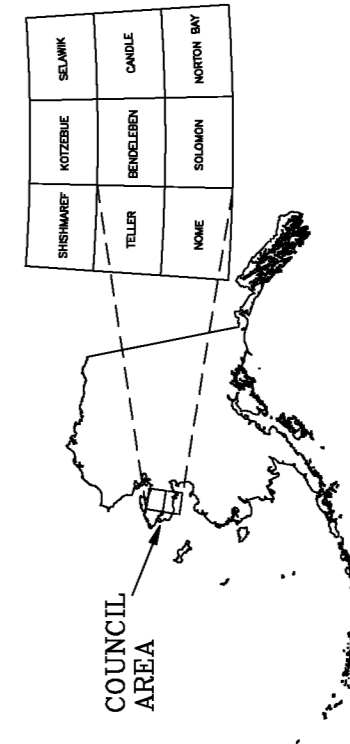
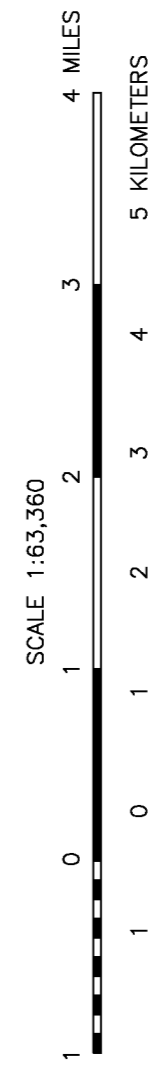


Section outline from U.S. Geological Survey Miscellaneous Publication 1-4, 1986, p. 4-5, 1986.
 Shaded relief from U.S. Geological Survey Miscellaneous Publication 1-4, 1986, p. 4-5, 1986.



COUNCIL AREA



SCALE 1:63,360

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

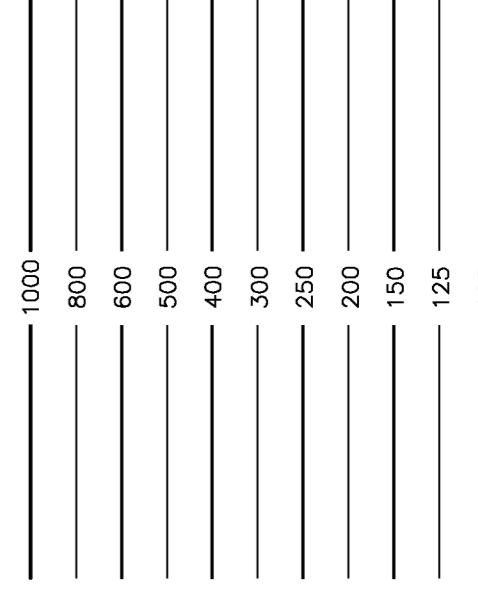
DESCRIPTIVE NOTES

The geophysical data were acquired with a DIGHEM[®] Electromagnetic (EM) system and a Scintrex cesium magnetometer. Both were flown at a height of 100 meters. The DIGHEM system consists of a 50/60 Hz radar altimeter, GPS navigation system, 50/60 Hz magnetometer, and video camera. Flights were performed with a clearance of 200 feet along North-South (N-S) survey flight lines with a spacing of a quarter of a mile. The flight lines were approximately 3 miles apart. An Ashtech G24 NAVSTAR / GLOPASS 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 datum used for the map is UTM. The datum is better than 10 m with respect to the UTM grid.

RESISTIVITY

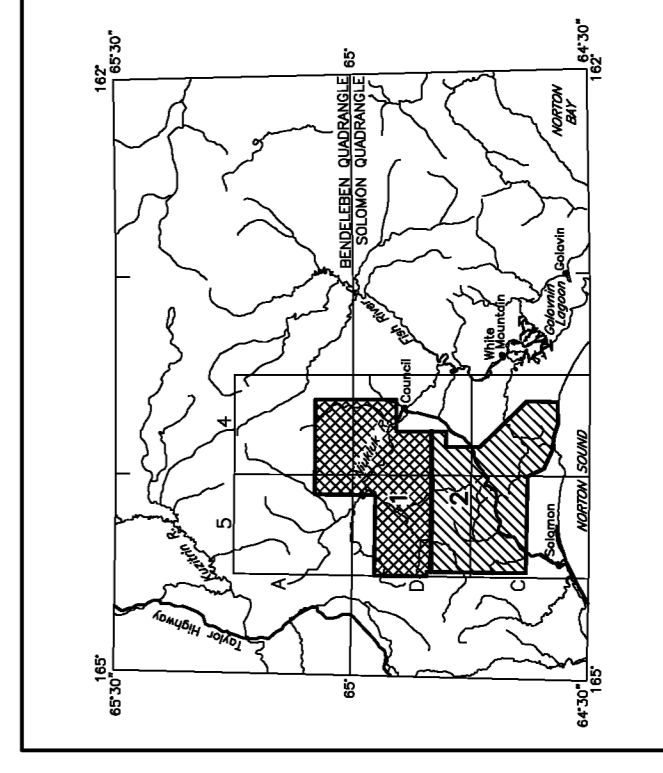
The DIGHEM[®] EM system measured inphase and quadrature components of the magnetic field using three horizontal coplanar-coil pairs operated at 900, 7200, and 5500 Hz. The EM system responds to bedrock conductors, conductive overburden, and cultural sources. Apparent resistivity is derived from the inphase and quadrature components of the coplanar 900 Hz using the quarter-skin depth model (Fraser 1978). The data were interpolated onto a regular 100 m grid using a modified Alma (1970) technique. Alma, K., 1970. A new method of interpolation and smooth curve fitting. *Journal of Computing Machinery*, v. 17, no. 4, p. 569-602. Fraser, R. G., 1978. *Geophysical Interpretation of Electromagnetic Systems*. *Geophysical Research Bulletin*, v. 3, p. 1-122.

RESISTIVITY CONTOURS



..... resistivity low

LOCATION INDEX



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 1992. Laurel Burns was the contract manager for DGGS.

This map and other products from this survey are available from the State of Alaska, Department of Natural Resources, Suite 200, Fairbanks, Alaska, 99703.