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CANADA

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

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GEOLOGICAL SURVEY OF CANADA

PAPER 54-1

A LIST OF  
PUBLICATIONS ON PROSPECTING IN CANADA  
AND RELATED SUBJECTS

(With Explanatory Notes)

Compiled by  
A. H. Lang

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OTTAWA  
1954

Price, 25 cents

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## INTRODUCTION

This list of sources of information on different aspects of prospecting has been compiled because the Geological Survey of Canada receives many requests for information on these subjects. It is not intended as a list of everything that has been published, but as a selection that provides a basis for study of a particular topic and references to further information. Where possible, recent publications have been chosen, but some fairly old ones have been included, mainly because of their historical interest. Publications that are out of print have been included, because many readers are able to visit libraries and second-hand book dealers.

Prospecting is here regarded in its widest sense. There is still a place in Canada for the familiar type of prospector, who has a limited knowledge of geology and mineralogy; many requests are received from beginners who ask where they can obtain courses or publications on elementary geology, mineralogy, prospecting equipment, and staking regulations. Because much of Canada has now been prospected in a preliminary way, there is an increasing trend toward more advanced kinds of prospecting. Many Canadian prospectors have become highly skilled by experience and by devoting much time to study of geology and prospecting. Some are qualified geologists or mining engineers. There is also a growing tendency for companies to finance systematic prospecting campaigns in which geologists or engineers supervise less qualified prospectors, and for companies and government agencies to undertake geological studies of established mining properties and districts with the object of finding buried orebodies and extensions of known deposits. There are also highly specialized techniques involving geophysical, geochemical, and other methods. Because of these different aspects of prospecting, the more elementary publications in a particular section are listed first, and these are followed by more advanced articles and reports. Several sections are closed by listing bibliographies to further information on the topic concerned.

The first section lists several of the better known handbooks published in other countries; a few books on geology and mineralogy written in popular style are also listed, but no attempt is made to list standard textbooks. The second section lists general Canadian publications on prospecting, geology, mineralogy, and mining regulations. This is followed by a list of several elementary books on geology and mineralogy written in French. A section is devoted to indexes and catalogues to the literature on Canadian geology, because these afford innumerable references to detailed information; indexes to provincial publications are not listed here, but in the regional sections. Information on courses in prospecting follows; this is included because persons who wish to take up prospecting inquire about possibilities for attending classes or taking correspondence courses. Later sections list articles on the application of geology, geophysics, and geochemistry to the search for ore, and some of the principal books on geophysical exploration are included.

The regional sections list publications on prospecting and geology for particular provinces. These publications include articles on prospecting possibilities, and pamphlets, reports, and general maps of the provincial authorities and the Geological Survey of Canada. As a rule, only the more general publications are listed. Many other reports, maps, and articles on particular areas are available, and references to most of them will be found in the indexes and catalogues listed in this bibliography.

The concluding sections list a few books, articles and reports that deal specifically with particular metals and minerals. Only the principal ones produced in Canada, and a few others that might be of importance if commercial deposits were found, are so treated. Information on other metals and minerals will be found in the more general publications listed elsewhere.

Prices of many publications are included, but because prices are subject to change, the information should be considered only as an approximate guide. In general, where no price is listed for government publications the publication is sent free of charge. Requests for publications of the Geological Survey of Canada should be addressed to: The Director, Geological Survey of Canada, Ottawa, and should be accompanied by a money order payable to the Receiver General of Canada. Articles that appeared in periodicals will be consulted mainly in libraries, but copies can in some instances be bought from the publishers, and reprints of some articles can be obtained from the author concerned.

This bibliography is an experiment, and any comments or suggestions for material that should be included if another edition is prepared will be welcomed. Neither the compiler nor the Geological Survey of Canada necessarily endorse all the views expressed in the publications listed.

The compiler is grateful to several officers of the Geological Survey of Canada and to M. F. Goudge and G. C. Monture of the Mines Branch for assistance and advice. He is also indebted to J. P. Drolet of the Department of Mines of Quebec for information on the publications of that department.

GENERAL PUBLICATIONS

General Handbooks, etc.

**HANDBOOK FOR PROSPECTORS AND OPERATORS OF SMALL MINES**, by M. W. von Bernewitz; 4th Ed., McGraw-Hill, Inc., New York and London, 1943. Price \$4.

A general handbook on prospecting, exploration of prospects, and operation of small mines. The sections on mining laws of Canada and on uranium are out of date.

**THE PROSPECTOR'S HANDBOOK**, by J. W. Anderson; Crosby Lockwood & Son, London, 12th Ed., 1926. Price \$2.

A general handbook. Although much of the information is more applicable to prospecting in other countries than Canada, it contains useful information on mineral identification.

**FORTUNES IN MINERALS**, by I. L. Idriess; Angus and Robertson, Sydney and London, or Anglobooks, Toronto; Revised Ed., 1951. Price about \$4.

A general handbook on prospecting. Although prospecting in Australia is stressed, it contains useful data on prospecting in general, including simple tests for minerals, and a section on uranium.

**MINING ENGINEERS' HANDBOOK**, by Robert Peele; John Wiley & Sons, Inc., New York, 3rd Ed., 1941. Price \$15.

Contains good sections on mineralogy; geology and mineral deposits; prospecting, development, and exploitation of mineral deposits; and geophysical prospecting. Useful mainly for engineers and geologists.

**GEOLOGY IN THE SERVICE OF MAN**, by W. G. Fearnside and O. M. B. Bulman; Pelican Book A 123; published by Penguin Books. Price about 40 cents.

An inexpensive book on elementary geology, including sections on geological maps and mineral deposits. Although the treatment and examples are based largely on the geology of Britain, this book would be useful as additional reading for a beginner.

**MINERALS AND HOW TO STUDY THEM**, by E. S. Dana, revised by C. S. Hurlbut, Jr.; Wiley and Sons, New York, 3rd Ed., 1949. Price \$4.

An introduction to mineralogy, in attractive and interesting form for amateurs. It includes simple tests for minerals.



THE EARTH FOR THE LAYMAN, edited by M. W. Pangborn, Jr.; American Geological Institute Report No. 2, 1950; published by National Research Council, 2101 Constitution Ave., Washington 25, D. C.

A list of selected books and pamphlets, mainly non-technical, on geology, mining, rocks, minerals and gems, etc.

TEACH YOURSELF GEOLOGY, by A. Raistrick; Hodder and Stoughton, Toronto. Price \$1.50.

This introductory book is No. 57 in the "Teach Yourself" series.

#### General Canadian Publications

FACTS ABOUT CANADA, Pamphlet No. 1, Canadian Mining; Dominion Bureau of Statistics, 1950. Price 10 cents.

A pamphlet that provides introductory information on the history and recent status of the Canadian mineral industry. It contains sections on gold, silver, copper, zinc, lead, nickel, platinum, coal, petroleum, iron, cement, asbestos, salt, limestone and lime, gypsum, and feldspar.

THE PROSPECTORS HANDBOOK, by W. L. Goodwin; Arts and Crafts, Gardenvale, Que., 3rd Ed., 1933. Price \$3.

A handbook for prospecting, with special reference to the needs of Canadian prospectors. It gives introductory information on geology, minerals, types of ore deposits, and practical hints on prospecting. Although not up-to-date in all respects, it contains much useful information. Editions in French and English are also available from the Department of Mines, Quebec, at \$1.50.

PROSPECTING IN CANADA, by Officers of the Geological Survey; Geol. Surv., Canada, Economic Geology Series No. 7, 1930. (Out of print.)

A comprehensive manual on prospecting in Canada. Although it does not contain information on some minerals and deposits that have recently become important in Canada, it is still sought in second-hand stores and consulted in libraries. Much of the information is given in more up-to-date form in Geology and Economic Minerals of Canada, which is still in stock.

**GEOLOGY AND ECONOMIC MINERALS OF CANADA**, by Officers of the Geological Survey; Geol. Surv., Canada, Ec. Geol. Ser. No. 1, 1947. Price 75 cents.

A large book presenting introductory information on the geology and principal mineral deposits of Canada. It is written primarily for readers having an elementary knowledge of geology, but beginners also find it useful. It is of value not only for students of prospecting, but also to experienced prospectors and geologists seeking condensed information on regions or mineral deposits with which they are unfamiliar. A related publication is the large, coloured geological map of Canada, scale 1 inch to 60 miles, obtainable for 50 cents.

**MAP OF CANADA SHOWING PRINCIPAL MINING AREAS AND PRODUCING MINES**, Dept. of Mines and Technical Surveys, Ottawa, Map 900A, 3rd Ed., 1953. Price 10 cents.

A coloured map, scale 1 inch to 120 miles, showing the main geological divisions of Canada, and the locations of the principal mining areas and producing mines. The kind of metal or mineral produced is indicated.

**TECTONIC MAP OF CANADA**, prepared by the Geological Association of Canada with the support of the Geological Society of America, 1950. Price \$1.50, from Geological Society of America, 419 West 117 St., New York 27, N. Y., or Geological Association of Canada, 56 Church St., Toronto (\$1.75).

A map of Canada on the scale of 1 inch to 60 miles, showing the principal geological subdivisions and emphasizing the more prominent faults and other structural features that may be useful for advanced prospectors.

**GEOLOGY FOR THE LAYMAN**, by A. MacLean; Northern Miner Press, Toronto, 2nd Ed., 1947. Price \$3.

A good, short, introductory handbook on geology. It does not cover mineralogy, but forms a useful companion to a book like "Minerals and How They Occur".

**MINERALS AND HOW THEY OCCUR**, by W. G. Miller, revised by A. L. Parsons; Copp Clark Co. Ltd., Toronto, 2nd Ed., 1928. Price \$1.25.

A useful, inexpensive introduction to mineralogy and geology for Canadian prospectors and high schools. It includes the chief characteristics of the more common and more useful minerals, simple tests for them, and economic notes.

CATALOGUE OF INDIVIDUAL SPECIMENS AND COLLECTIONS OF  
MINERALS AND ROCKS OBTAINABLE FROM THE  
GEOLOGICAL SURVEY OF CANADA; Geol. Surv., Canada,  
1953.

A price list for the sets of minerals and rocks, and individual specimens, available from the Geological Survey of Canada.

ELEMENTARY GEOLOGY FOR CANADA, by E. S. Moore; J. M. Dent & Sons (Can.) Ltd., Toronto, 1944. Price \$3.85.

A useful elementary text on geology, noteworthy for its Canadian illustrations and examples.

PRESIDENTIAL ADDRESS, by C. V. Corliss; Trans. Can. Inst. Min. and Met., vol. 25, 1922, pp. 14-31.

This presidential address of the Canadian Institute of Mining and Metallurgy has become famous. Although delivered more than 30 years ago, it is still valuable as background information on Canadian mining and as a stimulus to future prospecting. When this address was published it was criticized severely in certain quarters for being too optimistic. However, although the author may have made too free use of such expressions as "inconceivable wealth" and may not have explained fully that orebodies are relatively small and that much of such areas as the Canadian Shield consists of relatively unfavourable rocks, his optimism has been vindicated by the discoveries made since he gave his stirring address.

Discussion of the paper is published in the Bull., Can. Inst. Min. and Met., for May, June, Aug., Sept., Oct., and Dec.

THE MINERAL WEALTH OF THE PRECAMBRIAN, by C. V. Corliss; Trans. Can. Inst. Min. and Met., vol. XXVII, 1924, pp. 174-208.

A sequel to the foregoing, in which further evidence is presented for the conclusion that important mineral deposits await discovery in the Canadian Shield.

CANADA'S MINERAL INDUSTRY IN RELATION TO TODAY'S  
INTERNATIONAL SITUATION, by Marc Boyer; Trans. Can. Inst. Min. and Met., vol. LIV, 1951, pp. 396-398.

A short and fairly recent article on the Canadian mineral industry and a discussion of future trends and the part that the industry may play in international affairs.

**GEOLOGY IN THE SERVICE OF THE NATION**, by G. S. Hume;  
Trans. Roy. Soc., Canada, 3rd ser., sec. IV, vol. XLVI,  
1952, pp. 1-11.

A review of the useful applications of geology being conducted in Canada at present, with recommendations for the future. The discussion includes applications of geology to the discovery and exploitation of mineral resources.

**HOW TO EXPEDITE GEOLOGICAL INVESTIGATION AND PROSPECTING IN CANADA**, A Symposium; Trans. Can. Inst. Min. and Met., vol. XLIV, 1941, pp. 154-168.

The account of a symposium in which several prominent geologists and mining executives discussed ways of improving geological investigations and of speeding mineral discoveries.

**MEN AND METHODS IN PROSPECTING**, by C. E. Cleveland;  
Western Miner, vol. 18, No. 10, 1945, pp. 65-68.

A general survey of the problems of prospecting, with suggestions for increasing the number of prospectors and training and financing them. It also discusses the choice of areas and the methods of attack.

**A POST-WAR MINERAL CONTROL POLICY**, by G. B. Langford;  
Trans. Can. Inst. Min. and Met., vol. XLVII, 1944, pp. 114-138.

A paper on the conservation and utilization of mineral resources, with a proposal for future policy. The paper includes an extensive list of references.

**THE EXPLOITATION AND CONSERVATION OF MINERAL RESOURCES IN A BALANCED DEVELOPMENT OF CANADA**, by J. J. O'Neill; Trans. Roy. Soc., Canada, 3rd ser., sec. IV, vol. XXXIV, 1940, pp. 1-14.

A plan for a long-term policy of exploiting and conserving natural resources, including minerals.

**THE MINERAL RESOURCES OF CANADA**, by E. S. Moore; University of Toronto Press, 1929. Price \$3.60.

An authoritative book on Canadian mineral resources up to 1929, written mainly as a text-book and for those interested in the economics of the mineral industry.

