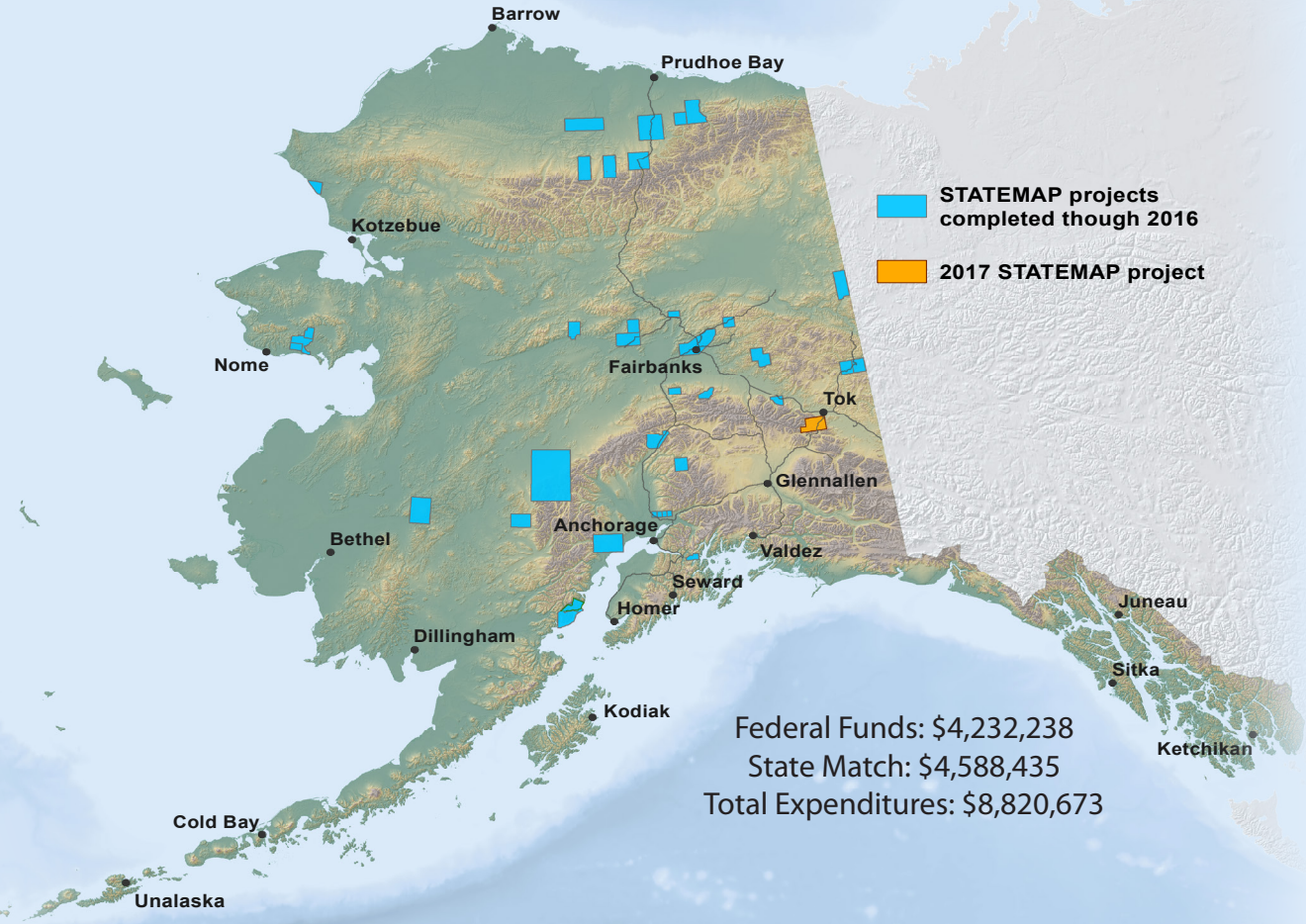
National Cooperative Geologic Mapping Program (NCGMP)
ALASKA BENEFITS

With funding through NCGMP's STATEMAP program, combined with State and private contributions, Alaska's Geological Survey (DGGS) has:

- Provided high-quality geologic mapping for >15,000 square miles of land in Alaska
- Published 152 reports and maps
- Provided mapping that facilitated the discovery of 22 million ounces of gold
- Provided data that contributed to the Pikka discovery of 497–3,758 million barrels of oil
- Published geophysical surveys, geologic maps, and reports which led to the discovery of a promising porphyry copper–gold occurrence
- Encourages private sector exploration and investment by building framework geology
- Helped protect Alaskans by investigating faulting
- Reported on hazards and engineering considerations for potential road corridors in Alaska



Federal Funds: $4,232,238
State Match: $4,588,435
Total Expenditures: $8,820,673

However, more than 500,000 square miles of Alaska remain unmapped at a usable scale, which will take >700 years to complete at current rates.

