

PRODUCT COPPER
PRODUIT

PROVINCE OR TERRITORY PROVINCE OU TERRITOIRE

British Columbia

N.T.S. AREA 92 C/8
RÉGION DU S.N.R.C.

REF. CU 1
RÉF.

NAME OF PROPERTY SUNRO (SUNLOCH & GABBRO)
NOM DE LA PROPRIÉTÉ

OBJECT LOCATED - River zone.
OBJET LOCALISÉ

UNCERTAINTY 300 m Lat. 48°26'55" Long. 124°01'55"
FACTEUR D'INCERTITUDE Lat. Long.

Mining Division Victoria District
Division minière District

County Township or Parish
Comté Canton ou paroisse

Lot Concession or Range
Lot Concession ou rang

Sec. Tp. R.
Sect. Ct. R.

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The property is underlain by Metchosin basalts of upper Eocene age, which in the vicinity of the workings include porphyritic and non-porphyritic, and amygdaloidal varieties. These strike from N60° to 70°W and in general dip 15° to 30° northeasterly, although steep dips are noted locally. The basalts are intruded by Tertiary Sooke gabbro, which on the property occurs as 3 northwest-trending bands ranging in width from 500' to 3,000', which strike with the enclosing rocks and may be sills. Northwest striking shears may be related to a regional fault (Leech River fault).

The copper deposits occur in shear zones in the volcanics, and are principally along the northeast and southwest contacts of the centre and largest band of gabbro, which is from 2,000 to 3,000' in width. The basalt for several hundred feet from the shear zones has been largely replaced by hornblende, and in the shear zones this hornblendized basalt has been mineralized with chalcopyrite, pyrrhotite, pyrite, and small amounts of molybdenite. Minute blebs or wisps of pentlandite occur locally in pyrrhotite. The sulphides form a pattern of gash-
see Card 2

Associated minerals or products - Gold, silver.
Minéraux ou produits associés

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

The property is located on the Jordan River, on the southwest side of Vancouver Island, about 2 miles from tide-water and 30 miles west of Victoria.

The Sunloch and Gabbro (Vulcan) claim groups were staked on the showings by George Winkler, of Victoria, in 1915. The Sunloch group was bonded to R.H. Stewart & associates, of Vancouver, who incorporated Sunloch Mines, Limited in November 1917. Development work was done in open cuts and several adits. The Sunloch 1-6 claims (Lots 792-797) were Crown-granted to the company, and to G. Winkler, C.W. Frank, and D.W. Hanbury in 1918; additional claims were Crown-granted in 1924-25 (Lots 840-855). The Consolidated Mining and Smelting Company of Canada Limited purchased an 84% interest in Sunloch Mines in 1919. Development work by Sunloch was suspended in October 1920. Work to that date included 3,776' of crosscuts and drifts, and 3,470' of diamond drilling in 11 holes.

The Gabbro group, adjoining the Sunloch group on the south, comprised 23 claims and fractions including the Vulcan 1-6 and Gabbro claims. The owners incorporated Gabbro Copper Mines, Limited in January 1920. Development work continued until about 1923 and included trenching and 2 adits totalling 140 feet. The Vulcan 1-6 (Lots 819-824), Gabbro (Lot 825), and other claims, were Crown-granted to the company in 1921; additional claims (Lots 836, 837, 858-861) were Crown-granted in 1924. Pacific Tidewater Mines Limited, a subsidiary of British Metal Corporation (Canada), Limited, held an option on the Gabbro group in 1929; work included a radiore survey and diamond drilling.

The Sunloch and Gabbro groups were optioned in 1949 from Sunloch Mines and Gabbro Copper respectively by Hedley Mascot Gold Mines, Limited. During 1949-50 diamond drilling totalled 13,436' in several zones. The option lapsed in June 1951.

The Gabbro property was optioned by Noranda Exploration Company, Limited in 1955. Work included geochemical and geophysical surveys, trenching, and about 2,000' of diamond drilling. Under the agreement Noranda obtained sufficient shares of Gabbro Copper Mines, Limited to acquire control of that company.

see Card 2

HISTORY OF PRODUCTION/HISTORIQUE DE LA PRODUCTION

Production for the period 1962-1974 inclusive totals 1,465,017 tons. From this ore 6,500 ounces of gold, 72,433 ounces of silver, and 30,199,945 pounds of copper were recovered.

REFERENCES/BIBLIOGRAPHIE

Reports of Minister of Mines, British Columbia:
 1916, p. 366; 1917, pp. 264-267; 1918, pp. 300-303, 475; 1919, pp. 235, 303; 1920, pp. 220, 221; 1921, pp. 232, 348; 1922, p. 254; 1923, p. 271; 1924, p. 255; 1925, pp. 303, 450; 1928, p. 362; 1929, p. 368; 1931, p. 162; 1949, p. 222; 1950, pp. 180-193⁺; 1955, p. 79; 1956, p. 124; 1957, p. 72; 1958, p. 60; 1959, p. 141; 1960, p. 116; 1961, p. 113; 1962, p. 127; 1963, p. 124; 1964, p. 169; 1965, p. 239; 1966, p. 79; 1967, p. 78; 1968, p. 106.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 224; 1970, p. 292; 1971, p. 225; 1972, p. 240; 1973, p. 225; 1974, p. 164.

++Billingsley, J.R.; Underground Mining and Milling at Cowichan Copper Co. Ltd.; The Canadian Institute of Mining & Metallurgy, Bulletin, Vol. 58, pp. 297-303, March 1965.