PROSPECTORS GUIDE FOR STRATEGIC MINERALS IN CANADA;  
published by the former Department of Mines and Resources,  
Ottawa, 3rd Ed., 1943. (Out of print.)

A handbook that presents in condensed and simple form the essential information on prospecting for beryllium, chromium, manganese, mercury, molybdenum, niobium (columbium), tantalum, tin, vanadium, wolfram (tungsten), fluorspar, Iceland spar, mica, and quartz crystals. Although the demand and prices for some of these metals and minerals have changed since the booklet was prepared, it is still a valuable guide.

STRUCTURAL GEOLOGY OF CANADIAN ORE DEPOSITS, A  
Symposium; Canadian Institute of Mining and Metallurgy, 906  
Drummond Bldg., Montreal, Que., 1948. Price \$10.

A comprehensive volume by a large number of authors. It includes general papers on the principal mining areas of Canada, and detailed papers on many individual mines. Although the emphasis is on the structural conditions affecting the localization of orebodies, other geological features are discussed. The volume contains information useful for general prospecting and for the search for additional orebodies in established camps.

THE MINING LAWS OF CANADA, by Arthur Buisson; Mines Branch,  
Dept. of Mines and Technical Surveys, Ottawa, 4th Ed., 1950.  
Price 50 cents.

A digest of Dominion and Provincial laws and regulations affecting prospecting and mining.

THE CANADIAN MINERAL INDUSTRY; Mines Branch, Dept. of Mines  
and Technical Surveys, Ottawa. Price 50 cents.

This annual publication contains reviews on the production and market situation for each of the metals and minerals produced in commercial quantity in Canada. It is published as a printed report, and mimeographed separates are available earlier. They are useful guides for the demands, markets, and prices of metals and minerals.

General Publications in French

INITIATION A LA GEOLOGIE, by J. -W. Laverdière and L. -G. Morin;  
Editions Fides, 25 est rue Saint-Jacques, Montreal, 1941.  
Price \$1.

A well-illustrated booklet on introductory geology,  
useful for beginners in prospecting as well as students.  
Written in French.

ABREGE de MINERALOGIE, by J. M. A. Bleau; Imprimerie De  
Lasalle, Rue Coté, Montreal, 1938. Price \$1.

A short text-book on mineralogy, written in French.  
Although intended for use in schools, it would also be useful  
for adults wishing to learn the fundamentals of mineralogy.  
It does not contain illustrations of minerals.

MINERALOGIE ET GEOLOGIE APPLIQUEES AU CANADA, by Pierre  
Fontanel; Imprimerie du Messager, Montreal, 1927.

A short introduction to geology and mineralogy, written  
in French. It may be used as a schoolbook or by adults who  
desire to learn the rudiments of geology and mineralogy.

PRECIS DE GEOLOGIE ET DE MINERALOGIE, by F. Corminboeuf;  
Institut Agricole d'Oka, La Trappe, Que., 1935. (Out of print.)

A short introduction to geology and mineralogy, written  
in French.

INTRODUCTION A LA LECTURE DES CARTES GEOLOGIQUES, by  
A. Bonte; Masson et Cie., Paris, 1945. Price 250 fr.

A comprehensive and fairly advanced book on the inter-  
pretation of geological maps, written in French.

General Catalogues and Indexes

A LIST OF CANADIAN MINERAL OCCURRENCES, by R. A. A.  
Johnston; Geol. Surv., Canada, Mem. 74, 1915. (Out of print.)

A catalogue of localities and references for mineral  
occurrences known in Canada up to December 1914. Although  
out of date and out of print, it is still a useful reference for  
prospectors, mineralogists, and mineral collectors. The  
large number of occurrences found since 1914 has prevented  
the compilation of revised editions.

ANNOTATED CATALOGUE AND GUIDE TO THE PUBLICATIONS OF THE GEOLOGICAL SURVEY, CANADA, 1845-1917, by W. F. Ferrier; Geol. Surv., Canada, Pub. No. 1723, 1920. Price \$1.

A comprehensive, annotated list of the reports and maps published by the Geological Survey of Canada up to 1917, containing index maps that assist in finding information on any particular part of Canada.

PUBLICATIONS OF THE GEOLOGICAL SURVEY OF CANADA, 1917-1952, compiled by L. B. Leafloor; Geol. Surv., Canada, 1952. Price 50 cents.

A companion to the foregoing catalogue, but without index maps.

GENERAL INDEX TO THE REPORTS OF PROGRESS, 1863 to 1884, compiled by D. B. Dowling; Geol. Surv., Canada, Pub. No. 638, 1900. (Out of print.)

These and the following indexes are useful guides to information on particular mineral occurrences and localities described in the reports of the Geological Survey of Canada.

GENERAL INDEX TO REPORTS, 1885-1906, compiled by F. J. Nicolas; Geol. Surv., Canada, Pub. No. 1000, 1908. (Out of print.)

INDEX TO SEPARATE REPORTS 1906 to 1910 AND SUMMARY REPORTS 1905-1916, compiled by F. J. Nicolas; Geol. Surv., Canada, Pub. No. 2000, 1923. Price \$1. (cloth covers), 50 cents (paper covers).

INDEX TO MEMOIRS 1910-1926, BULLETINS 1913-1926, SUMMARY REPORTS 1917-1926, SESSIONAL PAPERS (ADMINISTRATIVE) 1921-1926, compiled by F. J. Nicolas; Geol. Surv., Canada, Pub. No. 2260, 1932. Price \$2.50 (cloth covers), \$2. (paper covers).

CATALOGUE AND INDEX OF BUREAU OF MINES REPORTS; Bureau of Mines, Ottawa, 1946.

A comprehensive catalogue and index, up to 1946, to the publications of what is now the Mines Branch of the Department of Mines and Technical Surveys. In general, these publications deal with treatment methods, uses, and markets, but several also contain information on mineral occurrences.

Courses in Prospecting and Related Subjects

**NOTE:** Several provincial Departments of Mines, Chambers of Mines, and kindred organizations sponsor lectures in prospecting, mineralogy, and geology. Because these services change from time to time, the best way to obtain information is to write to the Department of Mines for the province in which one lives.

In addition, the following correspondence courses are available.

**ELEMENTARY GEOLOGY;** Correspondence Course, B. C. Dept. of Education. Fee \$10.

This comprehensive correspondence course in elementary geology and mineralogy is suitable for high-school students or adults, and is available to persons in other provinces. Inquiries should be addressed to: The Director of High School Correspondence Instruction, Weiler Bldg., Victoria, B. C.

**METAL MINING;** Correspondence Course, B. C. Dept. of Education. Fee \$10.

A correspondence course for those definitely interested in metal mining and in prospecting. It is suitable for adults and is open to students in other provinces. Students are required to take the course in Elementary Geology before taking this course. Inquiries should be addressed to: The Director of High School Correspondence Instruction, Weiler Bldg., Victoria, B. C.

**CORRESPONDENCE COURSE FOR VETERANS**

A correspondence course for veterans is conducted free of charge. Text booklets on Geology and Mineralogy, Prospecting in Canada, Practical Mining, and Business of Prospecting and Mining, prepared for the Canadian Legion Educational Services, are used for this course. Applications should be made to the Veterans Affairs Department, Ottawa.

Application of Geology to the  
Search for Ore, and Related Subjects

**A PERSPECTIVE ON MINING GEOLOGY,** by C. O. Swanson; Trans. Can. Inst. Min. and Met., vol. LII, 1949, pp. 89-92.

A discussion of the changes that have taken place in the status and applications of mining geology during the last quarter century, and the outlook for the future.



THE APPLICATION OF GEOLOGY IN THE SEARCH FOR INDUSTRIAL MINERAL DEPOSITS, by A. S. Dawson; Trans. Can. Inst. Min. and Met., vol. LII, 1949, pp. 23-26.

A paper on the application of geology to the search for, and exploration of, deposits of non-metallic minerals such as asbestos, barite, clays, and gravel.

MINING GEOLOGY IN CANADA, by G. B. Langford; Bull. Can. Inst. Min. and Met., Sept. 1948, pp. 517-520.

A review of the changes in mining geology in Canada during the last 50 years, and recommendations for the future.

MODERNIZED EXPLORATION TECHNIQUE IN EASTERN CANADIAN MINING FIELDS, by S. Davidson; Bull. Can. Inst. Min. and Met., Jan. 1944, pp. 49-52.

A review and discussion of geological and geophysical exploration in known mining districts, and suggestions for changes in techniques to meet new conditions.

PROFESSION OF ORE HUNTING - THE NEW MINING GEOLOGY, by A. Locke; Precambrian, vol. 26, No. 10, 1953, pp. 8-15, 28, and continued in No. 11, pp. 15-17, 27.

A discussion of the present trends in the application of geology to the search for ore deposits, with recommendations for improving the usefulness of geologists in this field.

MODERN ASPECTS OF MINING GEOLOGY, by H. Schmitt; Eng. Min. Jour., Feb. 1939, pp. 69-72.

A paper on the role of geology in mining and exploration, which, although written several years ago, contains information that is still applicable.

GEOLOGY AS AN AID TO ORE-FINDING, by C. J. Sullivan; Chem. Eng. and Min. Review, vol. 39, No. 3, 1946.

A paper advocating the use of structural studies, determination of key stratigraphic horizons, chemical analyses, and spectrographic studies as aids in searching for ore.

MINING GEOLOGY AND THE ENGINEERING ASPECTS OF MINERAL EXPLORATION, by J. D. Forrester; Econ. Geol., vol. 44, No. 6, 1949, pp. 545-550.

A discussion of the role of geologists in the search for ore deposits and in the exploitation of deposits, and an analysis of the problems of suitable training for this work.

EXPLORATION FOR ORE DEPOSITS, by T. M. Broderick; Econ. Geol., vol. 44, No. 5, 1949, pp. 357-375.

A presidential address of the Society of Economic Geologists, which discusses ways in which the discovery of new orebodies might be speeded.

GEOLOGY IN EXPLORATION, by C. H. Behre, Jr.; Precambrian, Oct. 1952, pp. 16-17. (A condensation of an article published originally in the Mining Congress Journal, April 1952.)

An authoritative paper on recent trends in mineral exploration. It discusses the problems of geophysical and geochemical aids to exploration, the use of structural and rock-alteration studies, and the application of air photographs.

THE SEARCH FOR NEW MINING DISTRICTS, by T. B. Nolan; Econ. Geol., vol. 45, No. 7, 1950, pp. 601-608.

A presidential address of the Society of Economic Geologists, which presents a thoughtful discussion of the problems of discovering new orebodies to take the place of those being exhausted. The author suggests several types of investigations that may be taken in the effort to find new mining districts. Although the paper is based on problems and conditions in the United States, it contains suggestions that might be applicable in Canada.

REPORT OF THE COMMITTEE ON RESEARCH ON ORE DEPOSITS OF THE SOCIETY OF ECONOMIC GEOLOGISTS; Econ. Geol., vol. 42, No. 6, 1949, pp. 524-562.

This report of a special committee on research on ore deposition contains useful suggestions on such matters as alteration as a guide to ore, comparison between "productive" and "barre" igneous rocks, zoning in mining districts, and application of geophysical prospecting.

FACTORS IN THE LOCALIZATION OF MINERALIZED DISTRICTS, by C. D. Hulin; Mining Technology, vol. 9, No. 1, 1945, pp. 1-17.

This paper analyses the differences between the geological conditions found in mining camps and in the much larger intervening areas. The author's aim is to enumerate the conditions necessary for a "mineral district" so that additional ones may be found. He discusses such factors as the relationship of mineralization to igneous intrusions, faulting, and depth of erosion, and he shows how volume changes in intrusive masses as a result of crystallization could cause structural disturbances favourable for mineralization.

ROCK ALTERATION AS A GUIDE TO ORE - EAST TINTIC DISTRICT, UTAH, by T. S. Lovering and others; Econ. Geol., Mono. No. 1, 1949.

This reference is included because it is a detailed account of an investigation undertaken as an experiment in the application of studies in wall-rock alteration as a guide to the search for buried ore deposits.

Examination of Prospects, Sampling, etc.

THE PRACTICAL EXAMINATION OF MINERAL PROSPECTS, by J. A. Reid and C. C. Huston; Trans. Can. Inst. Min. and Met., vol. XLVIII, 1945, pp. 270-283.

A paper on appraising prospects and preparing reports thereon. Besides providing information that may be useful to engineers and geologists engaged in such work, the views expressed will assist prospectors to form a better idea of the kinds of discoveries that may be important, and to understand the viewpoint and problems of the examiner.

THE VALUATION OF ORE IN A PROSPECT, by D. C. McKechnie; Trans. Can. Inst. Min. and Met., vol. XXXIII, 1930, pp. 153-160.

A discussion of the factors to be considered in evaluating prospects. Although written several years ago it contains hints that might be useful to examining engineers and geologists, and it would give prospectors an idea of the importance of discoveries.

SAMPLING AND ESTIMATION OF ORE DEPOSITS, by C. F. Jackson and J. B. Knaebel; U. S. Bureau of Mines, Bull. No. 356, 1934. Price 25 cents.

A useful summary of information on methods of sampling mineral deposits and estimating their tonnage and value. It is intended for mining engineers and geologists.

THE EXAMINATION OF PROSPECTS, by C. G. Gunther; McGraw-Hill, 1912.

A pocket-size book on the examination of mineral deposits and on their form and origin.

EVALUATION OF PEGMATITIC MINERAL DEPOSITS, by R. B. Rowe; Bull. Can. Inst. Min. and Met., Nov. 1953, pp. 700-706.

A recent paper describing methods of evaluating pegmatitic deposits by detailed mapping of internal structures, sampling, and diamond drilling.

EXAMINATION AND VALUATION OF MINERAL PROPERTY, by R. D. Parks; Addison-Wesley Press, Cambridge, Mass., 3rd Ed., 1949. Price \$5.

