

It must be borne in mind that this table only gives the number of days that the drills were actually at work; but, on examining the tables published in the Victorian report, I find that, in addition to boring, the time occupied in shifting and fixing the drills in position ready for work was as follows: No. 1 drill bored 13 holes and took 131 days to shift and fix in position; No. 2 drill bored 3 holes and took 22 days shifting and fixing; No. 3 drill bored 7 holes and took 61 days shifting and fixing; No. 4 drill bored 3 holes and took 33 days shifting and fixing; No. 5 drill bored 11 holes and took 76 days shifting and fixing: total, 37 holes, 323 days.

This, added to the time actually employed in boring, gives the result of $1,952 + 323 = 2,275$ days to get the average distance bored per day, as the shifting and fixing in position must be included in the cost of boring, thus reducing the average work done to about 6ft. 3in. per day, and showing that the shifting and fixing in position is equal to boring about 1ft. $\frac{1}{2}$ in. per day. Taking the results obtained from prospecting with these drills, gold was obtained from nine bore-holes, of which good prospects were found in four, the other five holes having only a trace of gold. The cost of working these drills, as shown in Mr. Langtree's report, is about 18s. per foot, exclusive of superintendence and clerical work connected with the management, which may amount to 2s. per foot more: say, in round numbers, that everything connected with the boring costs £1 per foot, it would show that £14,234 had been spent in prospecting with these drills in four years; and of this amount £12,081 has been spent in the Stawell District. It may be said that £1 is in excess of the actual cost per foot; but when their working is further analyzed, the wages and everything taken into consideration, it must, I think, be admitted that £1 will be about the minimum cost of boring in silurian rocks, three shifts of men being employed at the following wages per day:—

	£	s.	d.
Engineer in charge of drill (£4 per week)	0	13	4
Two foremen, at 10s.	1	0	0
Six assistants, at 8s.	2	8	0
Estimated expense of repairs and loss of diamonds (£10 per week) (this is taken from estimate in late Victorian regulations and present regulations of New South Wales)	1	13	4
Fuel and oil, &c., say	1	0	0
Total	£6	14	8

Deducting the cost of fuel and oil from the number of days employed in shifting—namely, 323—being about 2s. 10d. per day, the daily cost of working is reduced to £6 11s. 10d.; and, taking the average work done per day at 6ft. 3in., it makes the cost to be £1 1s. per foot.

The working of diamond drills in prospecting for gold in quartz in Victoria has not hitherto been marked with great success, and it is questionable if they can be employed in prospecting quartz-lodes in New Zealand with any better results, on account of the broken nature of the reefs, which are far more in bunches and detached blocks, and do not run so regularly as they do in Victoria.

Surface diamond drills have been very little used in prospecting quartz-lodes. Only seven bores have been put down: out of these the rods broke in three of the bores and were not recovered.

The following table shows the results of surface diamond drills in prospecting for gold in quartz-reefs in Victoria:—

Name of Company.	District.	Number of Bores.	Depth bored.	Time Employed in Actual Boring.	Average Depth bored per Day.	Remarks.
			Ft. in.	Days.	Ft. in.	
Garden Gully ..	Sandhurst	1	440 4	86	5 1 $\frac{1}{2}$	
G. G. Consolidated	"	1	825 6	153	5 5	Gold seen in pieces of core. Work stopped on account of rods breaking and not being removed.
Moonta ..	"	1	706 6	122	5 9	No gold seen.
Cumberland Reef ..	Castlemaine	1	424 0	43	9 10	The bore was stopped on account of rods breaking and not being recovered.
Cymbeline Prospecting	Malmsbury	1	427 2	44	9 8 $\frac{1}{2}$	Got colour of gold on crushing and washing small piece of core. Bore abandoned owing to tubing having parted and difficulty in getting rods down.
Ditto	"	2	355 6	59	6 0	Got colour of gold by crushing and washing small piece of core. Bore abandoned owing to rods breaking and not being recovered.
"	"	3	302 11	70	4 4	Bore not bottomed.
			3,481 11	577		

This would average about 6ft. 1in. per day during the time that the drill was actually at work; but if the shifting and fixing in position were taken into account it would reduce the amount of work done per day more than that shown by the shifting of the underground drills.

These drills have been very successful in going through basaltic rock, sandstone, and shale, or through any rock of a uniform character: the harder the rock the better suited they are for boring. They have been the means of proving the existence of alluvial leads of gold under the basaltic rock in the Creswick District in Victoria, which is now being worked, and proved to be the best for alluvial mines in that colony at the present time. The Madam Berry Mine was first tested with a diamond drill: several bores were put down which gave satisfactory results. A shaft was bottomed in