The gold output of Waiomo Valley has been derived mostly from complex sulphide ores. Free-milling ore was mined in former days from the Parraquet and Gem claims, but the amount was inconsiderable. The predominant sulphides are galena, zinc blende, pyrite, and chalcopyrite.

The principal veins are the Monowai, in the Monowai and old Broken Hill claims, and the Comstock, in the Colorado Claim.

The already located pay-ores of the upper horizons of these veins bears evidence of a secondary enrichment, and, with the exception of certain small shoots associated with vuggy bands or pipes in the veins, the primary sulphide ore opened up in the lowest levels is not of high grade. A good deal of practically unprospected ground exists on the Monowai vein, even in the upper levels, between the workings of the Monowai and those of the Broken Hill.

Prospects of gold are obtainable from many of the branches of the Waiomo Stream, but so far no veins other than those mentioned giving satisfactory results have been located.

In the valleys of the Puhoi, Oturuturu, Whalebone, and Diehard creeks are quartz veins, some of which carry a percentage of the same sulphides as found at the Monowai Mine. Near the head of the Puhoi Creek, which appears to follow a line of faulting or structural weakness, is located the Mount Zeehan Claim. Here several quartz veins carrying bunches and lenses of auriferous complex sulphides are now being prospected. Of the other creeks the Whalebone gives the best dish prospects, and the valley of this stream is worthy of further attention on the part of the prospector.

Te Puru Valley and Adjacent Country.—The Puru Stream drains a fairly wide stretch of country over which a little gold can be got by careful panning. No active mining is to-day being carried on here. Only in the old Puru Consolidated Claim has much underground work been done. The "country" here being fairly heavy, all the entrances to the old adits have collapsed, and examination is impossible. The principal vein appears to have averaged about 3 ft. or 4 ft. in width, and was enclosed in very fair "country"—a propylitised flow andesite. The ore was free-milling, and carried pockets of "specimen stone"—rather a marked difference from the ore of the neighbouring Waiomo Valley. The claim workings, which have an elevation of 1,300 ft., were connected by aerial tram with a battery situated alongside the main creek. Regular though non-payable returns were obtained for some time. It is certain that this claim was never worked to the best advantage, but, with the meagre data now available, little can be said as to its future prospects.

A quartz vein which measures about 40 ft. through where intersected occurs close to the northern margin of the main Puru Stream at an elevation of about 630 ft. (The area is known as the "Puru Big Reefs.") The vein-stone in great part consists of a mixture of quartz and silicified rock, and its value in the crosscut over a width of 37 ft. amounts to less than 2s. 6d. per ton. A quartz band some 3 ft. wide on the footwall side has been driven on for a short distance, giving average assays of 15s. 6d. per ton. The position of the reef from a mining point of view is poor. It occurs close to the base of the valley, and strikes nearly parallel to the stream-bed, therefore little backs would be available from adit workings.

Many other quartz veins exist in this area, some in very favourable-looking country rock. Probably it is the history of mining failures in the valley that weighs with the prospector in neglecting this locality.

Several small creeks incise the country between Puru and Tararu creeks, and, in places, altered vein-bearing rocks are exposed. Although a little detrital gold is obtainable in some of these creeks—notably the Otohi—no vein of any importance has yet been located.

Tararu.—The country lying to the south side of Tararu Creek as far up as Ohio Junction, and also to the south side of the Ohio Branch itself, falls within the Thames Special Area, and need not be considered here.

Fairly coarse-textured propylitised andesites and breccias constitute the prevailing rock of Tararu, bars of unaltered andesite being rather uncommon. The Vulcan reef of the Eclipse Claim out-turned the greater part of the gold of the upper Tararu Valley, but mining has been discontinued in this quarter, and the plant and machinery removed. The vein is a fairly large one, measuring from 4 ft. to 16 ft. An examination of the plans and records (many of the mine-workings are inaccessible) gives one the impression that this claim may have been prematurely abandoned.

The Scandinavian is a claim in which the outcrop ore of Lowrie's reef is said to have been highly payable. Subsequent development at the deeper levels has so far proved disappointing, the vein-stone carrying values too low to be payable. The high-grade oxidized surface ore was evidently a product of long-continued secondary enrichment of the primary vein-stone.

Detrital gold is obtainable in many of the branches of the Tararu Creek, especially those draining from the northern side. The country on the other side in the vicinity of Look-out Rocks has been profoundly altered by thermal solutions, but these solutions were non-auriferous, and the area is a barren one.

The Kauaeranga Valley.—The Kauaeranga is by far the largest stream in this portion of the Thames Subdivision, its drainage area measuring approximately 49 square miles. Of this stretch of country, 12 square miles lie within the Tairua Subdivision, but the geological and prospecting work was extended over the whole of this portion, and its prospects may therefore conveniently be considered here.

From the statement made in the general geology section, that the andesites of the Beeson's Island Series and also the rhyolitic tuffs of more recent age have considerable development in this valley, the prospects of the area from a mining point of view would appear small. Surface prospecting carried on over the whole area indicates that such is the case. With the single exception of the relatively small area drained by the Otanui and certain neighbouring branches of the Mangakirikiri, the prospects of payable gold ever being found are decidedly remote. Certain streams, the headwaters of which drain the tufaceous rhyolitic country of the main range separating the watershed of the Kauaeranga from