



page 4 August ANS output down 1.7% from July; down 6.1% from August 2022

Vol. 28, No. 40 • www.PetroleumNews.com

A weekly oil & gas newspaper based in Anchorage, Alaska

Week of October 1, 2023 • \$2.50

Pantheon commences operations for North Slope Alkaid 2 re-entry

London-based Pantheon Resources plc, the oil and gas company with a 100% working interest in the Kodiak and Ahpun projects that collectively span 193,000 contiguous acres in close proximity to pipeline and transportation infrastructure on Alaska's North Slope, said Sept. 27 that operations for the re-entry at the Alkaid-2 well have commenced.

The Alkaid 2 re-entry has three primary objectives:

1. to gather the best possible reservoir fluid samples for pressure-volume temperature, or PVT, analysis;
2. to determine initial reservoir pressure; and
3. test the improvements in the frack design discussed in recent Pantheon webinars.

The objective of the operations at Alkaid 2 is not to target maximum flow rates. Pantheon's local operating subsidiary Great Bear Pantheon "will deliberately restrict the flow rates to minimize gas production into the well bore and allow optimum data collection."

Pantheon said Alkaid 2 well was positioned to target the Zone of Interest, or ZOI, in the "optimum location and is on the edge of the mapped SMD reservoir. Notwithstanding the thinner SMD interval at this location when compared to the

see **ALKAID-2 RE-ENTRY** page 8

AOGCC approves commingling of Killian, Badami oil at B1-38 well

On Sept. 22, the Alaska Oil and Gas Conservation Commission issued an order authorizing downhole commingling of production from the Badami oil pool and an undefined oil pool unofficially named the Killian oil pool in the Badami unit B1-38 well.

Glacier Oil and Gas subsidiary Savant Alaska operates the Badami unit, which is located along the Beaufort Sea coastline of the eastern North Slope.

The B1-38 development oil well was spud by Savant in 2009 and completed in the Killian in February 2010. The well reached measured depth at 15,778 feet in testing the Kekiktuk formation, which had zero flows. Up hole, however, the Killian, at 14,434 to 14,497 feet measured depth, achieved a maximum flow of 1,709 barrels per day.

The well came online at approximately 400 barrels of oil per day from the Killian oil pool and has "generally been in a long slow decline and is currently producing about 130

see **WELL COMMINGLING** page 10

Nine sites for National Electric Vehicle Infrastructure in Alaska

The Alaska Energy Authority and the Alaska Department of Transportation and Public Infrastructure have named first round award winners for National Electric Vehicle Infrastructure funding.

The agencies said Sept. 25 that projects in nine Alaska communities were selected for a total of \$8 million in this round of awards, with \$6.4 million in NEVI funding to be matched with \$1.6 million from selected entities who will install, own and operate the new electric vehicle charging stations.

NEVI funding is from the Infrastructure Investment and Jobs Act, which provides funding for EV charging infrastructure along public roads. Alaska will receive \$52 million for fiscal years 2022-27.

"We are thrilled to be among the first six states in the nation to issue these NEVI awards," said AEA Executive Director Curtis Thayer.

DOT&PF Commissioner Ryan Anderson said "DOT&PF

see **NEVI SITES** page 10

EXPLORATION & PRODUCTION

Exploring Badami

Glacier Oil gets immediate royalty modification, winter drilling possible

By **KAY CASHMAN**

Petroleum News

The operator and leaseholder of the Badami unit and area acreage, Glacier Oil & Gas subsidiary Savant Alaska, has had a lot of good news in the last few months, the most recent being a Sept. 22 approval from the Alaska Oil and Gas Conservation Commission to commingle Killian and Badami oil production in the B1-38 well (see separate story in this issue of Petroleum News).

That news was preceded by the Sept. 13 final findings and determination of Alaska Department of Natural Resources Commissioner John Boyle,



STEPHEN RATCLIFF

approving royalty modification for all seven Badami leases, which is immediately effective with the Badami unit's August production.

Prior to that was the May 15 written determination from DNR's Division of Oil and Gas' State Pipeline Coordinator's Section to renew the right-of-way leases for the Badami Sales Oil Pipeline in ADL 415472, and the Badami Utility Pipeline in ADL 415965. The renewals

were for 30 years, the maximum allowed by law.

The 12.75-inch diameter Badami Sales Oil Pipeline is an intrastate transmission line that originates at the Badami Production Facility in

see **EXPLORING BADAMI** page 11

EXPLORATION & PRODUCTION

Down to Glacier & Armstrong

Newly approved Alaska eastern North Slope Grey Owl unit is operated by Balcony Natural Resources, which is a subsidiary of Glacier Oil & Gas

By **KAY CASHMAN**

Petroleum News

On Sept. 20, Alaska's Division of Oil and Gas approved in-part the formation of the Grey Owl unit on the eastern North Slope directly south of and adjacent to Lagniappe Alaska's 270,000-acre lease block and 20 miles southwest of Savant Alaska's Badami unit. Lagniappe is owned by Bill Armstrong's Armstrong Oil & Gas and Savant is owned by Glacier Oil & Gas.

The new unit involves 52 state tracts covering 74,667 acres operated by Balcony Natural Resources. The acreage had been controlled by



RICHARD GARRARD

A requirement of the approval is that Balcony must post a performance bond in the amount of \$2.5 million.

JPD Family Holdings, which traded its Grey Owl leases for 10% ownership of Glacier.

Balcony, like Savant, is now a subsidiary of Glacier.

The May 10 unit application included an initial 5-year plan of exploration that calls for the drilling of one "exploration appraisal" well during the winter of

see **GREY OWL UNIT** page 9

FINANCE & ECONOMY

ANS at 10-month high

Tight inventory and US crude draw boost crude despite strong dollar

By **STEVE SUTHERLIN**

Petroleum News

Alaska North Slope crude hit a 10-month high Sept. 27, surging \$2.38 to close at \$98.16, a level not seen since Nov. 7, 2022, when it closed at \$99.32. West Texas Intermediate leapt \$3.29 on the day to close at \$93.68 — notching a one-year high — and Brent jumped \$2.59 to close at \$96.55.

WTI continued upward in Asian markets early Sept. 28, approaching a 13-month high. Brent gained ground as well.

Markets were buoyed by continued signs of tight inventory and a drawdown of U.S. reserves. Crude price gains came despite U.S. dollar gains

Brent prices could reach the \$150 level in three years according to JPMorgan Chase & Co, Invezz reported Sept. 23.

against other currencies, which makes oil harder to afford for foreign buyers.

Inventories at the Cushing, Oklahoma, delivery point for WTI slid below 22 million barrels, a critical level near operational minimums, Bloomberg reported Sept. 27.

"Cushing inventory levels that are flirting near historical lows are driving WTI prices higher in an

see **OIL PRICES** page 10



SEATAC
— MARINE —



Alaska-Mackenzie Rig Report

| Rig Owner/Rig Type | Rig No. | Rig Location/Activity | Operator or Status |
|--------------------------------------|------------------|--------------------------------|------------------------|
| Alaska Rig Status | | | |
| North Slope - Onshore | | | |
| All American Oilfield LLC | | | |
| IDECO H-37 | AAO 111 | Alkaid No. 2 | Great Bear Pantheon |
| Doyon Drilling | | | |
| Dreco 1250 UE | 14 (SCR/TD) | Milne Point, MPU I-32 | Hilcorp Alaska LLC |
| Dreco 1000 UE | 16 (SCR/TD) | Standby | Available |
| Dreco D2000 Uebd | 19 (SCR/TD) | Standby | Available |
| AC Mobile | 25 | Alpine, MT7-94 | ConocoPhillips |
| OIME 2000 | 141 (SCR/TD) | Standby | Available |
| | 142 (SCR/TD) | Kuparuk, 1C-158 | ConocoPhillips |
| TSM 700 | Arctic Fox #1 | Standby | Available |
| ERD | 26 | Alpine, CD4-539 | ConocoPhillips |
| Hilcorp Alaska LLC | | | |
| Rotary Drilling | Innovation | Prudhoe Bay, Z Pad | Hilcorp Alaska LLC |
| Nabors Alaska Drilling | | | |
| AC Coil Hybrid | CDR-2 (CTD) | Milne Point, B-15A | Hilcorp Alaska LLC |
| AC Coil | CDR-3 (CTD) | Kuparuk | Available |
| 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) | Voodoo #1 | Armstrong |
| 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 |
| Nordic Calista LLC | | | |
| 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 |
| Parker Drilling Arctic Operating LLC | | | |
| NOV ADS-10SD | 272 | Pikka | Santos |
| NOV ADS-10SD | 273 | Undergoing startup maintenance | Hilcorp Alaska LLC |

North Slope - Offshore

| | | | |
|------------------------|--------------|------------------------|-----|
| Doyon Drilling | | | |
| Sky top Brewster NE-12 | 15 (SCR/TD) | Standby | ENI |
| Nabors Alaska Drilling | | | |
| OIME 1000 | 19AC (AC-TD) | Oooguruk, Cold Stacked | ENI |

Cook Inlet Basin – Onshore

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

Cook Inlet Basin – Offshore

| | | | |
|-----------------------------------|--------|------------------------------|--------------------|
| Hilcorp Alaska LLC | | | |
| 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 |
| Spartan Drilling | | | |
| Baker Marine ILC-Skidoff, jack-up | | Spartan 151, Tyonek Platform | Hilcorp Alaska LLC |
| Glacier Oil & Gas | | | |
| National 1320 | 35 | Osprey Platform, activated | Glacier Oil & Gas |

Mackenzie Rig Status

Canadian Beaufort Sea

| | | | |
|--|--|------------------------|-----------|
| SDC Drilling Inc. | | | |
| SDC Mobile Offshore Drilling Unit Rig #2 | | Set down at Roland Bay | Available |

The Alaska-Mackenzie Rig Report as of September 27, 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*

| | Sept. 22 | Sept. 15 | Year Ago |
|----------------|----------|----------|----------|
| United States | 630 | 641 | 764 |
| Canada | 190 | 190 | 215 |
| Gulf of Mexico | 17 | 17 | 15 |

Highest/Lowest

| | | |
|------------|------|---------------|
| 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

ANS August production down 1.7% from July

Average of 424,619 bpd down 7,149 bpd; down 6.1% from 452,270 bpd in August '22; Prudhoe Bay down; Colville, GMT, Milne all up

Cook Inlet gas down 4.5%

Natural gas production in Cook Inlet averaged 189,592 thousand cubic feet per day in August, down 8,995 mcf per day, 4.5%, from a July average of 198,586 mcf per day and down 9.8% from an August 2022 average of 210,132 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 80% of inlet gas production is from the six largest natural gas fields, an average of 150,589 mcf per day in August.

