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MINERAL RESOURCES DIVISION
Geological Survey Branch

GEOLOGICAL FIELDWORK 1994

A Summary of Field Activities
and Current Research

Editors: B. Grant and J.M. Newell



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FOREWORD

The 1994 edition of *Geological Fieldwork: A Summary of Field Activities and Current Research* is the twentieth in this annual publication series. It contains reports on Geological Survey Branch activities and projects during the past year. The base budget of the Branch for the 1994/95 fiscal year was \$5.54 million. This budget was supplemented by an additional \$1.4 million, made up of \$1 million from the Mineral Development Agreement, \$337 000 from the inter-Ministry Corporate Resource Inventory Initiative and \$60 000 from the Resource Inventory Commission.

The contents of this year's volume reflect the emphasis of Branch programs in 1994. Reports on two major integrated studies, the northern Vancouver Island and Interior Plateau projects are grouped together. Each section includes separate reports on bedrock mapping, surficial geology, applied geochemistry, drift exploration studies and aspects of metallogenesis. Both these projects focus on regions where major mines have either closed recently (Equity Silver), or will close in the near future (Island Copper), as a result of depletion of reserves. A similar, though slightly less ambitious approach has been taken with respect to regional mapping programs in the Gataga and Kootenay districts. In addition to reports on the progress of mapping, articles on aspects of applied geochemistry and mineral deposit studies are also presented. Of particular interest is a brief description of the Iron Range iron oxide breccia deposits in the Yahk area of the Kootenays, currently being explored as a possible analog of the Olympic Dam copper-uranium-gold deposits at Roxby Downs in South Australia. The Driftpile lead-zinc-barite deposits in the Gataga district, and three other deposits in the Kootenays, are covered by separate descriptive papers and advances in the understanding of the geology of the Goldstream orebody are outlined in a report on regional mapping in the northern Selkirk Mountains.

Other major contributions include 1:50 000 mapping projects in the Tulsequah area of northwestern British Columbia, where on-going exploration on the old Tulsequah Chief property continues to generate encouraging results, and in the Tatlayoko Lake area. A new metallogenic study has been initiated in the Tatogga Lake area, in the headwaters of the Iskut River, where the Red-Chris porphyry copper-gold deposit is being re-explored.

On other fronts, eight papers focus on the results and methodology of the province-wide mineral potential assessment project and the development of mineral deposit models specifically applicable in British Columbia. The Ministry's past efforts to promote development of the province's industrial minerals potential are reflected in increased private sector investment in this area; five papers focus on andalusite, sand and gravel, diatomite, perlite and dimension stone.

This volume also includes four papers from the Mineral Deposit Research Unit at The University of British Columbia, summarizing work completed in the Seneca, Tulsequah and Anyox volcanogenic massive sulphide camps.

For a second year, production of *Geological Fieldwork* to the camera-ready stage has been entirely by the authors. Under the general direction of the editors, authors have been responsible for the input, formatting and lay-out of their own papers. Although challenging and sometimes frustrating to the authors, in-house publication achieves substantial cost savings. Thanks to John Newell for thorough and timely edits and to Brian Grant for guiding the whole process to completion under tight deadlines.