A handbook on examination of properties, sampling, estimation of ore, and estimation of costs and profits. An advanced book for mining engineers and economic geologists.

PROBABILITIES IN ESTIMATING THE GRADE OF GOLD DEPOSITS, by C. O. Swanson; Trans. Can. Inst. Min. and Met., vol. XLVIII, 1945, pp. 323-350.

An advanced discussion of the problems in obtaining an accurate estimate of the average content of gold deposits that, because of structural peculiarities, are of variable composition. Some of the discussion might be applicable to deposits other than gold that are markedly variable.

Geophysical Aids to Prospecting, etc.

General Articles and Texts

GEOPHYSICS SERIES; Northern Miner, beginning Nov. 26, 1953.

This series of articles prepared by Canadian Exploration Geophysicists is intended to give engineers, prospectors, and laymen a working knowledge of the application of geophysics to mineral exploration.

NEED FOR NEW POLICIES AND NEW TOOLS IN MINING GEOPHYSICS, by P. R. Geoffroy and T. Koulomzine; Trans. Can. Inst. Min. and Met., vol. LIII, 1950, pp. 205-207.

ON THE USE OF GEOPHYSICAL TOOLS, by L. L. Nettleton; Mines Mag., vol. 40, No. 10, pp. 49-52, 1950.

GEOPHYSICS AND ECONOMIC GEOLOGY, by J. M. Bruckshaw; Inst. Min. and Met., Bull. No. 508, pp. 1-20, 1949.

GEOPHYSICS, A TOOL FOR MINING EXPLORATION, by A. A. Brant; Min. Eng., vol. 1, No. 1, pp. 28-32, 1949.

EXPLORATION GEOPHYSICS, by J. J. Jakosky; Trija Pub. Co., 1950. Price \$12.50.

A recent, comprehensive text-book.

GEOPHYSICAL EXPLORATION, by C. A. Helland; Prentice-Hall, 1940. Price \$8.

A comprehensive text-book.

**GEOPHYSICAL PROSPECTING FOR OIL**, by L. L. Nettleton;  
McGraw-Hill, 1940. Price \$5.

This text also contains useful general information on the application of geophysical methods to mineral exploration.

**GEOPHYSICAL PROSPECTING**, 1932; Am. Inst. Min. Eng., 1932.  
Price \$5.

A collection of papers on geophysical prospecting.

**GEOPHYSICAL PROSPECTING**, edited by A. A. B. Edge and T. H. Laby; Cambridge Univ. Press, 1931. Price \$5.

A detailed account of studies made to test the applicability of different geophysical methods in Australia.

**GEOPHYSICAL PROSPECTING**, 1929; Am. Inst. Min. Eng., 1929.  
Price \$5.

A collection of papers on geophysical methods of prospecting.

**ELEMENTS OF GEOPHYSICS**, by R. Abbronne; McGraw-Hill, 1928.  
Price \$5.

A text-book translated from the German edition. It contains many references to earlier literature on geophysics.

**COMPARISON OF GRAVITATIONAL AND MAGNETIC ANOMALIES OVER CERTAIN STRUCTURES IN SOUTHEASTERN ONTARIO**, by G. D. Garland; Trans. Can. Inst. Min. and Met., vol. LIV, pp. 340-345, 1951.

**RECENT APPLICATIONS OF GEOPHYSICAL METHODS TO THE STUDY OF THE CANADIAN SHIELD**, by J. T. Wilson; Trans. Am. Geophysical Union, vol. 31, No. 1, pp. 101-114, 1950.

A paper describing methods that may be used in investigating the nature and structure of the Canadian Shield. It includes numerous references.

**GEOLOGICAL INTERPRETATION AS A RESULT OF A SECTION OF THE LYNN LAKE AREA, MANITOBA**, by J. T. Randall; Geophysics, vol. 13, No. 3, p. 504, 1948.

**THE USE OF GEOPHYSICS IN PROSPECTING FOR GOLD AND BASE METALS IN CANADA**, by T. Koulomzine and L. Brossard; Geophysics, vol. 12, No. 4, p. 651, 1947.

LIST OF PUBLISHED GEOPHYSICAL PUBLICATIONS; Geol. Surv.,  
Canada, mimeographed pamphlet.

This pamphlet lists all the reports on geophysical  
subjects and the aeromagnetic maps published by the  
Geological Survey of Canada.

GEOPHYSICAL ABSTRACTS; U. S. Geol. Surv. Subscription \$1.35  
a year, from Supt. of Documents, Washington, D. C.

These bulletins contain abstracts of publications on many  
phases of geophysics, including geophysical exploration.

#### Electrical Methods

A GEOLOGICAL AND GEOPHYSICAL STUDY OF THE CHELAN  
NICKEL DEPOSIT, by E. N. Patty and S. F. Kelly; Am. Inst.  
Min. Eng., Tech. Pub. No. 1953.

AN ELECTRO-MAGNETIC INTERPRETATION PROBLEM IN  
GEOPHYSICS, by L. B. Slichter; Geophysics vol. 16, No. 3,  
1951.

PROPOGATION OF ELECTRO-MAGNETIC WAVES IN EARTH, by  
O. C. Haycod and others; Geophysics, vol. 14, No. 2, 1949.

OBSERVED AND THEORETICAL ELECTRO-MAGNETIC MODEL  
RESPONSE OF CONDUCTING SPHERES, by L. B. Slichter;  
Am. Inst. Min. Eng., volume on Geophysical Prospecting,  
1932.

#### Gravity Methods

RECENT DEVELOPMENTS IN GRAVITY PROSPECTING, by S.  
Hammer; Colo. School of Mines Quarterly, vol. 45, 1950.

AN INVESTIGATION OF THE APPLICABILITY OF GRAVIMETRIC  
AND MAGNETOMETRIC METHODS OF GEOPHYSICAL  
PROSPECTING, by M. J. S. Innes; Trans. Can. Inst. Min.  
and Met., vol. LII, 1949, pp. 168-174.

An account of studies made by these methods over  
sulphide bodies in Quebec, which showed that they could be  
outlined by a gravity meter, and that magnetometer surveys  
may be of considerable value in locating buried sulphide  
bodies.

GRAVIMETRIC SURVEYS OF 1944 IN NEW BRUNSWICK, by A. H.  
Miller; Geol. Surv., Canada, Bull. No. 6, 1946. Price 25  
cents.

AMBIGUITY IN GRAVITY INTERPRETATION, by D. C. Skeels;  
Geophysics, vol. 12, No. 1, 1947.

BIBLIOGRAPHY OF GRAVITY IN CANADA; Can. Geophysical Bull.,  
vol. 1, No. 3, 1947.

#### Magnetic Methods

THE MAGNETOMETER AS AN AID IN GEOLOGICAL MAPPING, by  
J. W. Ambrose; Geol. Surv., Canada, Bull. No. 2, 1945.  
Price 10 cents.

A short report on the use and limitations of the magnetometer in tracing geological formations, contacts, and structures.

AIRBORNE MAGNETOMETER, by H. Lundberg; Eng. and Min. Jour.,  
vol. 151, pp. 106-107, 1950.

MANUAL OF GEOPHYSICAL PROSPECTING WITH THE  
MAGNETOMETER, by J. W. Joyce; Hobart Pub. Co., 2nd  
Ed., 1948. Price \$5.

A text on magnetometric methods of prospecting.

QUANTITATIVE INTERPRETATION OF MAGNETIC ANOMALIES  
OVER VEINS, by K. L. Cook; Geophysics, vol. 15, No. 5,  
1950.

MAGNETIC SURVEYS IN THE IRON SPRINGS DISTRICT, IRON  
COUNTY, UTAH, by K. L. Cook; U. S. Bur. Mines, Rept.  
of Inv. No. 4586, 1950.

INTERPRETATION OF AEROMAGNETIC MAPS, by V. Vacquier  
and others; Geol. Soc. of America, Mem. 47, 1951. Price  
\$2.25.

An advanced treatise on the interpretation of aeromagnetic maps, written primarily for geologists.

#### Radioactivity Methods

PROSPECTING WITH THE GEIGER COUNTER, by J. D. Bateman;  
Trans. Can. Inst. Min. and Met., vol. LII, 1949, pp. 111-  
116.

A discussion of the use and limitations of the Geiger counter in prospecting for radioactive minerals.

**RADIOACTIVITY MEASUREMENTS IN THE KIRKLAND LAKE AREA,  
NORTHERN ONTARIO**, by H. A. Slack; *Trans. Am.  
Geophysical Union*, vol. 30, No. 6, pp. 867-874, 1949.

A description of the results of a study of the radioactivity of batholithic rocks, which are shown to contain zones in which radioactive minerals are more abundant than elsewhere.

**PROSPECTING FOR URANIUM WITH CAR-MOUNTED EQUIPMENT**, by J. M. Nelson; *U. S. Geol. Surv., Bull.* 981, 1953, pp. 211-221.

An account of a method of prospecting by radioactivity surveys along roads.

**AERIAL PROSPECTING FOR RADIOACTIVE MINERALS**, by E. A. Godby and others; *National Research Council of Canada, Rept.* No. CRR-495, 1952.

A paper describing the results of experiments in airborne radioactivity surveying made jointly by the National Research Council, Eldorado Mining and Refining Limited, the Royal Canadian Air Force, and the Geological Survey of Canada.

**AERIAL PROSPECTING FOR RADIOACTIVE MINERALS**, by D. H. Peirson and E. Franklin; *British Journal of Applied Physics*, vol. 2, No. 10, 1951, pp. 281-291.

A paper describing equipment used by English authorities in experimental airborne surveys for radioactive deposits, and a discussion of problems of this kind of prospecting.

**REVIEW OF AIRBORNE RADIOACTIVITY SURVEY TECHNIQUES IN THE COLORADO PLATEAU**, by J. A. Tavelli; *U. S. A. E. C.* report RMO-697, 1951 (*U. S. A. E. C. Technical Information Service*, Oak Ridge, Tenn.).

A summary of information on the radioactivity surveys conducted for carnotite deposits in the Colorado Plateau.

**LOW-LEVEL AIRBORNE RADIOMETRIC SURVEYING IN THE WESTERN UNITED STATES**, by J. A. Tavelli and others; pamphlet obtainable from *United States Atomic Energy Commission*, Washington, D. C.

This pamphlet describes a speech given in 1953 on low-level airborne radioactivity surveys made recently in the western part of the United States.



**AIRBORNE RADIOACTIVITY SURVEYING SPEEDS URANIUM PROSPECTING**, by F. W. Stead; Eng. and Min. Journal, vol. 151, No. 9, 1950, pp. 74-77.

A paper describing methods and results of airborne radioactivity surveying in the United States up to 1950.

Geochemical and Biogeochemical Aids to Prospecting

**A SIMPLE CHEMICAL METHOD OF TRACING MINERALIZATION THROUGH LIGHT NON-RESIDUAL OVERBURDEN**, by E. O. Chisholm; Trans. Can. Inst. Min. and Met., vol. LIII, 1950, pp. 44-48.

A paper describing the successful use of the dithizone method in tracing copper, lead, and zinc through light overburden.

**GEOCHEMICAL PROSPECTING FOR ORES; A PROGRESS REPORT**, by H. E. Hawkes, Jr.; Econ. Geol., vol. 44, 1949, pp. 706-712.

A discussion of general problems and techniques of geochemical prospecting, with numerous references to other papers on this subject.

**SUPERGENE AND HYDROTHERMAL DISPERSION OF HEAVY METALS IN WALL ROCKS NEAR ORE BODIES, TINTIC DISTRICT, UTAH**, by H. T. Morris and T. S. Lovering; Econ. Geol., vol. 47, No. 7, 1952, pp. 685-716.

This paper describes a study of the dispersion patterns of heavy metals in the wall-rocks of orebodies in Tintic district. The authors conclude that several economic applications of investigations are possible. The paper is listed in this bibliography as an example of geochemical studies that may be useful in Canada.

**WATER TESTING FOR MINERALS - A NEW TOOL FOR PROSPECTORS**, by H. V. Warren and R. E. Delavault; Western Miner, vol. 26, No. 7, 1953, pp. 38-43.

An account of the history and principles of prospecting methods employing analyses of water samples as a possible guide to the discovery of ore, and a description of a portable kit for making such tests.

RELATION OF CONDUCTIVITY AND TOTAL SOLID CONTENT OF LAKE WATER TO ITS RADIUM CONTENT, GREAT BEAR LAKE REGION, by F. E. Senftle; Trans. Can. Inst. Min. and Met., vol. XLIX, 1946, pp. 439-446.

The results of an experiment to test the applicability of sampling lake water as an aid to selecting areas for detailed prospecting for radioactive deposits.

RADIOACTIVITY OF RIVERS AND LAKES IN PARTS OF GARLAND AND HOT SPRING COUNTIES, ARKANSAS, by R. H. Arndt and P. K. Kuroda; Econ. Geol., vol. 48, No. 7, 1953, pp. 551-567.

A study of the radon content of surface waters led the authors to conclude that such studies may be useful as a method of rapid reconnaissance in prospecting for low-grade uranium deposits. Although the experiments were made in the United States, the paper may be of interest in Canada because little work of this kind has been done here, and because the paper lists several references on work of this kind.

A HISTORY OF BIOGEOCHEMICAL INVESTIGATIONS IN BRITISH COLUMBIA, by H. V. Warren and R. E. Delavault; Trans. Can. Inst. Min. and Met., vol. LIII, 1950, pp. 236-242.

A summary of work done in British Columbia up to 1950 in this method of prospecting, which consists of analysing the metal content of plants and leaves that may contain an abnormal amount of a particular metal if growing over or near a deposit of that metal. Small kits are available, containing the chemicals necessary for the relatively simple tests that have been devised for several metals.