Hilcorp Alaska's Ninilchik averaged 39,181 mcf per day in August, 20.7% of inlet production, down 5,846 mcf per day, 13%, from a July average of 45,027 mcf per day, but up 9.6% from an August 2022 average of 35,752 mcf per day. Hilcorp has focused its recent inlet work at Ninilchik, drilling both Pearl and Paxton wells. Wells producing from the Pearl pad, the most southerly in the unit, accounted for 34.5% of the field's production in August, followed by production from the Paxton pad, at 30.1%. One well, Pearl 9, accounted for 17% of Ninilchik production in August.

Hilcorp's North Cook Inlet averaged 34,508 mcf per day in August, 18.2% of inlet production, down 1,732 mcf per day, 4.8%, from a July average of 36,240 mcf per day, but up 5.8% from an August 2022 average of 32,612 mcf per day.

The Hilcorp-operated Beluga River field (Chugach Electric Association is the

see **INLET GAS** page 5

By **KRISTEN NELSON**
Petroleum News

Alaska North Slope production averaged 424,619 barrels per day in August, down 7,149 bpd, 1.7%, from a July average of 431,768 bpd and down 6.1% from an August 2022 average of 452,270 bpd.

Crude oil accounted for 91.4% of the August total, 388,087 bpd, down 753 bpd, 0.2%, from a July average of 388,840 bpd and down 3.8% from an August 2022 average of 403,313 bpd. Natural gas liquids averaged 36,532 bpd in August, 8.6% of the total, down 6,396 bpd, 14.9%, from a July average of 42,938 bpd, and down 25.3% from an August 2022 average of 48,957 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 increases

Three North Slope fields had production increases.

The largest increase was at ConocoPhillips Alaska's Colville River, which averaged 32,651 bpd in August, up 17.9%, 4,961 bpd, from a July average of 27,690 bpd, and up 12.7% from an August 2022 average of 37,463.

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

Hilcorp Alaska's Milne Point averaged 42,225 bpd in August, up 2,478 bpd, 6.2%, from a July average of 39,747 bpd and up 12.7% from an August 2022 average of 37,463 bpd. Milne Point produces primarily from the Schrader Bluff and Kuparuk oil pools, with minor Sag River and Ugnu volumes.

ConocoPhillips' Greater Mooses Tooth in the National Petroleum Reserve-Alaska averaged 16,705 bpd in August, up 933 bpd, 5.9%, from a July average of 15,772 bpd but down 0.9% from an August 2022 average of 16,862 bpd. There are two pads at the field, with GMT1 producing from the Lookout oil pool, with a single well on production and 4.5% of August production, and GMT2 from the Rendezvous pool, eight wells on production and 95.5% of August production. The most recent plan available for GMT, from September 2022, shows development drilling focused on GMT2.

Month over month decreases

The largest decrease was at the Slope's largest and oldest field, Hilcorp North Slope-operated Prudhoe Bay, which averaged 218,268 bpd in August, down 12,548 bpd, 5.4%, from a July average of 230,816 bpd and down 14.6% from an August 2022 average of 255,457 bpd.

Prudhoe produces both crude and NGLs, with crude averaging 183,721 bpd in August, 84.2% of the field's production, down 6,917 bpd, 3.6%, from a July average of 190,638 bpd and down 12.2% from an August 2022 average of 209,302 bpd. Prudhoe NGLs averaged 34,547 bpd in August, down 5,631 bpd, 14%, from a July average of 40,178 bpd and down 25.2% from an August 2022 average of 46,155 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.

Temperature can impact compressors used in production and data from the National Centers for Environmental Information show the North Slope temperature has been somewhat warmer, averaging 48.6 degrees F this August, compared to 44.5 degrees F in August 2022 and compared to a mean August temperature from 1925-2000 of 44 degrees F. July 2023 was also warmer than July 2022, averaging 56.5 degrees F compared to 48.8 degrees F.

Hilcorp Alaska's Northstar averaged 4,145 bpd in August, down 1,219 bpd, 22.7%, from a July average of 5,364 bpd and down 16.3% from an August 2022 average of 4,955 bpd. Crude was 67% of Northstar volume in August, averaging 2,778 bpd, down 434 bpd, 13.5%, from a July average of 3,212 bpd and down 8.7% from an August 2022 average of 3,042 bpd. Northstar NGLs averaged 1,367 bpd in August, 33% of total volume, down 785 bpd, 36.5%, from a July average of 2,152 bpd and down 28.5% from an August 2022 average of 1,913 bpd.

Eni's Oooguruk averaged 5,861 bpd in August, down 1,058 bpd, 15.3%, from a July average of 6,919 bpd and down 7% from an August 2022 average of 6,303 bpd.

The ConocoPhillips-operated Kuparuk River field averaged 78,542 bpd in

see **ANS OUTPUT** page 5

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

| | | |
|---------------------------------|-------------------------------|---|
| Kay Cashman | PUBLISHER & FOUNDER | <p>ADDRESS P.O. Box 231647 Anchorage, AK 99523-1647</p> <p>NEWS 907.522.9469 publisher@petroleumnews.com</p> <p>CIRCULATION 281.978.2771 circulation@petroleumnews.com</p> <p>ADVERTISING 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>  |
| Mary Mack | CEO & GENERAL MANAGER | |
| Kristen Nelson | EDITOR-IN-CHIEF | |
| Susan Crane | ADVERTISING DIRECTOR | |
| Heather Yates | BOOKKEEPER | |
| Marti Reeve | SPECIAL PUBLICATIONS DIRECTOR | |
| Steven Merritt | PRODUCTION DIRECTOR | |
| Alan Bailey | CONTRIBUTING WRITER | |
| Eric Lidji | CONTRIBUTING WRITER | |
| Gary Park | CONTRIBUTING WRITER (CANADA) | |
| Steve Sutherlin | CONTRIBUTING WRITER | |
| Allen Baker | CONTRIBUTING WRITER | |
| Judy Patrick Photography | CONTRACT PHOTOGRAPHER | |
| Forrest Crane | CONTRACT PHOTOGRAPHER | |
| Renee Garbutt | CIRCULATION MANAGER | |

OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 28, No. 40 • Week of October 1, 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.

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 4

ANS OUTPUT

August, down 302 bpd, 0.4%, from a July average of 78,844 bpd but up 11.7% from an August 2022 average of 70,331 bpd.

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

The Hilcorp Alaska-operated Point Thomson field averaged 2,363 bpd in August, down 296 bpd, 11.1%, from a July average of 2,659 bpd and down 72.1% from an August 2022 average of 8467 bpd.

Savant Alaska's Badami averaged 944 bpd in August, down 39 bpd, 4%, from a July average of 983 bid, but up 89% from an August 2022 average of 500 bpd. Savant is a Glacier Oil and Gas company.

Hilcorp Alaska's Endicott averaged 6,466 bpd in August, down 36 bpd, 0.6%, from a July average of 6,502 bpd and down 7.6% from an August 2022 average of 7,002 bpd. Endicott crude averaged 5,848 bpd in August, 90.4% of the field's production, down 56 bpd, 0.9%, from a July average of 5,904 bpd, and down 4.3% from an August 2022 average of 6,112 bpd. Endicott

NGLs averaged 618 bpd in August, 9.6% of the field's volume, up 20 bpd, 3.3%, from a July average of 599 bpd, but down 30.5% from an August 2022 average of 890 bpd.

Eni's Nikaitchuq averaged 16,448 bpd in August, down 24 bpd, 0.1%, from a July average of 16,472 bpd and down 6.2% from an August 2022 average of 17,525 bpd.

Cook Inlet down 4.3%

Cook Inlet crude averaged 7,840 bpd in August, down 350 bpd, 4.3%, from a July average of 8,191 bpd and down 21.2% from an August 2022 average of 9,950 bpd.

Hilcorp Alaska's Granite Point averaged 2,208 bpd in August, down 15 bpd, 0.7%, from a July average of 2,223 bpd and down 6.5% from an August 2022 average of 2,362 bpd.

Hilcorp's McArthur River averaged 1,985 bpd in August, down 508 bpd, 20.4%, from a July average of 2,493 bpd and down 31.9% from an August 2022 average of 2,915 bpd.

Hilcorp's Trading Bay averaged 933 bpd in August, down 32 bpd, 3.3%, from a July average of 965 bpd and down 1.3% from an August 2022 average of 945 bpd.

Cook Inlet Energy's West McArthur River averaged 724 bpd in August, up 175 bpd, 32%, from a July average of 549 bpd and up 129.5% from an August 2022 average of 316 bpd. CIE is a Glacier Oil and Gas company.

BlueCrest's Hansen averaged 703 bpd in August, unchanged from July, and down 7.5% from an August 2022 average of 760 bpd.

Hilcorp's Swanson River averaged 691 bpd in August (689 bpd of crude and 2 bpd of NGLs), down 2 bpd, 0.4%, from a July average of 693 bpd and down 12.6% from an August 2022 average of 790 bpd.

Hilcorp's Beaver Creek averaged 310 bpd in August, down 36 bpd, 10.5%, from a July average of 346 bpd and down 56.2% from an August 2022 average of 708 bpd.

CIE's Redoubt Shoal averaged 286 bpd in August, up 117 bpd, 69.4%, from a July average of 169 bpd but down 75.2% from an August 2022 average of 1,153 bpd. CIE is a Glacier Oil and Gas company.

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 4

INLET GAS

majority working interest owner) averaged 34,171 mcf per day in August, 18% of inlet production, up 998 mcf per day, 3%, from a July average of 33,174 mcf per day but down 0.7% from an August 2022 average of 34,411 mcf per day.

Hilcorp's Kenai field averaged 19,406 mcf per day in August, 10.2% of inlet production, down 192 mcf per day, 1%, from a July average of 19,598 mcf per day and down 21.3% from an August 2022 average of 24,645 mcf per day.

Hilcorp's McArthur River averaged 13,234 mcf per day in August, 7% of inlet production, down 694 mcf per day, 5%, from a July average of 13,928 mcf per day and down 25.2% from an August 2022 average of 17,684 mcf per day.

Furie's Kitchen Lights averaged 10,089 mcf per day in August, 5.3% of inlet production, down 287 mcf pr day, 2.8%, from a July average of 10,376 mcf per day and down 18.2% from an August 2022 average of 12,329 mcf per day.

Natural gas from 15 smaller fields accounted for some 20% of inlet production in August.

Hilcorp's Swanson River averaged 8,912 mcf per day in August, down 284 mcf per day, 3.1%, from a July average of 9,196 mcf per day but up 52.7% from an August 2022 average of 5,835 mcf per day.

Hilcorp's Ivan River averaged 5,715 mcf per day in August, up 296 mcf per day, 5.5%, from a July average of 5,419 mcf per day but down 37.8% from an August 2022 average of 9,183 mcf per day.

