

NAME OF PROPERTY

O.K. (CHATAWAY)

OBJECT LOCATED - Underground workings.

UNCERTAINTY IN METRES 200. Lat. 50°28'40" Long. 121°05'50"

Mining Division Kamloops District

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

Alwin is a small, high-grade vein deposit. The ore zones have two dominant trends, one at north 75 degrees east to north 90 degrees east, the other at north 70 degrees west to north 55 degrees west. It is thought that the ore formed as a result of replacement along shear zones in Bethsaida granodiorite, which is a phase of the Guichon Creek batholith of late Triassic to early Jurassic age.

Gangue minerals in the ore zones are primarily flaky sericite and quartz but chlorite, specularite, and calcite are common. Rarely, pyrite is associated with fine-grained sericite alteration or calcite veins. Massive epidote pods were found adjacent to ore in sublevel 4.3E. The ore minerals are chalcopyrite and bornite with minor amounts of primary chalcocite. Post-ore iron carbonate veins are common in ore zones. Approximately one million tons of ore is defined in six zones through a vertical range of 800 feet. Overall the deposits occur in a band about 500 feet wide and 1,500 feet long.

see Card 2

Associated minerals or products of value - Silver, gold.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the 5,300 foot elevation on the southwest side of the Highland Valley, 2½ miles west-southwest of Quiltanton Lake.

The Top Notch claim, apparently the first staked on the Chataway ground, was located by G. Chataway in July 1907. Additional staking was carried out until by 1914 the Chataway group consisted of the O.K., I.O.U., Apex, F.O.B., and E.P.U. claims, owned by Mr. Chataway, Dr. Sanson, and G. Ward. Three of these claims, the I.O.U., O.K., and Apex (Lots 3643 G.1-3645 G. 1 respectively) were Crown-granted to Messrs. Chataway, Ward, and McAbee in 1918.

In 1914 the claims were bonded to Messrs. F. Keffer and H. John, of Spokane, who organized the Highland Valley Mining and Development Co. under a Washington charter. Development work was in progress in 1915. A 50 ton per day concentrator was built and put into operation on December 9, 1916. Milling operations continued into 1917 when the mine closed. Development work was resumed for a short period late in 1919. Development work to that date included an adit driven along the strike of the shear zone for 218 feet and from it a winze sunk to a depth of 195 feet. Total development work totalled some 438 feet of drifting and 300 feet of cross-cutting and raising. Ore for the concentrator was stoped from the adit level through to the surface. Ashcroft Copper Company, Limited, another Washington incorporation by the same Spokane interests, held the property in 1922 but no further activity was reported.

Highland Valley Mining Corporation Ltd., incorporated August 1955, held the property for a period and carried out diamond drilling.

Alwin Mining Company Ltd., incorporated April 1964, acquired control of about 12 recorded claims in the Ezz and O.K. groups immediately north of the O.K. Crown-grants. In June 1967 the company obtained an option to purchase 3 Crown-granted claims, the O.K., I.O.U., and Apex from the Thompson River Mining Co. Ltd. Additional recorded claims to a total of 24 were acquired surrounding the Crown-grants. Exploration work in 1967 included induced polarization and geochemical surveys, and 6,720 feet of surface diamond drilling. The drilling, mainly on the I.O.U. claim, gave numerous intersections of high-grade copper. During 1968 a new adit on the Apex claim was driven eastward through the
see Card 2

HISTORY OF PRODUCTION

Production, listed under the name "Chataway", for the period 1916-1918 totals 2,064 tons of ore milled at this property. From this ore 869 ounces of silver and 529,748 pounds of copper were recovered.

During the period February-December 1972 a total of 83,613 tons of ore were milled. From this ore 183 ounces of gold, 19,887 ounces of silver, and 2,539,426 pounds of copper were recovered.

In 1980-81, 155,352 tonnes of ore were milled. From concentrates shipped in 1981-82, 40,544 g Au, 2,074,333 g Ag and 2,394,089 kg Cu were recovered.

MAP REFERENCES

Geology of the Guichon Creek Batholith, Sc. 1":2 miles, Fig. 2, Bulletin 56, British Columbia Dept. of Mines, 1969.

Map 1010 A, Ashcroft, (Geol.), Sc. 1":4 miles - accomp. Mem. 262.

Preliminary Geological Map of the Highland Valley Area, Sc. 1":1,000 ft., B.C. Dept. of Mines, 1966.

*Map 92 I/6, Spences Bridge, (Topo.), Sc. 1:50,000.

Map 5211 G, Spences Bridge, (Aeromag.), Sc. 1":1 mile (1968).

#Underground workings at the OK mine, Sc. 1":160', Fig. 9, Geology, Exploration and Mining, 1972, p. 154.

