not plan to develop these licenses."

## Strong local support

North Slope (and Pikka) partners Santos and Repsol — two major international exploration and production companies — approved the \$2.6 billion final investment decision to develop the first phase of their Pikka project, with production to begin in May 2026 at a projected throughput of 80,000 barrels per day. These same owners received approvals in 2022 for two new units, Quokka and Horseshoe, with exploration drilling to follow.

On March 13, the U.S. Interior Department issued a record of decision for the Willow oil project in the National Petroleum Reserve-Alaska, denying two of the five drill sites proposed by ConocoPhillips, but allowing development with three sites.

The \$7-7.5 billion Willow project will generate 2,000 jobs in the construction phase.

Willow will create 300 permanent jobs and is expected to produce 180,000-200,000 barrels of oil a day, with production estimated by the company to begin Sept. 1, 2029.

Interior's decision drew praise from

ConocoPhillips, labor unions, Alaska's Legislature and its congressional delegation, Alaska Gov. Mike Dunleavy, as well as Native and North Slope entities, such as Voice of the Arctic Iñupiat, North Slope Borough, Iñupiat Community of the Arctic Slope and Arctic Slope Regional Corp.

The Voice of the Arctic Iñupiat is a non-profit organization established in 2015 by the region's collective Iñupiat leadership to speak with a unified voice on issues impacting the North Slope Iñupiat, their communities, their economy and their culture. Its members include local government, business, tribal and civil society across the North Slope.

Nagruk Harcharek, president of Voice of the Arctic Iñupiat, said there is "majority consensus" in the region in favor of the project, calling Willow a "lifeline" for residents.

These potential successive developments represent a runway of opportunity for these companies to establish robust new production on the North Slope. ●

Contact Kay Cashman  
at [publisher@petroleumnews.com](mailto:publisher@petroleumnews.com)

## PARTNERS IN QUALITY GROWING TOGETHER

**Surveying • Engineering • GIS • Oil & Gas**

experience you can use ESTABLISHED 1949

[www.lounsburyinc.com](http://www.lounsburyinc.com)





United. Inspired.

# Making advances

## Construction Machinery Industrial and Epiroc

In the World – The best construction equipment technology.  
In Alaska – The best sales and product support lineup.  
In Your Corner – The Winning Team.

Surface Rigs   Underground Rigs   Drill bits   Steel



Alvin Ott,  
Fairbanks  
Mining Sales



Paul Larson,  
Juneau  
Mining Sales

**Anchorage** (800) 478-3822  
**Juneau** (907) 780-4030

**Fairbanks** (907) 455-9600  
**Ketchikan** (907) 247-2228

[epiroc.us](http://epiroc.us)

[www.cmiak.com](http://www.cmiak.com)