Hilcorp's Beaver Creek averaged 5,315 mcf per day in August, down 192 mcf per day, 3.5%, from a July average of 5,508 mcf per day and down 59.8% from an August 2022 average of 13,220 mcf per day.

Hilcorp's Cannery Loop averaged 5,191 mcf per day in August, down 22 mcf per day, 0.4%, from a July average of 5,213 mcf per day and down 16.6% from an August 2022 average of 6,227 mcf per day.

Hilcorp's Deep Creek averaged 3,582 mcf per day in August, down 202 mcf per day, 5.3%, from a July average of 3,784 mcf per day and down 2.6% from an August 2022 average of 3,676 mcf per day.

Hilcorp's Granite Point averaged 3,304 mcf per day in August, up 58 mcf per day, 1.8%, from a July average of 3,247 mcf per day but down 4.8% from an August 2022 average of 3,470 mcf per day.

Vision Operating's North Fork averaged 2,093 mcf per day in August, down 166 mcf per day, 7.4%, from a July average of

2,259 mcf per day and down 29.3% from an August 2022 average of 2,961 mcf per day.

AIX's Kenai Loop averaged 1,388 mcf per day in August, down 723 mcf per day, 34.2%, from a July average of 2,110 mcf per day and down 60.8% from an August 2022 average of 3,540 mcf per day.

Hilcorp's Trading Bay averaged 1,318 mcf per day in August, up 74 mcf per day, 6%, from a July average of 1,243 mcf per day, and up 12.2% from an August 2022 average of 1,175 mcf per day.

BlueCrest's Hansen averaged 1,005 mcf per day in August, down 99 mcf per day, 9%, from a July average of 1,105 mcf per day, and down 39.3% from an August 2022 average of 1,655 mcf per day.

Amaroq's Nicolai Creek averaged 353 mcf per day in August, up 7 mcf per day, 2.1%, from a July average of 345 mcf per day, but down 11.8% from an August 2022 average of 400 mcf per day.

Hilcorp's Lewis River averaged 347 mcf per day in August, down 59 mcf per day, 14.4%, from a July average of 406 mcf per day and down 46.6% from an August 2022 average of 650 mcf per day.

Hilcorp's Nikolaevsk averaged 233 mcf per day in August, down 2 mcf per day, 0.9%, from a July average of 235 mcf per day and down 15.7% from an August 2022 average of 277 mcf per day.

Cook Inlet Energy's West McArthur

River averaged 172 mcf per day in August, up 37 mcf per day, 27.2%, from a July average of 135 mcf per day and up 174.6% from an August 2022 average of 63 mcf per day. CIE is a Glacier Oil and Gas company.

CIE's Redoubt Shoal averaged 68 mcf per day in August, up 29 mcf per day, 73.2%, from a July average of 39 mcf per day but down 72.8% from an August 2022

average of 250 mcf per day.

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

—KRISTEN NELSON

Contact Kristen Nelson
at knelson@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



DOYON DRILLING, INC.

- Rotational Schedule
- 401 (k) Employer Match
- Excellent Health Insurance with Low Cost Premiums
- Company Paid Vision, Dental, and Life Insurance
- Profit Sharing

www.doyondrilling.com



NOW HIRING

RIG PERSONNEL TO WORK ON ALASKA'S NORTH SLOPE

• THIS MONTH IN HISTORY

Access the issue for state, federal lands

20 years ago this month: MMS officials, Alaska governor cite oil and gas industry concerns over lease, facility access in state

Editor's note: This story appeared in the Oct. 5, 2003, issue of *Petroleum News*

By KRISTEN NELSON

Petroleum News

Both the state of Alaska and the federal government want more oil and gas production from Alaska. And both are hearing, from companies that would like to produce that oil and gas, that access is an issue.

Access, officials have been told — whether to outer continental shelf oil and gas leases or to onshore processing facilities and pipelines — is necessary for more Alaska oil and gas development.

Alaska Gov. Frank Murkowski, U.S. Department of the Interior Minerals Management Service Director Johnnie Burton and MMS Alaska Region Director John Goll all addressed access issues recently.

The governor told the Alaska Support Industry Alliance Sept. 18, 2003, that his administration and the Legislature have passed legislation to encourage exploration and development of oil and gas.

But, the governor said, “as we try and attract more companies to come to Alaska and evaluate prospects for developing oil and gas” those companies are telling the state that without facility access, “access to the infrastructure ... you can’t afford to be a player.”

Murkowski said his administration “is committed to the goal of increased oil and gas production from the North Slope,” and the exploration that will provide that increased production. “And much of this exploration,” he said, “is coming from companies that currently do not have signifi-

cant production in the state of Alaska.”

Many of these companies already have significant lease positions on the North Slope. Their interest in the state is based on changing technology and the state’s changing attitude toward resource development, he said.

But the hitch is getting oil and gas from the wellhead to the market.

These companies’ chief concern, Murkowski said, “is the difficulty to ensure access if they initiate programs in Alaska.”

Reasonable access “is a priority for this administration — and we will develop a workable plan,” the governor said. The first step will be a meeting “with the principal companies that are interested in coming to Alaska.” The list for that meeting is “expanding and very encouraging,” Murkowski said. The focus of the meeting, which the governor said will be held in the “near future,” will be the development of access plans.

State lease acreage access problem solved

The state solved another access issue — access to acreage — when it began holding areawide lease sales in 1999, enabling companies to acquire and expand prospect areas, and to know when the next lease sale will be.

This access problem still exists for federal outer continental shelf acreage.

The MMS Beaufort Sea lease sale, held Sept. 24, 2003, in Anchorage, was the first sale the agency has held in that area since 1998, MMS Director Johnnie Burton said in remarks before bids were opened.

The agency wants to see oil and gas developed in the Beaufort, Burton told *Petroleum News* after the sale, and

believes reductions in minimum bid amounts and royalty reduction incentives encouraged bids it might not otherwise have received. Burton said what MMS heard from companies while it was putting the sale offering together was that “it’s kind of tough to put a lot of money up front when we don’t even know when we’re going to be drilling or what we’re going to be able to drill.”

John Goll, the agency’s Alaska region director, told *Petroleum News* that companies said they were concerned about “the up-front costs” and about trying to put together a large enough acreage position “and then figure out what you want to keep — what really are the best prospects.”

Dependable sale schedule important

Burton said she didn’t know what incentives might be offered for the 2005 Beaufort Sea sale: “We look at every sale and its particular location,” she said. Sometimes, she said, the agency thinks there is a tradeoff between stipulations attached to the leases and incentives: “If you put some very strong stipulations that are going to be very expensive for them to do, then you might compensate by giving them a little bit of a financial incentive, maybe if they find anything, on the royalty side.”

But, Goll said, incentives were not the number one concern that he heard from prospective bidders.

“Number one was access,” he said. “And not just access of area, but also access of holding regular sales.” MMS got away from holding regular sales in Alaska in the 1990s, he said, “and that’s what really discouraged a lot of companies from the offshore — that they couldn’t plan.”

“There could be some other companies out there who would have been interested if they were really absolutely

