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Ministry of Energy, Mines
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MINERAL RESOURCES DIVISION
Geological Survey Branch

GEOLOGICAL FIELDWORK 1992

A Summary of Field Activities and Current Research

Editors: B. Grant and J.M. Newell

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PREFACE

The 1992 edition of *Geological Fieldwork: A Summary of Field Activities and Current Research* is the eighteenth in this annual publication series. It contains reports on Geological Survey Branch activities and projects in a year which saw a modest reduction in base-budget funding, in line with government-wide efforts to control the provincial deficit. The base budget of the Branch for the 1992/93 fiscal year was $6.96 million, supplemented by an additional $732 000 from the 1991-1995 Canada - British Columbia Mineral Development Agreement, (MDA) and by $900 000 from a new government program, the British Columbia Corporate Resource Inventory Initiative (CRII) designed to improve resource inventories and assist land-use decisions.

The budget reduction resulted in the suspension of the British Columbia Geoscience Research Program, which is reflected in a sharp reduction in the number of university research papers published this year. However, the Branch has maintained a vigorous and diverse program of fieldwork and related research as demonstrated by the contents of this year's volume which include:

- Reports on nine 1:50 000-scale geological mapping programs: two in the Stikine district of northwestern British Columbia, three in the northern Quesnel trough, two on the central Interior Plateau, one on northern Vancouver Island and one in the sensitive Tatshenshini area in the northwest corner of the province.
- A report on the Katie alkaline porphyry copper prospect in the Salmo area of the West Kootenays, the first discovery of its type east of the Intermontane Belt.
- The work of the Branch's Environment Geology Section is reported in papers covering the on-going Regional Geochemical Survey program; surficial geology mapping in the central Interior Plateau and research on the viability of lake-sediment geochemistry as an exploration technique in this extensively drift-covered area; the Quaternary geology of buried gold placers in the Cariboo district; and evaluation of construction aggregate resources in the Howe sound area of the Lower Mainland.
- Progress reports on ongoing studies of the quality of British Columbia coals and the wind-up of the digital mapping program in the Northeast coalfield.
- Reports on three diverse industrial mineral occurrences: magnesite and talc in Cambrian carbonates in the Rocky Mountains, and graphite in the Coast Plutonic Complex.

The volume includes ten papers on the results of work by the Mineral Deposit Research Unit (MDRU) at The University of British Columbia. Seven cover ongoing research on the metallogenesis of the Iskut River area and related topics; three derive from research on the alkaline porphyry copper-gold systems at Copper Mountain, Mount Polley and the Iron Mask batholith.

Two major programs warrant special emphasis: the Tatshenshini and Interior Plateau projects. A proposal to develop the huge Windy Craggy copper-cobalt deposit in the Tatshenshini area of northwestern British Columbia has precipitated a major land-use conflict. The existing geoscience database in this remote and sensitive region is inadequate to fully evaluate its mineral potential. The Tatshenshini project, funded by CRII, is covered here by a four-part report. New geological and geochemical data to assist sound land-use management decisions are reported.

The Interior Plateau project, funded by MDA, is part of a cooperative effort between the Geological Survey Branch and the Geological Survey of Canada to expand the geoscience database in this thinly explored, heavily drift covered region. The Branch contribution, reported on in six papers in this volume, is an integrated program of bedrock and surficial geological mapping and lake-sediment geochemistry

This volume of *Fieldwork* contains 48 articles, a modest decrease from last year, largely as a result of the reduced number of university research papers. Even so, meeting the January publication deadline demands a concerted and unstinting effort from our editorial and publications staff. We acknowledge the efforts of Doreen Fehr and Janet Holland on formatting and page layout, John Newell for timely edits, and Brian Grant for managing the entire process. We thank the staff of the Queen's Printer for their cheerful cooperation and enthusiasm.

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