PRODUCT	COPPER	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	104 G/3	REF. CU 1

NAME OF PROPERTY GALORE CREEK-CENTRAL ZONE (HAB)

OBJECT LOCATED _ Central Zone, at Dendritic Creek.

UNCERTAINTY IN METRES 100. Lat. 57°08' Long. 131°27'15"

Mining Division Liard District Cassiar

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

Stikine Copper Limited.

DESCRIPTION OF DEPOSIT

Upper Galore Creek lies some 5 to 6 miles east of the main mass of intrusive rocks that form the core of the Coast Range Mountains. In this area sedimentary and volcanic rocks ranging in age from Permian to Upper Triassic are intruded by Mesozoic and possibly Tertiary stocks. Upper Triassic volcanic rocks underlie the greater part of the area. The most abundant are pyroclastic rocks, mainly breccias and agglomerates. These rocks are intruded by a complex syenite body that has been termed by Barr (1965) the Galore Creek Complex. The Complex comprises two syenite bodies together with the intervening metavolcanic rocks. Its margins and internally brecciated sections contain most of the Galore Creek copper deposits. The overall sheeted form of the intrusive syenite trends N20°W and dips steeply westward. Some flat lying sheets branch from the steeply dipping intrusive. The highly altered and in places porphyroid volcanic breccias, tuffs, and minor sediments form about half of the syenitic complex. Potash metasomatism has been widespread. Mineralogically the metavolcanic rocks are a

see Card 2 ....

Associated minerals or products of value

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the head of Galore Creek, a northerly flowing tributary of the Scud River, some 54 miles south-southwest of Telegraph Creek. The main mineralized area, the Central Zone, is located at about the 2,200 foot elevation on the west side of the west fork of Galore Creek. This zone is covered in part by the HAB 1 and 3, XG G110, GC 2 Fr., GC 99, and GC 101 claims (Lots 6873-6876, 6879, 6880). For the locations of other mineralized zones, see the following: Refs. CU 4, 6, 8-14.

Copper mineralization was discovered in the area in 1955 by prospectors working for Hudson Bay Exploration and Development Company Limited, a subsidiary of Hudson Bay Mining and Smelting Co., Limited. In 1956, two groups of claims were located by the company, the 48 claim Buy group and the 105 claim Hab group. Work during the year included trenching and 1,253 feet of diamond drilling in 45 holes. No further work was done for several years and a large number of the claims lapsed.

The four claims and one fraction of the Hab group on which the previous exploration work had been done were optioned from W. Buckholtz by The Consolidated Mining and Smelting Company of Canada Limited in about 1960. Kennco Exploration, (Western) Limited optioned the 16 remaining claims held by Hudson Bay and located 162 additional claims; these claims surrounded the Consolidated option and were in part a relocation of the Hab and Buy groups. Preliminary independent exploration of the claims was carried out by Kennco and Consolidated Mining and Smelting in 1960 and 1961. Kennco carried out geological mapping, trenching, a geophysical survey, and 15,471 feet of diamond drilling in 39 holes in 1962.

The Kennco interest in the property was transferred to Kennco (Stikine) Mining Limited, which was incorporated in May 1963. To consolidate the property Stikine Copper Limited was incorporated in July 1963 by Kennco (Stikine) Mining Limited (76%), Hudson Bay Mining and Smelting Co., Limited (19%), and The Consolidated Mining and Smelting Company of Canada Limited (5%). Subsequent staking expanded the property to about 300 claims. Work during 1963-65 included aeromagnetic, ground magnetic, and induced polarization surveys, stream sediment, soil, and rock sampling,

see Card 2 ....

Mineral Development Sector, Department of Energy, Mines and Resources, Ottawa.
504173

HISTORY OF PRODUCTION

MAP REFERENCES

Map 11-1971, Telegraph Creek, (Geol.), Sc. 1:250,000 - accomp. Paper 71-44, Geol. Surv. of Canada, 1972.

#Geology of Upper Galore Creek, Sc. 1":4,000 ft., Fig. 2, Report of Minister of Mines, British Columbia, 1965.

*Map 104 G/3, Sphaler Creek, (Topo.), Sc. 1:50,000.

Stikine Copper, geology of the Central zone, Sc. 3.4 cm: 100 m, Fig. 52, Geology in British Columbia, 1976.

REMARKS

Comp./Rev. By	DMacR	DMacR	DMacR				
Date	4-76	4-79	09-86				

REFERENCES

Jeffery, W.C.; Geology of Upper Galore Creek; Report of Minister of Mines, British Columbia, 1965, pp. 19-29.

++Barr, D.A.; The Galore Creek Copper Deposits; The Canadian Mining and Metallurgical Bulletin, Vol. 59, No. 65, July 1966, pp. 841-853.

White, Wm. H.; Harakal, J.E.; Carter, N.C.; Potassium-Argon Ages of Some Ore Deposits in British Columbia; The Canadian Mining and Metallurgical Bulletin, Vol. 61, No. 679, November 1968, p. 1329.

Reports of Minister of Mines, British Columbia: 1956, p. 14; 1961, pp. 7, 8; 1962, p. 7; 1963, p. 8; 1964, p. 15; 1966, p. 25; 1967, p. 29.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1972, pp. 520-526 +++; 1973, pp. 501-504; 1974, p. 336; 1976, p. E 183.