BIOGEOCHEMICAL INVESTIGATIONS IN THE PACIFIC NORTHWEST, by H. V. Warren, R. E. Delavault, and R. I. Irish; Bull. Geol. Soc. America, vol. 63, 1952, pp. 435-484.

A more recent summary of the subject covered by the preceding article.

GEOBOTANICAL PROSPECTING, by H. L. Cannon; Mining Engineering, vol. 5, 1953.

A recent discussion of methods of prospecting by analysing samples of vegetation in the hope of finding "anomalies", i. e., plants containing more than usual amounts of a particular metal, which may indicate that a deposit of that metal occurs underneath or nearby. A second method of prospecting is to search for "indicator plants", which require certain elements for their growth. Geobotanical prospecting is also called biogeochemical prospecting.

GEOCHEMICAL PROSPECTING ABSTRACTS THROUGH JUNE 1952;  
U. S. Geol. Surv., Bull. No. 1000-A. From Supt. of  
Documents, Washington 25, D. C. Price 20 cents.

This bulletin contains digests of publications of geo-  
chemical prospecting, up to July 1, 1952.

ANNOTATED BIBLIOGRAPHY OF PAPERS ON GEOCHEMICAL  
PROSPECTING, by H. E. Hawkes, Jr.; U. S. Geol. Surv.,  
Circular No. 28, 1948.

A useful list of references on this subject, up to 1948.

Interpretation of Air Photographs and  
Topographical and Geological Maps

AEROPROSPECTING IN THE YELLOWKNIFE AREA, by A. W.  
Jolliffe; Trans. Can. Inst. Min. and Met., vol. XLVIII, pp.  
588-609 (1945).

An article that gives useful hints on use of air photographs  
and observation from the air, in connection with prospecting  
and geological studies. It includes references to other  
publications on the use of air photographs. Although the  
illustrations are from the Yellowknife area, the paper contains  
information applicable to other parts of Canada.

AIR PHOTOGRAPHS IN RELATION TO PROSPECTING, by A. H.  
Lang; The Precambrian, April 1948.

A short article giving information on the different kinds  
of photographs and on how to obtain copies, and giving a few  
hints on their uses in prospecting.

HOW COLORED AERIAL PHOTOGRAPHS MAKE NEWEST ORE-  
SEARCH METHOD, by P. A. Laylander; Mining World, June  
1952, pp. 41-43.

A short article on the application of coloured air  
photographs to prospecting. It also contains a discussion of  
criteria for the location of subsurface orebodies.

OUTSTANDING AERIAL PHOTOGRAPHS IN NORTH AMERICA;  
American Geological Institute, Report No. 5, 1951. Issued  
by American Geol. Inst., 2101 Constitution Ave., Washington  
25, D. C.

This publication gives introductory information on air  
photographs, a list of outstanding photographs illustrative of  
various geological phenomena, and a good list of references  
to further books and articles on the interpretation of air  
photographs. The publication does not include reproductions  
of air photographs.

**AERIAL PHOTOGRAPHS AND THEIR APPLICATIONS**, by H. T. U. Smith; Appleton-Century, 1943. Price \$5.80.

A book on air photographs and their uses and interpretation. It includes sections dealing with the use of air photographs in different branches of geology, including mining and engineering geology.

**ELEMENTARY MAP AND AERIAL PHOTOGRAPH READING**; U. S. War Dept., Basic Field Manual FM 21-25, 1941. For sale by Superintendent of Documents, Washington, D. C. Price 30 cents.

An elementary handbook on the use of topographic maps and air photographs, not specifically related to prospecting or geology, but containing useful information for beginners in prospecting. It is accompanied by a more advanced manual on the same subjects (FM 21-26, price 20 cents).

**MAP AND AERIAL PHOTOGRAPH READING COMPLETE**, Military Service Publishing Co., Harrisburg, Pa., 1943. Price \$1.

A book on the use of topographical maps and air photographs, prepared mainly for military instruction, but useful for beginners in prospecting.

**THE STUDY OF GEOLOGICAL MAPS**, by G. L. Elles; Cambridge University Press, 1921. Price \$3. or more.

A book on the use and interpretation of geological maps. It is intended mainly for students in geology, and the examples are from European sources, but the subject is well presented and the book would be useful for those who wish to improve their ability to use geological maps.

**INTERPRETATION OF TOPOGRAPHIC AND GEOLOGIC MAPS**, by C. L. Dake and J. S. Brown; McGraw-Hill, 1925. Price \$3.50.

A comprehensive book on the interpretation of topographical and geological maps. It is intended for fairly advanced students and a knowledge of elementary geology and trigonometry is assumed. It would be useful for serious students of prospecting.

Use of Aircraft in Prospecting, etc.

**FUNCTION OF THE AEROPLANE IN CANADIAN PROSPECTING**, by H. A. Oaks; Trans. Can. Inst. Min. and Met., vol. XLVIII, 1945, pp. 135-145.

A discussion of the uses of aircraft in reconnaissance, air photography, and bush transport, and an analysis of the performance of different types of aircraft. The article is authoritative because the writer is both a mining engineer and a pioneer northern pilot. Although other aircraft are available today, the article still contains useful information.

**AERIAL EXPLORATION**, by the Staff of Northern Aerial Minerals Exploration; Trans. Can. Inst. Min. and Met., vol. XXXII, 1929, pp. 25-40.

This account of one of the first prospecting organizations to make extensive use of aircraft is now mainly of historical interest, but companies planning work of this kind may benefit from this pioneer account.

**OPERATION KEEWATIN, 1952, A GEOLOGICAL RECONNAISSANCE BY HELICOPTER**, by C. S. Lord; Bulletin, Can. Inst. Min. and Met., April 1953, pp. 224-233; also in Precambrian, April 1953, pp. 26-30.

An account of an extensive reconnaissance by helicopters, that provides useful information for any prospecting campaigns contemplated along similar lines.

**AN EXPERIMENT IN RECONNAISSANCE MAPPING**, by G. Shaw; Trans. Can. Inst. Min. and Met., vol. XLVI, 1943, pp. 85-96.

This paper describes an experimental geological reconnaissance by aircraft in northern Quebec.

Special Equipment for Prospecting

**MECHANICAL AIDS TO PROSPECTING**, by R. B. Gayer; Western Miner, June 1946, pp. 44-48.

A short account of modern aids to prospecting, including use of air photographs; transport by helicopter; "paradropping" of supplies and equipment; use of bulldozers; mechanical gold pans; and geophysical instruments.

ULTRAVIOLET LIGHT IN MINERAL PROSPECTING, by J. DeMent;  
Mining Congress Jour., vol. 31, No. 1, 1945, pp. 23-27, 37.

An account of the use of ultraviolet lamps in prospecting for fluorescent minerals. Further information on this subject is included in the section on wolfram.

## REGIONAL PUBLICATIONS

### Yukon Territory

POTENTIAL MINERAL RESOURCES OF YUKON TERRITORY, by H. S. Bostock; Geol. Surv., Canada, Paper 50-14, 1950. Price 15 cents.

A fairly up to date summary of information on mineral and fuel belts and areas of Yukon Territory, accompanied by a map.

MINERAL POSSIBILITIES OF AREAS ADJACENT TO THE ALASKA HIGHWAY, Part. 1, Yukon Section, by L. O. Thomas; Trans. Can. Inst. Min. and Met., vol. XLVI, 1943, pp. 375-401.

A summary of information on known mineral occurrences in Yukon Territory up to 1943.

PHYSIOGRAPHY OF THE CANADIAN CORDILLERA, WITH SPECIAL REFERENCE TO THE AREA NORTH OF THE FIFTY-FIFTH PARALLEL, by H. S. Bostock; Geol. Surv., Canada, Mem. 247, 1948. Price 25 cents.

A well-illustrated report on the characteristic topographic features of different parts of Yukon Territory, giving a classification of the mountain ranges and plateaux. It would be useful to prospectors and others who plan to visit the Yukon, in presenting preliminary information on the character of the country.

## MINING INDUSTRY OF THE YUKON

An annual summary of information on mining activities in Yukon Territory, published from 1929 to 1940. The earlier reports were by W. E. Cockfield and the later ones by H. S. Bostock. From 1929 to 1933 they were in the Summary Reports (Part A) of the Geological Survey of Canada, and from 1934 to 1940 they were published as Memos. 178, 193, 209, 218, 220, and 234.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF YUKON TERRITORY; Geol. Surv., Canada, 1953.

An up-to-date mimeographed list of reports, maps, and general articles on Yukon Territory, published by the Geological Survey of Canada.

Northwest Territories

MODE OF DISCOVERY OF IMPORTANT ORE DEPOSITS DURING THE PAST DECADE IN NORTHWEST TERRITORIES, by C. S. Ney; Western Miner, vol. 20, 1947, No. 8, pp. 39-45.

An article that discusses factors affecting prospecting in the Northwest Territories and describes the manner of discovery of several producing mines in the Yellowknife region.

PROSPECTING POSSIBILITIES IN THE NORTHWEST TERRITORIES, by H. B. Denis; Bull. Can. Inst. Min. and Met., October 1946, pp. 617-624.

A fairly up-to-date article on prospecting conditions and possibilities in the Northwest Territories.

MINERAL POSSIBILITIES OF THE NORTHWEST TERRITORIES, by A. W. Jolliffe; Trans. Can. Inst. Min. and Met., pp. 663-677.

This paper includes a summary of the history of mineral discoveries in the Northwest Territories, including the Arctic islands; a brief outline of the geology; a list of the main known mineral occurrences, with short descriptions; and conclusions regarding the possibilities for future discoveries.

METALLIFEROUS MINERAL POSSIBILITIES OF THE MAINLAND PART OF THE NORTHWEST TERRITORIES, by C. H. Stockwell and D. F. Kidd; Geol. Surv., Canada, Sum. Rept. 1931, pt. C, pp. 70-95.

A summary of known mineral occurrences (up to 1931) in this region with a discussion of possibilities for further discoveries. Much of the information is now available in more recent form in Mem. 261.

**MINERAL INDUSTRY OF DISTRICT OF MACKENZIE, NORTHWEST TERRITORIES**, by C. S. Lord; Geol. Surv., Canada, Mem. 261, 1951. Price \$1.25.

This comprehensive summary of information on the western part of the Northwest Territories contains much general information useful for prospecting in this region, descriptions of many mines and prospects, and a long list of references. Most of the information is up to the end of 1947, and there is some information for 1948 and 1949.

**GEOLOGICAL NOTES ON SOUTHERN DISTRICT OF KEEWATIN, NORTHWEST TERRITORIES**, by C. S. Lord; Geol. Surv., Canada, Paper 53-22, 1953.

A preliminary report on an extensive reconnaissance by helicopters of a large and previously little-known part of the Northwest Territories. It describes the geology of the region, summarizes known mineral occurrences, and discusses prospecting possibilities.

**MINERAL POSSIBILITIES OF BAFFIN ISLAND**, by E. H. Kranck; Trans. Can. Inst. Min. and Met., vol. LIV, 1951, pp. 438-439.

A short account of the geology and mineral possibilities of Baffin Island. The author concludes that the main possibilities are for iron, copper and other sulphides, and pegmatite deposits.

**MINERAL RESOURCES AND MINING ACTIVITY IN THE CANADIAN EASTERN ARCTIC**, by J. L. Robinson; Can. Geog. Jour., Aug. 1944.

A brief, fairly up-to-date summary of the geology and known mineral occurrences of the eastern Arctic, with a list of references to more detailed information.

**A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF THE NORTHWEST TERRITORIES**; Geol. Surv., Canada, 1954.

A list of reports, maps, and general articles on the Northwest Territories, published by the Geological Survey of Canada up to 1954.



British Columbia

MINING IN BRITISH COLUMBIA; B. C. Dept. of Mines, 1952.

An outline of the development of the mining industry in British Columbia.

MINING DEVELOPMENT IN BRITISH COLUMBIA, by J. F. Walker; Can Geog. Jour., Sept. 1952, pp. 114-132.

An authoritative, well-illustrated article that describes in simple language the geography, mining history, present mineral industries, and prospecting possibilities of British Columbia.

ELEMENTARY GEOLOGY APPLIED TO PROSPECTING, by J. F. Walker; Dept. of Mines, Victoria, B. C. Revised edition, 1953. Price 75 cents.

A useful handbook on geology, mineralogy, mineral deposits, prospecting, and exploration of prospects, with particular reference to British Columbia.

SPECIMENS AND SAMPLES - THEIR TREATMENT AND USE; B. C. Dept. of Mines, Bull. No. 18, 1944.

A bulletin written for the prospector, on the taking and labelling of samples, study of specimens and samples in the field, and on the kinds of work and reporting done on them.

GEOLOGY AND PROSPECTING, by H. C. Gunning; Western Miner, vol. 17, No. 2, 1944, pp. 27-29.

This article describes types of mineral deposits, with particular reference to examples in British Columbia. It dwells on a few major concepts of the origin of ore deposits, and the relation of these concepts to prospecting.

FUTURE PROSPECTING IN THE CANADIAN CORDILLERA, by D. F. Kidd; Western Miner, vol. 17, Sept. 1944, pp. 41-43.

An article that points out the differences between prospecting in the Cordilleran region and in the Precambrian Shield. The author predicts future trends in prospecting and explains the qualifications needed for the prospector of the future, and he outlines the kind of work needed to accelerate future discoveries.

THE PROSPECTOR AND THE MINING INDUSTRY, by F. R. Joubin;  
Western Miner, vol. 17, No. 2, 1944, pp. 30-34.

An article that considers means of maintaining and training prospectors, and makes recommendations concerning the geological conditions that should receive further study in the hope of increasing mineral discoveries. The article is particularly applicable to conditions in British Columbia, but it also contains discussions of broader interest.

HANDICAPS TO PROSPECTING, by H. Lakes; Western Miner, vol. 17, April 1944, pp. 47-48.

A short article on the problems of prospecting, dealing mainly with questions of financing prospectors.

