

ploration site. The goal is to determine firstly if there is indeed a deep ore body as currently hypothesized, and secondly if there are any other ore bodies in the survey area. The AeroQuest IMPULSE airborne system was used to collect the data. This system uses a six channel frequency domain, with three frequencies in each of the horizontal coplanar and vertical coaxial orientations. The area of the survey covers just over 15 km<sup>2</sup>, and flight line spacing varied from 50 to 100 m. There are a number of current mining claims within the survey area, and it is very complex geologically.

The main component of this project is to invert the electromagnetic data at each measurement location to produce a layered Earth structure (1-D model). This will be done using the program EM1DFM from the University of British Columbia. All of the 1-D models in one flight line will be gathered together to produce a 2-D approximate model of the subsurface beneath that line. Upon completion of the 2-D modeling, the entire data set will then be linked to form a 3-D conductivity model of the subsurface of the survey area. The inversion results will be compared with other geophysical data from both the AeroQuest survey and other surveys to give a clearer picture of the subsurface.

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**Interpretation of airborne electromagnetic  
data using 1-D inversion**

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[Poster]

The purpose of this honours project is to analyze helicopter-borne electromagnetic survey data acquired over an active ex-