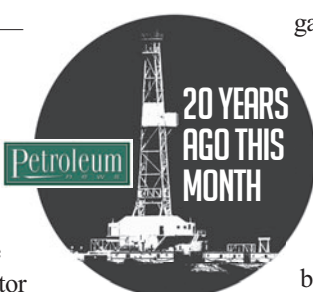
see HISTORY page 8



JOHNNIE BURTON

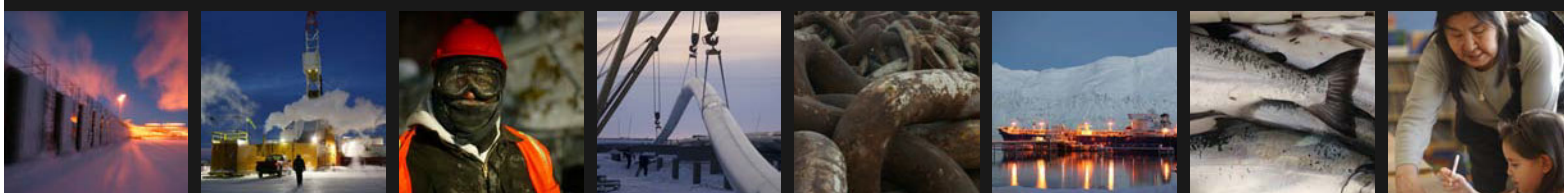


JOHN GOLL

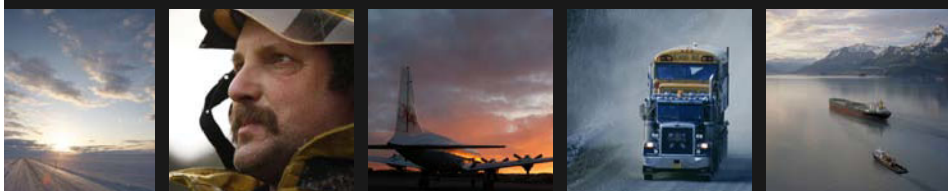


FRANK MURKOWSKI

WHATEVER



WHENEVER



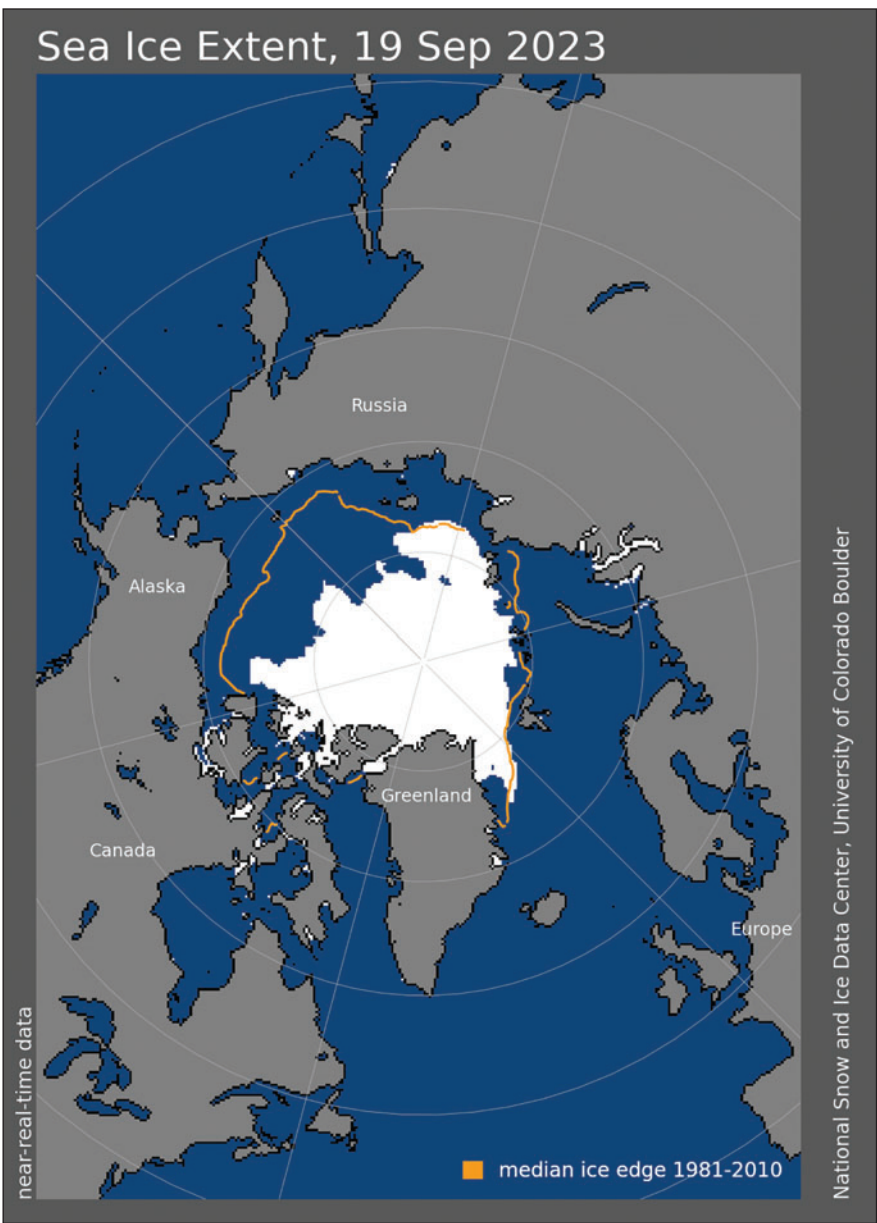
WHEREVER

Creative photography for the oil & gas industry.
judypatrickphotography.com
907.258.4704

JUDY PATRICK
PHOTOGRAPHY



ENVIRONMENT & SAFETY



Arctic sea ice likely at minimum extent

The National Snow and Ice Data Center said Sept. 25 that Arctic sea ice likely reached its minimum for the year at 1.63 million square miles on Sept. 19, the lowest in a nearly 45-year satellite record. This is a preliminary number, the agency said, noting that changing winds or late-season melt could reduce the extent, which happened in 2005 and 2010. A full analysis of the melt season will be released in early October. “The last 17 annual minimum extents are the lowest 17 in the satellite record,” NSIDC said.

The minimum of 1.63 million square miles is 770,000 square miles below the 1981-2010 average minimum and came five days later than the 1981 to 2010 median date of Sept. 14.

“The overall, downward trend in the minimum extent from 1979 to 2023 is 12.5 percent per decade relative to the 1981 to 2010 average,” the agency said, with the loss of 30,000 square miles per year equivalent in size to the state of Nebraska.

As the sun lowers on the horizon temperatures will continue to drop and the ice extent will expand through autumn and winter, but “with significant patches of low ice concentration a late season storm may compress the sea ice and push the extent even lower,” NSIDC said.

At the bottom of the world, the Antarctic sea ice extent “set unprecedented record lows through most of the growth season,” the agency said. Near the seasonal maximum highly variable conditions are typical of the Antarctic sea ice extent and ice may continue to grow, “but will unlikely avoid setting a record low.” Antarctic sea ice growth typically reaches a maximum in late September or early October but the maximum has occurred as early as Aug. 30.

—PETROLEUM NEWS

Proudly Serving
The Oil & Gas
Industry
Since 1980

ARE 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

QR Code

Connect Anywhere, Anytime!

ALASKANS BUILDING FOR ALASKANS.

GREER
Tank & Welding, INC

1 (800) 770-TANK

One of the Latest Coating & Sandblasting Facilities IN THE STATE!

METAL SALES - Processing and Fabrication of Stainless, Aluminum, & Carbon Steel

Fairbanks, AK : (907) 452-1711
Anchorage, AK : 1(800)770-8265
Lakewood, WA : 1(800)725.8108

GREERTANK.COM

LOUNSBURY & ASSOCIATES
Surveyors • Engineers • Planners
ESTABLISHED 1949

PARTNERS IN QUALITY GROWING TOGETHER

Surveying • Engineering • GIS • Oil & Gas

experience you can use
ESTABLISHED 1949

www.lounsburyinc.com

continued from page 1

ALKAID 2 RE-ENTRY

core of the Ahpun field, the well encountered encouraging hydrocarbon indications enroute to the deeper ZOI.”

SMD stands for Shelf Margin Deltaic.

Other objectives

Other operational objectives, the company said in its Sept. 27 press release, are to make the well safe in preparation for operations, run a plug to isolate the Alkaid ZOI below the SMD horizon, and to “perforate a limited section to ensure injection pressures are high enough to propagate the frac lobes horizontally as desired.”

Pantheon’s local operating subsidiary Great Bear Pantheon “will deliberately restrict the flow rates to minimize gas production into the well bore and allow optimum data collection.”

Also, to pump 11,000 barrels of water and 400,000 pounds of 100 mesh sand

Great Bear Pantheon will also flow back slowly to prevent or limit gas flashing in the reservoir (i.e. exsolving from solution in an uncontrolled manner) in order to gather the most representative fluid samples possible.

And finally, pressures throughout will be monitored to assess frack efficiency and original reservoir pressure.

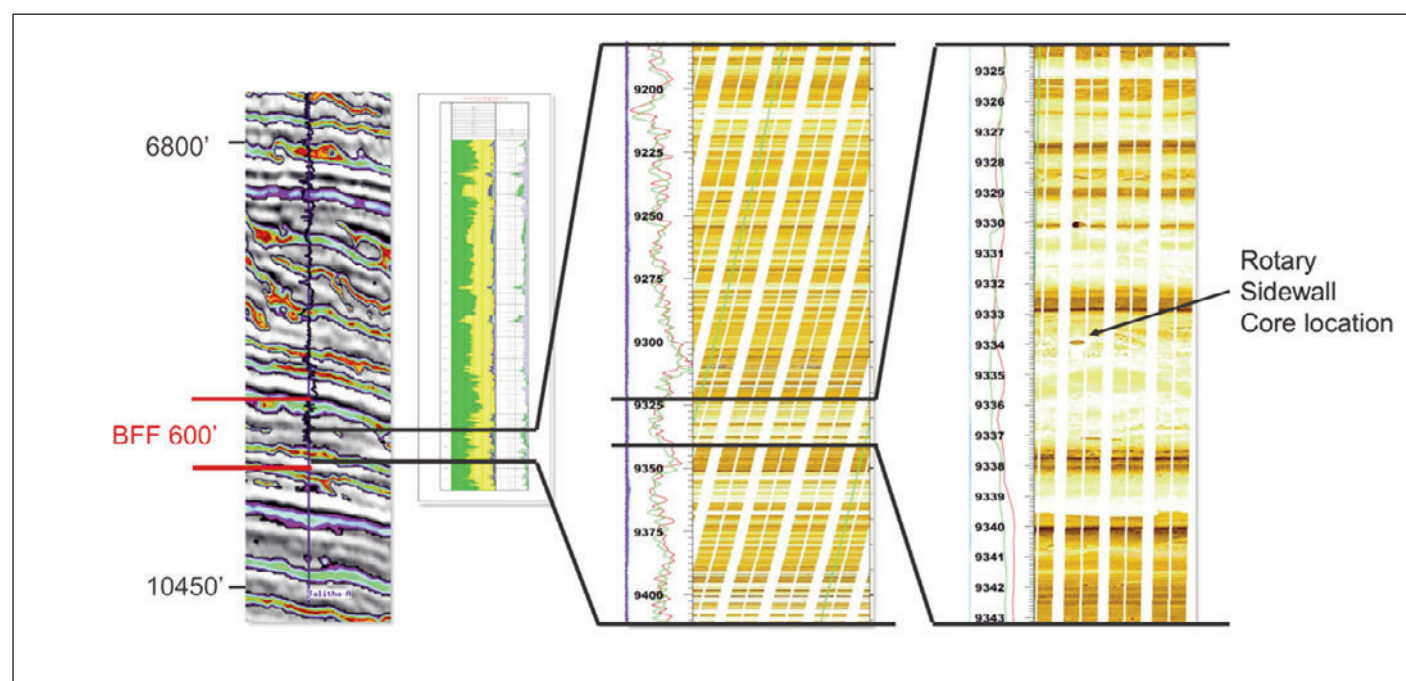
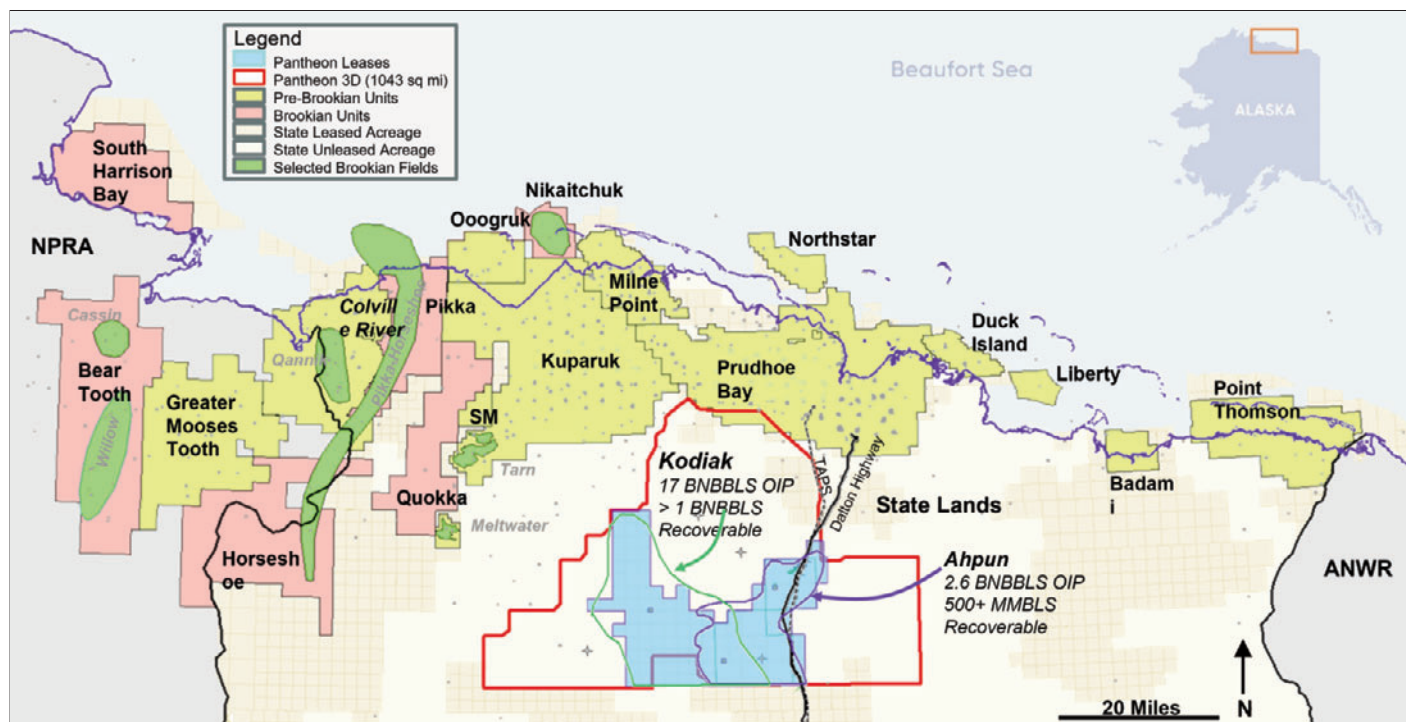
“We are pleased that operations for the re-entry at Alkaid-2 have now begun. As stated, we are not targeting maximum flow rates, instead, this program is designed to allow for as much data gathering as possible,” Pantheon CEO Jay Cheatham said.

