

the quartz drifts may be considered typical. As noticed by Mr. Rickard, the gold is coarse or fine in different parts of the deposits, and from some of the bands it is absent altogether. There are no means of estimating what amount of gold has been obtained from the Blue Spur since work was first commenced in the breccia conglomerate, but relatively the quantity has been very great. To this, as the proceeds of the conglomerates at the Blue Spur and Weatherstone's, has to be added most of the gold obtained from Gabriel's and Monro's Gullies, Weatherstone's Flat, and the Tuapeka River.

Weatherstone's.—Weatherstone's Diggings lie south-east from the Blue Spur, and are separated from Gabriel's Gully by a ridge of hills 300ft. to 400ft. in height. In what is nearly the line of the eastern wall or slide bounding the Blue Spur deposits, breccia conglomerates begin near, but south of, the saddle leading into the watershed of Weatherstone's Creek. The auriferous gravels in the basin of Weatherstone's Creek are practically of the same nature as those of Blue Spur. Like the latter, they to the eastward are cut off by a fault, and they have also a dip to the south-east, and in this direction are like the Blue Spur deposits, limited by the uprising of the underlying schists.

The beds begin near the saddle between Weatherstone's and Gabriel's Gully, and, with a greater width of exposure, dip under the lower grounds of Weatherstone's Flat and also towards the slide or fault-line on the eastern side of the deposit. At some places, beds of sandy clay are more pronounced than at the Blue Spur, and there is an absence, or comparative rarity, of the purple jasperoid boulders. Over the lower grounds, and on Weatherstone's Flat, a rewash of the deposit overlies it. In this the gold occurs in a concentrated condition compared with the yield from the main body of the cement, which is not nearly so rich as at the Blue Spur, or, at all events, the rich strata have yet to be discovered.

Deep sinking on Weatherstone's Flat has shown that the deposit here approaches 500ft. in thickness,* and, as it must be assumed that as great a thickness of the upper strata has been removed by ordinary denudation, it will not be too much to say that originally the beds must have been from 700ft. to 800ft. thick. The Blue Spur has in like manner been reduced by denudation by an equal or greater amount. Apparently no attempts have been made to trace the south-eastern limit of the cement-area at Weatherstone's, and therefore no cross-fault has been proved. It was assumed, and it is evident, that there is deeper ground to the south-east of the prospecting-shafts, and, however the auriferous area is terminated, the northerly dip of the bottom under the cement must be very abrupt. The results of prospecting the deep ground proved that the wash was not rich enough to induce those engaged in it to continue the work. Gold is, however, being obtained from the cements in the western side of the area, and one or two parties are engaged sluicing the old tailings and the rewash of the cement itself; but on the whole Weatherstone's as a field for mining appears to be in a very backward state.

Quoting from Mr. Cox's report on the cement deposit at Weatherstone's already cited, he says,—

“Passing over the ridge between Gabriel's Gully and Weatherstone's no cements are met with until after crossing the summit, but, on the spurs falling into Weatherstone's, beds or benches of cement have been found which yielded in some cases a considerable quantity of gold, while in the gullies below them no gold was to be found. This fact would point to more than one rearrangement of the beds since the gold was originally deposited in the cements. At Weatherstone's the cements appear again, covering a considerable area of ground, but lying much lower than the Blue Spur; and, although a large amount of work has been expended by different prospectors in sinking shafts on the various claims, there would seem to be a tendency to wait until Messrs. Brown and Gascoigne's claim, which is further on than any other, has been proved before any large expense is undertaken by the others in erecting crushing machinery.

“At the claim above cited a battery has been erected, and the mine prospected by several shafts sunk at intervals from the edge of the flat, where the cement commences, up to the battery, it being only a very short distance beyond this, in the direction of the Blue Spur, before the schists make their appearance, rising into a spur, which separates Weatherstone's from Gabriel's Gully.

“The result of these shafts has been to show that the cement at this point runs in a trough, the first shaft bottoming at 10ft., and the others at various depths up to 60ft.; and Mr. Gascoigne informs me that in all probability the greatest depth reached in this claim will be 100ft.

“The cement has been traced all through the flat towards Lawrence, and at a place called the Mound a shaft has been sunk to a depth of 500ft. through these cements, but has not received further attention since the bottom was reached, so I infer the results obtained were not so satisfactory as could be wished. . . . At places the prospects of the wash-dirt are very rich, some that I assayed last September returning 2oz. 17dwt. of gold per ton, and doubtless there is some richer even than this. It has, however, been ascertained by experience that the gold is by no means evenly distributed, but runs in patches, without apparently any set rules; so that any estimate as to the richness of the deposit from mere assays is nearly, if not entirely, useless. The blue cements of Weatherstone's are capped by red ones, which, however, are only due to the oxidation of the pyrites which has taken place near the surface, as they partake of all the characteristics of the true cements, varying only in colour, and most assuredly not being a rewash of these beds. The same remarks apply equally well to the cements of Blue Spur and Waitahuna.”

Forsyth.—This locality lies within the watershed of the Waitahuna River, and the beds to be described are exposed in the railway-cuttings from the saddle by which the line passes from the Tuapeka watershed to near Waitahuna Railway-station. The beds as seen in the railway cuttings are slaty breccias of schistose material, similar in character to, if not so coarse as, those at Blue Spur. The limits of the area which includes these beds were not determined, and but little could be learned respecting them. It appears that the breccias here have been recognised as a continuation of the Blue Spur deposit, and have been prospected, but found not payable. Nevertheless it is evident

* See extract from Cox's report.