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TABLE OF CONTENTS

<i>Page</i>	<i>Page</i>
FOREWORD	3
NORTHERN VANCOUVER ISLAND PROJECT	
G.T. Nixon, J.L. Hammack, G.J. Payie, L.D. Snyder, D.A. Archibald and D.J. Barron: Quatsino - San Josef Map Area, Northern Vancouver Island: Geological Overview (92L/12W, 102I/3, 9).....	9
P.T. Bobrowsky, M. Best, C.E. Dunn, D.H. Huntley, C. Lowe, M.C. Roberts, D.A. Seemann and S.J. Sibbick: Integrated Drift Exploration Studies on Northern Vancouver Island (92L).....	23
D.H. Huntley and P.T. Bobrowsky: Surficial Geology and Drift Exploration: Mahatta Creek Map Area (92L/5).....	35
D.A. Archibald and G.T. Nixon: ⁴⁰ Ar/ ³⁹ Ar Geochronometry of Igneous Rocks in the Quatsino - Port McNeill Map Area, Northern Vancouver Island (92L/12, 11)	49
A. Panteleyev, P.H. Reynolds and V.M. Koyanagi: ⁴⁰ Ar/ ³⁹ Ar Ages of Hydrothermal Minerals in Acid Sulphate-Altered Bonanza Volcanics, Northern Vancouver Island (92L/12).....	61
S.J. Sibbick and K.A. Laurus: Investigation of a Natural Acid Rock Drainage and an Anomalous Mercury-Bearing Stream, Northern Vancouver Island (92L/12, 102I/9).....	67
SOUTHEASTERN BRITISH COLUMBIA PROJECT	
T. Höy, D.L. Pighin and P.W. Ransom: Volcanism in the Middle Adiridge Formation, Purcell Supergroup, Southeastern British Columbia	73
T. Höy and D.L. Pighin: Vine - A Middle Proterozoic Massive Sulphide Vein, Purcell Supergroup, Southeastern British Columbia (92G/5W)	85
J.M. Britton and D.L. Pighin: Fors - A Proterozoic Sedimentary Exhalative Base Metal Deposit, Purcell Supergroup, Southeastern British Columbia (82G/5W)	99
D.A. Brown and P. Stinson: Geological Mapping of the Yahk Map Area, Southeastern British Columbia: An Update (82F/1)	111
P. Stinson and D.A. Brown: Iron Range Deposits, Southeastern British Columbia (82F/1)	127
D.A. Brown, T.P. Doughty and P. Stinson: Preliminary Geology of the Creston Map Area, Southeastern British Columbia (82F/2)	135
D.A. Brown and P. Klewchuk: The Wilds Creek (Leg) Zinc-Lead-Barite Deposit, Southeastern British Columbia: Preliminary Ideas (82F/2).....	157
INTERIOR PLATEAU PROJECT	
B.R. Brown, S.J. Cook, L.J. Diakow, T.R. Giles, W. Jackaman, R.A. Lane, V.M. Levson, P.F. Matysek, T.G. Schroeter and I.C.L. Webster: Geoscience Studies in the Interior Plateau Region: British Columbia Geological Survey 1994-95 Activities:	167
L.J. Diakow, I.C.L. Webster, J.A. Whittles and T.A. Richards: Stratigraphic Highlights of Bedrock Mapping in the Southern Nechako Plateau, Northern Interior Plateau Region (93F/2 and 7)	171
R.A. Lane and T.G. Schroeter: Mineral Occurrence Investigations and Exploration Monitoring in the Nechako Plateau (93F/2, 3, 7, 10, 11, 12, 14, 15 and 93C/9 and 16)	177
S.J. Cook and M.E. Luscombe: Update on 1994 Lake Sediment Geochemistry Studies in the Northern Interior Plateau, Central British Columbia (93F).....	193
T.R. Giles, V.M. Levson and G.F. Weary: Surficial Geology and Drift Exploration Studies in the Tsacha Lake and Chedakuz Creek Areas (93F/2, 7) Central British Columbia	199
E.K. O'Brien, B.E. Broster, T.R. Giles and V.M. Levson: Till Geochemical Sampling Chart, Blackwater-Davidson and Uduk Lake Properties, British Columbia: Report of Activities.....	207
MAPPING AND MINERAL DEPOSITS	
J.M. Logan and M. Colpron: Northern Selkirk Project - Geology of the Goldstream River Map Area (82M/9 and parts of 82M/10)	215
B.D. Ryan: Calcite in Coal from the Quinsam Mine, British Columbia, Canada; Its Origin, Distribution and Effects on Coal Utilization (93F/13, 14)	243

