

PRODUCT PRODUIT	IRON	PROVINCE OR TERRITORY	PROVINCE OU TERRITOIRE	British Columbia	N.T.S. AREA 92 L/2 RÉGION DU S.N.R.C.	REF. 1 RÉF.
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NAME OF PROPERTY
NOM DE LA PROPRIÉTÉ

ZEBALLOS IRON (F.L.) (FORD MAGNETITE)

OBJECT LOCATED - F.L. deposit.
OBJET LOCALISÉ

UNCERTAINTY 100 m
FACTEUR D'INCERTITUDE

Mining Division Division minière	Alberni	District District	Rupert
County Comté		Township or Parish Canton ou paroisse	
Lot Lot		Concession or Range Concession ou rang	
Sec Sect.	Tp. Ct.	R. R.	

Lat. 50°03'00"
Long. 126°50'10"

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The orebody consists of a large lens of relatively pure magnetite which extends in a north-south direction for 1,500 feet, averages 70 feet thick and dips west at about 45° into the wall of Blacksand Creek canyon. It lies along the contact zone between the Zeballos batholith and the Quatsino limestone. The hanging wall is a complex of tuff, intrusive andesite, diorite and granodiorite, locally altered to skarn and the footwall is composed largely of limestone. The bedded rocks are folded into a southwesterly plunging anticline. Deposition of the magnetite has been at least partly controlled by fracturing. Most of the magnetite is massive and very fine grained, but a small amount of it is in octahedral crystals one eighth of an inch to half an inch in diameter.

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

The property is located about 5 miles north of Zeballos, extending across the headwaters of Blacksand Creek between elevations of 2,400 and 2,850 feet. Magnetite bodies outcrop on the F.L. group, and on the Extension, Ridge, and Cordova claims.

The showing was discovered in 1936 by A. Ford of Parksville while on a road building project in the area. Anyox Metals Ltd. obtained a lease on the property in 1938. By 1951 they had partially outlined the orebody, having completed 4,308 feet of diamond drilling in 22 holes and a dip-needle survey.

International Iron Mines Ltd. obtained an option on the property in 1960. They formed a subsidiary company, Zeballos Iron Mines Ltd., to bring the property into production. During 1961 a beneficiating plant was built and preparations made for open pit mining. Production started in April 1962. The operation was closed down in February 1963 due to the difficulty in extracting ore by open pit methods; the stripping factor increased more rapidly than had been calculated.

In September 1963 Empire Ventures Ltd. took over the property and proceeded to convert it to an underground operation. The contract, made by International Iron Mines Ltd., for the sale of 3,000,000 tons of iron concentrate to Japan is to be fulfilled by Empire Ventures Ltd.; the companies associated with this property are controlled by Falconbridge Nickel Mines Ltd.

A main haulage level was established at the 2,280 foot elevation and two other adit levels were established at 2,375 and 2,440 feet. Underground work during 1963-64 totalled 6,714 feet of drifts, crosscuts, and raises. Production from underground was begun in July 1964.

In 1965 Zeballos Iron Mines Limited mined 3 stopes in "A" zone and carried out development work in the "B" zone to the north of "A" zone. Work consisted of 3,387 feet of drifting and sub-drifting, 1,276 feet of raising and 183,903 feet of long hole drilling.

In 1966 the stopes in "A" zone were mined out and 2 stopes in "B" zone were brought into production. Work included 1,034 feet of drifting and sub-drifting, 1,011 feet of crosscutting, 945 feet of raising and 161,515 feet of long hole drilling.

The development was completed in "B" zone and the 2 stopes in this zone were mined in 1967. Work done included 1,238 feet of drifting, 341 feet of raising and 4,468 feet of diamond drilling.

HISTORY OF PRODUCTION/HISTORIQUE DE LA PRODUCTION

During the period of open pit operation, April 1962 to February 1963, 369,289 tons of ore were treated. From this ore 250,397 tons of iron concentrate were recovered.

In 1964, 127,259 tons of ore were treated. From this ore 92,727 tons of iron concentrate were recovered.

From 1965 to 1969, 1,437,951 tons of ore were treated. From this ore 1,067,296 tons of iron concentrate were recovered.

REFERENCES/BIBLIOGRAPHIE

Hoadley, J.W.; Geology & Mineral Deposits of the Zeballos-Nimpkish Area, Vancouver Island, B.C.; Memoir 272, pp. 66-68 & Fig. 1, Geol. Surv. of Canada, 1953.

Stevenson, J.S.; Geology & Mineral Deposits of the Zeballos Mining Camp, B.C.; Bulletin No. 27, pp. 125-128 & Fig. 2, Dept. of Mines, B.C., 1950.

Annual Reports, Dept. of Mines, B.C.: 1951, p. 197; 1952, p. 231; 1960, pp. 103-105; 1961, p. 101; 1962, pp. 100-103; 1963, p. 101; 1964, p. 153; 1965, pp. 230, 232; 1966, pp. 72-73; 1967, p. 73; 1968, pp. A-52, 102.

Mineral Policy Sector; Corporation Files: "International Iron Mines"; "Zeballos Iron Mines Ltd."; "Empire Ventures Ltd."; "Falconbridge Nickel Mines Ltd."

Sangster, D.F.; The Contact Metasomatic Magnetite Deposits of Southwestern British Columbia; Bulletin 172, p. 74, Geol. Surv. of Canada, 1969.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, pp. 215-216.

Muller, Northcote, and Carlisle; Geology and Mineral Deposits of Alert-Cape Scott Map-Area; Paper 74-8, p. 59, Geol. Surv. of Canada, 1974.

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Map 1028 A, Woss Lake, Vancouver Island, (Geol.), Sc. 1":
1 mile - accomp. Mem. 272.

Fig. 15, Geology of the F.L. (Ford) and Ridge deposits -
accomp. Bulletin 1972.

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

#Sheet 92 L (MI), Alert Bay, Revised Mineral Inventory Map,
Sc. 1:250,000, British Columbia Dept. of Mines, 1969.

Fig. 2, Zeballos Mining Camp, Areal Geology, Sc. 1":16,600' -
accomp. Bull. No. 27, British Columbia Dept. of Mines,
1950.

Map 92 L/2, West Half, Woss Lake, Rupert District, (Topo.),
Sc. 1:50,000.

*Map 92 L/2, Woss Lake, (Topo.), Sc. 1:50,000.

REMARKS/REMARQUES

For Ridge zone, see 92 L/2, FE 4.

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

In 1968 the Company held the 13 Crown-granted claims, Lots 1999 to 2011, FL, Extension and FE claims, and the 2 recorded claims, Cordova and Cordova Fraction. Work consisted of mining 3 pillars between the stopes in "A" zone.

In June 1969 ore treatment was completed and in August 1969 the mine closed (and the plant was sold).

Comp./Rev. By Comp./rév. par	DMacR	LJ					
Date Date	04-66	12-76					