“Whilst the location of the Alkaid-2 well is not ideal for the shallower SMD horizon, the company was pleasantly surprised to have logged oil pay when drilling through the SMD enroute to the primary target, the ZOI. This has provided a low cost option to assess both the productivity of the shallower horizon and test our improved frac design,” Cheatham said.

Background

The Alkaid 2 well was drilled in 2022 and was positioned to prioritize testing of the primary target, being the oil zone successfully flow tested in the re-entry of Alkaid 1 well in 2019. The main zone of interest, in the Brookian, was estimated to have 240 feet of net pay within 400 feet of reservoir rock.

Testing of the ZOI was compromised



Kodiak Field Contingent Resource Estimates

As previously announced, NSAI reported on its estimate of Contingent Recoverable Resources, shown below:

| Resource Category | Gross (100%) Contingent Resources | | | |
|--------------------|-----------------------------------|------------------------|-------------------------|-----------------------|
| | Oil (million bbls) | NGLs (million bbls) | Total (million bbls) | Residual Gas (bcf) |
| Low Estimate (1C) | 145.4 | 292.4 | 437.8 | 2,151.7 |
| Best Estimate (2C) | 314.6 | 647.9 | 962.5 | 4,465.2 |
| High Estimate (3C) | 647.8 | 1,366.4 | 2,014.2 | 8,822.7 |

in Alkaid 2 as a result of wellbore blockages, necessitating a number of cleanout and other remedial operations. Ultimately, the ZOI produced an IP30 production rate of c.505 barrels per day of marketable liquid hydrocarbons consist-

ing of oil, condensate and NGLs, as well as natural gas.

As previously announced, extensive analysis has been undertaken on the Alkaid 2 ZOI results “with the data supporting a commercial development based

upon 10,000ft lateral development wells, a doubling of the frac efficiency to 40% and assuming no improvement in reservoir quality. The data indicates that well productivity has the potential to improve materially based upon better frac design,” Pantheon said.

Tony Beilman, Pantheon's “recently appointed Senior VP of Engineering, and an expert in fracking in North America,” believes that with “iterative optimization,” Pantheon has the potential to meet typical performance benchmarks, a 4x improvement upon that achieved in the ZOI.

One of the primary objectives of the upcoming Shelf Margin Deltaic test is to assess the efficacy of an updated frack design.

—KAY CASHMAN

Contact Kay Cashman
at publisher@petroleumnews.com

PESI Office: 907.248.0066
www.pesiak.com
5631 Silverado Way, Suite G
Anchorage, AK 99518

Petroleum Equipment & Services, Inc.

Alaska Based Solutions Provider

Field Services
Fabrication
Rentals
Sales

Handling Tools
Drill Bits
Cementation Equipment
Fabrication
Tubular Goods
Advanced Tension Membrane Buildings

BEAR VALLEY HOLDINGS

PESI

JRV TECHNOLOGIES

UNIVERSAL WELDING

Bear Valley Holdings Family of Services

continued from page 6

HISTORY

sure we were going to have a sale,” Goll said.

Burton said she had heard the same thing from companies many times.

“You need to have a schedule and you need to stay with it,” she said. The companies plan out four, five and even 10 years. “And if they don’t know what we’re going to do, or they can’t rely on what we’re going to do, then they ignore us,” Burton said.

And Goll said, they take their money elsewhere. “And that’s what’s been happening.”

Next Beaufort Sea sale in 2005

MMS has four more Alaska sales on its current five-year schedule: Cook Inlet sales

in 2004 and 2006, and two more Beaufort Sea sales, in 2005 and 2007.

Will those sales occur?

“This administration is really intent on following that schedule,” Burton said.

“Now, you’ll remember, this administration is going to go through its first big test in November 2004. And we’ll see what happens then, but our five-year program goes to 2007, and ... will be kept that way.”

“That’s our charge right now,” Goll said. The Cook Inlet sale will occur before the November 2004 election, Goll said. MMS will be coming out with a proposed notice in November for that sale, he said. “We’ve got a good deal of support down there — but again, it’s companies coming (to the sale), which is always up in the air.” ●

Contact Kristen Nelson
at knelson@petroleumnews.com

continued from page 1

GREY OWL UNIT

2026-27, although as the company gathers more information its plans might be modified.

That first well, the Grey Owl Unit No. 1, or GO-01, will be a straight hole intended to twin the original West Kavik Unit 1 exploration well drilled by Texaco in 1969. GO-01 will be drilled from a 500-foot by 500-foot ice pad connected to the Badami unit by an ice road. It will target the light oil bearing Canning formation turbidite sandstones seen in the West Kavik well.

The Texaco well had unsuccessfully targeted the deep rocks in the Ellesmerian but encountered significant shows of light oil in the Brookian age Canning — somewhat analogous to the major Nanushuk discoveries in the western North Slope.

The potential reservoir rock at Grey Owl is directly analogous to the Badami field reservoir, geologist Richard Garrard told Petroleum News in an Oct. 11, 2019, interview.

But whereas oil production at Badami has proven challenging, the location of possible Grey Owl reservoirs, more in the axial region of the marine basin in which the potential reservoir sands were deposited, is advantageous, Garrard said.

There should be bigger basin-floor rock sequences, with more stacked reservoirs, Garrard said.

At the time of the 2019 interview Garrard was chief technical officer for Borealis Alaska, the previous Grey Owl leaseholder, and today is chief technical officer for Balcony.

The potential reservoir rock at Grey Owl is directly analogous to the Badami field reservoir, geologist Richard Garrard told Petroleum News in an Oct. 11, 2019, interview.

Approved ‘in-part’

After review of the confidential data and interpretations provided by Balcony, the division decided that the Grey Owl unit application reasonably supports a modified Grey Owl unit boundary to include only the Brookian (Canning and Sagavanirktok) potential hydrocarbon accumulations, while excluding the Shublik formation acreage.

The agency said that this satisfies the regulation for a unit to encompass the minimum area required to include

But whereas oil production at Badami has proven challenging, the location of possible Grey Owl reservoirs, more in the axial region of the marine basin in which the potential reservoir sands were deposited, is advantageous, Garrard said.

all or part of one or more oil or gas reservoirs and all or part of one or more potential hydrocarbon accumulations.

Seismic work

Balcony said that they have licensed all available 2D seismic in the unit application area, which totals more than 400 line-miles of data. Balcony also said in the plan of exploration that they intend to license, reprocess and reinterpret the proprietary Shaviovik 3D seismic data that covers much of the proposed Grey Owl nit.

The 2D lines were reprocessed to enhance data resolution in the Canning interval. Those lines that pass near the West Kavik Unit 1 well, which is located inside the proposed unit, were “tied to that well using checkshots and a synthetic seismogram.”

The Alaska St J 1 well, located east of the proposed unit, was also tied to the 2D data so that local geological characteristics could be placed in a more regional context.

Ten separate horizons that span the stratigraphic interval were mapped across the 2D dataset, which allowed a greater understanding of the geology of the proposed unit area beyond just the intervals of interest.

The reprocessed data were further analyzed for hydrocarbon indicators through amplitude versus offset (AVO) analysis. Though AVO anomalies are observed in the seismic data, those anomalies did not extend to and therefore are not tied specifically to the West Kavik Unit 1 well.

Planned drilling operation

The tentative planned drilling operation for GO-01 is as follows:

- Spud Grey Owl Unit No. 1 and drill surface hole to ~3,000 feet
- Run and cement 9.625-inch casing
- Drill intermediate hole to ~7,500 feet
- Run and cement 7-inch casing
- Drill production hole to ~11,500 feet
- TD well, log including RSWC’s & MDT and cement 5-inch liner
- Conduct fracture stimulation of the two zones of interest & conduct short term tests
- Re-inject fluids down annulus or transport back to the Badami Production Facility

- Suspend or P&A well
 - Demobilize rig back to the Badami unit
- The availability of a rig with an adequate BOP stack will be critical, Balcony said.

During the summer of 2026 mobilization of the rig and materials by barge will take place from Prudhoe Bay West Dock to Badami.

Alternatively, as part of the recent deal with Glacier, a drilling rig may already be operating in the Badami unit and could then be transported south to the GO-01 drill site in the winter of 2026-27.

By this stage, Balcony said, “all of the necessary permitting and compliance including the spill plan (ODPCP) will have been completed and approved.”

Modification to POE

Pursuant to 11 AAC 83.341(a), the division approved Balcony’s proposed plan of exploration with the following modification:

Balcony will drill and test all approved potential hydrocarbon accumulations within the five-year unit term. This may include:

1. Drilling and evaluating an initial exploratory well, GO-01, and
2. Drilling an additional well that sufficiently tests the approved potential hydrocarbon accumulations not tested in the GO-01 well.

- OR
3. Drilling a single well that sufficiently tests all approved potential hydrocarbon accumulations.

A requirement of the approval is that Balcony must post a performance bond in the amount of \$2.5 million.

No comments received

The division published a public notice in several publications on June 22.

Copies of the unit application and the public notice were provided to interested parties, including the North Slope Borough, the City of Utqiagvik, the City of Nuiqsut, the Kuukpik Corporation, the Arctic Slope Regional Corp., the Nuiqsut Postmaster, the Utqiagvik Postmaster, the radio station KBRW in Utqiagvik, as well as the Alaska Department of Environmental Conservation, the Alaska Department of Fish and Game, the Alaska Oil and Gas Conservation Commissioner, and the ADF&G Division of Habitat.

