

NAME OF PROPERTY

TEXADA

LOCATION Yellow Kid open pit, north edge of Yellow Kid claim (Lot 267).

Radius of uncertainty - 100 metres. Lat. 49°42'20" Long. 124°32'40"

Mining Division Nanaimo District Texada Island

County Township or Parish

Lot Concession or Range

Sec. Tp. R.

OWNER OR OPERATOR AND ADDRESS

Texada Mines Ltd.

DESCRIPTION OF DEPOSIT

The stratigraphic units of Texada Island are directly correlated with those of Vancouver Island and in fact are nearly identical. The oldest rocks of the mine area are basalts of the Texada Formation, which is the correlative of the pre-Middle Karnian Karmutsen Formation of Vancouver Island. Conformably overlying the basalts is the thick Marble Bay Limestone, the correlative of the Late Triassic Quatsino Limestone. The stratified rocks are intruded by quartz monzonite of the Upper Jurassic Gillies Stock. Exploration work to 1968 had outlined 8 major ore zones spread over an area of roughly 2,000 by 5,000 feet. The initial discoveries were, from west to east, outcrops of the Prescott, Paxton, and Lake orebodies. Subsequent discoveries, by underground exploration and geophysics, included the Yellow Kid, Midway, Le Roi, Lake Extension, and Anomaly A zones.

The known orebodies are clustered about a salient at the north end of the Gillies stock, the Lake and Paxton on the east, and the Prescott, Midway, and Yellow Kid on the west. The orebodies can be considered in two groups because of their geographic separation,

Associated minerals or products of value - Copper, gold, silver, ^{see Card 2}

HISTORY OF EXPLORATION AND DEVELOPMENT 92 F/10 FE 1

The property is located on the west side of Texada Island, 70 miles northwest of Vancouver. The Crown-granted claims are located 3 miles north along the coastline from the settlement of Gillies Bay.

Magnetite was reportedly discovered in the northern part of the Island in 1873. In 1874 Messrs. Goodall, Perkins, and Prescott, of San Francisco, acquired Crown-grants on three quarter-sections of land covering the Prescott, Paxton, and Lake zone outcrops. They engaged W.H. Lee, a furnaceman from Alabama, to examine the deposits and as a result the Puget Sound Iron Company, of San Francisco, purchased the property in 1875. The company staked mineral locations over the original Crown-grants in order to secure the precious metals and these locations, the Le Roi, Boulder Nest, Jack North, Yellow Kid, and LMC claims (Lots 264-268, respectively) were Crown-granted in 1901. High-grade magnetite was shipped to the company owned blast furnace at Irondale, State of Washington. The Pacific Steel Company bonded the property in about 1900 but the terms of the agreement were not met and mining was continued into 1902 on a royalty basis. During the years 1885 to 1903, and 1908, 28,898 tons of ore were reported shipped; this was from the Prescott except for approximately 1,000 tons from the Lake orebody. Sporadic activity, mainly exploration, continued until 1916. The Prescott workings at that time included a large quarry in the face of the bluff, a shaft 140 feet deep, an adit 700 feet long intersecting the bottom of the shaft 475 feet from the portal, and 4 working levels above the adit. Sporadic work was done throughout the years on various small copper showings on the property. In 1916 the British Columbia, Alberta, and Northern Development Company Limited, which was apparently a United States incorporation, leased 6 claims and during the year shipped 92 tons of copper ore to the Granby smelter at Anyox. The last work by the Puget Sound Company was in 1929 when diamond drilling was reported.

No further activity was reported until Texada Mines Ltd. was incorporated in May 1951 as a private company to acquire 8 Crown-granted and 10 recorded claims from the Puget Sound Company. A diamond drilling program began in June. A contract for the sale of magnetite concentrates was negotiated with Japanese iron interests and in December of the same year work began towards bringing the property into production. Open pit ^{see Card 2}

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

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HISTORY OF PRODUCTION

Early production, as recorded under the name "Prescott" by the British Columbia Dept. of Mines (Index No. 3) for the period 1885-1952, includes iron and copper ore shipments as follows: Iron ore, 662,722 tons; copper ore, 808 tons, from which 90 ounces of gold, 1,002 ounces of silver, and 85,900 pounds of copper were recovered.

From 1952-1971, inclusive, 17,955,408 tons of ore were milled at this property. From this ore, 21,674 ounces of gold, 22,192 ounces of silver, 38,550,977 pounds of copper, and 536,569 tons of iron concentrate were recovered.

