

The following are excerpts from information gathered by Thomas E. Kirk for Island Mining & Exploration Co. Ltd. from the B.C. Dept. of Mines Year Books on the Hayes, Monitor, and Happy John properties held by the Co. and referred to in the Co.'s prospectus dated Jan 27, 1976.

Government record of known production:

3J's 1898 - 1902

Tons shipped - 2,184; Gold - 62 oz.; Silver - 2,418 oz.; Copper - 328,247 lbs.

1898 - "Development consists of 600' of tunnel and 150' of shaft work. The lower tunnel cuts the vein at a depth of 265', at a point where the vein is 28' wide carrying values in copper, gold and silver. Shipments in 1898 consisted of about 120 tons of ore."

1899 - "This is by far the best developed property in the district having over 1,000' of underground working. A very considerable body of good chalcopryrite ore is exposed and several shipments have been made this past year, from smelter returns, ran about 10 - 12% copper with small values in gold and silver."

"The early developments indicated a north and south vein, but soon it was found that the ore ran east and west, and when a 1,000 feet or so of work had been done there appeared to be three parallel veins with spaces of 105 and 120 feet between them. Now, however, with over 3,000 feet of work, it is plain that all the ground explored is an ore-bearing zone in which ore may be found at any point. The trend of all the ore bodies is east and west and the chutes all dip about 80° south, pitching to the west. The limit or ore-bearing ground has not been found, but there is reason to expect ore beyond present developments for considerable distances in all direction, as there is no known change in formation to alter the conditions. The ore chutes as found vary in thickness from 6 to 28 feet, and in length from 65 to 148 feet. There are five known bodies of first-class ore and two of second-class. The ore is chalcopryrite with a natural gangue. The first-class does not need concentration. The veins show ore for a length of 5,000 feet."

"On February 1st, 1900, there were 42,000 tons of first-class ore in sight in the mine and 30,000 tons of second-class. During 1900 the reserves of first-class were increased 50% and of second-class doubled, being a total of 63,000 tons of first-class and 60,000 tons of second-class."

1902 - "In the Alberni Division the two copper properties on the Alberni Canal have been worked continuously during the past summer, and have both put up wire tramways from the mines to their docks at deep water. Since the drop in the price of copper, shipments have been discontinued until it rises again."

"The development work shows that there are seven ore-shoots which vary considerably in both length and thickness. These are of the contact-metamorphic type, but are not always found close to the actual contact of the limestone and igneous rocks."

The following excerpts on the Monitor Group are from the Department of Mines Yearbooks.

Government record of known production:

Monitor 1900 - 1918 Tons shipped - 1,420; Gold - 2 oz; Silver - 1,194 oz.  
Copper - 257,842 lbs.

1900 - "The development work done consists of a tunnel which follows in a deposit of yellow ore, associated with magnetite and garnet and occurring in a highly metamorphosed or igneous country rock."

"Up to the end of the year (1900) the tunnel had carried a full face of ore all the way for about 200 feet but, as no sinking has been done on the lead, the dip had not been demonstrated. In 1900 one shipment of about 200 tons of ore was made to the Tacoma Smelter, since when several other shipments have been made which gave on smelter returns about 10% copper, with from 1 - 1½ oz. of silver and a trace of gold."

"All the development work has been done on the Uncle Sam claim, which is distant from deep water a distance of 2,200 feet, and is connected by a double rope tramway (aerial) with the Company's wharf. At the lower terminal of this aerial tramway an ore bunker, with a capacity of 400 tons, has been erected, and from this terminal to the wharf a trestle tramway has been constructed, fitted with a turntable and tipple so as to admit the loading ore on to steamships with a four-ton car. The upper terminal of the tramway is fitted with a bunker having a capacity of 50 tons, and is connected with the mine by a part drift and part incline tramway."

1916 - "The new workings are on the Nawitka mineral claim, about 1000 feet from the aerial tramway at the shore-line in a north-easterly direction, and about 250 feet elevation."

"The mineralization is a combination of chalcopyrite, magnetite, some iron pyrites, and a little pyrrhotite. The structure of the ore deposits, that occur irregularly through the mineralized zone, is lenticular, and much systematic prospecting is necessary to locate the deposits, as well as to determine their extent. Surface stripping and open-cuts expose the mineralized zone for a length of about 150 feet and a width of about 20 feet."