The public notices invited interested parties and members of the public to submit comments by July 22. No comments were received. ●

Contact Kay Cashman
at publisher@petroleumnews.com



Advertiser Index

Companies involved in Alaska’s oil and gas industry

| ADVERTISER | PAGE AD APPEARS | ADVERTISER | PAGE AD APPEARS | ADVERTISER | PAGE AD APPEARS |
|--|-----------------|---|-----------------|---|-----------------|
| A | | | | | |
| ABR, Inc. | | Coffman Engineers | | Lynden Logistics | |
| Acuren | | Colville Inc. | | Lynden Oilfield Services | |
| AES Electric Supply, Inc. | | Computing Alternatives | | Lynden Transport | |
| Airgas, an Air Liquide Company | | CONAM Construction | | Maritime Helicopters | |
| Airport Equipment Rentals | | Construction Machinery Industrial (CMI) | | Matson | |
| Alaska Air Cargo | | Cook Inlet Tug & Barge | | N-P | |
| Alaska Dreams | | Cruz Construction | | Nabors Alaska Drilling | |
| Alaska Frontier Constructors (AFC) | | Denali Industrial Supply, Inc. | | NANA Worley | |
| Alaska Fuel Services | | Doyon Anvil | | Nature Conservancy, The | |
| Alaska Marine Lines | | Doyon Associated | | NEI Fluid Technology | |
| Alaska Materials | | Doyon Drilling, Inc. | 5 | Nordic Calista | |
| Alaska Railroad | | Doyon, Limited | | North Slope Telecom | |
| Alaska Steel Co. | | EXP Energy Services | | Owl Ridge Natural Resource Consultants | 4 |
| Alaska Textiles | | F. R. Bell & Associates, Inc. | | Petroleum Equipment & Services, Inc. | 8 |
| Alaska West Express | | Flowline Alaska | | PND Engineers, Inc. | 12 |
| Arctic Controls | | Frost Engineering, a division of PumpTech LLC | | PRA (Petrotechnical Resources of Alaska) | |
| ARCTOS Alaska, Division of NORTECH | | G-M | | Price Gregory International | 5 |
| ARG Industrial | 7 | GCI | | Q-Z | |
| Armstrong | 3 | GeoLog | | Resource Development Council | |
| ASTAC (Arctic Slope Telephone Assn. Coop, Inc) | | Greer Tank & Welding | 7 | SeaTac Marine Services | 2 |
| AT&T | | Guess & Rudd, PC | 10 | Strategic Action Associates | |
| B-F | | Inspirations | | Tanks-A-Lot | |
| Bombay Deluxe Restaurant | 4 | Judy Patrick Photography | 6 | Udelhoven Oilfield System Services Inc. | |
| Brooks Range Supply | | Little Red Services, Inc. (LRS) | | US Ecology Alaska | |
| C&R Pipe & Steel, Inc. | | Lounsbury & Associates | 7 | <i>All of the companies listed above advertise on a regular basis with Petroleum News</i> | |
| Calista Corp. | | Lynden Air Cargo | | | |
| | | Lynden Inc. | | | |

continued from page 1

NEVI SITES

and AEA are pleased to support our communities' relentless pursuit of affordable and sustainable energy in Alaska."

"Alaska is taking a critical step forward as states across our nation begin deploying EV chargers for the communities they serve, and we are proud to partner with them in this shared project," said Federal Highway Administrator Shallen Bhatt.

Initial focus is on Alaska's Alternative Fuel Corridor, AFC, with AEA strategically deploying Direct Current Fast Charging between Anchorage and Fairbanks. Once the AFC has charging stations and meets FHA criteria, AEA and DOT&PF will use program funds for charging infrastructure

NEVI funding is from the Infrastructure Investment and Jobs Act, which provides funding for EV charging infrastructure along public roads. Alaska will receive \$52 million for fiscal years 2022-27.

along Alaska's non-AFC highway and marine highway systems, with the second phase focused on connecting small urban areas, rural communities on the road system, the state's road system to Canada and coastal communities on the marine highway system.

Selected projects

First round projects selected are:

Tikahtnu Commons in Anchorage;
Cottonwood Creek Mall in Wasilla;
Trapper Creek Three Bears in Trapper Creek;
Mount McKinley Princess Wilderness Lodge in Denali State Park;
Jack River Properties in Cantwell;
Denali Princess Wilderness Lodge in Healy;
Nenana Chevron Station in Nenana;
Ester Gas in Ester; and
Westmark Fairbanks Hotel and Conference Center in Fairbanks.

Plan approval in 2022

The U.S. Department of Transportation's Federal Highway Administration approved the state's plan for high-speed EV chargers in September 2022.

Phase one is expected to be completed in 2024 and will focus on installation of charging stations every 50 miles along the Glenn and Parks highways between Anchorage and Fairbanks.

The charging stations must have a minimum power rating of 150 kW, have at least four charging ports and be within a mile of the relevant highway.

The federal funding will augment an existing AEA program to help fund installation of high-speed EV charging stations on the highway system between Homer and Fairbanks, and on the highway corridor connecting Glennallen, Tok and Delta Junction.

—KRISTEN NELSON

Contact Kristen Nelson
at knelson@petroleumnews.com

continued from page 1

OIL PRICES

already tight market," Vortexa analyst Rohit Rathod told Reuters.

U.S. commercial crude oil inventories for the week ending Sept. 22 — excluding the Strategic Petroleum Reserve — dropped by 2.2 million barrels from the previous week to 416.3 million barrels, 4% below the five-year average for the time of year, the U.S. Energy Information Administration said in its weekly report Sept. 27. The SPR was down 200,000 barrels to 351 million barrels.

Total motor gasoline inventories increased by 1.0 million barrels over the period to 220.5 million barrels — 2% below the five-year average for the time of year, the EIA said.

ANS rose 53 cents Sept. 26 to close at \$95.78, while WTI rose 71 cents to close at \$90.39 and Brent gained 67 cents to close at \$93.96.

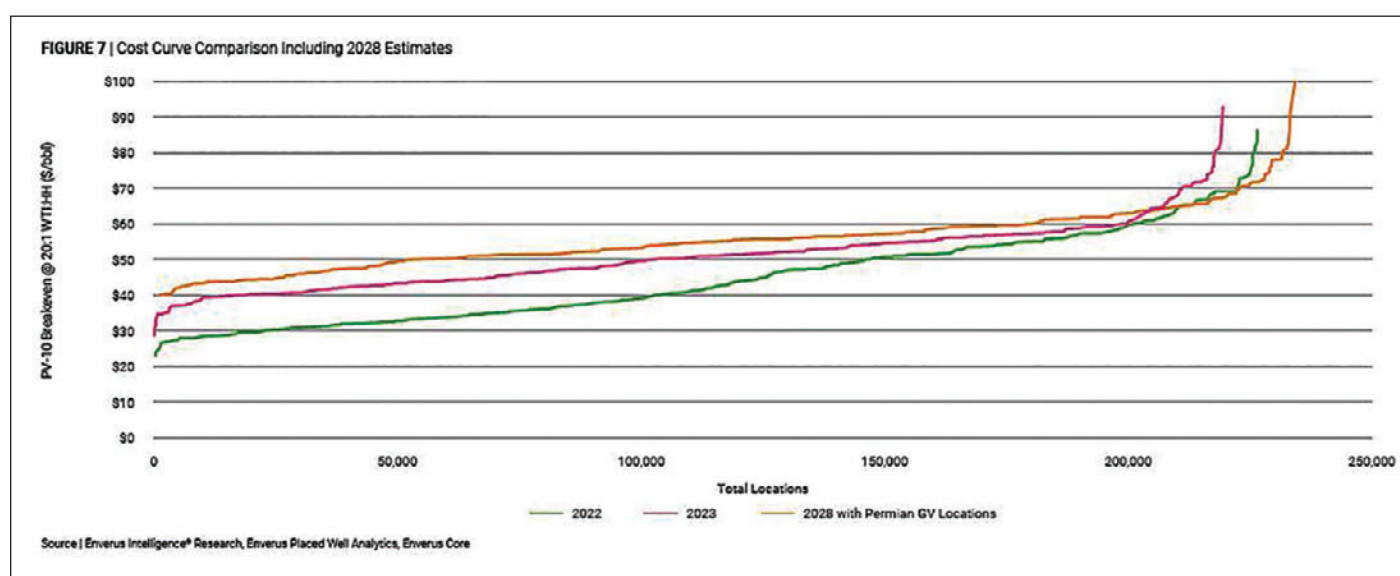
ANS edged 13 cents lower Sept. 25 to close at \$95.26 and WTI shed 35 cents to close at \$89.68. Brent tacked on 2 cents to close at \$93.29.

ANS and Brent each fell 3 cents Sept. 22, closing at \$95.38 and \$93.27 respectively, as WTI added 40 cents to close at \$90.03.

Red ink was the order of the day Sept. 21 — a hangover from hawkish U.S. Federal Reserve comments issued the previous day. ANS slid 12 cents on the day to close at \$95.41, as WTI shed 65 cents to close at \$89.63 and Brent fell 23 cents to close at \$93.30.

From Wednesday to Wednesday, ANS gained \$2.63 from its Sept 20 closing price of \$95.53 to \$98.16 on Sept. 27.

On Sept. 27, ANS traded at a \$1.61 premium over Brent.



U.S. shale producers have enough suitable acreage to maintain production over the next 15 years, Enverus Intelligence Research said in a report that quantifies the remaining drilling inventory across key North American shale plays, which was released Sept. 26.

No worries over shale production levels

U.S. shale producers have enough suitable acreage to maintain production over the next 15 years, Enverus Intelligence Research said in a report that quantifies the remaining drilling inventory across key North American shale plays, which was released Sept. 26.

"We see the cost of supply continuing to increase for North American shale producers over the next five years as the industry moves from developing Tier 1 to Tier 2-4 locations," said Dane Gregoris, EIR managing director. "However, ample Tier 2-4 inventory should alleviate fears of a struc-

tural decline in North American production or activity levels over the next 15 years."

EIR estimates producers have six years of Tier 1 locations remaining across North America based on today's activity levels. The consultancy defines Tier 1 as acreage with a sub-\$45 per barrel WTI breakeven.

EIR projects that the North American inventory-weighted average breakeven will rise by \$6 per barrel WTI, to \$57 per barrel WTI by 2028, assuming no changes to well costs.

JPMorgan: \$150 oil coming in 2026

Brent prices could reach the \$150 level in three years according to JPMorgan Chase & Co, Invezz reported Sept. 23.

Crude prices will continue skyward, not only in the near term, but over the next two to three years, said Christyan Malek, JPMorgan global head of energy strategy.

The imbalance between supply and demand is likely to reach 7.1 million barrels per day by the end of the decade, Malek said.

Malek elevated his rating on the global energy industry to overweight on Sept. 23,

saying that an energy super cycle could push Brent prices to \$150 by 2026.