During 1972-74 inclusive, 3,027,647 tons of ore were milled from this ore 4,308 ounces of gold, 150,499 ounces of silver, 10,974,152 pounds of copper, and 1,398,724 tons of iron concentrates were recovered.

During 1975-76, 1 755 207 tonnes of ore were milled. From this ore 79.284 kg gold, 2 722.508 kg silver, 1 967 918 kg copper, and 664 662 tonnes of iron concentrates were recovered.

MAP REFERENCES

Geology of the Prescott, Yellow Kid, and Paxton Deposits, Sc. 1":100 feet - accomp. Report by Sangster.

Map 17-1968, Alberni, (Geol.), Sc. 1:250,000 - accomp. Paper 68-50, Geol. Surv. of Canada.

Map 110 A, Prescott, Paxton and Lake Mines, (Geol.), Sc. 1":400 feet - accomp. Memoir 58.

Map 92 F/10 E, Comox, (Topo.), Sc. 1:50,000.

REMARKS

REFERENCES

- Brown, A. Sutherland, and Merrett, J.E.; Texada Mines Ltd.; Report of Minister of Mines, British Columbia, 1964, pp. 146-151.
- Sangster, D.F.; The Contact Metasomatic Magnetite Deposits of Southwestern British Columbia; Bulletin 172, pp. 56-63, Geol. Surv. of Canada, 1969.
- Bacon, W.R.; Iron Ore Deposits of Vancouver Island and Texada Island; Report of Minister of Mines, British Columbia, 1952, pp. 217-221; see also 1956, pp. 129-131.
- Swanson, C.O.; The Genesis of the Texada Island Magnetite Deposits; Summary Report, 1924, Pt. A, pp. 106-144, Geol. Surv. of Canada.
- McConnell, R.G.; Texada Island; Memoir 58, pp. 74-90, Geol. Surv. of Canada, 1914.
- Reports of Minister of Mines, British Columbia: 1898, p. 1144; 1899, p. 806; 1901, p. 1232; 1902, pp. 225-228; 1916, pp. 276, 296, 298-300, 356, 365; 1951, p. 196; 1953, p. 162; 1954, p. 164; 1955, p. 75; 1957, p. 67; 1958, p. 57; 1959, p. 130; 1960, p. 89; 1961, p. 90; 1962, p. 94; 1963, p. 96; 1965, p. 224; 1966, p. 72; 1967, p. 72; 1968, p. 101.
- Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 213; 1970, p. 282; 1971, p. 251; 1972, p. 269; 1973, p. 233; 1974, p. 179.
- Mineral Policy Sector; Corporation Files: "Texada Mines Ltd."
- Gravenor, C.P.; Iron Deposits of Western Canada; Western Miner & Oil Review, Vol. 33, January 1960, pp. 32-34.
- Japanese Mineral Trade - Texada Mines; Canadian Mining Journal, Vol. 83, June 1962, pp. 53-56.
- Iron Mining on Texada Island; Western Miner & Oil Review, Vol. 33, August 1960, pp. 28-34.
- Skerl, A.C.; Texada Island Producer; Western Miner & Oil Review, Vol. 32, October 1959, pp. 123-124.
- Stephens, Fred H.; Texada Mines Ltd. converts to Underground Mining; Western Miner & Oil Review, Vol. 36, June 1963, pp. 30-36.
- Underground Operations of Texada Mines Ltd.; Western Miner, Vol. 39, Nov. 1966, pp. 30-36.
- Muller, J.E., and Carson, D.J.T.; Geology and Mineral Deposits of Alberni Map-Area, British Columbia;

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DESCRIPTION OF DEPOSIT (continued)

but more particularly because the orebodies of the west (Prescott, Midway, Yellow Kid), though of similar mineralogy and with similar host rocks as those of the east (Paxton and Lake and their extensions), are in quite different structural settings.

The Lake and Paxton orebodies replace limestone, basalts, and minor amounts of quartz diorite at the keels of compressed overturned synclines which plunge gently westward and are sharply overturned toward the northeast. The strike of the limestone-volcanic contact of the upper limb is about 40 degrees west, but the axes strike more nearly north 60 degrees west. The most striking feature to the west of the salient is that the orebodies branch upward so that in three dimension they crudely resemble a tree, the thick stem of which is found at the lowest levels (1455-1655) at or near the east-west contact of the stock with the Texada volcanics. At upper levels the contact of the stock warps to the east and overhangs the older rocks on the lower levels. The Marble Bay limestone in general dips at moderate attitudes southward. It, or skarn developed from it, is in contact with the stock down to the 1,800 level, but there are only volcanic and plutonic rocks below. The orebodies branch and blossom out upon reaching the "limestone" and follow the warped contact of diorite, limestone, and volcanics in the upper levels. It is at least likely that the whole was a breccia pipe system before it was largely replaced by skarn and magnetite.