STATE OF ALASKA
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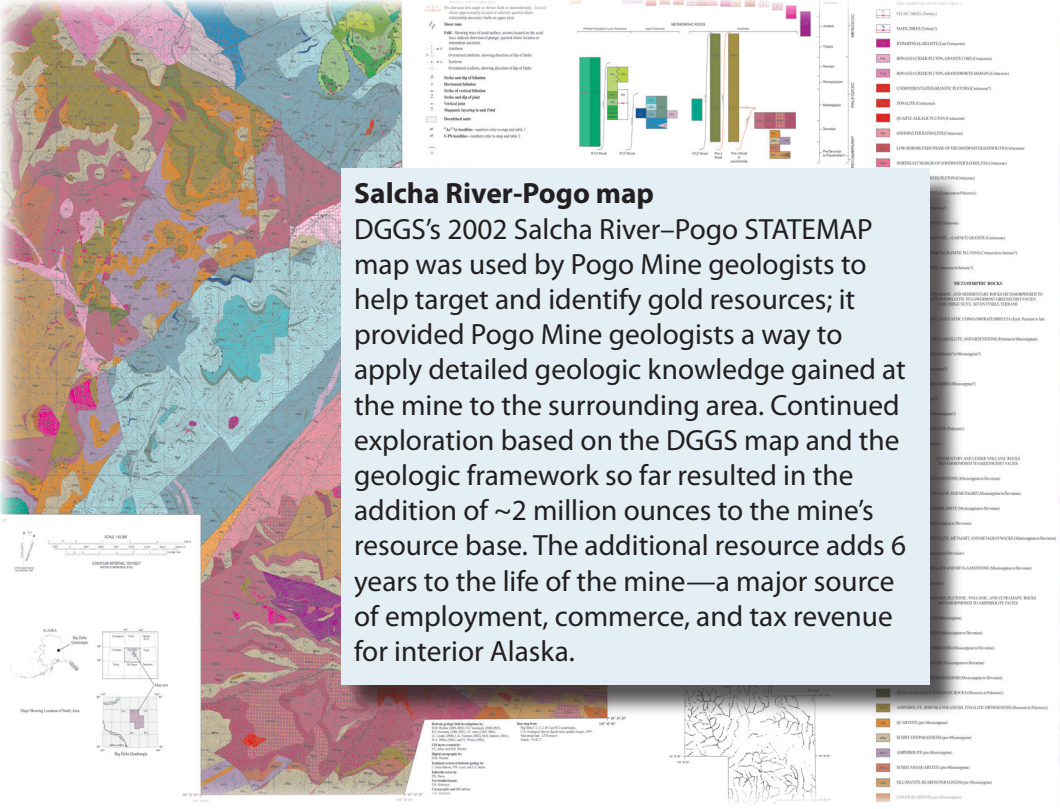
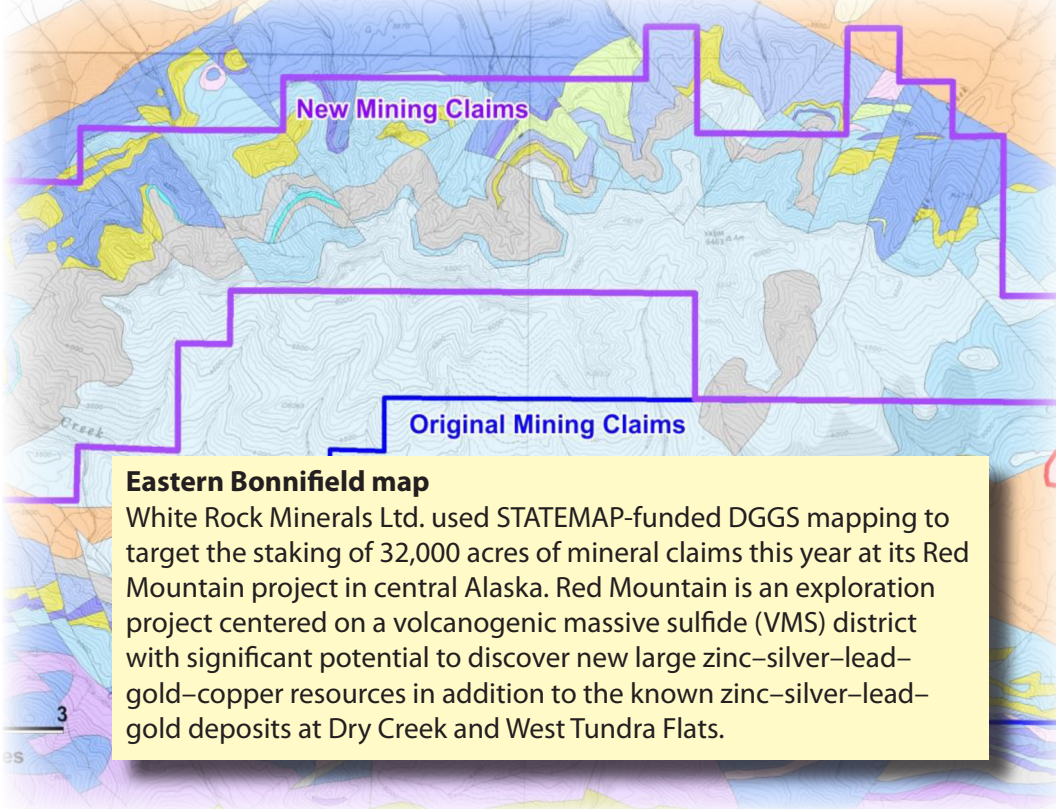
AASG Association of American State Geologists