BRIGHT FUTURE FOR PROSPECTING, by F. E. Woodside; Western Miner, vol. 17, Nov. 1944, pp. 106-108.

A short discussion of prospecting possibilities in British Columbia and Yukon Territory.

PROSPECTING IN BRITISH COLUMBIA, by V. Dolmage; The Miner, April 1941.

An authoritative analysis of the problems of prospecting in this province, with suggestions for training prospectors and organizing prospecting campaigns.

A RELATION BETWEEN PRESENT DAY TOPOGRAPHY AND ORE DEPOSITION, by J. A. Reid; Proc. Geol. Assoc. of Canada, vol. 4, 1951, pp. 31-40.

A paper that describes an apparent relationship between the present land surface and the distribution of epigenetic ore deposits in certain regions of youthful topography. The author suggests that this relationship may be a useful guide in mountainous regions but not in the Canadian Shield.

PROSPECTING POSSIBILITIES IN PART OF THE OMINECA MINING DIVISION, BRITISH COLUMBIA, by J. E. Armstrong and J. D. Thurber; Can. Min. Jour., April 1945.

A summary of the geology, mineral deposits, and prospecting possibilities of the vicinity of Babine, Takla, Stuart, and Nation Lakes.

ORE IN DEPTH IN B. C. MINES, by S. J. Schofield and I. M. Marshall; Trans. Can. Inst. Min. and Met., vol. XXXVIII, 1935, pp. 519-525.

This paper contains a short general discussion of the persistence of ore in depth. It then discusses some of the mines of British Columbia in this light. It concludes that, for at least some types of deposits in this province, there are chances of finding orebodies at greater depth, and it advocates further research on this subject.

DEFINING THE MINERAL ZONES OF NORTHERN BRITISH COLUMBIA, by F. A. Kerr; Trans. Can. Inst. Min. and Met., vol. XXXIV, 1931, pp. 66-82.

A summary of the geology and prospecting possibilities of northwestern British Columbia, i. e., the region north of Portland Canal and immediately east of the Alaska boundary.

THE FISSURE SYSTEMS OF BRITISH COLUMBIA, by S. J. Schofield; Trans. Can. Inst. Min. and Met., vol. XXVIII, 1925, pp. 428-433.

An analysis of the strikes of vein systems in the principal mining camps of the province, with recommendations for using this information in prospecting.

UNDISCOVERED MINES OF BRITISH COLUMBIA, by W. L. Uglow; Trans. Can. Inst. Min. and Met., vol. XXVI, 1923, pp. 300-318.

This article describes the types of mineral deposits found in British Columbia and discusses the possibilities for further discoveries. The author was awarded the Leonard Medal for this paper, and it has become a classic.

THE MINERAL WEALTH OF BRITISH COLUMBIA, by G. M. Dawson; Geol. Surv., Canada, Ann. Rept., New Series, vol. 3, pt. 2, 1887-88, pp. 1R to 163R (1889). (Out of print.)

This report on the mineral resources of British Columbia has become a classic. Although mainly of historical interest now, the list of occurrences and the conclusions still provide useful information.

GEOLOGY AND MINERAL DEPOSITS OF NORTHERN BRITISH COLUMBIA WEST OF THE ROCKY MOUNTAINS, by J. E. Armstrong; Geol. Surv., Canada, Bull. No. 5, 1946. Price 25 cents.

A summary of the geology and known mineral deposits of a large part of the province, lying west of the Rocky Mountain Trench and north of latitude 53 degrees. It includes many references to more detailed information.

MINERAL POSSIBILITIES OF AREAS ADJACENT TO THE ALASKA HIGHWAY, Part II - BRITISH COLUMBIA SECTION, by L. O. Thomas; Trans. Can. Inst. Min. and Met., vol. XLVII, 1944, pp. 203-243.

A summary of information on the geology, mineral occurrences, and prospecting possibilities of northern British Columbia.

GEOLOGICAL MAP OF BRITISH COLUMBIA; Geol. Surv., Canada, Map 932A. Price 50 cents.

A geological map of the province, on the scale of 1 inch to 20 miles, published in 1948. In two sheets.

MINERAL MAP OF BRITISH COLUMBIA; Geol. Surv., Canada, Map 1008A. Price 50 cents.

A map of the province on the scale of 1 inch to 20 miles, published in 1952. It shows the locations of the principal mines and mineral occurrences. In two sheets.

ANNUAL REPORTS, BRITISH COLUMBIA DEPARTMENT OF MINES, Victoria, B. C.

These reports contain introductory sections that provide useful general information, followed by descriptions of many mines and prospects. A list of Departmental publications is included.

INDEX TO ANNUAL REPORTS OF THE MINISTER OF MINES, 1874-1936; B. C. Dept. of Mines, 1938. Price \$1.

A comprehensive index giving references to mineral occurrences and other information.

INDEX TO ANNUAL REPORTS OF THE MINISTER OF MINES, 1937-43; B. C. Dept. of Mines, 1944. Price 50 cents.

A continuation of the above-mentioned index.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF BRITISH COLUMBIA; Geol. Surv., Canada, 1954.

A list of publications of the Geological Survey of Canada dealing with British Columbia, up to 1954, and exclusive of the early publications, which are now mainly out of print.

Alberta

ANNUAL REPORTS, DEPARTMENT OF MINES AND MINERALS,  
PROVINCE OF ALBERTA, Edmonton, Alta.

These reports contain information on activities  
connected with prospecting and mining in the province.

REPORTS OF THE RESEARCH COUNCIL OF ALBERTA, Edmonton,  
Alta.

These reports describe geological and other investigations  
undertaken on behalf of the Research Council of Alberta. The  
geological reports are mainly on areas of interest for petroleum,  
coal, or industrial minerals.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY  
PAPERS, AND MAPS OF ALBERTA; Geol. Surv., Canada,  
1953.

A list of the publications of the Geological Survey of  
Canada for Alberta, excepting early reports and maps.

Saskatchewan

A BRIEF OUTLINE OF THE GEOLOGICAL HISTORY OF NORTHERN  
SASKATCHEWAN, by J. B. Mawdsley; Dept. of Nat. Res.,  
Sask., 1934.

An outline of the geology of northern Saskatchewan, with  
a discussion of prospecting possibilities.

SASKATCHEWAN'S NORTH, by J. Wright; Can. Geog. Jour., July  
1952.

An attractively illustrated article that provides general  
information on northern Saskatchewan, including sections on  
air transport, climate, mining, and prospecting.

GOVERNMENT ASSISTED PROSPECTING IN SASKATCHEWAN, by  
W. J. Bichan and M. F. Norris; Dept. of Nat. Res., Sask.,  
Misc. Paper No. 2, 1950.

A brochure describing the manner in which the Govern-  
ment of Saskatchewan offers to assist prospectors by supply-  
ing equipment, transportation, and supervision.

THE GOLDFIELDS URANIUM AREA, by J. R. MacDonald; Western Miner, April 1953, pp. 38-45.

A recent account of the history, geology, and uranium deposits of Goldfields region.

FRACTURE SYSTEMS IN THE PITCHBLENDE DEPOSITS OF THE BEAVERLODGE LAKE AREA, SASKATCHEWAN, by R. B. Allen; Trans. Can. Inst. Min. and Met., vol. LIII, 1950, pp. 287-288.

A paper that explains the results of a special study of fracture systems in the Lake Athabasca region in relation to the origin and discovery of pitchblende deposits.

HISTORY OF URANIUM DISCOVERIES, LAKE ATHABASCA, by A. H. Lang; Can. Min. Jour., June 1953.

An account of the events leading to the discovery of the principal uranium deposits known in this region up to 1952. Some of the information may be useful in guiding further prospecting.

URANINITE-BEARING DEPOSITS, CHARLEBOIS LAKE AREA, NORTHERN SASKATCHEWAN, by J. B. Mawdsley; Bull. Can. Inst. Min. and Met., June 1952.

A description of detailed studies of uraninite-bearing migmatite zones bordering granite masses.

ANNUAL REPORTS, DEPARTMENT OF NATURAL RESOURCES, SASKATCHEWAN.

These reports include a summary of activities connected with mining and prospecting in Saskatchewan for a particular year. This department has also published reports on certain areas. These are described in the bibliography listed below.

GEOLOGICAL MAP OF SASKATCHEWAN; Geol. Surv., Canada, Map 895A. Price 25 cents.

A geological map of the province, on the scale of 1 inch to 20 miles, published in 1947.

MINERAL MAP OF SASKATCHEWAN; Geol. Surv., Canada, Map 896A. Price 25 cents.

A map of the province on the scale of 1 inch to 20 miles, showing the principal mines and mineral occurrences as known in 1947.

ANNOTATED BIBLIOGRAPHY OF SASKATCHEWAN GEOLOGY  
(1823-1951 incl.), by W. O. Kupsch; Dept. of Nat. Res.,  
Sask., Rept. No. 9, 1952.

A comprehensive list of geological maps and reports for Saskatchewan, with explanatory notes. It is accompanied by a copy of the geological map of the province published by the Geological Survey of Canada, on which an index grid and list of geographical names have been added by the Saskatchewan Department of Natural Resources.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF SASKATCHEWAN; Geol. Surv., Canada, 1954.

A list of the publications of the Geological Survey of Canada for Saskatchewan, up to 1954, and excluding early reports and maps.

Manitoba

A GUIDE FOR PROSPECTORS IN MANITOBA; Dept. of Mines and Natural Resources, Winnipeg, 4th Ed., 1952.

An informative, up-to-date handbook outlining the equipment needed for prospecting in this province, regulations for staking and recording claims, use of maps and air photographs, and containing summarized information on the geology, mineral deposits, and prospecting possibilities of the main mineral areas of the province. References to more detailed information are provided.

GEOLOGY AND MINERALS OF MANITOBA, by W. L. Goodwin; Garden City Press, Gardenvale, Que., 1930. Price \$2.

This handbook gives a short summary of general information on prospecting, followed by summarized information on the principal mining areas and mineral deposits of Manitoba up to 1930.

NOTES ON THE PROSPECTING AREAS OF MANITOBA, Anon.; Precambrian, vol. XIX, No. 5, 1946, pp. 4-17.

A summary of information on the principal prospecting fields of Manitoba, up to 1946.

THE MINERAL RESOURCES OF MANITOBA, by G. E. Cole;  
Economic Survey Board, Province of Manitoba, 1938.

A comprehensive report on the geology, mineral resources, and prospecting possibilities of Manitoba up to 1938.

PROSPECTING AREAS OF NORTHWEST MANITOBA, by J. F. Wright; Trans. Can. Inst. Min. and Met., vol. XXXIV, 1931, pp. 83-109.

A summary of the geology, mineral deposits, and prospecting possibilities of northwestern Manitoba.

AN APPLICATION OF THE THEORY OF METALLOGENESIS TO THE PROSPECTING AREAS OF MANITOBA, by J. S. DeLury; Trans. Can. Inst. Min. and Met., vol. XXVIII, 1925, pp. 358-370.

A study of the depth of erosion with respect to the generally accepted theory of ore deposition, and its relation to the probability of mineral discoveries in the province.

ANNUAL REPORTS, MANITOBA DEPT. OF MINES AND NAT. RES.

These reports include a summary of activities connected with mining and prospecting in Manitoba for a particular year. In addition, the Mines Branch of this department publishes geological reports on certain areas.

GEOLOGICAL MAP OF MANITOBA; Geol. Surv., Canada, Map 850A.  
Price 25 cents.

A geological map of the province, on the scale of 1 inch to 20 miles, published in 1946.

MINERAL MAP OF MANITOBA; Geol. Surv., Canada, Map 851A.  
Price 25 cents.

A map of the province on the scale of 1 inch to 20 miles, showing the principal mines and mineral occurrences as known in 1946.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF MANITOBA; Geol. Surv., Canada, 1953.

A list of the publications of the Geological Survey of Canada for Manitoba, excepting early maps and reports.



Ontario

**PROSPECTOR'S GUIDE TO ONTARIO MINING FIELDS; Ont. Dept. of Mines.**

A pamphlet on practical prospecting for the beginner. It explains the ways in which prospecting may be financed, the equipment and supplies required, favourable areas for prospecting, methods of prospecting, and the manner of staking and recording claims. Because the pamphlet was prepared a few years ago it emphasizes prospecting for gold, which is not being sought so eagerly at present, but the general information is applicable to prospecting for other metals.

**NORTH OF THE GREAT LAKES LIES TREASURE, by M. Tremblay; Can. Geog. Jour., June 1941.**

In a readable and well-illustrated article, an official of the Ontario Department of Mines traces the growth of mining in Ontario and outlines the geology of the province and the possibilities for prospecting.

**THE STUDY OF MINERALS AND ROCKS, by E. M. Burwash; Ont. Dept. of Mines, 7th Ed., 1949.**

An elementary booklet on the identification of minerals and rocks. It is intended for prospectors in general and for those attending the prospectors' classes conducted by the Ontario Department of Mines.

**GEOLOGY AND MINERALS OF ONTARIO, by W. L. Goodwin, Garden City Press, Gardenvale, Que., 1929. Price \$3.**

A comprehensive handbook for prospecting in Ontario. It contains a short introduction on minerals, geology, and ore deposits, a summary of the geology of the province, and condensed descriptions of the principal mineral occurrences known up to 1929. Although somewhat out of date, it is still a useful handbook for work in Ontario.

**PROSPECTING IN ONTARIO - HISTORICAL SKETCH, by C. W. Knight; Can. Min. Jour., Nov. 1950, pp. 76-87.**

This paper is of interest not only for historical reasons, but because it describes the manner of discovery of important mines in a way that may be useful for further prospecting.

ANNUAL REPORTS, ONTARIO DEPARTMENT OF MINES, Toronto.

