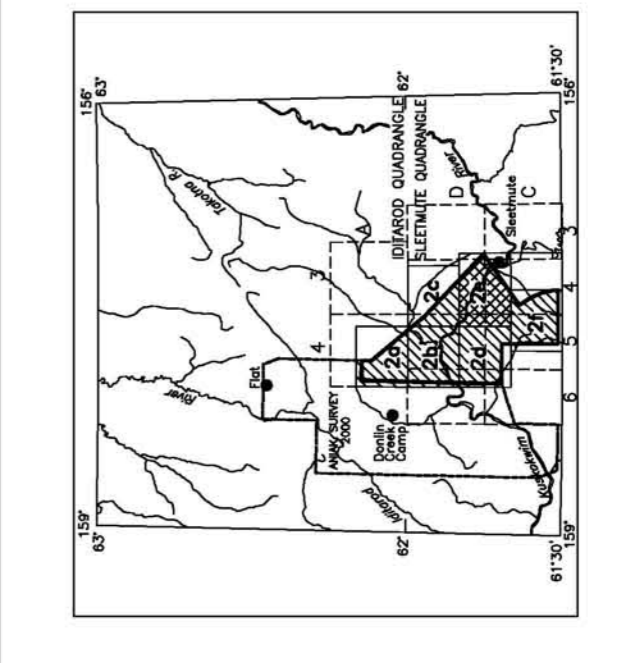


LOCATION INDEX FOR SCALE 1:31,680



TOTAL MAGNETIC FIELD AND DETAILED ELECTROMAGNETIC ANOMALIES OF THE SLEETMUTE AREA, SOUTHWESTERN ALASKA

2003

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 (DGGG) and Stevens Exploration Management Corp. (SEMG). Funding for the project was provided by the U.S. Department of the Interior, Bureau of Land Management. The current survey was conducted along the western edge of the current survey area by Fugro Airborne Surveys in 2000, funded by the U.S. Department of the Interior, Bureau of Land Management. The contract manager for DGGG, Laurel Burns was the contract manager for SEMG. This map and other products from this survey are available to the public in person from the Alaska Division of Geological and Geophysical Surveys, 294 University Ave., Anchorage, Alaska 99506, or by mail from the Alaska Division of Geological and Geophysical Surveys, 100 Savikko Road, Douglas, Alaska, 99824.

MAGNETIC CONTOUR INTERVAL

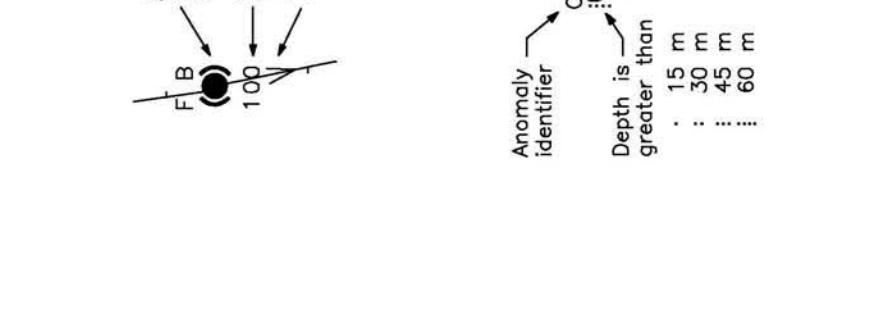
.....	100 nT
.....	20 nT
.....	4 nT
.....	2 nT
.....	magnetic low
.....	magnetic high

TOTAL MAGNETIC FIELD
The total magnetic field data were acquired with a digital magnetic field recorder (DFMR) with a resolution of 0.1 nT. The data were corrected for diurnal variations by subtraction of the digitally recorded base station magnetic data, and the corrected data were gridded onto a regular 100 m grid using a modified Akima (1970) technique. The regional variation (or IGRF (1970) technique) was removed from the leveled magnetic data.

ELECTROMAGNETICS
To determine the location of EM anomalies or their boundaries, the DIGHEM EM system measured in-phase and quadrature components of the induced magnetic field. The system consists of a transmitter coil pair (operating at 1000 and 5500 Hz) and a receiver coil pair (operating at 300, 7500, and 15,000 Hz). The EM system responds to bedrock conductors, conductive overburden, and cultural sources. The type of conductor is determined by the ratio of the in-phase to quadrature components. The type of conductor is determined by the ratio of the in-phase to quadrature components. The type of conductor is determined by the ratio of the in-phase to quadrature components.

ELECTROMAGNETIC ANOMALIES

Anomaly	Conductance	Interpretive symbol
> 100 Siemens	50-100 Siemens	B
20-50 Siemens	10-30 Siemens	D
5-10 Siemens	1-5 Siemens	S
< 1 Siemens	< 1 Siemens	H
Questionable anomaly	Questionable anomaly	Q
EM magnetic response	EM magnetic response	A



DESCRIPTIVE NOTES
The geophysical data were acquired with a DIGHEM Electromagnetic (EM) system and a Spiritex cesium atomic clock. The data were recorded on a 100 Hz radar altimeter, GPS navigation system, 50/60 Hz AS350B-2 Squirrel helicopter at a mean terrain clearance of 1000 ft (305 m) along NW-SE (340°) flight lines. The lines were flown perpendicular to the light transmission and approximately parallel to the flight lines. The data were acquired at an altitude of 1000 ft (305 m) and an east constant of 500,000.00. The accuracy of the ground data is better than 10 m with respect to the UTM grid.



Shaded from U.S. Geological Survey Alaskan, C-3, 1972; C-4, 1984; C-5, 1984; D-3, 1974; D-4, 1974; D-5, 1974; Washington, D.C.