



# British Columbia Geological Survey Geological Fieldwork 1978

## RECONNAISSANCE GEOCHEMICAL SURVEYS (103 I, P; 104 O, P)

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The Ministry of Mines and Petroleum Resources was involved in two reconnaissance geochemical surveys in 1978.

1978 was the third and final year for the Uranium Reconnaissance Program managed and funded jointly by the Ministry and the Department of Energy, Mines and Resources. To date, approximately 114 000 square kilometres in British Columbia have been sampled at an average density of one sample site per 12.5 square kilometres. Analytical results have been released for NTS map-areas 82 E, F, K, L, M and 104 N (Fig. 38).

Field sampling in 1978 was carried out in the Jennings River and McDame map-areas (NTS 104 O and P) by a six-person crew provided by Bema Industries Ltd. of Vancouver. The crew was supervised by S. B. Ballantyne, Geological Survey of Canada, and G. D. Nordin, who represented the Ministry. A total of 1 730 stream sediment and water and 70 lake sediment samples were collected from the two map-areas. The planned sample site density was achieved in the Jennings River map-area but not in McDame due to extensive areas of swamp and thick brush cover in the northern part of the map-area.

Sample preparation and analysis were contracted out to separate commercial firms. Determination of uranium in stream sediments will be done by the Atomic Energy of Canada Laboratory in Ottawa. Water samples will be analysed for uranium, fluorine, and pH while stream sediments will be analysed for zinc, copper, lead, nickel, cobalt, silver, manganese, iron, molybdenum, tungsten, and mercury, in addition to uranium. Analytical results are expected to be released in June of 1979.

The 1978 Accelerated Geochemical Survey, patterned after the Uranium Reconnaissance Program, was made possible through the Accelerated Mineral Development Program funded by Bill 5, Revenue Surplus of 1976/77 Appropriation Act, 1978. The area selected for sampling (Fig. 38) included the Prince Rupert/Terrace (103 I and J) and Nass River (103P and O) map-areas.

A sample site density of one site per 6 square kilometres was almost achieved. Stream waters and sediments were collected from 4 111 sites during this mainly helicopter-supported survey. The sampling crew was provided by Stokes Exploration Management Company and was under the supervision of T. E. Kalnins, Ministry representative.

Stream sediments and waters will be analysed for the same elements as those samples collected for the Uranium Reconnaissance Program, except that the sediments to be done by Chemex Labs Ltd. will also be analysed for arsenic. Uranium analysis of stream sediments will be carried out using the new facilities of Novatrack Analysts Ltd. in Vancouver. Water analyses have been done by Bondar-Clegg and Co. Ltd. and sample preparation was carried out by Min-En Laboratories Ltd.

Release of analytical results from this survey is planned for April of 1979 by way of two sample location maps and computer print-outs of analytical data.

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