	<i>Page</i>		<i>Page</i>
J. Nelson, S. Paradis and R. Farmer: Geology of the Driftpile Stratiform, Sediment-Hosted Ba-Zn-Pb Deposit, Northern British Columbia (94K/4)	261	N.W.D. Massey: The Vancouver Island Mineral Potential Project (92B, C, E, F, G, K, L and 102I)	435
R.E. Lett and W. Jackaman: Application of Spring-Water Chemistry to Exploration in the Driftpile Creek Area, Northeastern B.C. (94K/4, 94L/1)	269	K.A. Bellefontaine and D.J. Alldrick: Highlights of the Mid-Coast Mineral Potential Project (92F, G, H, J, K, L, M, N, 93D, 102P, 103A)	449
F. Ferri, J. Nelson and C. Rees: Geology and Mineralization of the Gataga River Area, Northern Rocky Mountains (94L/7, 8, 9 and 10) ...	277	D.G. MacIntyre, C.H. Ash, J.B. Britton, W. Kilby and E. Grunsky: Mineral Potential Assessment of the Skeena-Nass Area (93E, L, M, 94D, 103G, H, I, J, P, 104A, B)	459
P. Schiarizza, D.M. Melville, J. Riddell, B.K. Jennings, P.J. Umhoefer and M.J. Robinson: Geology and Mineral Occurrences of the Tatlayoko Lake Map Area (92N/8, 9 and 10).....	297	D.V. Lefebure, D.J. Alldrick, G.J. Simandl and G. Ray: British Columbia Mineral Deposit Profiles	469
M.G. Mihalynuk, D. Meldrum, S. Sears and G. Johannson: Geology and Mineralization of the Stuhini Creek Area (104K/11)	321	D.V. Lefebure: Two Intriguing Mineral Deposit Profiles for British Columbia.....	491
C.H. Ash, T.M. Fraser, J.D. Blanchflower and B.G. Thurston: Tatogga Lake Project, Northwestern British Columbia (104H/11, 12)	343	MINERAL DEPOSIT RESEARCH UNIT	
INDUSTRIAL MINERALS		THE UNIVERSITY OF BRITISH COLUMBIA	
P.T. Bobrowsky, C.E. Kilby, G. Manson and P.F. Matysek: British Columbia Aggregate Inventory Project	361	S.D. McKinley, J.F.H. Thompson and T.J. Barrett: Volcanic Stratigraphy and Lithogeochemistry of the Seneca Prospect, Southwestern British Columbia (92H/5W)	503
Z.D. Hora and K.D. Hancock: Some New Dimension Stone Properties in British Columbia II.....	365	R.W.J. Macdonald, T.J. Barrett and R.L. Sherlock: Geological Investigations of the Hidden Creek Deposit, Anyox, West-Central British Columbia (103P/5).....	513
G.E. Ray and I.C.L. Webster: The Geochemistry of Mineralized Skarns in British Columbia.....	371	F. Childe and M.G. Mihalynuk: U-Pb Geochronology of the Mount Stapler Quartz Monzonite: Evidence for Early Jurassic Magmatism in the Tulsequah Glacier Area, Northwest British Columbia (104K/13)	521
G.J. Simandl, K.D. Hancock, B.N. Church and G.J. Woodsworth: Andalusite in British Columbia - New Exploration Targets.....	385	C.F.B. Sebert, K.M. Curtis, T.J. Barrett and R.L. Sherlock: Geology of the Tulsequah Chief Volcanogenic Massive Sulphide Deposit, Northwestern British Columbia (104K/12).....	529
Z.D. Hora and K.D. Hancock: Quesnel Area - Industrial Minerals Assessment.....	395	R.G. Carmichael, R.L. Sherlock and T.J. Barrett: The Geology of the Big Bull Polymetallic Volcanogenic Massive Sulphide Deposit, Northwestern British Columbia (104K/12).....	541
Z.D. Hora and K.D. Hancock: Nazko Cinder Cone and a New Perlite Occurrence.....	405	EXTERNAL PUBLICATIONS AND UNIVERSITY RESEARCH	
MINERAL POTENTIAL PROJECT		External Publications by B.C. Geological Survey Branch Staff	553
W.E. Kilby: Mineral Potential Project - Overview	411	University Research in British Columbia	555
E.C. Grunsky: Grade and Tonnage Data for British Columbia Mineral Deposit Models.....	417		
B.N. Church: Mineral Potential of the Okanagan-Similkameen-Boundary Area (82E, 82L/SE, SW, 92H/SE, NE).....	425		