

NAME OF PROPERTY PHOENIX, OLD IRONSIDES

LOCATION - mine symbol on Map 82 E/2.
 Radius of uncertainty - 50 metres. Lat. 49°05'40" Long. 118°35'50"
 Mining Division Greenwood District Similkameen
 County Township or Parish
 Lot Concession or Range
 Sec. Tp. R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The country rocks are mainly Palaeozoic limestone, greywacke, and greenstone of the Anarchist group. The youngest rocks are intrusive pulaskite porphyry occurring as sills, dykes, and small irregular stocks. The orebodies occur in skarn formed by the metamorphism of the Anarchist limestone. The skarn enveloping the ore extends 3,000 feet from Phoenix townsite south to the War Eagle workings, then arcs to the east and northeast through the Monarch, Gold Drop, and Curlew to the Snowshoe claim. In plan, the mineralized zone forms a "U" with the open end to the north. The axis of the "U" plunges northerly about 10° under a capping of Tertiary arkose and volcanics. The west limb of the "U" was the Knob Hill-Old Ironsides-Victoria orebody. It dipped easterly at about 60° near surface but flattened to 10 to 15° a few hundred feet down dip. The orebody was 2,000 feet long, up to 150 feet wide, and continued for about 1,500 feet down dip. The skarn zone was composed essentially of epidote and garnet, together with calcite, quartz, and chlorite. The metallic minerals are chalcopyrite, pyrite, specularite, and magnetite.

Associated minerals or products of value - Gold, silver.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located on the easterly slope of Knob Hill 3 miles east of Greenwood.

Henry White staked the Knob Hill claim (Lot 590) in July 1891 and by year end other prospectors had staked most of the claims covering the orebodies in the camp. Whites partner, Matthew Hotter, staked the Old Ironsides claim (Lot 589). The claims were Crown-granted in 1896. The mine workings later covered, in addition to the above claims, the Victoria, Aetna, and Grey Eagle claims.

The Miner-Graves Syndicate reportedly commenced development work on the Knob Hill and Old Ironsides claims in 1896 under the names Knob Hill Gold Mining Company, Ltd., and Old Ironsides Gold Mining Company, Ltd.; there is no record of these incorporations. The Syndicate in 1899 incorporated The Granby Consolidated Mining and Smelting Company, Limited, to build a smelter at Grand Forks, some 6 miles southeast of the mine area. The first ore was shipped to the smelter in July 1900. In March 1901 the above 3 companies were consolidated under a new company, The Granby Consolidated Mining, Smelting and Power Company, Limited. Extensive mining operations were carried on until June 1919 when the mine and smelter closed. The property at that time comprised some 43 claims and fractions.

W.E. McArthur, of Greenwood, leased the property in 1936 and began recovering ore from the old workings; he subsequently purchased the property from Granby and intermittent exploration and development work was continued until 1946. Attwood Copper Mines Limited optioned 21 Crown-granted claims and fractions from W.E. McArthur in 1951. A program of geological mapping, geophysical and geochemical surveys and diamond drilling was continued until late in 1953; the only ore found was in extensions of old deposits; the option was given up.

The Granby company returned, after an interval of 36 years to acquire the property from McArthur in 1955. A diamond drilling program was begun in October of that year. A subsidiary company, Phoenix Copper Company Limited, was incorporated in June 1956. A 750 ton per day mill was put into operation in April 1959 with the initial ore coming from the adjacent Snowshoe property; the mill capacity was increased later in the year to 1,000 tons per day. Stripping and mining in the Old Ironsides pit began in July 1959. The company name (Granby) was changed during the year to The Granby Mining Company Limited. By 1964

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HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

LOCATION

Lat.

Long.

Mining Division

District

County

Township or Parish

Lot

Concession or Range

Sec.

Tp.

R.

4 open pits, the Old Ironsides, Idaho, Snowshoe, and Stemwinder were in operation. The Old Ironsides pit was expanded in 1968 to include the old Victoria shaft workings. Mill capacity was further increased to 1,500 tons per day in 1962, to 2,000 tons in 1963, to 2,400 tons in 1969, and to 2,600 tons per day in 1972. Reserves at September 30, 1972, were 1,504,000 tons averaging 0.71% copper. A stockpile of low-grade material contains about 4,200,000 tons averaging 0.40% copper. The property was expanded over the years to cover most of the old Phoenix camp and in 1970 totalled 230 Crown-granted and recorded claims.