These reports are divided into several parts, published separately. In recent years Part 1 has included a statistical review of mining in the province; and information on the classes for prospectors conducted by the Department. Part 2 consists of short accounts of operations at the principal mining properties. Other parts consist of geological reports on certain areas.

MINERAL MAP OF THE PROVINCE OF ONTARIO; Ont. Dept. of Mines, Map 1953-A. Price \$1.

A map of the province on the scale of 1 inch to 20 miles, showing the principal geological subdivisions, mines, and mineral occurrences. Published in 1953.

LIST OF PUBLICATIONS; Ont. Dept. of Mines, Bull. No. 25, 6th Ed., 1953.

A list of reports, maps, and bulletins issued by the Ontario Department of Mines from 1891 to 1953.

INDEX TO GEOLOGICAL MAPS; Ont. Dept. of Mines, Bull. No. 110, 1937.

An index to the geological maps accompanying the annual reports of the Ontario Department of Mines from 1891 to 1936.

GENERAL INDEX TO THE REPORTS OF THE ONTARIO DEPARTMENT OF MINES; Ont. Dept. of Mines.

Comprehensive indexes to the information contained in the reports of the Ontario Department of Mines, published in three volumes covering the periods 1891-1916, 1917-1927, and 1927-1940.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF ONTARIO; Geol. Surv., Canada, 1953.

A list of the publications of the Geological Survey of Canada for Ontario, excepting early maps and reports.

Quebec

AN OUTLINE OF THE GEOLOGY OF THE PROVINCE OF QUEBEC,  
by I. W. Jones; Que. Dept. of Mines, 1947.

A summary of the geology of the province, useful as an introduction to the subject. It is published in French and in English.

NOTIONS ELEMENTAIRES DE MINERALOGIE; Que. Dept. of Mines,  
1952.

A mimeographed booklet on elementary mineralogy, with particular references to occurrences in Quebec. It was prepared to accompany a set of minerals sold by the Quebec Department of Mines for \$1.50. The booklet is in French, and an English edition is being prepared.

GEOLOGICAL SKETCH AND METALLIC MINERAL DEPOSITS OF  
THE PROVINCE OF QUEBEC, by B. T. Denis; Can. Min.  
Jour., October 1948, pp. 127-135.

A fairly up-to-date article, including a summary of the geology of Quebec and an account of chromite, copper, lead, zinc, manganese, molybdenite, gold, and silver deposits.

THE METALLIC MINERAL DEPOSITS OF THE PROVINCE OF  
QUEBEC, by B. T. Denis; Que. Dept. of Mines, 1948.

A summary of information on the metallic deposits of the province, which forms a useful introduction to the subject. Available in French and English.

LES RESSOURCES MINERALES DE LA PROVINCE DE QUEBEC, by  
J. P. Drolet; Que. Dept. of Mines, 1951.

A short account of the history of the mineral industry in Quebec and the geology and mineral deposits of the province. This is published only in French.

THE QUEBEC MINING LAW, by J. P. Drolet; Que. Dept. of Mines,  
1950.

A résumé of the Quebec Mining Act, explaining the regulations in ordinary terms instead of legal phases. It is published in French, and an English version is in preparation.

EXTRACT OF THE QUEBEC MINING ACT CONCERNING THE  
MINER'S CERTIFICATES AND THE STAKING OUT OF  
CLAIMS; Que. Dept. of Mines, 1953.

A pamphlet explaining the regulations for prospecting  
licences and staking.

MINERAL EXPLORATION PARTNERSHIP ACT; Que. Dept. of  
Mines, 1951.

A pamphlet describing a special law enacted to assist  
prospectors to form exploration partnerships without personal  
liability. Published in French and in English.

GEOLOGY AND MINERALS OF QUEBEC, by W. L. Goodwin;  
Garden City Press, Gardenvale, Que., 1929. Price \$2.

A useful handbook for prospecting in Quebec, but some-  
what out of date. It contains a short introduction on minerals,  
geology, and mineral deposits, an outline of the geology of  
the province, and short accounts of the principal mineral  
occurrences known up to 1929.

STRUCTURAL GEOLOGY AND ORE DEPOSITS OF THE ROUYN-  
NORANDA DISTRICT, by W. G. Robinson; Proc. Geol. Assoc.  
of Canada, vol. 4, 1951, pp. 61-73.

A discussion of the relationships of ore deposits to  
structural features in Rouyn-Noranda region, with suggestions  
for further studies that might lead to the discovery of additional  
deposits.

NORTHERN ABITIBI, QUEBEC - FRACTURE ZONES AND MINERAL  
POSSIBILITIES, by J. Claveau; Can. Min. Jour., April 1948,  
pp. 71-82.

A discussion of the structural geology of the region  
between the Ontario boundary and Chibougamau, with  
reference to prospecting possibilities.

GEOLOGY IN PROSPECTING, WITH SPECIAL REFERENCE TO  
WESTERN QUEBEC, by L. V. Bell; Trans. Can. Inst. Min.  
and Met., vol. XXXIX, 1936, pp. 235-256.

A paper on the different applications of geology to  
prospecting and the exploration of prospects. Although  
emphasis is placed on conditions in northwestern Quebec,  
the paper contains information of wider interest.

PROSPECTING IN THE QUEBEC GOLD-BELT, by K. W. Fritzsche; Trans. Can. Inst. Min. and Met., vol. XXVIII, 1925, pp. 276-300.

This paper explains the methods of systematic prospecting, and exploration of favourable structures and deposits, used during the early development of northwestern Quebec. Much of the information is still applicable to this district and to the Canadian Shield in general.

NON-METALLIC MINERAL DEPOSITS OF THE PROVINCE OF QUEBEC, by P. E. Bourret; Can. Min. Jour., October 1948, pp. 162-170.

A fairly up-to-date summary of information on asbestos, feldspar, graphite, limestone, magnesite, brucite, dolomite, mica, pigments (including titanium), phosphate, pyrite, silica, and building materials in Quebec.

UNGAVA PENINSULA, by A. Buisson; Can. Min. Jour., Aug. 1952, pp. 59-66.

A summary of information on the history, mineral resources, and current development of the Quebec-Labrador region.

EXTRACTS FROM REPORTS ON THE DISTRICT OF UNGAVA OR NEW QUEBEC; Que. Dept. of Mines, 3rd Ed., 1929.

A reprinting of selected parts of earlier publications, many of which are out of print.

GEOLOGY OF QUEBEC, by J. A. Dresser and T. C. Denis; Que. Dept. Mines, Geol. Rept. No. 20.

This publication is in three volumes. Volume I, Bibliography and Index, was published in 1941 at a price of \$1. A supplement, containing references for 1937 to 1949, was published in 1951 at a price of 50 cents. Volume II, Descriptive Geology, was published in 1944 at \$1.50. This volume is a comprehensive summary of geological information on the province up to 1944. Volume III, Economic Geology, published in 1949 at \$1.50, is a detailed summary of information on the mines and mineral occurrences of the province as known in 1949.

**GEOLOGICAL MAPS OF SOUTHERN QUEBEC;** Geol. Surv., Canada, Maps 703A (West Sheet), 704A (Centre Sheet), and 705A (East Sheet). Price 50 cents for the set of three maps, or 25 cents each.

These three maps, on the scale of 1 inch to 12 miles, summarize the geology of the part of the province south of latitude 50°30'. They were published in 1943.

**ANNUAL REPORTS, DEPARTMENT OF MINES, QUEBEC.**

These reports contain a review of mining operations in the province for the year, geological field work, prospecting and exploration activities, etc. This department also publishes many separate geological reports and maps on particular areas. The annual reports and others are published both in French and in English.

**ANNOTATED LIST OF PUBLICATIONS OF THE MINISTER OF MINES OF THE PROVINCE OF QUEBEC, 1883-1949;** Que. Dept. Mines, 1949.

A guide to the publications of the Quebec Department of Mines up to 1949, with mimeographed enclosures to bring it up to date. The French edition is for the years 1883-1951.

**LIST OF GEOLOGICAL MAPS;** Que. Dept. of Mines, 1952.

A list of geological maps, accompanied by an index map (Map No. 975). This list is published in French and in English.

**A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF QUEBEC;** Geol. Surv., Canada, 1953.

A list of the publications of the Geological Survey of Canada for Quebec, excepting early maps and reports.

New Brunswick

**PROSPECTING AND METALLIFEROUS MINERALS IN NEW BRUNSWICK,** by G. S. MacKenzie; N. B. Dept. of Lands and Mines, 1952.

A mimeographed paper describing prospecting possibilities and mineral occurrences known up to 1952.

GEOLOGY AND MINERALS OF NEW BRUNSWICK, by W. L. Goodwin;  
Garden City Press, Gardenvale, Que., 1928. Price \$1.

This handbook contains a short summary of general information on prospecting, and a discussion of prospecting possibilities in New Brunswick. It is interesting to note that although the booklet was published in 1928, it mentions the Bathurst district as favourable for prospecting.

ANNUAL REPORTS, New Brunswick Dept. of Lands and Mines.

These reports include a summary of mining activities in the province for a particular year.

GEOLOGICAL MAP OF THE MARITIME PROVINCES; Geol. Surv.,  
Canada, Map 910A. Price 25 cents.

A geological map, on the scale of 1 inch to 12 miles, of New Brunswick, Nova Scotia, and Prince Edward Island. Published in 1949.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF THE MARITIME PROVINCES;  
Geol. Surv., Canada, 1953.

A list of the publications of the Geological Survey of Canada for New Brunswick, excepting early maps and reports.

#### Nova Scotia

ANNUAL REPORTS, Nova Scotia Dept. of Mines.

These reports include a summary of mining activities in the province for a particular year, and descriptions of certain deposits.

GEOLOGICAL MAP OF THE MARITIME PROVINCES; Geol. Surv.,  
Canada, Map 910A. Price 25 cents.

A geological map on the scale of 1 inch to 12 miles, of New Brunswick, Nova Scotia, and Prince Edward Island. Published in 1949.

A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF THE MARITIME PROVINCES;  
Geol. Surv., Canada, 1953.

A list of the publications of the Geological Survey of Canada for Nova Scotia, excepting early maps and reports.

Newfoundland

**MINES AND MINERALS OF NEWFOUNDLAND**, by D. M. Baird;  
Newfoundland Dept. of Mines and Res., Information  
Circular No. 7, 1953.

A booklet that summarizes in simple language information on the geology, mines, mineral occurrences, prospecting possibilities, and staking regulations of Newfoundland, including Labrador.

**NEWFOUNDLAND AS A FIELD FOR PROSPECTING**, by L. J. Weeks; Proc. Geol. Assoc. of Canada, 1951, pp. 75-76.

A summary of a paper outlining the geology, mineral occurrences, and prospecting possibilities of Newfoundland, exclusive of Labrador.

**MINERAL EXPLORATION IN NEWFOUNDLAND DURING THE PAST DECADE**, by A. K. Snelgrove; Trans. Can. Inst. Min. and Met., vol. XXX, 1927, pp. 302-336.

A summary of information on prospecting and mineral discoveries in Newfoundland between 1917 and 1927.

**GEOLOGICAL MAP OF NEWFOUNDLAND**; Geol. Surv., Canada (in preparation).

A geological map of Newfoundland on the scale of 1 inch to 12 miles. It will probably be published in 1954.

**BIBLIOGRAPHY OF THE GEOLOGY OF NEWFOUNDLAND, 1818-1936**, by R. M. Betts; Dept. of Nat. Res., Newfoundland (now Dept. of Mines and Resources), 1936.

A comprehensive list of references on the geology and mineral resources of Newfoundland up to 1936. It does not include references on Labrador.

**A LIST OF RECENTLY PUBLISHED MEMOIRS, PRELIMINARY PAPERS, AND MAPS OF THE MARITIME PROVINCES**; Geol. Surv., Canada, 1953.

A list of the publications of the Geological Survey of Canada for Newfoundland.



PUBLICATIONS ON PARTICULAR METALS AND MINERALS

Antimony

NOTES ON ANTIMONY DEPOSITS AND OCCURRENCES IN CANADA,  
by W. R. McClelland; Mines Branch, Mem. Ser. No. 108,  
1950.

A summary of information on antimony occurrences in  
Canada up to 1950.

ANTIMONY IN CANADA, by A. S. Dawson; Can. Min. Jour., vol.  
68, 1947, No. 1, pp. 20-21.

A short account of the economics and sources of  
antimony, and of known Canadian occurrences and the  
possibility of further developments in Canada.

MINING OF ANTIMONY ORES IN CANADA; Mines Branch, Sum.  
Rept. 1915 (Report No. 421), pp. 26-35.

A report on deposits from which antimony was produced  
in Canada up to 1915.

Asbestos

CHRYBOTILE ASBESTOS IN CANADA, by J. D. Ross; Mines Branch,  
Rept. No. 707, 1931. (Out of print.)

A comprehensive report on mining for asbestos in  
Canada up to 1931. It includes information on asbestos  
minerals and deposits known in Canada up to the time of  
publication.

ASBESTOS DEPOSITS OF THETFORD DISTRICT, QUEBEC, by  
H. C. Cooke; Econ. Geol. vol. XXXI, 1936, pp. 355-376.

A description of the geological and structural setting of  
the asbestos deposits of the Thetford district, and a discussion  
of the theories of origin of these deposits.

CASSIAR ASBESTOS EXPANDS PRODUCTION, Anon.; Western  
Miner, vol. 26, No. 11, 1953, pp. 68-69.

A summary of the geology of the Cassiar asbestos  
deposit in northern British Columbia and an account of  
recent developments there.

ASBESTOS IN SOUTHERN B. C., by F. H. Stephens; Western Miner, vol. 26, No. 7, 1953, pp. 44-46.

A short account of exploration on asbestos occurrences in southern British Columbia.

ASBESTOS IN ONTARIO, by D. F. Hewitt and J. Satterly; Ont. Dept. of Mines, Industrial Mineral Circular No. 1, 1953.