USGS science for a changing world



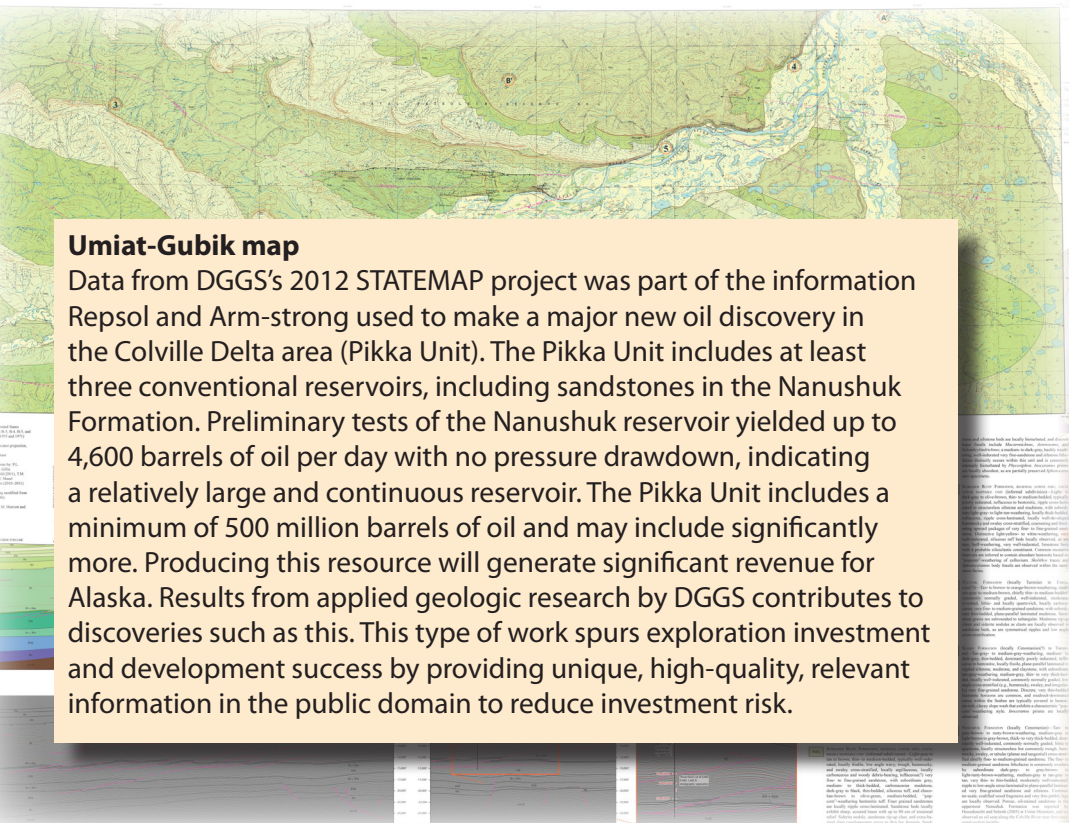
Salcha River-Pogo map

DGGS's 2002 Salcha River–Pogo STATEMAP map was used by Pogo Mine geologists to help target and identify gold resources; it provided Pogo Mine geologists a way to apply detailed geologic knowledge gained at the mine to the surrounding area. Continued exploration based on the DGGS map and the geologic framework so far resulted in the addition of ~2 million ounces to the mine's resource base. The additional resource adds 6 years to the life of the mine—a major source of employment, commerce, and tax revenue for interior Alaska.



