1. Introduction

The McLeod Lake map area, in central British Columbia (Fig. 3.1), has potential for economic mineral occurrences. Mineral exploration has previously been hindered by the extensive cover of surficial deposits. This hindrance has been overcome through a media-specific sampling program of basal tills, whose geochemical signature is influenced by the composition of up-ice bedrock. Knowledge of the Quaternary geology and the ice flow history are essential to the collection and interpretation of till geochemical data.

2. Objectives and Methods

3. Quaternary Geology

3.1 Regional Ice Flow

3.2 Chronology

4. Terrain Mapping

5. Ice Flow

5.1 Macroform Indicators

5.2 Microform Indicators

5.3 Till Fabrics

6. Mineral Exploration

Analysis of the regional scale trace element till geochemical data suggests that there are potential economic mineral occurrences in the area. For example, concentrations of Au, Cu, As, and Ag in the northwest part of the study area suggest porphyry Cu-Au style mineralization, similar to that of the Mount Milligan deposit to the north.

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