

ALASKA DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

REPORT OF INVESTIGATIONS 97-7

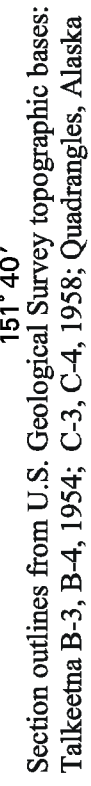
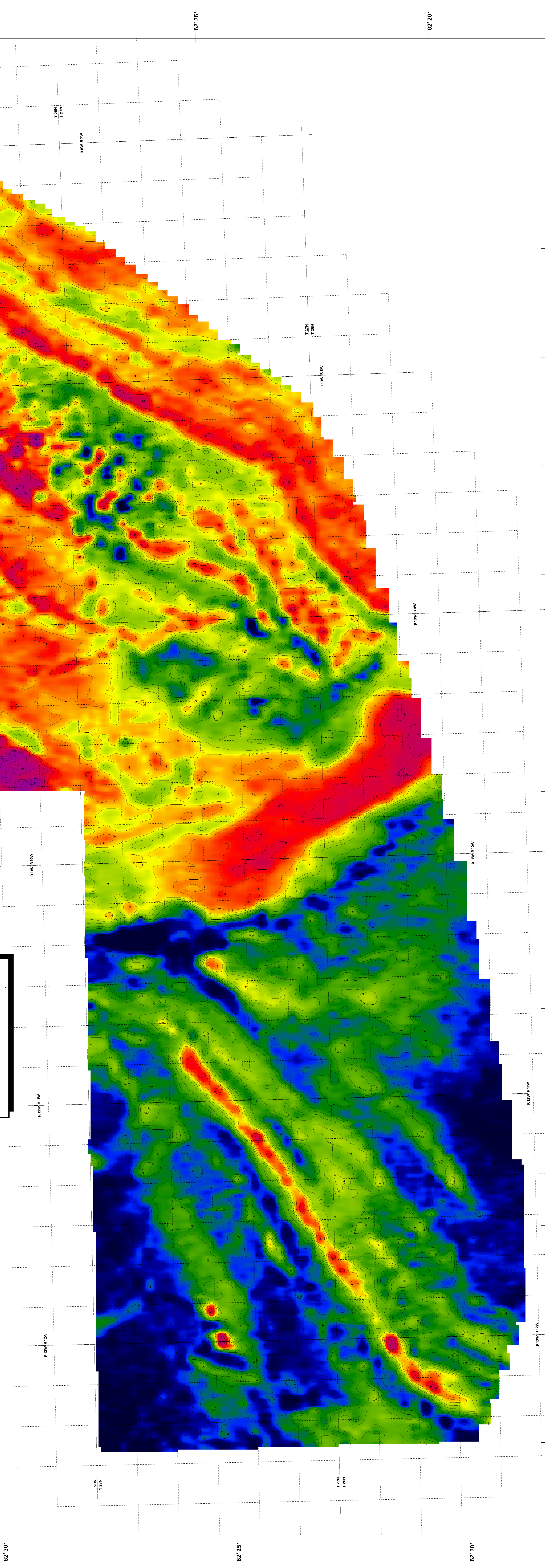


Department of Natural Resources
Division of Geological & Geophysical Surveys
Geologic Data Modeling System

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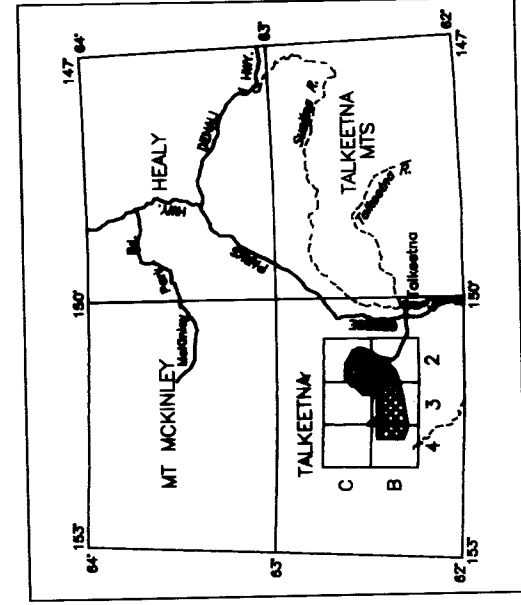
SURVEY HISTORY

This map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys, and WGM, Mining and Geophysical Consultants, Inc. Airborne geophysical data for the area were acquired by DIGHEM, a division of CGG Canada Ltd., in 1996. Other products from this survey are available from the Alaska Division of Geological & Geophysical Surveys, 794 University Ave., Suite 200, Fairbanks, Alaska, 99709. Phone: (907) 451-5020, FAX: (907) 451-5050.



RESISTIVITY

The DIGHEM[®] EM system measured in-phase and quadrature components at five frequencies. Two vertical coaxial coil-pairs operated at 900 and 500 Hz while three horizontal coil-pairs operated at 900 and 3000, 7200, and 56,000 Hz. EM data were sampled at 0.1 second intervals. The EM system responds to bedrock conditions, conductive overburden, and cultural sources. Resistivity is generated from the in-phase and quadrature components of the EM data using the procedure of the quarter-sphere model. Blocky resistivity is the combination of a high resistive altitude and a weak electromagnetic signal precludes meaningful resistivity calculation. The data were interpolated onto a regular 25 m grid using a modified Akima (1970) technique.

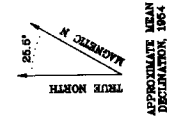
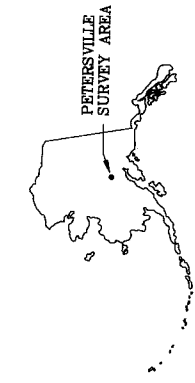


**900 Hz COPLANAR RESISTIVITY OF THE PETERSVILLE
MINING DISTRICT, ALASKA**

1998

DESCRIPTIVE NOTES

Geophysical data were acquired with a DIGHEM Electromagnetic (EM) system, a Scentrex cesium CS2 magnetometer, and a Herz VLF system installed in an AS350B-1 Squirrel helicopter. In addition, the survey recorded data from a radar altimeter, GPS navigation system, 50/60 Hz monitors, and video camera. Flights were performed at a mean terrain clearance of 200 feet along survey flight lines with a spacing of a quarter of a mile. The lines were flown perpendicular to the flight lines at intervals of approximately three miles.



http://www.1000genomes.org/data/phase3/