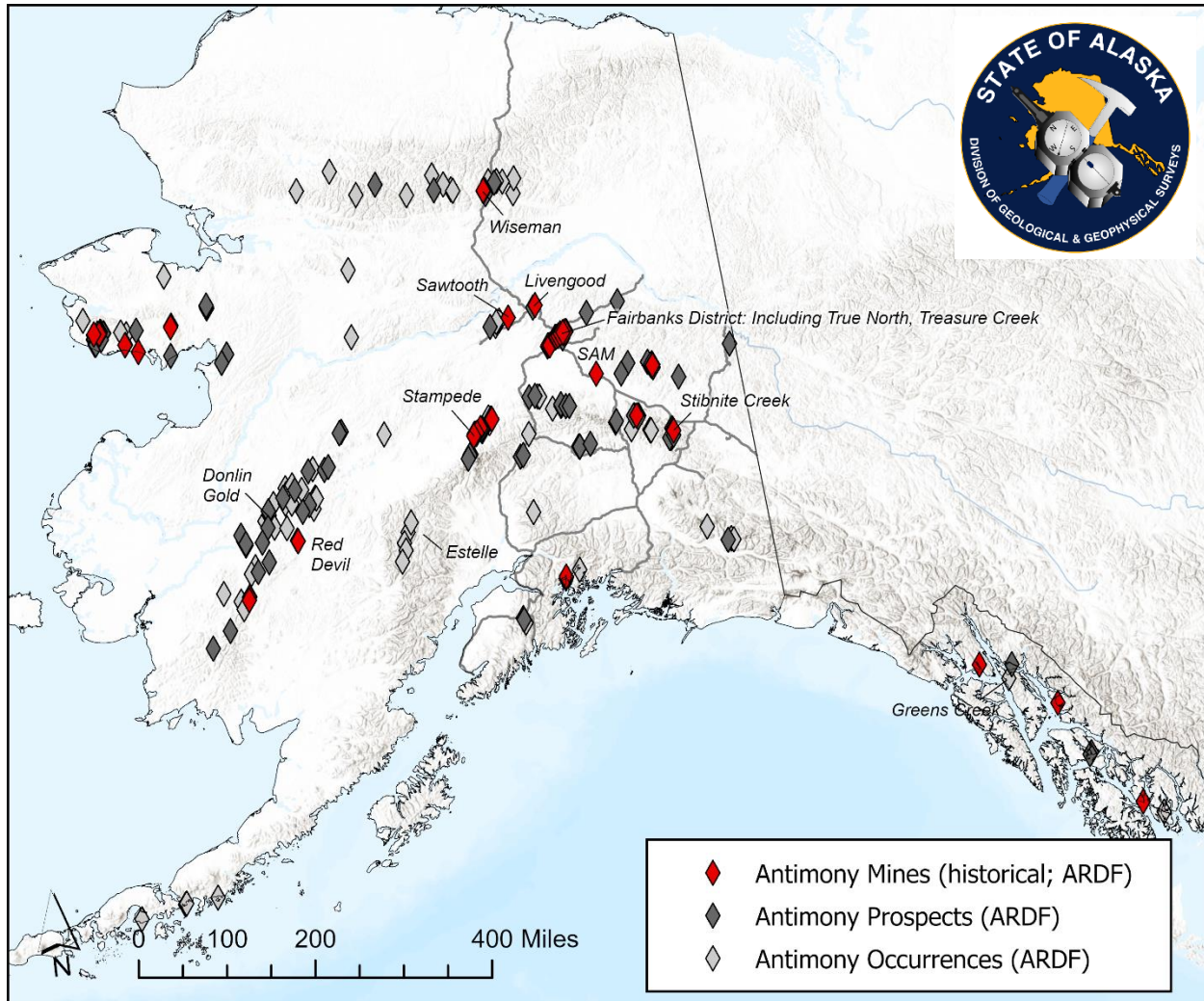


Antimony in Alaska

Alaska is well endowed with antimony and has a history of antimony production. Antimony mineralization, usually associated with lode-gold mineralization, is found throughout Alaska, from the southeastern panhandle to the Brooks Range (see map). Most Alaskan antimony occurrences are small, high-grade fissure veins that can selectively consist of 50 percent or greater antimony. But antimony is also associated with gold in some of Alaska's major, high tonnage, gold deposits.