This reports describes asbestos minerals and their mode of occurrence, gives information on economics and marketing, and describes the principal occurrences known in Ontario.

CHRYSOTILE ASBESTOS IN MUNRO AND BEATTY TOWNSHIPS, ONTARIO, by N. W. Hendry; Trans. Can. Inst. Min. and Met., vol. LIV, 1951, pp. 28-35.

This account of the discovery and exploration of a deposit that was recently brought to production in Ontario is of interest to those searching for or testing asbestos deposits.

#### Barite

BARIUM AND STRONTIUM IN CANADA, by H. S. Spence; Mines Branch, Rept. No. 570, 1922.

A report on barium and strontium in Canada, including information on occurrences known in Canada up to 1922, as well as information on history, production, markets, and uses.

BARYTES IN NOVA SCOTIA, by J. P. Messervey; Nova Scotia Dept. of Public Works and Mines, Pamphlet No. 4, 1930.

A summary of information on barytes and of barytes occurrences in Nova Scotia.

RECOVERY OF BARITE AT WALTON, N. S., by G. G. Campbell; Trans. Can. Inst. Min. and Met., vol. LV, 1952, pp. 326-329.

This paper is mainly on the mining and milling at this property, but it includes information on the history of the operation and on the geology of the occurrence and region.

BARITE IN BRITISH COLUMBIA, by A. M. Richmond; B. C. Dept. of Mines, Non-metallic Mineral Investigations Rept. No. 1, 1932. (Out of print.)

A description of known barite occurrences in British Columbia, with conclusions regarding future possibilities.

### Beryllium

BERYLLIUM, by H. V. Warren and R. M. Thompson; The Miner, June 1943, pp. 32-34.

A summary of information on the uses and economics of beryllium, the more important minerals and foreign occurrences, and of tests for beryllium.

HOW PROSPECTORS CAN DETECT BERYLLIUM IN ORES, by F. Kulcsan; Precambrian, vol. 17, No. 6, 1944, p. 11.

A short account on methods of identifying minerals containing beryllium.

NOTES ON BERYLLIUM AND BERYL, by H. S. Spence; Mines Branch, Mem. Ser. No. 40, 1930. (out of print.)

A summary of information on the uses and properties of beryllium, beryllium minerals, and Canadian occurrences known up to 1930.

CAT LAKE-WINNIPEG RIVER AREA, MANITOBA, by G. D. Springer; Man. Dept. of Mines and Nat. Res., Pub. No. 49-7, 1950.

This report includes descriptions of pegmatitic deposits containing beryl.

BERYLLIUM PROSPECTS IN MANITOBA, by J. S. DeLury; Precambrian, vol. 10, No. 8, 1937, pp. 3-4.

A summary of information on beryl deposits in southeastern Manitoba, up to 1937.

PEGMATITIC BERYLLIUM AND LITHIUM DEPOSITS, PREISSAC-LACORNE REGION, ABITIBI COUNTY, QUEBEC, by R. B. Rowe; Geol. Surv., Canada, Paper 53-3, 1953.

This report contains information on beryl occurrences in this region.

Chromite

CHROME FOR CANADA, by J. W. Craig; Trans. Can. Inst. Min. and Met., vol. XLIII, 1940, pp. 762-780.

This paper summarizes the world-wide occurrence, uses, and treatment of chromium ores, as well as the Canadian occurrences and trade as they were in 1940.

CHROMITE DEPOSITS OF THE EASTERN TOWNSHIPS, QUEBEC, by C. H. Stockwell; Trans. Can. Inst. Min. and Met., vol. XLVII, 1944, pp. 71-86.

This paper describes the geology and chromite deposits of the Eastern Townships, where most of the small Canadian production of tungsten has been derived. It includes notes on prospecting possibilities.

THE UTILIZATION OF LOW-GRADE DOMESTIC CHROMITE, by K. W. Downes and D. W. Morgan; Mines Branch, Mem. Ser. No. 116, 1951.

This report describes the results of research on several methods of utilizing low-grade chromite deposits such as have been found in Canada, and it discusses possibilities for further exploitation of such deposits.

Cobalt

COBALT, by C. W. Drury; Ont. Dept. of Mines, Ann. Rept., vol. XXVII, pt. III, 1918.

This report contains information on cobalt minerals, descriptions of the principal occurrences in other countries, and descriptions of occurrences in Ontario.

Copper

SURVEY OF THE COPPER RESOURCES OF CANADA, by W. R. McClelland; Mines Branch, Mem. Ser. No. 113, 1951.

A summary of information on the producing copper mines and principal known prospects in Canada.

PRELIMINARY REPORT ON COPPER, NICKEL, LEAD, AND ZINC DEPOSITS OF ONTARIO, by J. E. Thomson and others; Ont. Dept. of Mines, Prel. Rept. 1952-1954.

This report contains a tabular summary of information on copper deposits in Ontario.

GEOLOGY OF ORE OCCURRENCES AT THE PROPERTY OF  
GASPE COPPER MINES, by A. M. Bell; Trans. Can. Inst.  
Min. and Met., 1951, pp. 240-245.

In addition to describing the geology of this deposit, this paper offers hints to those searching for other copper deposits in Gaspé region.

COPPER IN NOVA SCOTIA, by J. P. Messervey; Nova Scotia Dept.  
of Public Works and Mines, Pamphlet No. 7, 1929.

A summary of information on copper occurrences in  
Nova Scotia.

#### Fluorite

FLUORSPAR DEPOSITS OF CANADA, by M. E. Wilson; Geol. Surv.,  
Canada, Ec. Geol. Ser. No. 6, 1929. Price 50 cents.

A comprehensive report on Canadian fluorspar deposits up to 1929, since when there has been little change. It includes information on minerals, uses, character and origin of deposits, and descriptions of many mines and occurrences.

#### Gold

PROSPECTING FOR GOLD AND SILVER, by E. M. Savage; McGraw-Hill Inc., New York, 1934. Price \$2.50.

A handbook especially on prospecting for these two metals, but containing some general information. Not primarily applicable to Canada.

CANADIAN LODE GOLD AREAS, by H. C. Cooke; Geol. Surv.,  
Canada, Ec. Geol. Ser. No. 15, 1946. Price 25 cents.

A summary of information on Canadian gold deposits with particular reference to their geology. The principal mines operating in 1946 and some of the earlier gold camps are described.

GOLD IN CANADA, 1935, by A. H. A. Robinson; Mines Branch,  
Rept. No. 769, 1935. Price 25 cents.

A report on the gold mining industry of Canada as it was in 1935, with descriptions of the principal producing mines at that time, written in terms of production and mining rather than of geology.

CENTRAL CANADA'S GOLD BELTS, by C. W. Knight; Can. Min. Jour., vol. 54, No. 3, 1933, pp. 98-101.

An article calling attention to the "gold belt" of Manitoba, Ontario, and Quebec, and comparing them with belts in other countries.

GOLD MINING IN NORTHERN ONTARIO, by B. J. McGuire and H. E. Freeman; Can. Geog. Jour., June 1952, pp. 251-265.

An introductory account of gold mining in Ontario, with good illustrations.

LODE GOLD DEPOSITS; B. C. Dept. of Mines, Bull. No. 20, 1944.

This summary of lode gold deposits of British Columbia is divided into six parts: Part I was designed to provide general information; Part II is on the southeastern part of the province; Part III is on the central southern part; Part IV is on the southwestern part, except Vancouver Island; Part V is on Vancouver Island; Part VI is on the northeastern part, including the Caribou and Hobson Creek regions.

#### Placer Deposits

PROSPECTING AND OPERATING SMALL GOLD PLACERS, by W. F. Boericke; Wiley & Sons, New York, 1933. Price \$1.65.

A useful handbook on prospecting for placer deposits and on equipping and operating small placer mines.

ALLUVIAL PROSPECTING, by C. Raeburn and H. B. Milner; Thos. Murby & Co., London, 1927.

A text-book on the origin and classification of placer deposits, and on prospecting for them. Mainly for geologists and engineers.

THE GEOLOGY OF PLACER DEPOSITS, by W. E. Cockfield; Trans. Can. Inst. Min. and Met., vol. XXXV, 1932, pp. 58-64.

A review of the main theories and principles of the origin of placers.

PLACER MINING IN BRITISH COLUMBIA, by Staff Members of the B. C. Department of Mines; Western Miner, Aug. 1946, pp. 58-74.

A summary of placer mining and possibilities in British Columbia.

NOTES ON PLACER MINING IN BRITISH COLUMBIA; B. C. Dept. of Mines, Bull. No. 21, 1946.

A bulletin containing general information on placer mining in this province, the nature and formation of placers, the principal placer areas of British Columbia, and methods of mining suitable for small-scale operations.

HYDRAULIC MINING METHODS, by S. S. Holland; B. C. Dept. of Mines, Bull. No. 15, 1942. (Out of print.)

A 76-page summary of information on hydraulic methods of placer mining, including methods of saving and separating precious metals.

DRAGLINE DREDGING METHODS, by S. S. Holland; B. C. Dept. of Mines, Bull. No. 16, 1942. (Out of print.)

A 36-page summary of information on the dragline dredging of placer deposits.

AURIFEROUS BLACK SANDS, by E. H. Vaughan; Western Miner, vol. 20, No. 8, 1947, pp. 50-51.

A short article on methods of treating gold-bearing black sands, with plans for building a "rocker" and instructions for using one.

### Iron

CANADA'S IRON AGE IS NOW, by L. C. Brown; Western Miner, vol. 26, No. 11, 1953, pp. 64-67.

An up-to-date summary of iron mining in Ontario.

SOME GEOLOGICAL CONDITIONS CONTROLLING THE FORMATION OF IRON DEPOSITS IN CANADA, by E. S. Moore; Trans. Can. Inst. Min. and Met., vol. XXVIII, 1925, pp. 130-140.

A description of the types of iron deposits found in North America, and conclusions regarding the possibilities of finding large deposits of iron ore in Canada.

IRON ORE GALORE IN NEW QUEBEC-LABRADOR, by J. A. Retty;  
Can. Geog. Jour., vol. 42, No. 1, 1951, pp. 2-21.

A general account of the iron discoveries and developments in the Quebec-Labrador region.

PROSPECTING IN QUEBEC-LABRADOR IRON FIELDS, by J. M. Harrison; Can. Min. Jour., Oct. 1952, pp. 78-82.

A summary of information on the geology and prospecting possibilities of the Quebec-Labrador iron fields.

THE QUEBEC-LABRADOR IRON BELT, QUEBEC AND NEWFOUNDLAND, by J. M. Harrison; Geol. Surv., Canada, Paper 52-20, 1952.

A preliminary report on an extensive study of this belt being made by the Geological Survey of Canada. It describes the geology of the belt and discusses the mode of occurrence and origin of the iron deposits, without describing individual deposits.

B. C. IRON MINES ARE IMPRESSIVE, Anon.; Western Miner, vol. 26, No. 11, 1953, pp. 78-79.

A short, up-to-date summary of information on two producing iron mines in British Columbia.

THE IRON ORES OF CANADA, VOLUME 1, BRITISH COLUMBIA AND YUKON, by G. A. Young and W. L. Uglow; Geol. Surv., Canada, Ec. Geol. Ser. No. 3, 1926. Price 40 cents.

A comprehensive report on iron deposits in the Cordilleran region of Canada. Volumes planned for iron deposits in other parts of Canada were not completed.

#### Kyanite

KYANITE AND SILLIMANITE IN ONTARIO, by D. F. Hewitt; Ont. Dept. of Mines, Industrial Minerals Circular No. 4, 1952.

A report on the properties, uses, specifications, and other economic considerations of these minerals, with descriptions of known occurrences in Ontario.



Lead and Zinc

ZINC AND LEAD DEPOSITS OF CANADA, by F. J. Alcock; Geol. Surv., Canada, Ec. Geol. Ser. No. 8, 1930. (Out of print.)

A comprehensive report on Canadian mines and occurrences of lead and zinc, up to 1930.

PRELIMINARY REPORT ON COPPER, NICKEL, LEAD, AND ZINC DEPOSITS OF ONTARIO, by J. E. Thomson and others; Ont. Dept. of Mines, Prel. Rept. 1952-1954.

A summary of information on lead and zinc deposits in Ontario, chiefly in tabular form.

LEAD AND ZINC IN NOVA SCOTIA, by J. P. Messervey; Nova Scotia Dept. of Public Works and Mines, Pamphlet No. 15, 1929.

A summary of information on lead and zinc occurrences in Nova Scotia.

Lithium

THE LITHIUM INDUSTRY, by R. B. Ellestad; Trans. Can. Inst. Min. and Met., vol. LI, 1948, pp. 269-272.

An article on the history, occurrence, treatment, and uses of lithium.

CAT LAKE-WINNIPEG RIVER AREA, MANITOBA, by G. D. Springer; Man. Dept. of Mines and Nat. Res., Pub. No. 49-7, 1950.

This report describes lithium and other deposits in southeastern Manitoba.

PEGMATITIC BERYLLIUM AND LITHIUM DEPOSITS, PREISSAC-LACORNE REGION, ABITIBI COUNTY, QUEBEC, by R. B. Rowe; Geol. Surv., Canada, Paper 53-3, 1953.

This report is mainly descriptive of lithium occurrences in this region.

Magnesium

SOURCES OF MAGNESIA AND MAGNESIUM IN CANADA, by M. F. Goudge; Trans. Can. Inst. Min. and Met., vol. XLV, 1942, pp. 191-207.

A paper on the raw materials and treatment processes for magnesia refractories and magnesium metal.

MAGNESIUM IN SASKATCHEWAN, by R. V. Tomkins; Dept. of Mineral Resources, Sask., Technical and Economical Series No. 3, 1953. Price \$1.