1916 - "The longest ore-lens is exposed in an open cut 10 feet deep and about 50 feet in length; this averages 3 feet in width of solid ore, principally chalcopyrite. A rough sample from this ore-body assayed: gold - trace; silver - 1.10 oz.; copper 13%; and a shipment of about 45 tons taken from this ore-body yielded about 9% in copper at the Trail smelter."

"In addition to the 3 feet of solid ore, the workings expose a width of about 8 feet of lime silicate, next to the solid ore on the east or foot-wall side, that is mineralized, and could possibly be concentrated. Another lenticular deposit of ore, of a similar character to that described, occurs lying en echelon to it and extending for 25 feet in a southerly direction. This deposit is exposed by stripping and open-cut for an average width of about 2 ft."

"A third lenticular lens of ore, very similar in its characteristics to the other referred to, occurs en echelon to the last mentioned and extends for about 30 feet in a southerly direction. This lens was not as well exposed as the others, as there was less work done on it at the time of the writer's examination; it appears to average about 2 feet in width."

"On the Monitor No. 1 Fractional mineral claim, at an elevation of about 70 feet above sea-level and about 100 feet from the northerly shore of the canal, there is an outcrop of a contact deposit of chalcopryrite that was only discovered in September, 1916. When the writer saw this outcrop only a small open-cut had been made. This exposed ore for a width of 3 feet, and a body of garnetite and epidote mineralized to some extent with impregnations of chalcopryrite for a width of about 14 feet in the face of a low bluff. The strike of this occurrence of ore is N. 35 degrees W. and the dip N. 55 degrees E. at an angle of 74 degrees, but the surface in the direction of the strike was at the time of the writer's examination so covered with brush and fallen timber that it was impossible to trace the occurrence beyond the outcrop. A sample of the solid chalcopryrite taken from the open-cut assayed: gold -trace; silver - 1.4 oz; copper 13.7%."

With the very limited amount of work done, it is, of course, impossible to arrive at any conclusions as to the extent of the deposit."

"During the winter of 1916 - 17 the discovery of another mineralized zone on the Monitor No. 1 Fractional claim was reported by the lessee, but, as no work had been done, no description of this reported recent discovery is made by the writer."

#### HAPPY JOHN GROUP

##### 1900 Report, B.C. Minister of Mines

Adjoining the Monitor Mine is situated the Happy John group, consisting of the Happy John, Happy John No. 1, and Happy John No. 2 claims. Outcrops of chalcopryrite occur on this property, and it is reported that specimens of the ore assayed 21% copper, with additional values in gold and silver.

##### 1903 Report, B.C. Minister of Mines

On the Happy John group considerable work has been done during the past season, consisting chiefly of stripping the lead at different points throughout the property. Shipments have been made this past year which, from smelter returns, ran about 10% to 12% copper, with small gold and silver values.

##### 1902 Report, B.C. Minister of Mines

On the Happy John group, owned by A. G. Edgwick, et al, the ore has been proved at a depth of 300 feet below the old workings, showing a high-grade chalcopryrite. The vein is tracable by different outcrops throughout the property for a distance of about 3,000 feet.

##### 1904 Report, B.C. Minister of Mines

The Happy John group of mineral claims is situated on the North side of the Alberni Canal. The group has been surveyed and two of the claims were Crown-Granted. Work has been in progress on this property since May 1st, 1904, with satisfactory results. About 175 feet of tunneling was done, and good ore was met with in two of the tunnels at considerable depth. Assays made of ore from both tunnels yielded from 9.4% to 24.7% copper with values in gold and silv

The rock formation on the Happy John group is very similar to that on the Monitor. There are at least two parallel zones of contact-metamorphic rocks occurring on this metamorphic zone which occurs on the Monitor group. The line of strike of this contact, if extended to the south-east would intersect the Nahwitka claim in the Monitor group near the Hedly ore-body, and if projected to the shore of Alberni Canal would terminate near the portal of the main adit on the Leonard ore-body. The rocks on the Happy John group have been subjected to similar shearing and fracturing movements as those on the Monitor.