Past Antimony Production

Alaskan antimony production occurred sporadically from 1905 to 1986, generally responding to wartime needs or higher spot metal prices. Total Alaskan antimony production is 11,070,800 pounds (Szumigala, D.J., 2024, Alaska's mineral industry 2021: Alaska Division of Geological & Geophysical Surveys Special Report 77, 97 p. <https://doi.org/10.14509/31272>). The map shows historical mines and prospects listing antimony as a primary commodity, as compiled in the Alaska Resource Database File (ARDF) (<https://doi.org/10.5066/P96MMRFD>).

Antimony ores from at least 25 deposits were shipped to markets during 1905, 1914-16, 1926-27, 1936-44, 1951-53, 1969-72, 1978-79, and 1983-1986. From 1936-42, the Stampede Mine in the Kantishna mining district contributed 75 percent of the United States' domestic production of antimony. During the Korean War, some antimony production was subsidized by the federal government in the Fairbanks, Livengood, and Kantishna mining districts.

- Antimony is found across Alaska from the Brooks Range to Ketchikan
- 11,070,800 pounds of antimony were mined in Alaska from 1905 to 1986, mostly from the Fairbanks and Kantishna mining districts
- Antimony is found in ores currently mined at some of Alaska's major mines, but not recovered
- Antimony is being evaluated at several mineral exploration projects, but resources are unknown and production from these sites are unlikely in the near term due to long lead times and potentially other hurdles

The Kantishna Mining District, now within Denali National Park and Preserve, had four major antimony producers and produced almost 5.6 million pounds of antimony. The Stampede Mine accounted for 3.8 million pounds of that total, and it has a historical, not compliant with today's standards, resource of 10 million pounds of antimony, along with significant gold and silver.

The Fairbanks mining district was Alaska's other major antimony producing district and it is credited with 4.1 million pounds of antimony metal production. The Scrafford or Treasure Creek property produced more than half of the district's total, producing about 2.1 million pounds of antimony from over 2,700 tons of high-grade antimony ore. The Treasure Creek property is currently being explored for gold.

The remainder of Alaska's recorded antimony production, 1.38 million pounds, is from sites scattered across the state. Sawtooth Mountain produced nearly 809,000 pounds of antimony. Other sites include several small producers in the Nome area, Stibnite Creek, and Wiseman. Some placer gold operations around the state produced by-product antimony ore, mostly stibnite (antimony sulfide). The Red Devil Mine in southwestern Alaska, Alaska's largest mercury producer, produced a small amount of antimony concentrates, and considerable antimony reserves are associated with other mercury deposits in that area.

Potential Antimony From Current Alaskan Mines

Several Alaska large mines and mining projects have antimony associated with the primary ore. These include the Fort Knox Mine, Pogo Mine, Kensington Mine, and Greens Creek Mine, as well as the Donlin Gold, SAM and Livengood projects. Some ore types from the Greens Creek Mine average 4.6% antimony. It is uncertain whether any of these mines or mining projects have studied the possibility of producing by-product antimony. None of these projects have announced any antimony resources or reserves.

Kinross Gold's True North gold deposit, previously mined and now reclaimed, contains significant antimony. The gold-rich, antimony-rich sulfide portion of the orebody was left unmined because of low gold recovery using the existing mill at the Fort Knox Mine. The deposit contains a significant gold resource. Antimony could be produced as a by-product.

Future Antimony Mining

Several Alaska projects with identified, but not quantified, antimony resources are in the early exploration phase. Exploration surface sampling for antimony in 2024 was announced for Nova Minerals Limited's Estelle project in the western Alaska Range. Initial exploration drilling results were announced for Felix Gold Limited's Treasure Creek project in the Fairbanks area. Continued exploration success could lead to economic feasibility studies of future antimony production, but timelines are long under current permitting and regulatory conditions before commodities from these projects could be produced.