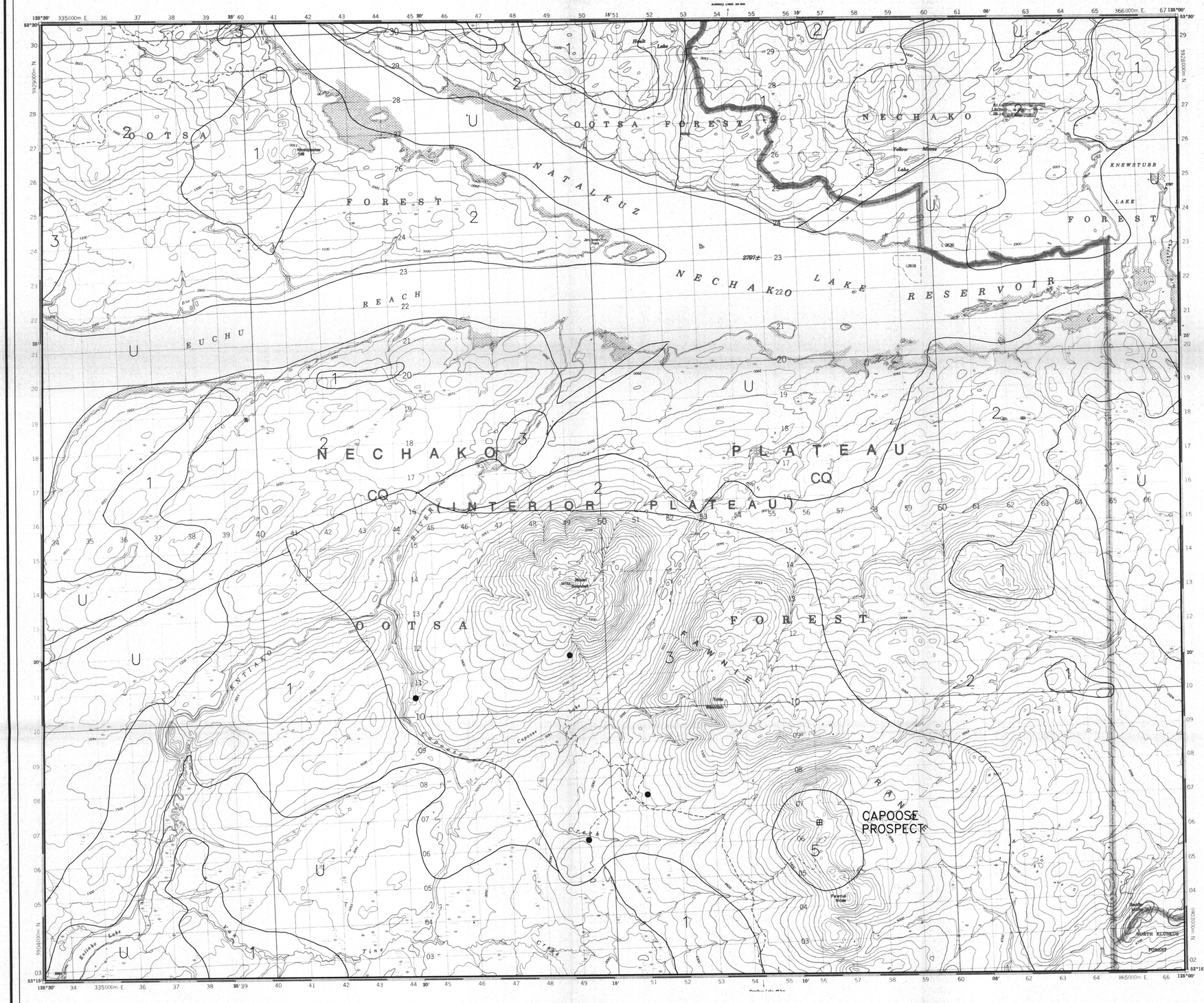

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BC Ministry of Energy, Mines and Petroleum Resources

