Concession ou rang

R.

R,

# OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

Catface Copper Mines Limited Falconbridge Nickel Mines Limited

Tp.

Lot

Sec

Sect.

#### DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The Catface copper-molybdenum porphyry deposit occurs in a complex of Tertiary and probable Jurassic plutons intruded into Permian and Triassic country rock. Volcanic flow and clastic rocks of the Upper Permian Sicker Group are in fault contact with diorite of the Westcoast Crystalline Complex. The above have been intruded by younger quartz monzonite of possible Jurassic age, and still later the entire assemblage was intruded by Tertiary quartz diorite, with which most of the mineralization appears related. The intrusive rocks and a hood or capping of volcanic rocks in the vicinity of South Peak host the main mineral deposit. Pre-ore dykes comprise up to 5% of the rocks in the area.

The main mineralized rocks are the quartz monzonite and volcanic hosts, each of which contain about one-third of the total sulphides present. Dykes contain about 5% and bodies of porphyritic quartz diorite contain the remainder. Dominant structures are a series of northerly trending and easterly faults and related fracture systems.

see Card 2 ....

# HISTORY OF EXPLORATION AND DEVELOPMENT HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

British Columbia

The property is located in the Catface Range, on the southwest side of Vancouver Island, between Bedwell Sound and Herbert Inlet, some 135 miles northwest of Victoria.

N.T.S. AREA

RÉGION DU S.N.R.C.

92 F/5

REF. CU 2

RÉF.

Several claims were located on the showings during or prior to 1898 and a 20 foot adit was driven. No further activity was reported until 1909-10 when assessment work was done on the No. 36 claim by owner H.H. Rhodes.

The first Catface claims were located late in 1960 for Ventures Limited. In 1961 the company carried out 677 feet of diamond drilling in 7 holes. Ventures Limited merged with Falconbridge Nickel Mines Limited in January 1962. The property was expanded to 126 claims and during 1962 diamond drilling was done in 26 holes totalling 11,835 feet.

Catface Copper Mines Limited was incorporated by Falconbridge in June 1963. During the year a program of geological mapping, geophysical surveying, and 741 feet of diamond drilling was carried out. Work during 1964 included 3,512 feet of packsack diamond drilling in 45 holes. Further work in 1967 and 1968 included geological mapping, a self potential geophysical survey over 4 square miles, a geochemical soil survey over 5 square miles, and 22,628 feet of diamond drilling in 19 holes. During 1970 an induced potential survey was carried out and an adit was driven for 2,800 feet. Diamond drilling from the adit during 1971 totalled 23,697 feet in 29 holes. This work is reported to have "proven a body in excess of 200,000,000 tons of 0.45 to 0.50% copper with 80¢ in royal metals" (Thunder Valley Mines Ltd., Prospectus, August the 1971).

Associated minerals or products - Molybdenum, gold, silver.

Minéraux ou produits associés

## MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Map 17-1968, Alberni, (Geol.), Sc. 1":4 miles - accomp.

Paper 68-50.

Geological Map of Catface, Sc. 1":1,500 ft., Fig. 36 - accomp. Geology, Exploration and Mining, 1971.

#Geological Map, South Peak-Catface Mountain, Sc. 1":600', Fig. 2 - accomp. Rept. by McDougall.

\*Map 92 F/5, Bedwell River, (Topo.), Sc. 1:50,000.

### REMARKS/REMARQUES

# Comp./Rev. By Comp./rév. par Date Date Date Date

#### REFERENCES/BIBLIOGRAPHIE

Reports of Minister of Mines, British Columbia: 1898, p. 1133; 1909, p. 147; 1910, p. 152; 1961, p. 101; 1962, p. 105; 1963, p. 102; 1964, p. 155; 1967, p. 74; 1968, p. 102.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1970, p. 287; 1971, pp. 236-245+; 1972, p. 266.

Muller, J.E., and Carson, D.J.T.; Geology and Mineral Deposits of Alberni Map-Area, British Columbia; Paper 68-50, pp. 36, 38, 45, Geol. Surv. of Canada.

++McDougall, J.J.; Catface; Porphyry Deposits of the Canadian Cordillera; The Canadian Institute of Mining and Metallurgy, Special Volume 15, pp. 299-310, 1976.

Minerals Sector; Corporation Files: "Falconbridge Nickel Mines Limited"; "Catface Copper Mines Limited".

BCI 92 F - 120

Card 2 -

PRODUCT PRODUIT

COPPER

PROVINCE OR TERRITORY

PROVINCE OU TERRITOIRE British Columbia

N.T.S. AREA 92 F/5 RÉGION DU S.N.R.C.

REF. CU 2 RÉF.

NAME OF PROPERTY NOM DE LA PROPRIÉTÉ

CATFACE

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

The main mineralized zone measures approximately 900 metres long by about 600 metres wide. The Irishmans Creek prospect, located immediately north of the Main zone, measured about 350 metres long and about 100 metres wide. The Hecate Bay zone, located about 2 kilometres southeast of the Main zone, appears to be circular and about 300 metres in diameter.

In the main zone, copper mineralization occurs as dry fracture coatings, in quartz-filled fractures, and as disseminations in the rock matrix commonly associated with mafic minerals. The copper minerals are mainly chalcopyrite and bornite, with some chalcocite. A significant amount of copper is in secondary carbonates, oxides, etc., which occur in fractures.

Molybdenum is closely associated with quartz in fractures and occurs as coatings and as small rich crystal clusters in quartz veins.