



# ***MEDIA RELEASE***

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### ***NEW GEOLOGIC MAP FOCUSES ON DELTA MINERAL BELT***

#### **AREA RICH IN BASE- AND PRECIOUS-METAL-RICH MASSIVE SULFIDE DEPOSITS**

The Division of Geological & Geophysical Surveys released a report today that presents a bedrock geologic map of the Delta Mineral Belt in east-central Alaska. The map focuses on a segment of a paleo-volcanic arc/basin system where base- and precious-metal-rich massive sulfide deposits formed and are preserved. This volcanic arc, or series of arcs, was active off the western margin of ancestral North America, during the Middle Devonian to Early Mississippian (350–400 million years ago). This major tectonic feature is represented today by the remnants of geologic belts distributed from southern British Columbia to central Alaska.

Substantial geologic debate and uncertainty have surrounded the Delta mineral belt regarding the style of mineralization; the location, correlation, and number of mineralized horizons; the juxtaposition of mineralized felsic volcanic rocks with mafic igneous bodies; the age and geologic setting of deposits relative to those in other mineralized districts; and the ultimate potential to host economically mineable mineral deposits. Approximately \$20 million was expended by private industry between 1976 and 2001 exploring for and evaluating base-metal and gold deposits in the Delta mineral belt.

This report and the accompanying geologic map present an end-of-the-20th-century progress report on the understanding of the geology related to the formation and distribution of volcanic-related massive-sulfide deposits in the eastern Alaska Range. The complex geology of the area is divided into seven mappable metamorphic units that identify and follow the time–stratigraphic horizons along which massive sulfides were deposited.

The map area spans approximately 400 square miles, covering portions of the Mount Hayes A-1, A-2, B-1 and B-2, and Tanacross A-6 and B-6 quadrangles in east-central Alaska. Geologic data upon which the map is built are concentrated within a corridor roughly 20 miles long and 10 miles wide that follows a northwest–southeast axis through the central map area. Information beyond this corridor is of a reconnaissance nature, and is provided as context

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only to aid display of the more detailed information developed during industry-sponsored mineral exploration. An inset map on the margins of sheet 1 displays the primary contributors and sources of geologic data utilized for specific regions covered by the map.

Professional Report 122, *Bedrock Geologic Map of the Delta Mineral Belt, Tok Mining District, Alaska*, and its accompanying map sheets, may be downloaded from the DGGGS Web site (<http://www.dggs.dnr.state.ak.us>) or purchased for \$16 from DGGGS at 3354 College Road, Fairbanks, Alaska 99709-3707 (phone 907-451-5020). The 122-page booklet can also be obtained from the DNR Public Information Center, 550 West 7th Avenue, Suite 1260, Anchorage, Alaska (907-269-8400) and from DCED's Division of Trade & Development in Fairbanks and Anchorage. Mail orders should be sent to the Fairbanks DGGGS office (fax 907-451-5050).

The report will be available for inspection beginning November 19, 2003, at the Alaska Resources Library and Information Service, 3150 C Street, Suite 100, Anchorage, and at the Historical Collection of the Alaska State Library in the State Office Building in Juneau. The Historical Collection is available from 1 to 5 p.m. Monday through Friday (907-465-2927).

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