



The Economic Benefits of Alaska's Mining Industry

February 2021

Mining is a growing force in Alaska's economy ...

providing jobs for thousands of Alaskans and millions of dollars of personal income throughout Alaska. Alaska's mining industry includes exploration, mine development, and mineral production. Alaska's mines produce coal, gold, lead, silver, zinc, as well as construction materials, such as sand, gravel, and rock.

In 2020, Alaska's mining industry provided:

- ▶ **4,700** direct mining jobs in Alaska.
- ▶ **9,600** total direct and indirect jobs attributed to Alaska mining industry.
- ▶ **\$890 million** in total direct and indirect payroll, not including highly competitive benefit packages.
- ▶ **\$880 million in purchases of goods and services** from about **600 Alaska vendors** (2016).
- ▶ Some of **Alaska's highest paying jobs** with an estimated average annual wage of \$115,320, over twice the state average (\$56,985) for all sectors of the economy.
- ▶ **\$49 million** in local government revenue.
- ▶ **\$117 million** in state government revenue through mining licenses, rents, royalties, fees, and taxes, and other government-related payments.
- ▶ **\$175 million** in payments to Alaska Native corporations.
- ▶ **Mostly year-round jobs** for residents of **90+ communities** throughout Alaska, half of which are found in rural Alaska where few other jobs are available.



Key Industry Measures *estimated*

Exploration

- **\$127 million** spent on exploration (2020)
- **\$4 billion** spent on exploration since 1981

Development

- **\$430 million** spent on mine construction and other capital investment (2020)

Production

- **Export value of \$1.9 billion**, or 38% of Alaska's total exports (2019)
- **169 active placer mines produced about 47,747 ounces of gold** with a gross production value of **\$66.8 million** (2019)
- About 120 active rock quarries, and sand and gravel operations throughout Alaska with at least **\$7.7 million in production value on state and federal lands** (2019)



As a critical industry, Alaska's producing mines and projects implemented **strict COVID-19 protocols** to protect their workers and contractors, and keep community members safe. As a result, **mining was one of the bright spots in Alaska's economy in 2020**. There were no significant production disruptions or

worker layoffs; millions of dollars in payroll continued to be infused throughout many Alaska communities. Additionally, through the quarantine and pre-shift quarantine facilities, mining companies injected critical dollars into local economies in Juneau, Fairbanks, and Anchorage.



Advanced Exploration Projects

Graphite Creek

Graphite

- Prefeasibility study initiated in 2019 with expected completion in 2021
- \$363 million in projected capital costs
- 370 potential production jobs

Livengood

Gold

- Placer mining began in 1914, lode exploration in 2003
- 11.4 million ounces of gold measured and indicated resource
- Announced optimization work to update prefeasibility study with expected completion in 2021
- 330 potential production jobs

Niblack

Copper, gold, silver, and zinc

- \$43 million in exploration spending since 2009
- Restart of Phase 1 exploration program in 2020 with further drilling (surface and underground) planned for 2021

Palmer

Copper, zinc, silver, gold, and barite

- Defining a multi-deposit Volcanogenic Massive Sulphide district
- Preliminary Economic Assessment completed for underground mining, moving toward Feasibility Study
- More than \$50 million invested since 2006
- Began lode gold exploration upstream of Porcupine placer deposits

Manh Choh

Gold

- Kinross Alaska acquired 70% interest in October 2020
- Project in scoping phase with plans to start production in 2024
- High-grade ore is expected to be trucked to Fort Knox mine for processing

Upper Kobuk Mineral Projects (Arctic and Bornite)

Copper, zinc, gold, and silver

- \$147 million spent on exploration since 2011
- 2020 drilling season program delayed due to COVID-19
- Robust drilling program planned at Arctic and Bornite in 2021
- Baseline environmental monitoring ongoing (Arctic)
- Final Environmental Impact Statement Joint Record of Decision and Wetlands Permit completed for the Ambler District Industrial Access Project

Projects in Permitting

Donlin Gold

Gold

- Discovered in 1988, continued exploration since 1995
- Permitting process began in 2012; final Environmental Impact Statement and Joint USACE and BLM Record of Decision in 2018
- Up to 80% Calista shareholder hire at its camp operation in 2020
- Up to 1,000 expected production jobs, depending on the production timeline

Pebble

Copper, gold, molybdenum, silver, and rhenium

- Discovered in 1987 on State of Alaska land
- Ongoing exploration, engineering, and environmental studies since 2002
- World class discovery of copper, gold, molybdenum, silver, and rhenium
- Approximately 850 potential production jobs

