director of the company; that the Ptarmigan Mines, Limited, owes the Tyee Copper Company money under a contract between the two companies, but that this matter is to remain in abeyance until after the war, and that the amount of Mr. Loeffler's mortgage on the Tyee Company's property is  $\pounds 20,000$ , and there is also due accrued interest,  $\pounds 600$ .

A vote of thanks was accorded Mr. Gardner for his services.

In addition to its British Columbia Copper company operations in the Boundary district of British Columbia, the Canada Copper Corporation has for several years been developing another copper property, situated on Copper Mountain, within a dozen miles of Princeton, Similkameen district. The company in 1916 spent \$396,000 on the further development of this Copper Mountain property, and on the purchase of several neighboring claims, under bond. The company's annual report, issued lately, gives some particulars of the work done last year to confirm results indicated by diamond drilling previously done.

This work was mainly in the nature of underground development, which may also be utilized for the permanent operation of this property. To expedite doing this underground work, a power transmission line 13.6 miles in length was constructed to Copper Mountain from East Princeton, where there is a power plant at inoperative cement works, a lease of which power had been secured by the Canada Copper Corporation.

On the Copper Mountain property, a tunnel 9x6 feet in the clear was driven a distance of 2,100 feet on the 3,950 foot level, and numerous raises and lateral drifts were made, the total length of this work being 5,206 feet. As soon as it became apparent that the results secured from diamond drilling were reliable, drilling from the surface was resumed, and 8,007 feet of diamond drilling was done in 1916.

In addition, trenches of a total length of 2,364 feet were opened on newly located mineral claims. No material increase in ore reserves is reported for the period under review, because the underground work was done especially to check the accuracy of the previous diamond drilling operations. Underground diamond drilling is now being done from faces opened last year, and it is reported that new ore is being encountered.

Prior to the execution of the underground development campaign, it was deemed expedient to class the ore as "reasonably assured" and "probable" ore. It is now estimated that there is 10,000,000 tons of definitely assured ore and 2,000,000 tons of probable ore. The average grade of this ore is 1.74 per cent. copper (or nearly 35 pounds to the ton of ore), and 20 cents a ton of recoverable gold and silver. The ore thus far developed is well above the level of Similkameen river. It is of primary nature, and while likely to extend below the river, operations for many years to come will be confined to areas above the river, and the extraction of the ore will be by means of tunnels. Approximately one-half the ore thus far developed will be extracted by means of open-cut mining.

At the beginning of 1916, a 50-ton experimental flotation mill was placed in operation for the purpose of outlining definitely the metallurgic procedure to be adopted in a large mill. The opinion of the company's own engineers regarding the geologic features is said to have been confirmed by an independent report on the properties made by Sydney H. Ball. Allen Hastings Rogers, who also made an independent report on the property, confirms the company's



estimates of quantities of ore and its value. His conclusion was that the property is sufficiently developed to warrant the erection of a mill to have a capacity of 3,000 tons a day. The cost of producing copper was estimated at 9.57 cents per pound, based on existing smelting rates.

An option has been taken by European capitalists on a group of molybdenite claims situated north of Kamloops on which considerable work has been done in the last few years.

The claims are owned by Charles A. Mackay, of Kamloops, Harold Chapman, of Princeton, and others.

A substantial payment has been made and work is to be continued on a larger scale. As a result of the negotiations a mill is to be erected on the property.

Second payment has been made by Edmonton people on the bond on the Copper Chief mine at Trout Lake, B. C. The vendor is R. D. Featherstonehaugh, manager of the property.

Edmonton people took over the mine last fall and have had a crew of men engaged in development work since that time. Seven men are at present employed. The ore is silver-lead, but last week molybdenite was discovered and an effort is being made to ascertain the extent of the deposit.

Granby smelter will resume operations next week and will probably have four furnaces in blast by the 22nd inst. unless something unforeseen occurs. Coke is now being received from Fernie, where the coke ovens have reached a satisfactory output and as soon as regular shipments of sufficient quantity can be inaugurated Granby smelter will further increase the number of furnaces in operation. Repairs are now being made to the slag conveyor preparatory to resuming.

It is understood that Greenwood smelter which shut down about three weeks ago, will not resume till about August 1st.

The Hon. William Sloan, Minister of Mines, Victoria, has appointed Mr. Albert G. Langley, M. E., district engineer of Eastern Mineral Survey district with headquarters at Revelstoke. The eastern district includes the former mining divisions of Golden, Windermere, Fort Steele, Ainsworth, Slocan, Trout Lake, Nelson, Arrow Lake, Revelstoke, Landeau and Trail Creek. Mr. Langley is a native son of Victoria and has been connected with the mining industry, both as consulting engineer and operator, for several years. He is a McGill graduate.

The Hon. William Sloan has also appointed Mr. G. H. Clothier district engineer for the Northwestern Mineral Survey District with headquarters at Prince Rupert. He will have supervision of the former mining divisions of Atlin, Stikine, Laird, Skeena, Portland Canal, Bella Coola, and the Queen Charlottes. Mr. Clothier is a graduate of Toronto University Mining School. He has been connected with the mining industry of the northern interior being chiefly with Mr. J. Cronin, of the Omineca district. Both appointments are well received by the mining fraternity.

The Imperial Munitions Board has let to British Columbia manufacturers contracts for machinery to be used in boats now contracted for in the province of a value between \$350,000 and \$400,000.

The Provincial Government on July 14th paid \$423,000 on account of interest on bonds guaranteed by the Province of the Pacific Great Eastern Railway Company.