In general, the magnetite rich skarn occurs at the quartz monzonite contact as a replacement of limestone or volcanics. The exception is the Lake orebody which is located some 1,200 feet northeast of the exposed edge of the stock and is a replacement in volcanics at the volcanic-limestone contact. In summary, the garnet-actinolite-pyroxene-epidote skarn and magnetite-sulphide bodies may replace basalt, limestone, Gillies stock, or diorite porphyry. In the Yellow Kid deposit pyrite and chalcopyrite extend outward from calcite pods or veins and cut surrounding magnetite.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

operations were established on the Lake, Paxton, and Prescott orebodies. Milling began May 21, 1952, with recovery of concentrate by magnetic separation. In the fall of 1952 the company acquired the Cameron mineral claim (Lot 182) adjoining the Yellow Kid. A magnetometer survey of the claims in 1953 disclosed an anomaly on the Yellow Kid-Cameron boundary and diamond drilling of this anomaly in 1953-54 outlined the Yellow Kid orebody. Late in 1955 an open pit operation was begun on the new deposit.

In 1955 a new contract was signed with the Japanese. Because of the higher copper content of the Yellow Kid ores, and to meet more rigid specifications of the new sales contract a new mill was completed in October 1956. This enabled the average iron content of the concentrate to be raised from about 58% to 65% while decreasing the copper content from about 0.2 to 0.08%. In addition, a copper concentrate, averaging 15% copper and containing recoverable amounts of gold and silver was produced by flotation.

Underground exploration began in 1959 in a 2,200 foot adit driven from the shoreline to explore beneath the Prescott and Yellow Kid open pits. With the signing of a new sales contract in 1962, and with the physical limits of open pit mining in sight, an underground development program was begun in the three western orebodies. A shaft was sunk to a depth of 843 feet and 5 levels established. Production from underground began in April 1964 in the Midway and Main Yellow Kid zones. A crosscut being driven on the 2,055 level to the Lake Extension orebody late in 1964 intersected a new orebody, the Le Roi, which was outlined by diamond drilling in 1965. Open pit mining ceased in 1964 but to provide increased mill feed the Paxton and Lake open pits were reactivated in 1965. A decline was begun to the underground workings to begin the conversion to trackless mining. A second decline or ramp was begun in 1966 from the Lake open pit for trackless mining of the Le Roi and Lake Extension orebodies.

Texada Mines Ltd. in August 1967 became a wholly owned subsidiary of Kaiser Aluminum Chemical Corp., of California. By 1968 all open pit mining had ceased. The only open pit reserves remaining was about 100,000 tons of high copper content in the Paxton pit. Total reserves were reported in 1968 as 9,000,000 tons averaging 40% iron and 0.25 to 0.3%

see reverse of Card 2...

REFERENCES (continued)

Paper 68-50, p. 40, Geol. Surv. of Canada, 1969.

Mathews, W.H., and McCammon, J.W.; Calcareous Deposits of Southwestern British Columbia; Bulletin 40, p. 80, British Columbia Dept. of Mines.

Young, G.A., and Uglow, W.L.; The Iron Ores of Canada, Vol. 1, British Columbia and Yukon; Economic Geology Series No. 3, pp. 106-144, Geol. Surv. of Canada, 1926.

Lindeman, Einar; Iron-Ore Deposits of Vancouver and Texada Islands, British Columbia; Bulletin No. 47, pp. 21-24, Mines Branch, Ottawa, 1910.

Mines Branch, Ottawa; Investigations in Ore Dressing and Metallurgy, 1931, Rept. 728, pp. 156-158 (No. 420); 1932, Rept. 736, pp. 269-273 (No. 479), pp. 276-281, (No. 481 & 482); 1933, Rept. 744, pp. 25-31 (No. 515); 1935, Rept. 763, p. 232.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

copper. Underground development work was done on the Anomaly A zone in 1969-1970. The mine closed on December 17, 1976 due to exhaustion of the ore reserves.