Large Producing Mines

Fort Knox

Gold

- Alaska's largest producing gold mine; poured 8 millionth ounce in 2019
- Now in its 24th year of production
- Largest single property taxpayer in the Fairbanks North Star Borough
- 645 employees, plus 124 on-site contractors in 2019
- Completed construction of its second heap leach facility to stack and process ore from Gilmore

Greens Creek

Silver, zinc, gold, and lead

- Largest silver producer in the U.S. and in the top 10 producers worldwide
- Discovered in 1975, producing from 1989 to 1993, and continuously since 1996
- Largest payer of property tax in the City and Borough of Juneau
- Largest Southeast Alaska for-profit employer, in terms of payroll
- Approximately 440 employees in 2020

Kensington

Gold

- 2019 production was 127,914 ounces of gold
- Celebrated the mine's tenth year of production in 2020
- Second largest private sector employer in Southeast Alaska in terms of payroll; over \$55 million in wages and benefits in 2019
- Second largest payer of property tax in the City and Borough of Juneau
- Over \$450,000 in total 2020 community donations, including significant support toward education and COVID-19 efforts
- 386 employees in 2020

Northern Star Pogo

Gold

- Discovered in 1994, producing since 2006
- Eighth largest gold producer in the U.S.
- Acquired by Northern Star Resources Limited in 2018
- Poured 4 millionth ounce in 2020
- Approximately 515 employees in 2020

Red Dog

Zinc, lead, and silver

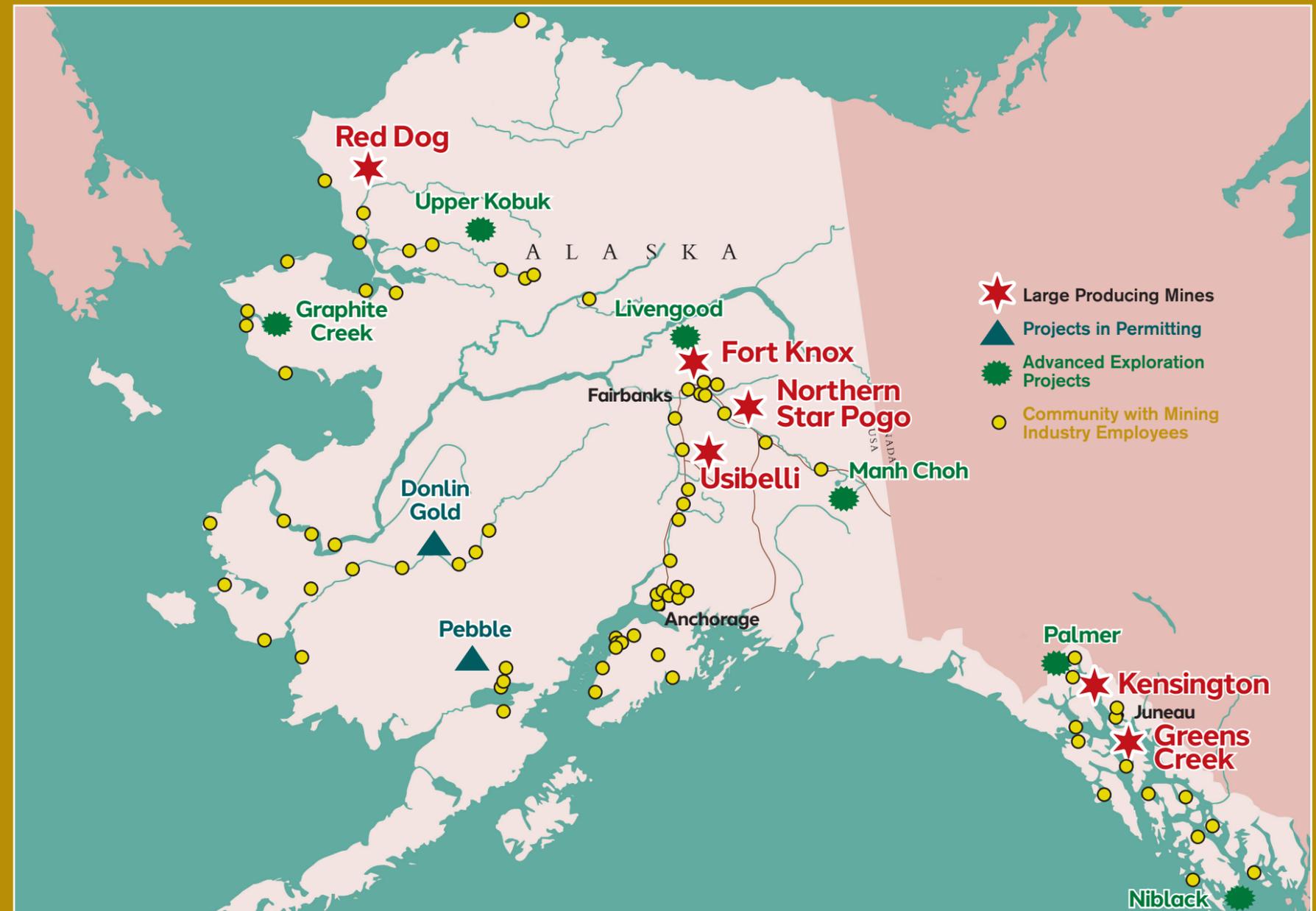
- Largest lead concentrate and zinc concentrate producer in the U.S.
- Discovered in 1968, producing since 1989
- Mine life expected until 2032
- Second largest silver producer in the U.S. in 2016
- Largest source of revenue to Northwest Arctic Borough and one of the largest borough employers
- Approximately 630 employees (including 111 contractor employees) in 2020