Geological Survey Branch

MINERAL POTENTIAL MAP 1993-3
MINERAL POTENTIAL OF THE NATALKUZ LAKE MAP AREA

NTS 93F/6

By K. Green and L.J. Diakow

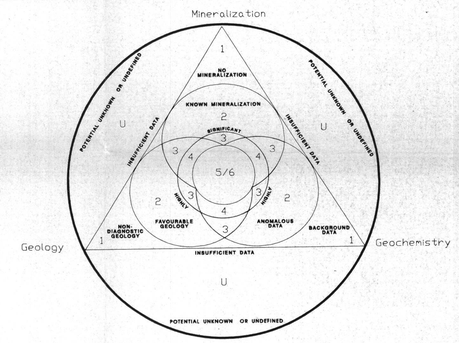
Scale 1:50 000

0 1 2 3 4 5 kilometres

INTRODUCTION

The Natalkuz Lake map area is divided into two geologically and metallogenically distinct regions by a northeast trending fault. Southeast of the fault, volcanic rocks of Jurassic age are intruded by a Late Cretaceous granodioritic batholith. The margin of the intrusion contains localized zones of porphyry-style copper-molybdenum mineralization. The Capoose prospect is a porphyry-style, base and precious metal deposit hosted in rhyolite dikes which intrude the Jurassic volcanic rocks. The potential for finding additional marginal porphyry and Capoose-type mineralization is good. Northwest of the fault, rhyolitic volcanic rocks of the Eocene Ootsa Lake Group underlie the map area. Immediately north of the map sheet, these volcanic rocks host epithermal vein systems which contain gold and silver mineralization. The potential for finding similar mineralization in the map area is moderate. The potential for most of the map area is interpreted at moderate. This mineral potential map was produced in 1993 based on 1:50 000 scale geological mapping completed in 1992.

CLASSIFICATION OF MINERAL POTENTIAL



QUALITATIVE DESCRIPTIONS OF METALLIC MINERAL POTENTIAL CLASSIFICATIONS

CLASS	MINERAL POTENTIAL	DESCRIPTION
6	Extremely High	Known deposits (developed prospects) with identified resources in the ground. Very favourable supporting data from all applicable criteria: very high degree of confidence in designation. Continued exploration highly probable: potential for mine, quarry development is high.
5	Very High	Known prospects, developed prospects or past producing mines (with undefined resources in the ground) in highly favourable geological environment. Very good supporting data (geological, geochemical and/or geophysical, as appropriate to the commodity considered); high degree of confidence in designation. Future exploration expected.
4	High	Known or indicated resources in highly favourable geological environment. Very good supporting geological, geochemical and/or geophysical data (as appropriate for the commodity considered). Resources or deposits not necessarily identified; however, positive indications that deposit forming processes were active in the area. Moderate to high degree of confidence in designation. Future exploration expected.
3	Moderate	Favourable geological environment for resource occurrence. Very favourable geological data from one criterion or some supporting data, (geological, geochemical or geophysical, as appropriate for the commodity considered) from more than one criterion, but significant occurrences lacking. Moderate degree of confidence in designation. Future exploration likely, particularly if new data acquired.
2	Moderate	Moderately favourable environment for resource accumulation as indicated by one line of evidence (i.e., favourable geology or anomaloisue geochemistry or geophysical anomalies, with no other supporting data). Areas generally lack sufficient prospecting to identify resource. Moderate to low degree of confidence in designation. Future reconnaissance exploration to be expected with upgraded geoscience database or new discoveries.
1	Low	Current data indicates that the existence of resources considered is unlikely. Moderate to high degree of confidence in designation. Little likelihood of future exploration for the deposit types considered.
U	Unknown	Current data is either outdated or insufficiently detailed for a reasoned determination of mineral potential. High degree of confidence in designation. Future exploration could occur in parts of the area.

Modified from McLaren (1990) and Gaba (1992). Revised 13 March, 1993.

METALLOGENIC MODEL[1]	COMMODITIES	RELEVANT EXAMPLES	POTENTIAL RECOGNIZED IN MAP AREA (Y/N)
Porphyry	Cu, +/- Au, Mo		Y
	Cu, Ag, Au, Pb	Capoose Deposit	Y
Epithermal veins Transitional veins Mesothermal veins	Au, polymetallic		Y
Carbonate hosted	Pb, Zn, Ag, Cu		N
Skarns	Cu, Au, Fe,		N
Sedimentary exhalative	Pb, Zn, Ag		N
Volcanogenic massive sulphide	Pb, Zn, Cu, Ag, Au		Y
Deposits in ultramafic complexes	Pt, Ni, Cr		N
Placer	Au, Pt, garnet		N
Industrial minerals	Silica		N
	Garnet		N
	Zeolites		N
	Clay		N
Coal			N

1 – Models and/or commodities not listed have not been considered. Gas, oil, water, energy resources, sand and gravel are not evaluated.

SYMBOLS

Producer · Past Producer · Developed Prospect · Prospect · Mineral Showing

REFERENCES

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