Souther, J.G.; Telegraph Creek Map-Area, British Columbia; Paper 71-44, p. 24, Geol. Surv. of Canada, 1972.

Mineral Policy Sector; Corporation Files: "Kennecott Copper Corporation"; "Kennco Explorations, (Canada) Limited"; "Hudson Bay Mining and Smelting Co., Limited"; "Stikine Copper Limited".

Stikine Copper Reveals Huge Potential; Western Miner, Vol. 36, October 1963, p. 76.

+Allen, D.G.; Panteleyev, A., Armstrong, A.T.; Galore Creek; Porphyry Deposits of the Canadian Cordillera, The Canadian Institute of Mining and Metallurgy Special Volume 15, pp. 402-414, 1976.

Geological Fieldwork; BCDM: 1975, p. 79; 1976, p. 71.

Geology in British Columbia; BCDM: 1976, pp. 122-125.

PRODUCT	COPPER	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	104 G/3 -	Card 2 - REF. CU 1

NAME OF PROPERTY GALORE CREEK-CENTRAL ZONE (HAB)

DESCRIPTION OF DEPOSIT (continued)

heterogeneous assemblage of potash feldspar, amphibole, biotite, muscovite, apatite, garnet, diopside, chlorite, calcite, anhydrite, and magnetite, and contain sulphides in mineralized zones.

The largest of the syenite porphyry masses is a recognizable unit underlying an area of 3 by 1½ miles, and composed of two major interconnected porphyritic segments from which stem several large sills and dykes of similar composition. In their attitude the dykes reflect the strong north-northeast and northwesterly trends which are the dominant structural features of the Galore Creek area. The sills, which attain thicknesses of 200 feet, are partly intraformational sheets, being flat lying with a general northerly dip in the central portion. At least four subparallel sills occur in the vicinity of the Central Zone, the principal copper deposit. Some of these tabular masses truncate relict bedding in the metasediments and would more properly be termed dykes.

The Central Zone is a northerly trending structure at least 6,500 feet long, localized in a broad alteration zone between porphyry-rich phases of the Complex to the west and metamorphosed Upper Triassic assemblages to the east. The Central Zone consists of several individually distinct steep westerly dipping tabular bodies of higher grade sulphide mineralization within a background of lower grade mineralization. The copper deposits share many of the characteristic features common to both the porphyry copper type of mineralization and that of pyrometasomatic deposits. Sulphide mineralization occurs as disseminations, coarse replacements and fracture fillings commonly associated with mafic-rich alteration products and potash metasomatized zones in porphyries, breccias, and metasedimentary and metavolcanic rocks. A common characteristic of the zone is the presence of swarms of veinlets with gypsum, anhydrite, garnet and sulphide mineralization. The ore minerals are chalcopyrite and bornite in the ratio of approximately 10:1. Pyrite is disseminated through the copper mineralization, and there are concentrations of pyrite adjacent to the zones of copper sulphides. Magnetite is abundant within the copper-bearing zones and is widely disseminated in the metavolcanic rocks. Other minor and rare primary minerals reported include galena, sphalerite,

see reverse Card 2 ....

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

trenching, and 129,659 feet of diamond drilling. To the end of 1965 diamond drilling on the property totalled 155,000 feet in 220 holes. Further work in 1966 and 1967 included 2,480 feet of crosscutting and drifting in one adit on the north side of Dendritic Creek, and 20,098 feet of diamond drilling.

Hudson Bay Mining and Smelting in a May 1972 agreement acquired the right to manage and direct a drilling, engineering, and economic evaluation program over a 5-year period. Exploration work resumed in May 1972. Diamond drilling during 1972-73 totalled 83,177 feet in 111 holes, of which 104 were in the Central Zone. In return for the approximate 2 million dollars spent in 1972-73 Hudson Bay Mining and Smelting Co., Limited increased its interest in Stikine Copper to 30%, while the Kennco interest was reduced to 65%; the Cominco Ltd. interest of 5% remained unchanged.

Reserves as of Dec. 31, 1973, were reported as follows: south part of the Central Zone, drill indicated reserves of 59,000,000 tons averaging 1.2% copper; north part of the Central Zone, drill inferred reserves of 79,000,000 tons averaging 1% copper (FP Corp Serv, Hudson Bay Mng & Smtg C L, 14/07/78.

Hudson Bay during 1976 carried out 5,233 metres of surface diamond drilling in 24 holes on GC 1, GC 110, GC 2 Fr, GC 117, GC 101, and Hab 3 claims. This work increased the Hudson Bay interest in Stikine Copper to 35%; the remaining interest was held by Kennco (60%) and Cominco (5%). Diamond drill indicated open pit material in the central zone is reported as 27,232,000 tons at a diluted grade of 0.97% Cu, 0.22 oz/t Ag, 0.011 oz/t Au (Canadian Mines Handbook 1985-86, p. 381 - Stikine Copper L).

DESCRIPTION OF DEPOSIT (continued)

molybdenite, chalcocite, tetrahedrite, and specularite. Secondary minerals include cuprite, native copper, and tenorite.