



British Columbia Geological Survey
Geological Fieldwork 1986

Applied Geochemistry

BRITISH COLUMBIA REGIONAL GEOCHEMICAL SURVEY RELEASE — AN ASSESSMENT (93G, 93H and 93J)

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INTRODUCTION

Data from the joint federal-provincial reconnaissance Regional Geochemical Survey completed in the summer of 1985 were released at 0830 PDT on 9 July 1986 in Prince George, Vancouver and Victoria as the following open files:

Geological Survey of Canada Open File		British Columbia
93G	1214	BC RGS 13, 1985
93H	1215	BC RGS 14, 1985
93J	1216	BC RGS 15, 1985

It should be noted that the releases for 93G and 93H include the data released in 1985 for 93G (west half) and 93H (east half) as BC RGS 12, 1984 (Geological Survey of Canada Open File 1107).

Each map sheet covers approximately 14 600 square kilometres with an average sample density of one sample per 13 square kilometres. Stream sediments were analysed for zinc, copper, lead, nickel, cobalt, silver, manganese, arsenic, molybdenum, iron, mercury, uranium, vanadium, cadmium, antimony, barium and loss-on-ignition. Stream waters were analysed for uranium, fluorine and pH. Each open file package consists of a sample location map, 21 geochemical maps and a text of field, analytical and statistical data. Packages are available at a cost of \$50 each from: Publications Distribution, 552 Michigan Street, Victoria, British Columbia V8V 1X4.

RESULTS

Fifty-two packages were sold on the day of the release and 23 packages since, for a total of 75 to date, with nearly equal sales of each of the three map sheets. The heavy drift cover in the areas surveyed, particularly 93J, probably contributed to the relatively low interest expressed by industry for this release.

Most of the samples taken from the west half of 93J had losses-on-ignition exceeding 10 per cent, indicating an unacceptably high level of organic matter in these samples. A count of mineral claims in good standing (excluding Crown-granted leases) in the release area for which there was new information — that is, 93G (west half), 93H (east half) and 93J — was made before the field season, the day before the release and after the field season.

The results are as follows:

Date of Count	27 May 1986	8 July 1986	20 Oct. 1986	
93G (west half)	109	114	152	Claim Units
	5	5	5	2 Post Claims
93H (east half)	90	121	261	Claim Units
	14	12	39	2 Post Claims
93J	874	1116	1109	Claim Units
	44	94	60	2 Post Claims

The totals for 93J are complicated by the facts that a large block of claims, staked some years ago, lapsed after the release date, and some new staking was subsequently disallowed. There was also some preemptive staking in 93J by two companies before the release. Taking these facts into consideration, there was a modest amount of new staking in all three areas that can be attributed to the results of the survey.

Two areas, 93H/9 and 93J/8, attracted the most interest. Both are areas of Hadrynian to Lower Paleozoic sedimentary rocks with anomalies possibly related to shale or carbonate-hosted base metal and silver mineralization (Figure 6-1-1).

FOLLOW-UP OF 1985 RGS RELEASE

The results of the 1985 RGS release continue to have a significant impact on exploration activity, as can be seen from the staking totals for 93G (east half) and 93H (west half) which follow:

Date of Count	Pre-1985 Release	Post-1985		
		Field Season	20 Oct. 1986	
93G (east half)	3042	3603	4277	Claim Units
	103	178	182	2 Post Claims
93H (west half)	2811	3321	3212	Claim Units
	243	254	265	2 Post Claims
Total	5853	6924	7489	Claim Units
	346	432	447	2 Post Claims

An examination of the areas staked in relation to the survey results, together with information from project geologists, conservatively indicates that at least half of the new staking is a consequence of the survey results. Areas that have received the most attention are shown on the outline geological map, Figure 6-1-1. Generally they have either multi-element anomalies, possibly related to volcanogenic massive sulphide mineralization in the Quesnel trough, or base metal and barium anomalies possibly related to sediment-hosted base metal and silver mineralization.

COMMENTS

Both releases have generated significant exploration activity. Although details of exploration expenditures in the release area are not known, monitoring of exploration programs suggests that 1985 and 1986 expenditures of close to \$1 million can be at least partly attributed to the survey results. This compares favourably with the total cost of the two releases — approximately \$430 000.