Malek in a separate Sept. 18 interview with The Center for International and Strategic Studies said the drive to transition away from hydrocarbons inhibits the reinvestment that brings oil prices down, creating "a cycle that's sort of effectively broken."

"The best answer to high prices is high prices because people invest in high prices, and the issue here is that you have compounding higher prices because ultimately there's no economic impetus to see that supply response as we transition away from that supply," he said.

Large deficits in energy create very volatile prices, particularly in oil, Malek said, adding that control of those prices is lost simply because there isn't enough supply elasticity.

"We don't have a shortage of oil in the ground; there's plenty," he said. "The shortage is the capital to get that oil above the ground and flowing." ●

Contact Steve Sutherlin
at ssutherlin@petroleumnews.com

continued from page 1

WELL COMMINGLING

bpd," AOGCC said in its order.

Through July 2023, a little under 790,000 barrels had been recovered from the B1-38 well.

The B1-38 penetrated the Badami oil pool at approximately 1,100 feet true vertical depth, or TVD, up hole from the Killian oil pool. To offset declining Killian production, Glacier said it intends to perforate 80 feet of the Badami sands and commingle the volumes.

In its application Glacier said it will do this work in the third or fourth quarter of this year.

Glacier expects the crossflow potential between the pools to be negligible since the deeper Killian has been produced for several years which has partially depleted

its pressure, so the pressure differential between the Killian oil pool and the Badami oil pool will be negligible.

Additionally, the well is a gas lifted producer which will work to lift the produced fluids to the surface as opposed to allowing it to flow between the pools, per AOGCC.

Allowing commingled production from the pools should result in an increase in the oil flow rate over its current rate, which will extend the economic life of the well and thus allow for increased production from the pools, which will increase ultimate recovery in the field and prevent waste, AOGCC said.

—KAY CASHMAN

Contact Kay Cashman
at publisher@petroleumnews.com

LAW OFFICES OF
Guess & Rudd
P.C.
ESTABLISHED 1961

SERVING THE LEGAL NEEDS OF ALASKA'S OIL INDUSTRY FOR OVER 60 YEARS

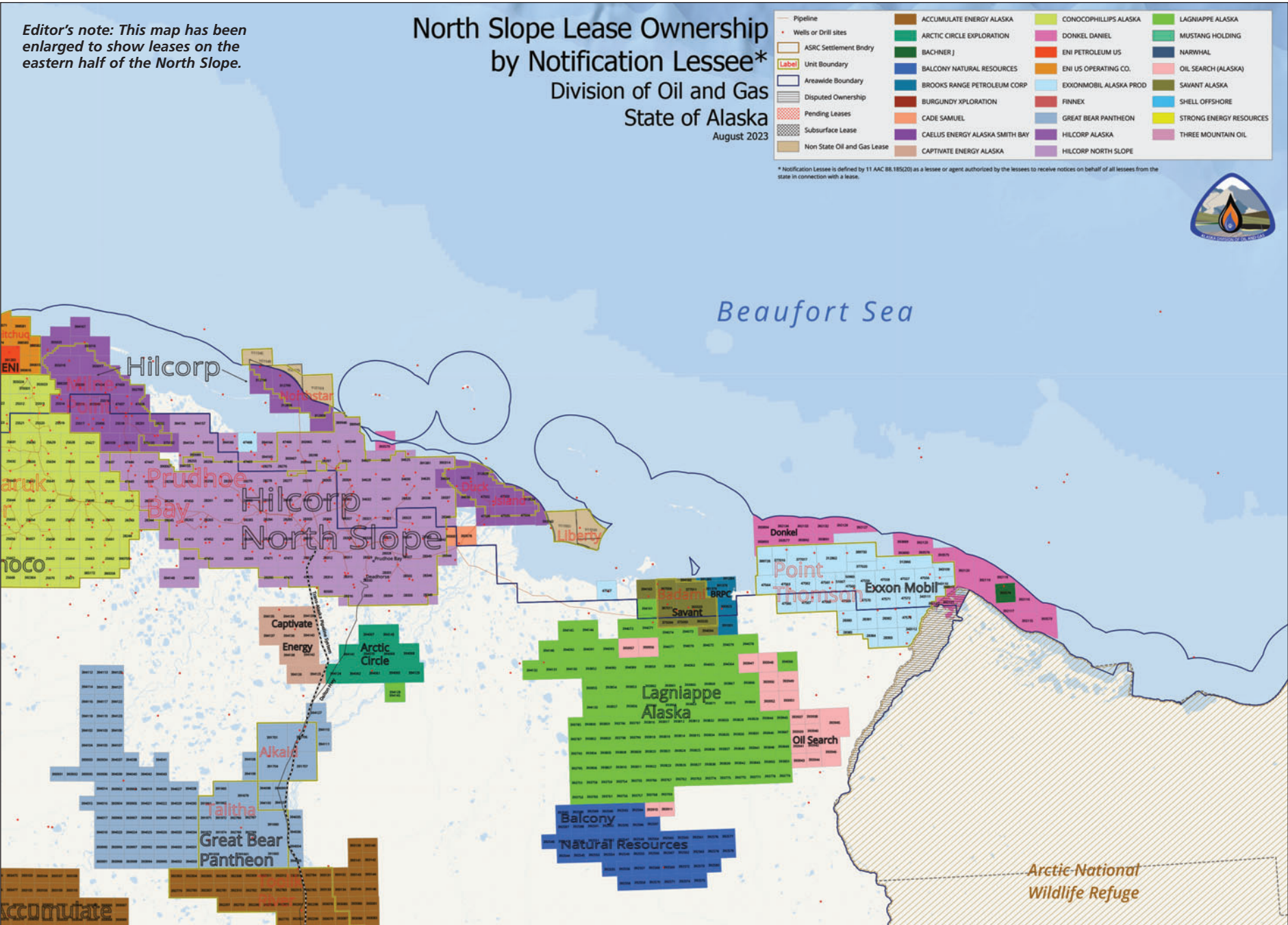
OIL & GAS • COMMERCIAL • ENVIRONMENTAL
EMPLOYMENT • INSURANCE • MINING
TIMBER • ALASKA NATIVE LAW • PIPELINES
ADMINISTRATIVE LAW AND LITIGATION

1029 W 3RD AVENUE, SUITE 400

ANCHORAGE, AK 99501

PHONE: 907-793-2200 • FAX: 907-793-2299

www.guessrudd.com



continued from page 1

EXPLORING BADAMI

Mikkelsen Bay, east of Prudhoe Bay. It transports processed crude oil westerly approximately 25 miles before terminating at the Endicott Oil Pipeline tie-in point.

The Badami Utility Pipeline is a 6-inch gas transmission line that originates at the Satellite Drilling Island at Endicott and travels approximately 31.57 miles easterly to the Badami Production Facility.

Also on May 15, was the division’s approval of Savant’s 20th plan of development, or POD, for the Badami unit for the period from July 16 to July 15, 2024.

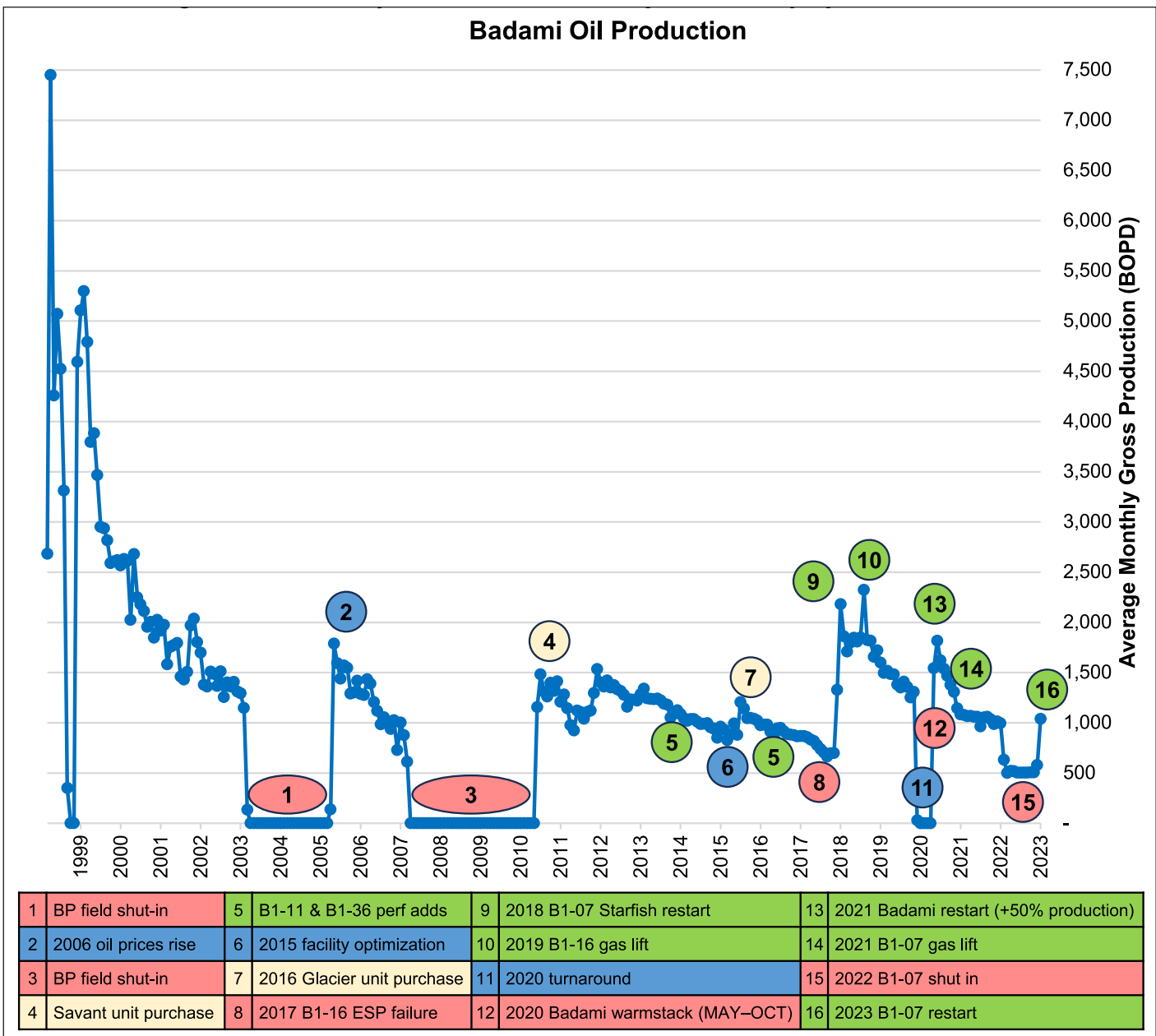
Killian exploration well

The highlight of the POD is drilling a Killian exploration well during the 2023-2024 ice road season, which Glacier says will prove-up the extensive Killian play beyond the participating area, or PA, at Badami.