Dolmage, V.; Sunloch Copper District; Summary Report 1919, Pt. B, pp. 20-30, Geol. Surv. of Canada.

Minerals Sector; Corporation Files: "Sunloch Mines, Limited"; "Gabbro Copper Mines, Limited"; "Hedley Mascot Gold Mines, Limited"; "Sunro Mines Limited"; "Cerna Copper Mines Limited"; "Aetna Investment Corporation Limited"; "Dison Development Ltd."; "Pechiney Development Limited"; "Jordan River Mines Ltd."; "Dison International Ltd.".

Minerals Sector; Resource File: MC-167-C3-2-25.

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

#Sunloch and Gabbro, Geol. & working, Sc. 1":500', Fig. 10, Report of Minister of Mines, B.C., 1950.

Sunloch Copper Deposit, (Geol.), Sc. 1":1,000', Fig. 1 - accomp. Rept. by Dolmage, 1919.

*Map 92 C/8 E, River Jordan, (Topo.), Sc. 1:50,000.

REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par	DMacR						
Date Date	08-80						

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TERRITORY TERRITOIRE

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NAME OF PROPERTY
NOM DE LA PROPRIÉTÉ

SUNRO (SUNLOCH & GABBRO)

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

like veinlets and irregular lenticular masses in the hornblende rock. The mineralized zones grade outward from highly mineralized hornblende to only slightly mineralized rock, dependent on the number and width of chalcopyrite-filled fractures and the amount of massive lenticular chalcopyrite present. Widths of mineralized zones range from 3' to as much as 100' but are usually less than 50'.

Prospecting has disclosed twelve zones of chalcopyrite-pyrrhotite mineralization but not all of the zones carry sufficient chalcopyrite to be of economic interest. Four of the 12 zones occur in basalt close to the northeast contact of the centre gabbro band, and are designated, from northeast to southwest, the River, Centre (Archibald), Cave, and Turnbull zones. Five of the zones are in basalt close to the southwest contact and are designated the Winkler, Tiger, Yellow Cliff, Robertson, and Caulfield. Three zones are in areas mapped as gabbro and are known as the Bend, Stewart, and Hornet.

Three of the zones along the northeast contact, namely the River, Centre, and Cave, have to date proved to be the most promising. The River zone, near the centre of Sunloch No. 6 claim ranges in width from 1' to about 100' and is traceable along strike for about 1,100', and to a depth of 1,110'. The Cave zone contains widely spaced stringers and lenses of chalcopyrite over a width of about 130'. The zone has been traced for a length of about 600' and known depth of about 250'. The Centre zone, striking N70°W and dipping vertical, has been traced for a length of 660' and known depth of 320'. Where exposed in the adit the zone comprises a 120' width of widely spaced stringers of chalcopyrite. Abundant chalcopyrite is exposed over a maximum width of 4' for a length of 50'.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The Sunloch and Gabbro properties were consolidated under Sunro Mines Limited which was incorporated in October 1956 by The Consolidated Mining and Smelting Company of Canada Limited and Noranda Mines Limited. During 1957-58 a new crosscut adit (5,100 level) was driven 7,805' to the River zone and 300' beyond. About 400' of drifting and 30,000' of diamond drilling was done on the "B" and "C" orebodies of the River zone and the Cave zone.

Cowichan Copper Co. Ltd. in November 1960 obtained an operating lease from Sunro Mines Limited. A 1,000 tons-per-day mill was installed underground and put into operation in May 1962. No. 1 shaft was sunk to 486' below the 5,100 level. Caving began in the "B" stope early in 1963 and on December 5th of that year a pillar collapsed in the stope, allowing the Jordan river to flow into the mine. In January 1964 the 5,100 level adit was blocked by caving to the surface at 1,700' from the portal. Some rehabilitation work was carried out during 1964-65. By an April 1965 agreement with Cowichan Copper, Sheep Creek Mines Limited was to provide the capital required to re-open the mine and manage of the operation for a 3½ year period. Development work began in the "C" zone in August 1965 and the mill was put into operation in December 1965. The company name (Sheep Creek) was changed in September 1965 to Aetna Investment Corporation Limited. Mining and milling operations were suspended September 16, 1966 when Aetna refused to advance further funds to Cowichan for what had so far been an unprofitable operation. Cowichan Copper regained control of the property and production resumed in March 1967. The company name (Cowichan) was changed in November 1968 to Cerna Copper Mines Limited. The mine closed on November 1, 1968 and the lease from Sunro Mines subsequently expired.

In 1969 Crownex International Ltd. acquired an operating lease from Sunro Mines and rehabilitation work was begun. In May 1970 Crownex incorporated a wholly owned subsidiary Dison Development Ltd., who began underground development in October of that year. A sublease was given in November 1970 to Pechiney Development Limited. In July 1971 Jordan River Mines Ltd. was incorporated by Pechiney (60%) and Crownex (40%) to operate the mine. The company name (Crownex) was changed in November 1971 to Dison International Ltd. Produc-

continued reverse Card 2

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

tion began in April 1972. Reserves as of June 1973 were reported as follows: proven, 1,136,240 tons at 1.47% Cu; probable, 467,184 tons at 1.33% Cu, for a total of 1,623,759 tons at 1.43% Cu, before dilution (NM 27/12/73). In September 1974 Pechiney sold its 60% interest in Jordan River Mines to Dison International. The mine closed on December 3, 1974. Sunro Mines in 1976 asked for a judicial declaration that the lease to Jordan River Mines be terminated.