REMARKS

REFERENCES

Reports of Minister of Mines, British Columbia:

1915, pp. 278-280; 1916, pp. 265, 430; 1918, p. 474; 1919, p. 183; 1922, p. 140; 1930, p. 203; 1961, p. 29; 1966, p. 154; 1967, p. 155; 1968, p. 183.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 262; 1970, p. 346; 1971, p. 342; 1972, pp. 155-157 + ; 1973, p. 172; 1974, p. 136; 1975, p.

Duffell, S., and McTaggart, K.C.; Ashcroft Map-Area, British Columbia; Memoir 262, p. 99, Geol. Surv. of Canada, 1952.

Drysdale, G.W.; Highland Valley Copper Camp, Ashcroft Mining Division; Summary Report 1915, p. 88, Geol. Surv. of Canada.

Mines Branch, Ottawa; Investigations in Ore Dressing and Metallurgy; Investigation Report 69-28.

Production Commences from Alwin's Underground Mining Operation; Western Miner, Vol. 45, No. 5, May 1972, pp. 28-32.

Mineral Policy Sector; Corporation Files: "Valley Mining and Development Co."; "Highland Valley Mining Corporation Ltd."; "Ashcroft Copper Company, Limited"; "Alwin Mining Company Ltd."; "D.K. Mining, Inc."; "De Kalb Mining Corporation".

CIM Bulletin, January 1980, p. 198.

Exploration in British Columbia; BCDM: 1979, p. 166; 1980, p. 224

Mining in British Columbia, 1975-80, p. 14.

George Cross News Letters: 1984, No. 19; 1987, No. 25.

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DESCRIPTION OF DEPOSIT (continued)

Both in plan and in section, the ore zones pinch, swell, and digitate. In some cases, the two dominant ore trends can be seen in one orebody and in fact in zone 3 on 4 sublevel, the ore, which has been followed along the drift at trend north 70 degrees west, splits. One part continues onward and a second part trends north 80 degrees east. In section, the digitating nature of the orebodies is illustrated by the variability of copper values both in the drifts and in drill holes.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

O.K. and I.O.U. claims for a length of almost 2,700 feet from which a northerly crosscut and connecting drifts were made.

A development financing agreement was reached with Nippon Mining Company, Limited, in January 1969. This agreement was assigned in April 1969 to Combined Capital Resources Ltd. and in September of that year the agreement was terminated. Work during the year included soil sampling, trenching, and driving 1,880 feet of drifts and test raises. Diamond drilling was done in 29 underground holes (19,337 feet) and 26 surface holes (16,185 feet). Indicated reserves were estimated at 1,138,910 tons averaging 0.34 ounce silver per ton and 2.33% copper with dilution (Alwin Mining Company Ltd., Statement of Material Facts, April, 1971).

By an agreement of May 1970 Furukawa Mining Co. of Japan, would provide up to 50% of the financing required to bring the property into production; Furukawa withdrew from the agreement in March 1971.

Under agreements of June 1971 as to Alwin (50%), D.K. Mining, Inc., a Delaware incorporation (25%), and International Minerals & Chemical Corporation (Canada) Limited (25%), the O.K. Syndicate was formed to bring the property into production. A mill of 500 ton-per-day capacity was installed and began operating on a tune up basis on February 21, 1972. Milling operations were suspended on December 15, 1972 due to higher dilution of the ore.

In August 1973 Alwin sold its 50% interest in the property equally to D.K. Mining and International Minerals & Chemical. Joint exploration and development work during 1973-1974 included underground geological mapping, surface diamond drilling totalling 2,400 feet in 2 holes, and 5,145 feet of underground diamond drilling in 18 holes. Underground headings were driven a total of 3,216 feet on the O.K. and I.O.U. claims.

In about 1979 all assets of D.K. Mining, Inc. and the O.K. Syndicate were transferred to an affiliate, De Kalk Mining Corporation, which is a wholly owned subsidiary of De Kalb AgResearch Inc., of De Kalb Illinois. Rehabilitation and development work included 3164 m of decline, drifting and raising for a changeover to trackless cut and fill mining, and expansion of the mill capacity to 700-800 tons per day. The mine re-commenced production in the summer of 1980. Operations were suspended on September 25, 1981,

p.t.o.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

pending improved metal prices. Proven reserves were subsequently reported to be 300,000 tons, grade unstated (George Cross Newsletter 18/08/83).

Kamad Silver Co. Ltd. in 1982 signed an agreement to purchase the property, including the concentrating plant and mining equipment with a view to processing ore from the company's Homestake property.

The mill was purchased by Emerald Lake Resources Inc. and removed from the property in September 1986.