

NAME OF PROPERTY **STEMWINDER**

LOCATION-center of Stemwinder claim (Lot 2998)

Radius of uncertainty - 100 metres. Lat. 49°41'30" Long. 116°01'

Mining Division **Fort Steele** District **Kootenay**

County _____ Township or Parish _____

Lot _____ Concession or Range _____

Sec. _____ Tp. _____ R. _____

OWNER OR OPERATOR AND ADDRESS

Cominco Ltd.

DESCRIPTION OF DEPOSIT

The country rock consists of argillaceous quartzites of the dridge formation of late Precambrian age, intruded by several lls of hornblende gabbro. The mineralized zone is a lens of massive sulphides entirely enclosed by the quartzites. The lens consists largely of pyrrhotite, strikes nearly north, and dips out 75 degrees west. The thickness of the sulphide zone is out 200 feet. Its relation to the country rock is not known as contacts are not well exposed in the workings. The origin is considered to be a replacement of the quartzites, similar to the Sullivan mine.

The ore zone lies along the foot-wall side of the sulphide lens. It consists of a fine-grained mixture of galena and sphalerite passing into a fine-grained mixture of pyrrhotite, pyrite, and sphalerite. The ore zone has a width of about 20 feet. It is separated from the normal quartzite by a cherty layer. The underground work and diamond drilling indicates the ore zone has a length of 260 feet and a width of 15 to 30 feet. The average values are reported to be 20% zinc, 1% lead, and 1 ounce silver per ton. Exploration work to the end of 1926 failed to discover other ore zones in the sulphide lens.

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

HISTORY OF EXPLORATION AND DEVELOPMENT

The Stemwinder property is located on Mark Creek about 1½ miles west-northwest of the center of Kimberley, and is adjoined on the north by the Sullivan mine and on the south by the North Star property.

In 1896 the Stemwinder was one of 13 recorded claims held by the Mann & McKenzie interests as part of the North Star property, under the name of the North Star Mining Company, Limited Liability. Exploration work began in an adit about 150 feet above the creek and by 1899 this had been driven 200 feet, intersecting a mineralized zone which appeared to be mainly iron sulphide. The Stemwinder claim (Lot 2998) was Crown-granted to D.D. Mann and Wm. McKenzie in 1899. Further limited development work was reported in 1905.

The Federal Mining and Smelting Company, a subsidiary of the American Smelting and Refining Company, optioned the property in 1917 and for 2 or 3 months during 1917-1918 carried out diamond drilling. Results were not encouraging and the option was dropped. In 1921 the Federal Mining and Smelting Company again optioned the Stemwinder and Ontario claims from the Mann & McKenzie interests and further diamond drilling was carried out; the option was subsequently dropped. The property was reported held in 1923 by the Stemwinder Mining Company, Limited, but details are lacking. In 1923 O.C. Thompson & associates bonded the property and in June 1924 gave a 3 year lease and option to Porcupine Goldfields Development and Finance Company, Limited, of London, England. Exploration and development work included sinking a shaft to the 256 foot level and crosscutting, drifting, and raising totalling 5,370 feet was done on the 80, 125, and 250 foot levels. Diamond drilling on surface and underground totalled 12,343 feet. An additional 131 feet of shaft sinking was reported but details are lacking. This work indicated, on the 125 foot level, an orebody 260 feet long by 20 feet wide of mainly zinc ore. Ore reserves to the 225 foot level were estimated at 100,000 tons. Exploration and development work was suspended in May 1926, at which time ore shipments began to Trail. Ore shipments continued to December 1926 when operations were suspended due to poor mill recoveries and markets. The lease and option expired in 1927. Reserves were reported at 73,209 tons, grade unstated (Porcupine Goldfields Development and Finance Company, Limited - June 1927 Annual Report). The Consolidated Mining and Smelting Company of Canada Limited purchased the property in 1929 for \$115,000.

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HISTORY OF PRODUCTION

In 1926, 28,241 tons of ore were shipped from this property. From this ore 42 ounces of gold, 62,862 ounces of silver, 2,084,079 pounds of lead, and 8,798,474 pounds of zinc were recovered.

MAP REFERENCES

- Map 936 A, Cranbrook, (Geol.), Sc. 1":1 mile - accomp. Memoir 207.
- Map 15-1957, St. Mary Lake, (Geol.), Sc. 1":1 mile.
- Map 297 A, Cranbrook Sheet, (Topo.), Sc. 1":1 mile. (1934).
- *Map 82 F/9 E, St. Mary Lake, (Topo.), Sc. 1:50,000.

REMARKS

REFERENCES

- ⁺Freeze, A.C.; Stemwinder; Tectonic History and Mineral Deposits of the Western Cordillera, The Canadian Institute of Mining and Metallurgy, Special Volume No. 8, 1966, pp. 271, 272, 286, 287.
- ⁺⁺Alcock, F.J.; Zinc and Lead Deposits of Canada; Economic Geology Series No. 8, p. 327, Geol. Surv. of Canada, 1930.
- Schofield, Stuart J.; Geology of Cranbrook Map-Area, British Columbia; Memoir 76, p. 135, Geol. Surv. of Canada, 1915.
- Reports of Minister of Mines, British Columbia: 1896, p. 518
1898, p. 1021; 1899, pp. 661, 841; 1906, pp. 132, 215
1917, p. 149; 1918, pp. 150, 187; 1921, pp. 128, 166;
1923, p. 204; 1924, p. 186; 1925, p. 226; 1926, p. 242; 1929, p. 295.
- Rice, H.M.A.; Cranbrook Map-Area, British Columbia; Memoir 207, p. 44, Geol. Surv. of Canada, 1937.
- Mineral Policy Sector; Corporation Files: "Porcupine Goldfields Development and Finance Company, Limited"; "Federal Mining and Smelting Company".

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