BC
Ministry of Energy, Mines and Petroleum Resources

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MINERAL POTENTIAL MAP 1992-1

MINERAL POTENTIAL OF THE ALBERNI-NANAIMO LAKES AREA
NTS 92F

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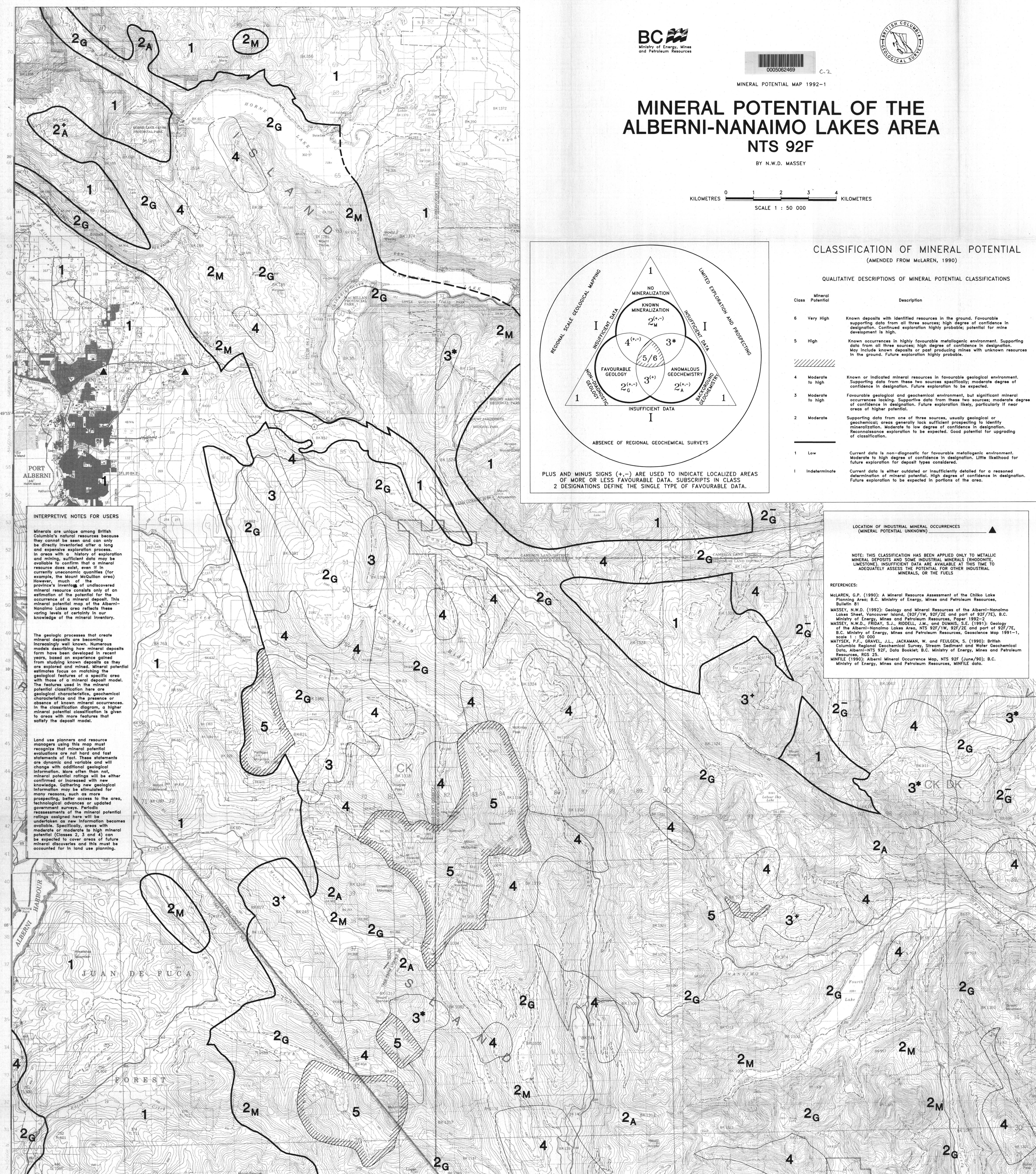
KILOMETRES 0 1 2 3 4 KILOMETRES

SCALE 1 : 50 000



INTERPRETIVE NOTES FOR USERS

Minerals are unique among British Columbia's natural resources because they cannot be seen and can only be directly inventoried after a long and expensive exploration process. In areas with a history of exploration and mining, sufficient data may be available to confirm that a mineral resource does exist, even if in currently uneconomic quanities (for example, the Mount McQuillan area) However, much of the province's inventory of undiscovered mineral resource consists only of an estimation of the potential for the occurrence of a mineral deposit. This mineral potential map of the Alberni-Nanaimo Lakes area reflects these varing levels of certainty in our knowledge of the mineral inventory.

