

NAME OF PROPERTY

RUDDOCK CREEK (IT)

OBJECT LOCATED - center of E Zone.

UNCERTAINTY IN METERS-100.

Lat. 51°46'37" Long. 118°53'57"

Mining Division Kamloops

District Kamloops

County

Township or Parish

Lot

Concession or Range

Sec

Tp.

R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The deposit is in metasedimentary rocks of the Shuswap Metamorphic Complex of Precambrian or Later age. The rocks on the property are a varied succession of mica schist, calc-silicate schist, and gneiss, with intercalated layers of marble. These rocks form highly folded discontinuous layers and lenses engulfed by granite-pegmatite and medium grained granitic rocks. The dominant folds plunge 20° to 30° to the west. The earliest folds, called Phase 1, are isoclinal and obscure. The later folds, called Phase 2, are more open, and are abundant on all scales. In the vicinity of the showings the metasedimentary rocks have been divided into two general groups - a calcareous group and a non-calcareous group. The calcareous group contains three or more marble layers each more than 10 feet thick, the sulphide layer, a wide variety of calc-silicate schists and gneisses, several types of biotite schist, and minor calcareous quartzite.

The main mineralized zone (E zone) extends on surface for about 600 feet along the central part of a fold that has been referred to as a syncline but is actually a flat compressed crumple open to the see Card 2

Associated minerals or products of value - Lead, silver, fluorspar.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is on the southern slopes of a ridge west of Gordon Horne Peak, about 60 miles north-northwest of Revelstok. The showings, referred to as the E, F, G, M, T, U, V, R, and Q showings, occur in steep cliffs over an east-west distance of about 3 miles. The V, R, and Q showings are below treeline, extending down to elevations of 3,100 feet on the steep-gullie slopes of Oliver Creek. The E showing, at an elevation of 7,600 feet, contains the outcrop of the largest mineralized zone.

The showings were discovered in September 1960 by prospectors M. Donahue and T. Cross as a result of systematic prospecting of this part of the Monashee Mountains for Ventures Limited. The IT, IN, and TO groups, totalling 102 claims, were staked on the showings. Ventures Limited, and subsequently Falconbridge Nickel Mines, Limited, drilled, sampled, and mapped the showings in the summers of 1961, 1962, and 1963. Diamond drilling in 1962 totalled 4,246 feet; in 1963 deep drilling, on the basis of the geological mapping, totalled 12,093 feet in 2 holes. As a result of this work, several million tons of material grading 10% combined lead and zinc was discovered and the possibility of much more was indicated. (Fyles, J.T., Bulletin 57, p. 48). The company name (Falconbridge) was changed in 1970 to Falconbridge Nickel Mines Limited. Wesfrol Mines Limited, a wholly owned subsidiary of Falconbridge, during 1973 carried out airborne magnetometer and electromagnetic surveys over 87 line-miles.

Cominco Ltd. optioned the property from Falconbridge and carried out 683.1 metres of diamond drilling in one hole on IT 4 claim in 1975 and 259.8 metres in one hole on IT 27 claim in 1976. Additional work by Cominco during 1977-78 included geological mapping, 812 metres of diamond drilling in 6 holes and 770 metres of X-ray drilling in 25 holes on IT 3, 4, 8 and 10. In 1982, Cominco carried out a magnetometer survey over 9.2 km and an electromagnetic survey over 26 km. Drill indicated reserves were reported as approximately 5 000 000 tonnes at 2.5% Pb, 7.5% Zn, (Hoy; CIM bulletin, April 1982, p. 119).

Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa

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HISTORY OF PRODUCTION

REFERENCES

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 Fyles, J.T.; The Jordan River Area, Near Revelstoke, British Columbia, A Preliminary Study of Lead-Zinc Deposits in the Shuswap Metamorphic Complex; Bulletin 57, pp. 48-57, British Columbia Dept. of Mines, 1970.

Wheeler, J.O.; Big Bend Map-Area, British Columbia; Paper 64-32, p. 27, Geol. Surv. of Canada, 1965.

Reports of Minister of Mines, British Columbia: 1961, p. 84; 1962, p. 89; 1963, pp. 86-88.++

++Muraro, T.W.; Metamorphism of Lead-Zinc Deposits in South-eastern British Columbia; in Tectonic History and Mineral Deposits of the Western Cordillera, The Canadian Institute of Mining and Metallurgy, Special Volume No. 8, 1966, p. 244.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1973, p. 118; 1975, p. E-60; 1976, p. E-75; 1977, p. E 102; 1978, p. E 117.

Exploration in British Columbia; BCDM: 1982, p. 124.

Hoy, Trygve; Stratigraphic and structural setting of Stratabound lead-zinc deposits in southeastern BC; CIM Bulletin, Vol. 75, No. 840, April 1982, p. 119.

Exploration in British Columbia; BCDM: 1982, p. 124.

MAP REFERENCES

#Ruddock Creek Property, (Geol.), Sc. 1":1,000 feet, Fig. 9, Bulletin 57, B.C. Dept. of Mines.

Map 12-1964, Big Bend, (Geol.), Sc. 1":4 miles - accomp. Paper 64-32.

*Map 82 M/15 W, Scrip Creek, (Topo.), Sc. 1:50,000.

Map 8507 G, Scrip Creek, (Aeromag.), Sc. 1":1 mile.

REMARKS

Comp./Rev. By	DMacR	DMacR	DMacR	DMacR			
Date	8-73	10-78	02-82	05-88			

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RUDDOCK CREEK (IT)

DESCRIPTION OF DEPOSIT (continued)

south. The hinge line of the crumple plunges flatly in the same direction as the common lineation of the area, north 70 degrees west. The ore has been followed down dips of 35 to 40 degrees by diamond drilling to the hinge line, a distance of about 500 feet. The ore in the main zone is as much as 40 feet thick and has the appearance of a greatly thickened layer, repeated in the crumple. A second, much thinner, ore layer lies 15 to 30 feet outside the first.

Detailed mapping and diamond drilling have demonstrated a considerable tonnage of ore containing about 10 per cent zinc in holes drilled within a few hundred feet of the outcrop of the ore. Drilling farther afield, to follow westward down the plunge of the ore in the axial zone of the fold (where it is thickest), failed to locate ore beyond a north-trending fault which apparently drops the ore zone down on the west. The deepest hole was drilled to a depth of some 1,900 feet.

The principal sulphides are sphalerite, pyrrhotite, galena, pyrite, and minor chalcopyrite. They occur as contorted layers and lenses associated with schist, siliceous calc-silicate gneiss, quartzite, marble, and locally barite and fluorite. Very fine-grained sphalerite and pyrrhotite with minor galena and rounded quartz eyes up to one-half an inch in diameter are common. Equally common are layers containing medium-grained dark-brown sphalerite with interstitial quartz and scattered quartz augen. Much of the M showing and parts of the G showing contain banded and minutely folded extremely fine-grained sphalerite and pyrrhotite. Galena and sphalerite occur also as scattered grains in marble, calcareous quartzite, and fluorite.

In the sulphide layer, lenses of massive sulphides up to 5 feet thick are common. They are complexly folded within themselves on axes which plunge to the west parallel to the folds in the surrounding rocks. The folds in the sulphides, which are outlined by the banding and by discontinuous layers of schist, gneiss, and quartzite, are irregular in form and usually disharmonic.

It is difficult to estimate the average grade without extensive sampling. Grades estimated to be 20 per cent combined lead and zinc over widths of 5 to as much as 20 feet are found at many places in the E showings and over widths up to 8 feet in the other showings. Lead is less abundant than zinc, and silver amounts to less than 1 ounce per ton.