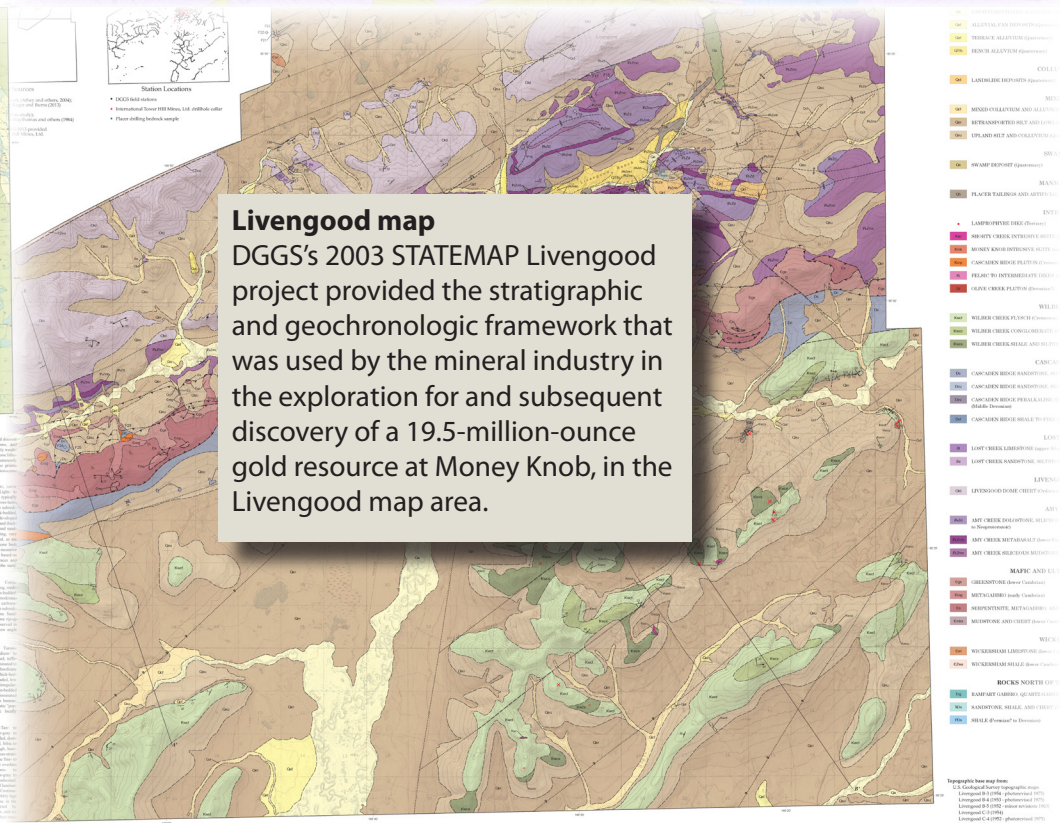
Eastern Bonnifield map

White Rock Minerals Ltd. used STATEMAP-funded DGGS mapping to target the staking of 32,000 acres of mineral claims this year at its Red Mountain project in central Alaska. Red Mountain is an exploration project centered on a volcanogenic massive sulfide (VMS) district with significant potential to discover new large zinc–silver–lead–gold–copper resources in addition to the known zinc–silver–lead–gold deposits at Dry Creek and West Tundra Flats.



Umiat-Gubik map

Data from DGGS's 2012 STATEMAP project was part of the information Repsol and Arm-strong used to make a major new oil discovery in the Colville Delta area (Pikka Unit). The Pikka Unit includes at least three conventional reservoirs, including sandstones in the Nanushuk Formation. Preliminary tests of the Nanushuk reservoir yielded up to 4,600 barrels of oil per day with no pressure drawdown, indicating a relatively large and continuous reservoir. The Pikka Unit includes a minimum of 500 million barrels of oil and may include significantly more. Producing this resource will generate significant revenue for Alaska. Results from applied geologic research by DGGS contributes to discoveries such as this. This type of work spurs exploration investment and development success by providing unique, high-quality, relevant information in the public domain to reduce investment risk.



Livengood map

DGGS's 2003 STATEMAP Livengood project provided the stratigraphic and geochronologic framework that was used by the mineral industry in the exploration for and subsequent discovery of a 19.5-million-ounce gold resource at Money Knob, in the Livengood map area.