The geologic processes that create mineral deposits are becoming increasingly well known. Numerous models describing how mineral deposits form have been developed in recent years, based on experience gained from studying known deposits as they are explored and mined. Mineral potential estimates focus on matching the geological features of a specific area with those of a mineral deposit model. The features used in the mineral potential classification here are geological characteristics, geochemical characteristics and the presence or absence of known mineral occurrences. In the classification diagram, a higher mineral potential classification is given to areas with more features that satisfy the deposit model.

Land use planners and resource managers using this map must recognize that mineral potential evaluations are not hard and fast statements of fact. These statements are dynamic and variable and will change with additional geological information. More often than not, mineral potential ratings will be either confirmed or increased with new knowledge. Gathering new geological information may be stimulated for many reasons, such as more prospecting, better access to the area, technological advances or updated government surveys. Periodic reassessments of the mineral potential ratings assigned here will be undertaken as new information becomes available. Specifically, areas with moderate or moderate to high mineral potential (Classes 2, 3 and 4) can be expected to cover areas of future mineral discoveries and this must be accounted for in land use planning.

PLUS AND MINUS SIGNS (+,−) ARE USED TO INDICATE LOCALIZED AREAS OF MORE OR LESS FAVOURABLE DATA. SUBSCRIPTS IN CLASS 2 DESIGNATIONS DEFINE THE SINGLE TYPE OF FAVOURABLE DATA.

CLASSIFICATION OF MINERAL POTENTIAL

(AMENDED FROM McLAREN, 1990)

QUALITATIVE DESCRIPTIONS OF MINERAL POTENTIAL CLASSIFICATIONS

Class	Mineral Potential	Description
6	Very High	Known deposits with identified resources in the ground. Favourable supporting data from all three sources; high degree of confidence in designation. Continued exploration highly probable; potential for mine development is high.
5	High	Known occurrences in highly favourable metallogenic environment. Supporting data from all three sources; high degree of confidence in designation. May include known deposits or past producing mines with unknown resources in the ground. Future exploration highly probable.
4	Moderate to high	Known or indicated mineral resources in favourable geological environment. Supporting data from these two sources specifically; moderate degree of confidence in designation. Future exploration to be expected.
3	Moderate to high	Favourable geological and geochemical environment, but significant mineral occurrences lacking. Supportive data from these two sources; moderate degree of confidence in designation. Future exploration likely, particularly if near areas of higher potential.
2	Moderate	Supporting data from one of three sources, usually geological or geochemical; areas generally lack sufficient prospecting to identify mineralization. Moderate to low degree of confidence in designation. Reconnaissance exploration to be expected. Good potential for upgrading of classification.
1	Low	Current data is non-diagnostic for favourable metallogenic environment. Moderate to high degree of confidence in designation. Little likelihood for future exploration for deposit types considered.
I	Indeterminate	Current data is either outdated or insufficiently detailed for a reasoned determination of mineral potential. High degree of confidence in designation. Future exploration to be expected in portions of the area.

LOCATION OF INDUSTRIAL MINERAL OCCURRENCES (MINERAL POTENTIAL UNKNOWN) ▲

NOTE: THIS CLASSIFICATION HAS BEEN APPLIED ONLY TO METALLIC MINERAL DEPOSITS AND SOME INDUSTRIAL MINERALS (RHODONITE, LIMESTONE). INSUFFICIENT DATA ARE AVAILABLE AT THIS TIME TO ADEQUATELY ASSESS THE POTENTIAL FOR OTHER INDUSTRIAL MINERALS, OR THE FUELS

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MINFILE (1990): Alberni Mineral Occurrence Map, NTS 92F (June/90); B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE data.

Energy, Mines and Resources Canada
Province of British Columbia

This project is a contribution to the Canada/British Columbia Mineral Development Agreement, 1985-1990.