

In addition to the above, the Government, with the view of encouraging and assisting the miners, has erected a small testing and chlorinating plant, with a capacity of about three tons per day.

NEW WESTMINSTER DISTRICT.

At Vancouver, a smelter and sampling works, with a capacity of 50 tons per day. Through some faults in construction, not working at present.

KOOTENAY DISTRICT.

At *Golden*, a smelter, 20 tons capacity per day, with roasting furnace, 14 tons capacity per day.

At *Revelstoke* a smelter, owned by the Revelstoke Smelting Syndicate, capacity 60 tons per day; also, sampling works, having a capacity of 100 tons per day, operated by a 50 horse-power engine.

At *Summit of Tone Mountain*, the Collingwood Gold Mining Company has two Huntington Mills of five tons capacity each and two Frue vanning concentrators.

At *Eagle Creek*, one ten stamp mill and four Frue vanners, capacity 15 tons per day, operated by a Pelton water-wheel.

A stamp mill now at Golden, awaiting shipment to mines in the spring. Its capacity I am unable to give.

In addition to the working tests already given, some 205 tons of ore were also tested, yielding 69,530 ounces of silver; or say, on an average, 340 ounces of silver to the ton.

In many of the localities the success of the camp as a whole depends to a great extent upon the successful development perhaps of single claims, where owners are more fortunate as regards capital and means to prove the value of their claims.

Another reason which has retarded actual working developments and erection of reduction works is the fact that a large amount of preliminary work is necessary, both to ensure a constant supply of ore, and also to determine the methods by which it is to be worked, for in many cases the character of the ore changes after a certain depth is reached. As the coarse gold of the placer deposits is derived from ledges in the immediate vicinity, we might fairly assume that these ledges would be gold-bearing. If this were the case, it would simplify matters considerably, and at the same time materially assist in the immediate development of mines throughout the province, for ores, if free milling, are worked by machinery—inexpensive when compared with the cost of reduction works required for the treatment of silver ores when associated with the baser metals. When a portion of the ledges is destroyed, the gold, from the fact that it is acted upon by few agents in nature, is left, while the more alterable associated minerals, copper, lead etc., are destroyed and carried away. In this way in many cases the gold of the placer deposits may be robbed from ledges which will in all probability turn out in many cases to be silver-bearing, the principal associated minerals being copper and lead, with the probability that silver-bearing copper ores will be more plentiful than silver-bearing lead ores, though surface indications show the latter more abundant.

Next in importance to the mines themselves is the ways and means of reaching them.

The Columbia and Kootenay Railway is now under construction, and will, I am told, be ready to carry ores next summer. If so in connection with steamboats, now built and operated on the Columbia River, miners will be enabled to ship ores direct to the smelters at Revelstoke and Golden at a comparatively small cost, and there is no reason to doubt that these smelters will be kept steadily at work and in a short time prove inadequate to treat the amount of ore coming in. In the Kootenay District at least, then, we may look forward to important developments in a very short time. Elsewhere throughout the country railroads, wagon roads, etc., for reaching the mines are badly required.

This paper has assumed dimensions far beyond what I had intended. It has been impossible to mention individual claims, except where from more important developments I have been warranted in doing so. You will, therefore, understand that this has been avoided, not because they were unworthy of mention, but simply because space would not allow