

NAME OF PROPERTY COAST COPPER (BENSON LAKE) (OLD SPORT)

OBJECT LOCATED - symbol on Map 255 A.

UNCERTAINTY IN METRES 500. Lat. 50°22'50" Long. 127°14'30"

Mining Division Nanaimo District Rupert

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

A contact between Mesozoic Karmutsen andesitic volcanics and Quatsino limestone is referred to in this area as the "Old Sport" horizon. Layered rocks of the Vancouver Group form a large open syncline with diorite-gabbro of the Coast Copper stock intruded into the nose of this structure. Near the Coast Copper mine the intrusive contact dips about 70 degrees outward; the Old Sport horizon dips toward it at about 35 degrees to the southwest.

Mineralization occurred just above the Karmutsen andesite— between it and an upper, tabular body of green fine-grained volcanic rock. This green rock is believed to be an interbedded lava flow in the Quatsino Formation (Eastwood and Merrett, 1961). Although some ore occurs both in the underlying andesite and in the interbedded flow, most of the ore is between these units. It may be a replacement of a thin layer of Quatsino limestone, otherwise unidentified. Small pods of coarse calcite scattered throughout the ore could be evidence of Quatsino limestone. Chlorite and albite, accompanied by sericite— see Card 2 ....

Associated minerals or products of value - Gold, silver, iron.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the south end of Benson (Elk) Lake.

The showings were reportedly originally staked in about 1897 by early settlers of the Quatsino district but details are lacking. In the fall of 1911 the Old Sport, Shamrock, Idaho, Mary Widow (93 L/6, FE 1), and Blue Bird groups, totalling 30 claims, were staked on the showings. Twenty of the above claims, including the Old Sport and Merry Widow groups, were optioned in July 1913 to C. and F.R. Wolfe of Spokane. They re-optioned the Old Sport group to W. Bacon, of Spokane, in 1914.

Quatsino Copper Company, Limited, was incorporated in May 1915 to develop the property. A crosscut adit was driven 440 feet before work ceased in August 1915. The Consolidated Mining and Smelting Company of Canada Limited purchased a controlling interest in the property and transferred it to a subsidiary company, Coast Copper Company, Limited, which was incorporated in September 1916. The property was expanded to 40 claims in 5 groups, the Penstock, Old Sport No. 1, Idaho, Edith, and Machete. Development work began in sinking a 30° winze to 525 feet. Some 40 claims (Lots 1465-1503) were Crown-granted during 1919-1920. Four claims in the Old Sport group (Lots 1480, 1486, 1493, and 1500) were Crown-granted to Messrs. Adams, McClure, Walsh, and Halliday. The remaining claims were Crown-granted to Coast Copper Company, Limited. Development work continued from 1916 to 1931 except for a period from 1920 until April 1923. A lower crosscut adit (8th level) was driven 2,000 feet from near lake level. A shaft was sunk from the 8th level to the 14th level. Development work, which was carried out on 7 levels over a vertical distance of 1,300 feet, totalled about 30,000 feet.

The mine remained closed from 1931 until 1960 with the exception of a 4 month period in 1956 when diamond drilling was carried out. In 1960 work commenced to ready the mine for production. A 750 ton-per-day mill was installed and production began on August 27th, 1962. An iron recovery plant, to recover magnetite from the tailings, was put into operation in March 1964.

To explore for additional ore zones to the south, the adjoining Merry Widow property was leased from Empire

see Card 2 ....

## HISTORY OF PRODUCTION

From 1962 to 1973, 2,856,844 tons of ore were milled at this property. From this ore 122,468 ounces of gold, 174,153 ounces of silver, and 90,815,567 pounds of copper were recovered. During the period of iron recovery (1964-1970) 576,503 tons of iron concentrates were shipped from this property.

## MAP REFERENCES

Map 4-1974, Alert Bay-Cape Scott, (Geol.), Sc. 1:250,000 - accomp. Paper 74-8.

#Map 255 A, Quatsino-Nimpkish Area, (Geol.), Sc. 1":2 miles - accomp. Summary Report, 1929.

Map 1737 G, Alice Lake, (Aeromag.), Sc. 1":1 mile. (1963).

\*Map 92 L/6, Alice Lake, (Topo.), Sc. 1:50,000.

## REMARKS

Comp./Rev. By	DMacR	DMacR					
Date	11-75	11-78					

## REFERENCES

+\*Sangster, D.F.; The Contact Metasomatic Magnetite Deposits of Southwestern British Columbia; Bulletin 172, p. 80, Geol. Surv. of Canada, 1969.