REFERENCE

Faulkner, E.L. (1986): British Columbia Regional Geochemical Survey (RGS) Release, Preliminary Results, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geological Fieldwork, 1985, Paper 1986-1, page 111.

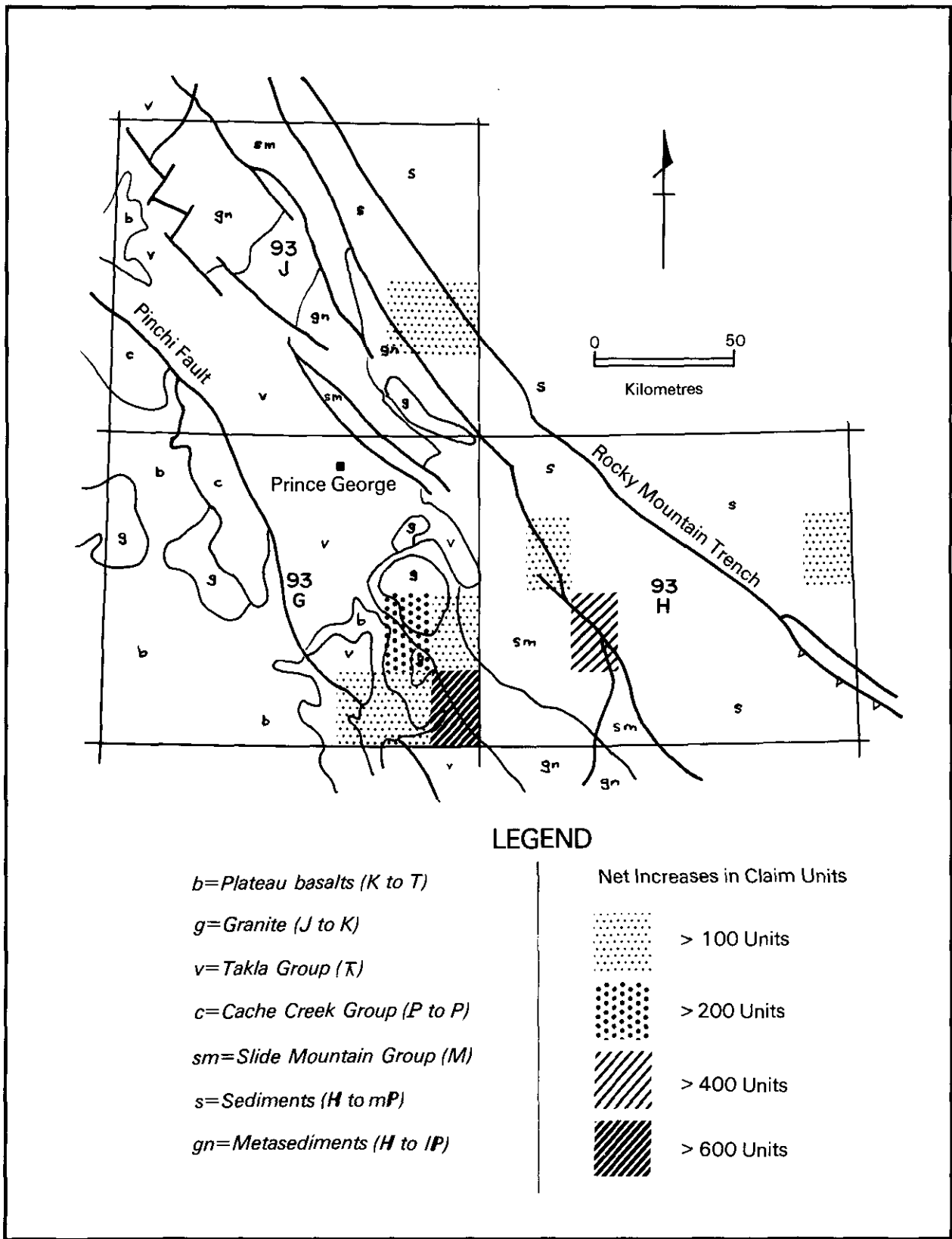


Figure 6-1-1. Claim staking in RGS release area.