

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Preliminary audio-magnetotelluric results for parts of the Butte
and Dillon 1° x 2° quadrangles, Montana and Idaho

by

Donald B. Hoover, Carl L. Long, Harold E. Kaufmann,
and Jerry H. Hassemer

Open-File Report 82- 711

1982

This report is preliminary and has not been
reviewed for conformity with U.S. Geological
Survey editorial standards.

The four 35 mm slides that make up this open-file report present audio-magnetotelluric (AMT) data from parts of the Butte and Dillon 1° x 2° quadrangles. These slides show preliminary results of AMT data being prepared for publication as part of the reports that will make up the two separate Butte and Dillon Conterminous United States Mineral Resource Assessment Program (CUSMAP) folios. For the three maps presented (slides 1-3), station locations are shown by solid dots. The geographic location of the station and electrical section A-A' in the Dillon quadrangle may be obtained by projecting the slides on the corresponding 1° x 2° (1:250,000-scale) topographic quadrangle.

The four slides in this open-file report are:

1. AMT apparent resistivity contour map at 7.5 Hz logarithmic average of E-W and N-S telluric line measurements for the Butte 1° x 2° quadrangle.
2. Two AMT apparent resistivity contour maps at 27 Hz with north-south and east-west telluric line orientations for the Butte 1° x 2° quadrangle.
3. AMT apparent resistivity contour map at 7.5 Hz logarithmic average of east-west and north-south telluric line measurements for the Dillon 1° x 2° quadrangle.
4. AMT resistivity cross-section A-A' for the Dillon 1° x 2° quadrangle.