

**Electrical characteristics of mineralized and non-mineralized rocks
from ore deposits in the Bathurst Camp**

T.J. Katsube¹, M.E. Best² and N. Scromeda¹

¹*Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8, Canada*

²*Geological Survey of Canada, P.O. Box 6000, Sidney, British Columbia V8L 4B2, Canada*

Electrical characteristics of mineralized and non-mineralized rock samples from the Caribou, Restigouche and Brunswick No. 12 deposits are being studied, in order to determine the conductivity of the mineralization and hence its relationship to tectonic history and mineral deposition. The objective of the study is to assist in the interpretation of resistivity surveys by airborne, ground and borehole EM methods. These three deposits were chosen because of the variation in their EM responses, and of their variation in sulphide mineral grain-sizes.

Results for mineralized and non-mineralized rock samples from Brunswick No. 12 indicate that the resistivities are in the range of less than 1 Ω -m to 2000-7000 Ω -m, with varied degrees of resistivity anisotropy seen in the rocks with low sulphide mineral content. These results are being, and will be compared with those from the other deposits, and from the field surveys.