A summary of information on magnesium-bearing brines in Saskatchewan.

Manganese

MANGANESE DEPOSITS OF CANADA, by G. Hanson; Geol. Surv., Canada, Ec. Geol. Ser. No. 12, 1932. (Out of print.)

A report on the uses, economics, mineralogy, and geological occurrence of manganese, with descriptions of the principal Canadian occurrences known up to 1932.

MANGANESE IN NOVA SCOTIA, by J. P. Messervey; Nova Scotia Dept. of Public Works and Mines, Pamphlet No. 17, 1931.

A summary of information on manganese and of manganese occurrences in the province.

Mercury

MERCURY DEPOSITS OF BRITISH COLUMBIA, by J. S. Stevenson; B. C. Dept. of Mines, Bull. No. 5, 1940. (Out of print.)

A comprehensive report containing general information on the occurrence of mercury and descriptions of the known deposits in this province.

GEOLOGY OF THE PINCHI LAKE MERCURY BELT, BRITISH COLUMBIA, by J. E. Armstrong; Trans. Can. Inst. Min. and Met., vol. XLV, 1942, pp. 311-323.

A paper on the geology, mercury deposits, and prospecting possibilities of the Pinchi Lake mercury belt.

Mica

THE "BONANZA" MICA OPERATION OF PURDY MICA MINES, LIMITED, MATTAWAN TOWNSHIP, ONTARIO, by H. S. Spence; A. I. M. E., Tech. Pub. No. 2154, 1947.

An account of the history, geology, and processing of the product from what was probably the most successful muscovite property in Canada.

THE STANLEYVILLE VERMICULITE DEPOSIT, by C. G. Bruce; Bull. Can. Inst. Min. and Met., August 1952, pp. 489-493.

A description of a vermiculite deposit in Ontario, with general information on the properties, uses, and economics of the mineral.

Molybdenum

MOLYBDENUM, by V. L. Eardley-Wilmot; Mines Branch, Rept. No. 592, 1925.

A comprehensive report on uses, occurrence, mining, and treatment of molybdenum and its ores. It includes descriptions of many Canadian deposits known up to 1925.

MOLYBDENITE IN CANADA, by H. H. Claudet; Trans. Can. Inst. Min. and Met., vol. XLVII, 1944, pp. 87-98.

A summary of information on Canadian occurrences of molybdenite and on uses and treatment of molybdenum ores.

MOLYBDENITE IN BRITISH COLUMBIA, by J. S. Stevenson; B. C. Dept. of Mines, Bull. No. 9, 1940. (Out of print.)

A comprehensive report giving general information on the occurrence of molybdenum, and descriptions of the deposits known in British Columbia.

Nickel

PRELIMINARY REPORT ON COPPER, NICKEL, LEAD, AND ZINC DEPOSITS OF ONTARIO, by J. E. Thomson and others; Ont. Dept. of Mines, Prel. Rept. 1952-1954.

This report contains a tabular summary of information on nickel deposits in Ontario.

THE OPERATIONS AND PLANTS OF INTERNATIONAL NICKEL COMPANY OF CANADA LIMITED, by the Executive and Operating Staffs; Can. Min. Jour., vol. 67, No. 6, 1946, pp. 309-556.

This special number of the Canadian Mining Journal was devoted exclusively to the operations of the International Nickel Company of Canada Limited. It includes information on history, geology, exploration, and research.

THE NICKEL OF SUDBURY, by T. A. Rickard; Can. Min. Jour., vol. 63, No. 12, pp. 785-792.

An interesting account of the events that led to the discoveries at Sudbury.

THE LYNN LAKE NICKEL AREA, MANITOBA, by J. D. Allan; Trans. Can. Inst. Min. and Met., vol. LIII, 1950, pp. 343-348.

A summary of information on the geology, nickel deposits, and prospecting possibilities of this region.

#### Niobium (Columbium) and Tantalum

RARE-ELEMENT MINERALS IN PEGMATITES, YELLOWKNIFE-BEAULIEU AREA, NORTHWEST TERRITORIES, by A. W. Jolliffe; Geol. Surv., Canada, Paper 44-12, 1944.

A paper describing pegmatite deposits containing niobium, tantalum, beryllium, lithium, and tin minerals.

GEOCHEMICAL ASSOCIATION OF NIOBIUM (COLUMBIUM) AND TANTALUM, AND ITS GEOLOGICAL AND ECONOMIC SIGNIFICANCE, by M. Fleischer; U. S. Geol. Surv., Circular No. 225, 1952.

A summary of data on the geochemistry of niobium and tantalum.

#### Platinum Group

PLATINUM AND ALLIED METAL DEPOSITS OF CANADA, by J. J. O'Neill and H. C. Gunning; Geol. Surv., Canada, Ec. Geol. Ser. No. 13, 1934. (Out of print.)

A report on the properties, uses, mineralogy, and geological occurrence of metals of the platinum group, with descriptions of the principal Canadian and foreign deposits.

Rare Earths

CERIUM AND THORIUM, by E. F. Roots; Western Miner, Aug. 1946, pp. 50-56.

A summary of data on the minerals and deposits containing these elements, and of treatment, uses, and markets.

INFORMATION ON MARKETS AND PRICES FOR THORIUM, RARE EARTHS, COLUMBIUM, AND TANTALUM; Geol. Surv., Canada, mimeographed pamphlet, 1953.

A summary of information on markets and prices for these metals.

Tin

TIN IN CANADA: OCCURRENCES AND USES, by W. R. McClelland; Mines Branch, Mem. Ser. No. 125, 1952. Price 25 cents.

A summary of information on the economics of tin and on known occurrences in Canada.

REVIEW OF TIN PROSPECTING POSSIBILITIES IN CANADA, by A. H. Lang; Trans. Can. Inst. Min. and Met., vol. LI, pp. 216-220 (1948).

A summary of data on mineralogy and geology of tin deposits, known Canadian occurrences, and possibilities for further discoveries. This paper was prepared by request, at a time when workable deposits of tin on this continent were greatly desired.

TIN IN WESTERN CANADA, by H. V. Warren and R. M. Thompson; Western Miner, Aug. 1944, pp. 40-46.

An article on the mineralogy, occurrence, and associations of tin minerals, with descriptions of known occurrences in western Canada and Alaska, and recommendation for prospecting.

OCCURRENCE OF TIN IN THE SULLIVAN MINE, by A. G. Pentland; Trans. Can. Inst. Min. and Met., vol. XLVI, 1943, pp. 17-22.

A paper on the events that led to the production of tin at the Sullivan mine, and on the mineralogical and geological aspects of the occurrence.

Titanium

ALLARD LAKE ILMENITE DEPOSITS, by P. Hammond; Econ. Geol., vol. 47, No. 6, 1952, pp. 634-649.

A paper on the geology and ore deposits in Allard Lake region, with a discussion of exploration methods.

GEOLOGY OF ALLARD LAKE ILMENITE DEPOSITS, by P. Hammond; Trans. Can. Inst. Min. and Met., vol. LII, 1949, pp. 64-68.

An article on the geology and method of exploration of these deposits and their nature and origin.

A FIELD METHOD FOR THE DETERMINATION OF TITANIUM IN ROCKS, by L. Shapiro and W. W. Brannock; Econ. Geol., vol. 48, No. 4, 1953, pp. 282-287.

A paper describing a rapid method of determining the approximate amount of  $TiO_2$  in rock samples.

TITANIUM, ITS OCCURRENCE, CHEMISTRY, AND TECHNOLOGY, by J. Barksdale; Ronald Press, New York, 1949. Price \$12.

This book deals mainly with the treatment of titanium and its uses, but it contains chapters on geology and mineralogy, occurrence of titanium, and mineral deposits that yield titanium.

Uranium

THE EARTH'S URANIUM, by P. F. Kerr; Scientific American, vol. 184, No. 5, pp. 17-21, 1951.

A good introductory summary of the geology and other characteristics of uranium occurrences.

PROSPECTING FOR URANIUM IN CANADA; Geol. Surv., Canada, Prospector's booklet, 1952. One copy is sent free to residents of Canada; other copies are 50 cents each.

This booklet contains general information on prospecting and staking for uranium, regulations of the Atomic Energy Control Board, types of radioactive minerals and deposits found in Canada, use of Geiger counters and other instruments, and prices and marketing of uranium ores and concentrates. The booklet is accompanied by supplementary notes bringing the information up to date for 1953.

**GEOLOGY OF URANIUM DEPOSITS - A CONDENSED VERSION,**  
by D. L. Everhart; U. S. Atomic Energy Commission, Rept.  
RMO-732, 1951. (Issued by U.S. A. E. C. Technical  
Information Service, Oak Ridge, Tenn.)

A summary of the principal facts and ideas on the  
geology of uranium deposits in general, and of those in the  
United States in particular.

**CANADIAN DEPOSITS OF URANIUM AND THORIUM,** by A. H. Lang;  
Geol. Surv., Canada, Ec. Geol. Ser. No. 16, 1952. Price \$1.

A comprehensive report containing a summary of  
information on Canadian radioactive minerals and the geology  
and economics of radioactive deposits, and descriptions of  
almost all deposits known in Canada up to 1952.

**URANIUM IN CANADA IN 1952,** by A. H. Lang; mimeographed  
pamphlet being part of Canadian Mineral Industry, 1952,  
published by the Mines Branch, Ottawa.

This paper is a summary of activities at the principal  
uranium mines and prospects during the year. A similar  
review for 1953 is in preparation.

**INFORMATION ON SERVICES FOR TESTING RADIOACTIVE  
SAMPLES;** Dept. of Mines and Technical Surveys, Circular,  
1954.

This circular explains the services of the Geological  
Survey of Canada and the Mines Branch for making radio-  
metric tests, chemical analyses, mineral identifications,  
and treatment tests on samples from radioactive discoveries  
and deposits.

**THE EXPLORATION AND DEVELOPMENT OF CANADIAN URANIUM  
DEPOSITS,** by B. S. W. Buffam and E. B. Gillanders; Trans.  
Can. Inst. Min. and Met., vol. LIV, 1951, pp. 434-437.

A paper on the methods of prospecting, exploration, and  
development used by Eldorado Mining and Refining Limited.

**URANIUM OREBODIES - HOW CAN MORE BE FOUND IN CANADA?**  
by A. H. Lang; Can. Min. Jour., June 1952.

An analysis of the problems of searching for uranium  
orebodies, with some suggestions.

**DATA ON PORTABLE GEIGER COUNTERS AVAILABLE IN CANADA,**  
by G. G. Eichholz; Mines Branch, Pamphlet, 1953.

This pamphlet lists Canadian dealers in Geiger counters and scintillation counters, and gives specifications and prices of the various instruments sold.

**ANNOTATED LIST OF PUBLICATIONS RELATED TO URANIUM;**  
Geol. Surv., Canada, Pamphlet, 1953.

This pamphlet lists other general publications on uranium and thorium published by the Geological Survey of Canada, and publications on many of the areas where uranium has been found.

**SELECTED BIBLIOGRAPHY ON URANIUM EXPLORATION AND  
THE GEOLOGY OF URANIUM DEPOSITS,** by M. Cooper;  
U. S. Atomic Energy Commission, 1953. From Office of  
Technical Services, Dept. of Commerce, Washington 25,  
D. C. Price 35 cents.

This lists many general publications on uranium, in addition to those above.

Vanadium

**VANADIUM ON THE WEST COAST OF BRITISH COLUMBIA,** by  
H. C. Gunning and D. Carlisle; Trans. Can. Inst. Min. and  
Met., vol. XLVII, 1944, pp. 415-423.

A description of some of the few vanadium occurrences known in Canada.

Wolfram (Tungsten)

**TUNGSTEN: CANADA AND WORLD SITUATION,** by V. L. Eardley-  
Wilmot; Trans. Can. Inst. Min. and Met., vol. XLV, 1942,  
pp. 437-454.

A paper describing the uses of wolfram (tungsten), recognition of minerals in the field, Canadian occurrences, methods of estimating and sampling deposits, and methods of mining and treatment.



**DETECTION OF SCHEELITE BY ULTRA-VIOLET RADIATION**, by D. McLaren; Can. Min. Jour., vol. 64, No. 8, 1943, pp. 494-500.

A paper on ultra-violet radiation, portable lamps, and their application to the detection of scheelite.

**GRADING SCHEELITE DEPOSITS WITH AN ULTRA-VIOLET LAMP**, by A. W. Jolliffe and R. E. Folinsbee; Trans. Can. Inst. Min. and Met., XLV, 1942, pp. 91-98.

This paper explains a method developed by the authors for estimating the amount of scheelite in a deposit by the use of a fluorescent lamp.

**TUNGSTEN MINING IN CANADA**, by W. M. Stoll; Western Miner, vol. 26, No. 11, 1953, pp. 90-95.

A paper on wolfram (tungsten) occurrences, mainly in British Columbia, and on the uses and marketing of wolfram.

**THE LEAD-ZINC AND TUNGSTEN PROPERTIES OF CANADIAN EXPLORATION, LIMITED, SALMO, B. C.**, by J. D. Little and others; Trans. Can. Inst. Min. and Met., vol. LVI, 1953, pp. 228-236.

A paper on the history, geology, and deposits of the property being operated by Canadian Exploration Limited.

**TUNGSTEN DEPOSITS OF BRITISH COLUMBIA**, by J. S. Stevenson, et al.; B. C. Dept. of Mines, Bull. No. 10, revised, 1941. (Out of print.)

A comprehensive report including general information on the occurrence of tungsten and on field tests for tungsten minerals, on use of fluorescent lamps, and descriptions of deposits found in British Columbia up to 1941.

**TUNGSTEN IN NOVA SCOTIA**, by J. P. Messervey; Nova Scotia Dept. of Public Works and Mines, Pamphlet No. 29, 1931.

A summary of information on tungsten and of tungsten occurrences in Nova Scotia.