

No. 5877 PROSPECTING IN CANADA

Canada contains large areas favourable for the occurrence of mineral deposits, but there are many misconceptions regarding prospecting. Some persons think that little prospecting has been done, whereas there are actually few areas except in remote sections of the country that have not been prospected fairly thoroughly by ordinary methods. Others believe that prospecting requires little knowledge or experience, whereas it is mainly a skilled trade or profession, or an avocation for amateurs who have devoted considerable time to study and practice. Although the possibility of unqualified persons making important discoveries cannot be ruled out, authorities consider that the possibilities even for qualified prospectors are one in a thousand or less. Also, unimportant mineral occurrences are much more common than are those that warrant attention, and most of the latter have to be "opened up" in a preliminary way by the prospector himself. Therefore a prospector should not only know how to prospect but how to judge a discovery and to do preliminary work on it. Although many Canadian prospectors finance themselves, much of the work in recent years has been done either by highly qualified prospectors employed by companies or by organized teams of scientists and relatively unqualified men employed by companies.

Prospectors with non-immigrant status may take remunerative employment in Canada only with the prior approval of immigration authorities. The opportunities for newcomers to Canada for employment on prospecting programs are also limited because companies desire persons familiar with working under Canadian pioneer conditions.

Except in accessible areas where the possibilities for ordinary prospecting are less favourable, prospecting is a fairly costly undertaking. Special clothing, camp equipment, tools and instruments, as well as a canoe or other form of transportation, are commonly required. Because of the short season in the Canadian north prospectors often arrange to be flown to and from the area of operation. Such flights are usually at rates of \$50 to \$100 an hour.

Available Information

The Canadian Department of Mines and Technical Surveys provides several services that aid prospectors. Among the most important of these are the issuing of geological maps and reports, and special publications on prospecting. These and other publications cover the various aspects of the subject adequately and are revised periodically; therefore those seeking information are urged to order publications instead of asking for replies to questions by letter. Officials of the Department do not select areas for prospectors, advise by mail on the merits of discoveries, nor examine discoveries except when these are included in a research project being undertaken for the purposes of the Department.

It is recommended that those seriously interested in prospecting in Canada should first obtain "Prospecting in Canada" (price \$2.00); Map 900A, showing principal mining areas and producing mines (price 25¢); and perhaps also Map 1045A, a general geological map of Canada (price 25¢). These may be ordered from the Director, Geological Survey of Canada, Ottawa, Canada.

Payment must be by money order payable to the Receiver General of Canada. "Prospecting in Canada" is a recently revised 400-page book, containing information indispensable for inexperienced prospectors and much that is useful for experienced ones; it also contains many references to more detailed information. Those who do not care to buy this book at the outset may order free of charge a copy of the pamphlet "Brief Information on Prospecting for Uranium in Canada", which contains some information on prospecting in general. Those desiring geological maps or reports on specific areas may obtain from the Director, Geological Survey of Canada, a catalogue of publications (price 50¢) or may indicate a specific area for purchase of maps at about 25¢ each if maps for it are available. Topographical maps may be ordered at about 25¢ each, from the Director, Surveys and Mapping Branch, Department of Mines and Technical Surveys, Ottawa. Geological and topographical maps and geological reports may be obtained for certain areas from the Provincial Departments of Mines, which also provide other services useful for prospectors.

Staking of claims for any metal or minerals is subject to the mining laws of the province or territory in which the prospecting is done. In order to stake claims a prospector's licence or its equivalent must be obtained except in the Yukon. These are issued by the various provincial governments for the provinces. Claims are usually held by performing at least a minimum amount of work annually. They are held either by highly qualified or by organized teams of scientists and relatively unqualified men.

Information in regard to mining laws, prospectors' licences, and staking claims may be obtained from the following:

- British Columbia - Deputy Minister, Department of Mines, Victoria, B.C.
- Alberta - Deputy Minister, Department of Lands and Mines, Edmonton, Alberta.
- Saskatchewan - Deputy Minister, Department of Mineral Resources, Regina, Sask.
- Manitoba - Director of Mines, Department of Mines and Natural Resources, Winnipeg, Man.
- Ontario - Deputy Minister, Department of Mines, Toronto, Ontario.
- Quebec - Deputy Minister, Department of Mines, Quebec, Que.
- New Brunswick - Deputy Minister, Department of Lands, and Mines, Fredericton, N.B.
- Nova Scotia - Deputy Minister, Department of Mines, Halifax, N.S.
- Prince Edward Island - Deputy Provincial Secretary, Provincial Government Offices, Charlottetown, P.E.I.
- Newfoundland - Deputy Minister, Department of Mines and Resources, St. John's Newfoundland.
- Yukon and Northwest Territories - Director, Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa, Canada.



(Mines Branch publication No. 854 "Digest of Mining Laws in Canada" issued in 1957, contains all of the information on mining laws in Canada that most prospectors require. The report may be obtained from the Director, Mines Branch, Department of Mines and Technical Surveys, Ottawa, Canada at a cost of \$1.00 a copy).

Licensing

A miner's licence for the Northwest Territories costs \$5.00 and is available to anyone 18 years of age or more, regardless of nationality. The charge for recording claims there is \$5.00 each for the first nine claims and \$10.00 each for additional claims up to ninety. No miner's licence is required for Yukon, but the charge for recording all claims there is \$10.00 each.

The Atomic Energy Control Act, 1946, established the Atomic Energy Control Board to deal with the practical aspects of atomic energy. Regulations and orders of the Board have the status of laws, and penalties may be imposed upon anyone convicted of failure to observe the requirements. The Geological Survey of Canada is the official agent of the Board in matters dealing with prospecting. A summary of the regulations, and other information on prospecting for uranium, are contained in the pamphlet "Brief Information on Prospecting for Uranium in Canada" which, together with a list of other publications on uranium, may be obtained free of charge by writing to the Director, Geological Survey of Canada, Ottawa, Canada. These pamphlets are revised when significant changes occur.

Radioactive Minerals

Only after a deposit of radioactive minerals has been found is some degree of supervision exercised by the Federal Government. This supervision is designed to cause as little inconvenience as possible to those wishing to develop deposits of radioactive minerals and at the same time to enable the Government to obtain information on the uranium resources of the country and to control the disposal of important quantities of uranium or thorium minerals produced. The supervision is affected through: the Atomic Energy Control Act, 1946; the regulations of the Atomic Energy Control Board; and orders issued by the Atomic Energy Control Board.

Uranium

A few years ago prospecting for uranium in Canada was quite active, but it has largely subsided because of the great amount of uranium already found in this country. Uranium produced in Canada may be sold only to the agency authorized by the Federal Government. All purchases to date have been made under special price agreements, and the negotiation of additional agreements of this kind was terminated in 1958. Therefore the tendency of prospectors and companies is to await clarification of the future demand for uranium.

Most of the numerous uranium discoveries that merited attention were found by well qualified prospectors. The use of radioactivity-detecting counters gives an unskilled prospector for uranium some advantage compared with prospecting for other metals, but so many insignificant occurrences can be found with a counter that considerable knowledge of where to search and how to judge occurrences is almost essential.

