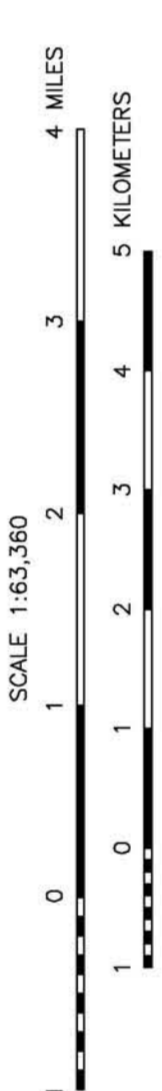


Section profiles from U.S. Geological Survey Sections C-4, 1985; C-5, 1978; Solomon, D-4, 1973; D-5, 1973; Kuskokwim, Alaska



7200 HZ COPLANAR RESISTIVITY OF THE COUNCIL AREA, SEWARD PENINSULA, ALASKA PARTS OF BENELEBEN AND SOLOMON QUADRANGLES 2003

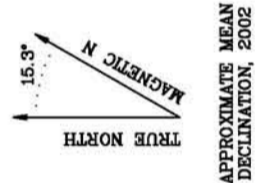
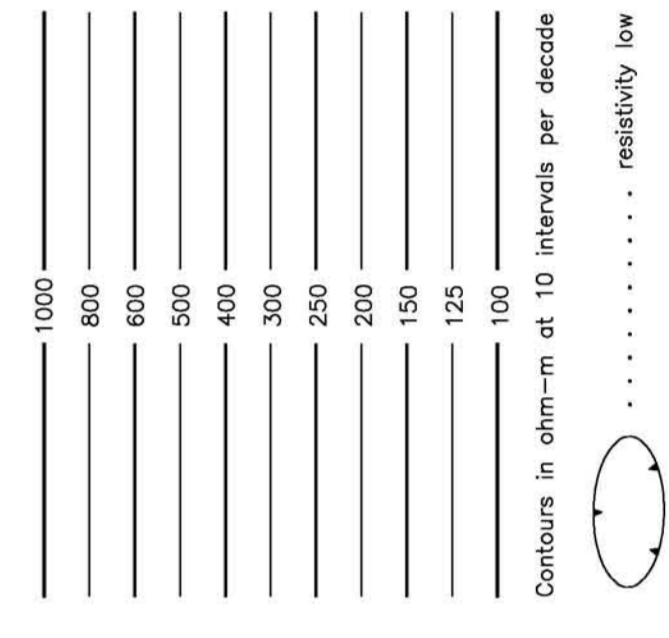
DESCRIPTIVE NOTES

The geophysical data were acquired with a DICH-EM Electromagnetic (EM) system and a Schrirek cesium magnetometer. Both were flown at a height of 100 meters. A 100 m wide, 50 m high, 50/50 Hz radar altimeter, GPS navigation system, 50/50 Hz monitors and video camera. Flights were performed with a clearance of 200 feet along North-South (N-S) flight lines at intervals of approximately 3 miles. An Ashtech GQ24 NAVSTAR / GLOMSS Global Positioning System was used for navigation. The helicopter position was derived every 0.5 seconds with a relative accuracy of better than 5 m. Flight path positions were projected onto the Clarke 1866 datum using a central meridian (CM) of 165°, a north constant of 0 and an east constant of 500,000. The map was projected to the UTM datum with a better than 10 m with respect to the UTM grid.

RESISTIVITY

The DICH-EM EM system measured inphase and quadrature coil pairs operated at 1000 and 5500 Hz while three horizontal coplanar-coil pairs operated at 800, 7200, and 6400 Hz. The EM system responses to bedrock conductor conductivity, overburden, and cultural sources. Apparent resistivity is calculated from the inphase and quadrature components of the coplanar 7200 Hz response. The quadrature component of the coplanar 7200 Hz response was compared to a model (Freser 1978). The data were interpolated onto a regular 100 m grid using a modified Akima (1970) technique. Akima, H., 1970. A new method of interpolation and smooth curve fitting based on local properties. *Proceedings of the Association of Computing Machinery*, v. 17, no. 4, p. 589-602. Freser, R., 1978. *Geophysical Interpretation of Electromagnetic Systems*. Geophysical Research Series 44-172.

RESISTIVITY CONTOURS



SURVEY HISTORY

This map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological and Geophysical Surveys (DGGS), and Stevens Exploration Management Corp. Airborne geophysical data for the area were acquired by Stevens Exploration Management Corp. in 1973. Laurel Burns was the contract manager for DGGS. This map and other products from this survey are available from the Stevens Exploration Management Corp., Suite 200, Fairbanks, Alaska, 99709.