Glacier is in a better position to drill the winter exploration well and conduct other proposed activities in its 20th POD because on Jan. 9 it announced that Pontem Energy and Sweat Equity Partners, or SEP, acquired 100% ownership in Glacier.

SEP President Andrew White said at the time that Glacier President Stephen Ratcliff’s team has a “clear strategy: to build Glacier into the preeminent Alaskan oil and gas operator, and I look forward to working with them to achieve their goals.”

Before the May 15 POD approval was the May 8 approval of Savant’s request to conduct screeding operations on the seafloor of the state waters of the Beaufort Sea in preparation for docking barges at the Badami Dock within the Badami unit.



Royalty modification decision

Savant sought modification of royalty under AS 38.05.180(j)(1)(B) because Badami was nearing the end of field life.

Four of the seven Badami leases (ADL 367006, ADL 367011, ADL 375093, and ADL 375094) have a 12.5% royalty rate, ADL 365533 has a royalty rate of

16.667%. ADL 365535 has a royalty rate of 16.67% and ADL 377011 has a royalty rate of 16.66667%. Sections 2.2, 4.2, 6.2 and 7.2 of leases ADL 367006, ADL 377011, ADL 367011 and ADL 365533 respectively have a blended royalty rate of 14.585%

Boyle decided that Savant qualifies for

royalty modification on all seven leases.

“Savant provided sufficient technical and financial information to substantiate its application — clearly showed that the per-barrel cost increase was sufficient to make future production no longer economically feasible without royalty modification,”

see **EXPLORING BADAMI** page 12

continued from page 11

EXPLORING BADAMI

Boyle's royalty decision read.

However, "Savant's proposed royalty modification mechanism does not comport with the requirements of AS 38.05.180(j)(3). Instead, DNR will grant royalty modification on a more restrictive basis, based on a sliding scale incorporating both oil price and production," Boyle wrote.

Royalty reduction shall not result in a royalty rate less than 3%, he said.

DNR's granting of royalty modification is effective through Dec. 31, 2030.

B1-07 back online

The Badami reservoir has always been challenging to develop and has historically shown very steep declines. Increases in production always followed optimization events such as adding perforations, gas lift installations or the addition of new wells, such as the Killian sands B1-07 Starfish well in 2018.

These events were followed by periods of very steep annual declines.

If not for the B1-07 well, Badami may have been at the end of field life earlier. Even with B1-07 and subsequent gas lifting of the well, field decline remained at earlier historic rates, around 15–20%.

Unfortunately, partly due to a stuck fish in the B1-07 well, it was taken offline in July 2022.

Savant was able to restore production from B1-07 in late May 2023 by conducting a rig-based workover operation to retrieve and re-run the upper completion.

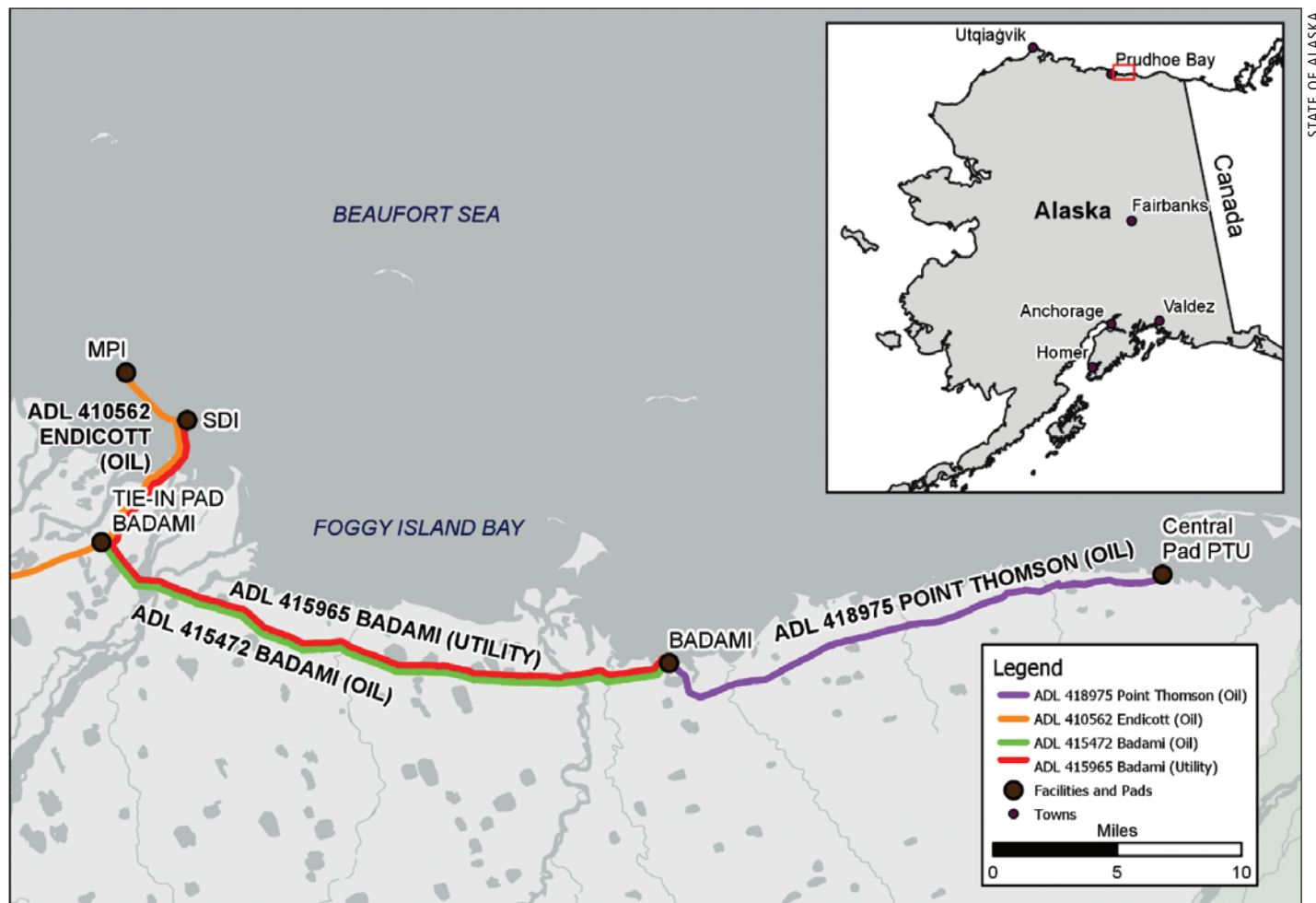
As a result, Badami averaged 1,041 bpd in June, up 461 bpd, or 79.5%, from a May average of 580 bpd with increase coming from the B1-07 well.

Badami production remains well below original estimates but is much healthier than the stop and start days of the turn of the century when BP Exploration (Alaska), or BPXA, was the operator.

Badami history

First oil into the Badami Sales Oil Pipeline was on Aug. 24, 1998, under operator BPXA.

The Badami facilities were designed to provide process and export capabilities for a production rate of 35,000 barrels of oil per day, in addition to processing 22.5 million standard cubic feet per day of pro-



Royalty reduction shall not result in a royalty rate less than 3%, he said. DNR's granting of royalty modification is effective through Dec. 31, 2030.

duced gas. Expected peak production from the field was 30,000 bpd; however, actual production peaked at 18,000 bpd before declining to 1,400 bpd.

BPXA shut the field in 2003, citing poor reservoir performance from the Badami sands, with reservoir compartmentalization being the determined cause.

Production resumed in 2005 when oil prices increased. In 2007, BPXA shut-in the field for "economic reasons."

In 2010, BPXA transferred working interest ownership in the Badami leases to Savant (67.5%) and ASRC Exploration, or AEX, (32.5%). Savant took over operatorship of Badami starting in 2011, and production resumed.

In 2011 BPXA sold Badami to Savant AEX as a partner.

Glacier was equally owned by HPS Investment Partners and Apollo

Investment Corporation. Savant was still the operator at Badami.

In 2021, AEX sold its remaining interest in Badami to Savant, resulting in the Glacier subsidiary becoming 100% working interest owner.

On Aug. 13, 2021, Apollo purchased the common stock held by HPS, becoming Glacier's sole owner, and Apollo formally changed its name to MidCap Financial Investment Corp. on Aug. 12, 2022.

MidCap transferred ownership in Glacier and its subsidiaries to SEP Alaska, effective Nov. 1, 2022.

The division approved the transfer of the oil and gas leases on Oct. 1, 2022. SEP Alaska is 50% owned by Pontem Energy Capital and 50% owned by Sweat Equity Partners.

More on Killian well program

With SEP Alaska's acquisition, Glacier's new ownership expressed, "a strong desire to expand the company's operations on the North Slope, and to pursue a drilling program in 2024."

Glacier described the 2023-24 winter drilling as the Killian 28 well drilling

campaign. The ERD exploration well will test a Killian objective offshore to the northeast of the onshore Badami facility.

In the 20th POD Glacier's Savant said it will continue to refine, characterize and de-risk the prospects related to the Killian sands outside of the PA.

The company also said it will engage in G&G evaluation of newly acquired acreage (1,280 acres south of the unit, 2,560 acres west of the unit, and 427 acres north of the unit).

Also in the 20th POD period Glacier's Savant said it will continue compliance and engineering work related to infrastructure, tie-in and additional processing requirements for the proposed Badami East Pad.

When Savant applied for royalty modification the company indicated that granting royalty relief would enable it to invest in future wells on the Main Pad as well as on the proposed new East Pad.

The Badami Main Pad houses the processing facilities. The proposed Badami East Pad will serve as a satellite and tie-in to the Badami Main Pad, gathering production from new wells drilled from the East Pad.

Eastern North Slope explorers

The royalty modification approval took into account explorers who have obtained strategic positions near Badami — Bill Armstrong's Lagniappe Alaska leases directly south of Savant's acreage and Balcony Resources new Grey Owl unit south of Lagniappe (see story on Grey Owl in this issue).

These explorers expect to be able to utilize Badami's infrastructure should their exploration efforts lead to development, DNR said.

Developments in the vicinity of Badami would result in increased throughput in the Badami pipeline system and through its underused processing facility, and thus through the Trans-Alaska Pipeline System.

Furthermore, the seven leases comprising the 17,203.74-acre Badami unit have provisions encouraging the lessee to employ Alaskans. Glacier is "focused solely on Alaska — operating both onshore and offshore oil assets," the royalty modification decision said.

Companywide, roughly 90% of Glacier employees are Alaskans. ●

Contact Kay Cashman
at publisher@petroleumnews.com



PNDENGINEERS.COM | 907.561.1011