Usibelli Coal

Coal

- In continuous production since 1943
- Fuels 32% of Interior Alaska's electrical generation
- Approximately 102 employees in 2020

Mining Activity in Alaska



MINING EXPLORATION TIMELINE



MINING PRODUCTION TIMELINE



Ongoing Environmental Studies, Protection, and Reclamation



Strengthening Local Economies and Communities

Mining companies strengthen Alaska's local economies by employing residents from more than 90 communities. The industry also purchases about \$880 million in supplies and services from about 600 Alaska businesses.

Mining companies are also a significant source of stable revenue for local governments, as well as significant state government revenue. In 2020, Alaska's mining industry paid:

An estimated total of \$48.7 million to local governments, including:

- ▶ \$26.2 million in payment in lieu of taxes by Red Dog to the Northwest Arctic Borough, plus \$8.0 million paid to the Village Improvement Fund.
- ▶ \$11.1 million in property taxes paid by Fort Knox to the Fairbanks North Star Borough.
- ▶ \$1.9 million in property taxes paid by Greens Creek to the City and Borough of Juneau.
- ▶ \$1.4 million in property taxes paid by Kensington to the City and Borough of Juneau.
- ▶ Tax payments to other local governments, including Denali Borough, City of Nome, and others
- ▶ Mining industry employees also pay local property and sales taxes.

An estimated \$116.5 million to state government in royalties, rents, fees, and taxes, and other government-related revenues, including:

- ▶ \$62.1 million in mining license tax, rents, and royalties.
- ▶ \$9.7 million in state material sales, large mine permit coordination program receipts, miscellaneous fees, and other taxes.
- ▶ \$15.2 million to the Alaska Railroad Corporation for moving coal, sand, and gravel.
- ▶ \$28.4 million to Alaska Industrial Development and Export Authority for the use of state-owned facilities (DeLong Mountain Regional Transportation System and Skagway Ore Terminal).
- ▶ \$1.1 million to the Alaska Mental Health Trust for mining claim and lease rent and royalty payments, and construction material sales.

Partnering with Alaska Native Corporations

All Alaska Native corporations benefited from mining industry activity – in 7(i) and 7(j) royalty sharing payments, in jobs for shareholders, or through business partnerships.

- ▶ In 2020, NANA received \$173.5 million in net proceeds from Red Dog Mine and distributed \$104.1 million to other Alaska Native corporations, Kikiktagruk Iñupiat Corporation, and at-large shareholders via the 7(i) and 7(j) provisions of the Alaska Native Claims Settlement Act (ANCSA).
- ▶ Between 1982 and 2020, NANA received \$2.3 billion in net proceeds from Red Dog and paid more than \$1.5 billion to other regional and village corporations, KIC, and at-large shareholders via 7(i) and 7(j) provisions of ANCSA.
- ▶ 54% of the year-round Teck Alaska jobs at Red Dog are filled by NANA shareholders.
- ▶ Calista Corporation has received millions of dollars in royalties and other revenue from mineral agreements, including lode exploration, placer gold production, and construction material sales.
- ▶ 33% of all employees at the Upper Kobuk Minerals Projects, including contractor hires, were NANA shareholders in 2020.



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