OWNER OR OPERATOR AND ADDRESS

By 1974 most of the ore milled came from the low-grade stockpile. The company name (The Granby Mining Company Limited) was changed in 1975 to Granby Mining Corporation. Mining operations ceased in August 1976 due to depletion of the ore reserves. The mill continued to process stockpiled ore until late in 1977 when all Phoenix ore was exhausted. During 1978 the mill treated 320,470 tons of ore purchased from the Lone Star property, in the State of Washington, 13 miles to the south. Milling ceased in September 1978.

DESCRIPTION OF DEPOSIT

HISTORY OF PRODUCTION

Recorded production, listed under Knob Hill, R. Bell, Granby, and Phoenix, for the period 1900-1970 totals 1,022,644 tons. From this ore 781,536 ounces of gold, 817,716 ounces of silver, 403,688,559 pounds of copper and 169 pounds of lead were recovered. These figures apparently include production from the Gold Drop mine. Also included is most 1959 production from the Idaho-Stemwinder, Snowshoe, and Rawhide properties (B.C. Dept. of Mines data).

During the period 1971-1977 inclusive, 6,825,352 tons of ore were milled. From this ore 87,638 ounces of gold, 650,559 ounces of silver, and 63,177,504 pounds of copper were recovered (Company Annual Reports).

MAP REFERENCES

- Map 6-1957, Kettle River, (Geol.), Sc. 1":4 miles.
 Map 16 A, Phoenix, (Geol.), Sc. 1":400 feet - Accom. Mem.21.
 Claim Map of Phoenix Mining Camp - in Granby Mining Co. file.
 Map 749 G, (Aeromag.), Sc. 1":4 miles.
 *Map 82 E/2, Greenwood, (Topo.), Sc. 1":50,000.
 Preliminary Map 45-20 A, Greenwood-Phoenix, (Geol.), Sc. 1":800 feet - Accom. Paper 45-20.

REMARKS: For adjacent properties held by Granby, see:

Brooklyn-Stemwinder	-	82 E/2, Ref. Cu	9
Snowshoe	-	82 E/2, Ref. Cu	8
Gold Drop	-	82 E/2, Ref. Cu	7
Rawhide	-	82 E/2, Ref. Cu	10

REFERENCES

- LeRoy, O.E.; The Geology and Ore Deposits of Phoenix, Boundary District, B.C.; Memoir 21, pp. 71-83, Geol. Surv. of Canada, 1912.
- Seraphim, R.H.; Geology and Copper Deposits of the Boundary District, British Columbia; Canadian Institute of Mining and Metallurgy, Transactions, Vol. 59, 1956, pp. 384-394. (Copy in Attwood Copper Mines file).
- McNaughton, D.A.; Greenwood-Phoenix Area, B.C.; Paper 45-20, Geol. Surv. of Canada.
- Reports of Minister of Mines, British Columbia: 1894, p. 756; 1896, pp. 562, 578; 1897, p. 592; 1898, p. 1122; 1899, pp. 752, 768; 1900, pp. 864, 876, 877, 880; 1901, p. 1052; 1902, p. 177; 1903, p. 164; 1907, p. 114; 1911, p. 175; 1912, p. 175; 1913, p. 161; 1914, p. 339; 1916, p. 258; 1917, p. 202; 1919, p. 166; 1936, p. D55; 1937, p. D33; 1938, p. D38; 1940, p. 75; 1946, p. 135; 1955, p. 46; 1956, p. 75; 1957, p. 38; 1958, p. 36; 1959, p. 58; 1960, p. 65; 1961, p. 65; 1962, p. 69; 1963, p. 68; 1964, p. 111; 1965, p. 170; 1966, p. 194; 1967, p. 227; 1968, p. 231.
- Geology, Exploration and Mining; British Columbia Dept. of Mines: 1969, p. 305; 1970, p. 428; 1971, p. 375; 1972, p. 36; 1973, p. 39; 1974, p. 34.
- Mineral Policy Sector; Corporation Files: "Attwood Copper Mines Limited"; "The Granby Mining Company Limited"; "Israel Continental Oil Company Limited, 1978 AR".
- Western Miner, Vol. 47, June 1974, pp. 23-29.
- Kermeeen, J.S.; Ore Reserve Estimation and Grade Control at the Phoenix Mine; Ore Reserve Estimation and Grade Control, The Canadian Institute of Mining & Metallurgy, Special Vol. 9, 1968, pp. 273-280.

APR 1973
 MAY 1975
 JUNE 1980