+\*McKechnie, N.D., and Merrett, J.E.; Old Sport; Report of Minister of Mines, British Columbia, 1966, p. 66.

+Eastwood, G.E.P., and Merrett; Old Sport; Report of Minister of Mines, British Columbia, 1961, p. 97.

Gunning, H.C.; Geology and Mineral Deposits of Quatsino-Nimpkish Area, Vancouver Island, British Columbia; Summary Report 1929, Pt. A., pp. 113-120, Geol. Surv. of Canada.

Reports of Minister of Mines, British Columbia: 1911, p. 192; 1912, p. 196; 1913, p. 282; 1914, p. 376; 1915, p. 288; 1916, p. 340; 1917, p. 255; 1918, pp. 267, 474; 1919, p. 203; 1920, pp. 202, 353; 1921, pp. 214, 237; 1923, p. 251; 1924, pp. 225-229; 1925, p. 273; 1926, p. 305; 1927, p. 347; 1928, p. 375; 1929, p. 378; 1930, p. 296; 1931, p. 169; 1956, p. 117; 1960, p. 100; 1962, p. 97; 1963, p. 100; 1964, p. 153; 1965, p. 230; 1967, p. 71; 1968, p. 98.

Geology, Exploration, and Mining, British Columbia Dept. of Mines: 1969, p. 207; 1970, p. 273; 1971, p. 319; 1972, p. 289; 1973, p. 24.

The Benson Lake Project; Western Miner & Oil Review, Vol. 35, No. 3, pp. 29-34, March 1962.

Mineral Policy and Sector; Corporation Files: "Coast Copper Company, Limited"; "Quatsino Copper-Gold Mines Limited".

Muller, J.E.; Northcote, K.E.; Carlisle, D.; Geology and Mineral Deposits of Alert Bay-Cape Scott Map-Area, Vancouver Island, British Columbia; Paper 74-8, Geol. Surv. of Canada.

Carson, D.J.T.; Muller, J.E.; Wanless, R.K.; Stevens, R.D.; Age of the Contact Metasomatic Copper and Iron Deposits, Vancouver and Texado Islands, British Columbia; Paper 71-36, p. 3, Geol. Surv. of Canada.

Dolmage, V.; Quatsino Sound and Certain Mineral Deposits of the West Coast of Vancouver Island; Summary Report 1918, Pt. B, pp. 33-35, Geol. Surv. of Canada.

Mines Branch, Ottawa; Investigations in Ore Dressing and Metallurgy; 1961, Investigation Rept. 61-27.

BCI 92 L-35.

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## DESCRIPTION OF DEPOSIT (continued)

cite and calcite, are widespread in the wall-rock volcanics.

Ore consists of garnet, epidote, magnetite, calcite, chalcopryrite, and bornite. The sulphide minerals occur as veins, lenses, and disseminations in skarn and magnetite. Pyrite, pyrrhotite, and arsenopyrite are present in lesser amounts. In several places in the mine, ore and skarn are strikingly banded. The bands range from  $\frac{1}{4}$  to 1 inch in thickness and are sub-parallel to the Old Sport horizon.

## HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

Development Company, Limited, in 1965. The 4,700 south drift was extended some 5,000 feet to explore an area of copper mineralization in the vicinity of the Empire concentrator. Diamond drilling from this level indicated 3 ore zones. In September 1967 an 8x22 foot decline-conveyor adit was collared at the 500 foot elevation (5,500 level) near the Coast Copper concentrator to develop the extension of the Coast Copper mineralization in the Merry Widow property. The 14° decline was driven about 2,500 feet through Coast Copper ground and some 3,775 feet through Merry Widow ground following along strike and down dip of the ore zone and some 60-100 feet below it. At the end of 1970 the decline had been extended to 6,275 feet. Levels were established at 200 foot intervals, the lowest being the 4,100 level. This work outlined reserves of 1,071,000 tons grading 1.8% copper and 29.1% iron on Merry Widow ground. By mid 1970 all Coast Copper production was coming from the Merry Widow property. Iron concentrate recovery was discontinued in August 1970. The mine closed in November 1972 and the equipment and buildings were sold in 1974.

Coast Copper Company advised Quatsino Copper-Gold Mines Limited, registered owner of 57 Crown-granted and 8 recorded claims comprising the Merry Widow property, that there remains on the property reserves of 501,000 tons averaging 1.3% copper, 33.3% iron, and .02 ounce gold per ton. (VSE SMF 22/09/75, Quatsino Copper-Gold Ms L).