As Sainsbury Reef had given the most promise, a party of two experienced men, under the supervision of the area mining engineer, was sent out to this reef in February, 1938. Old prospecting drives were re-opened and the line of reef in the direction of the Bullendale area opened up by trenching. The mining engineer then sampled the various sections of the reef, taking twelve samples :—

Sample No.	Assay Result. (Per ton of 2,240 lb.) Oz.	dwt.	gr.
1	0	0	22
2	0	2	2
3	0	0	21
4	0	4	7
5	0	0	10
6	0	1	10
7	0	0	21
8	0	2	12
9	0	0	15
10	0	1	13
11	1	19	0
12	0	0	21

Only one of these samples, No. 11, gave a reasonable value. Work was discontinued in March, 1938.

The work done confirmed the results obtained by the previous party, and proved conclusively that there were only small blocks of low-grade stone at irregular intervals on the line on the Sainsbury reef.

The general results of this prospecting have proved the thoroughness of the early prospectors, who have left little payable surface quartz.

Rough Ridge or Oturehua Reefing System in the Blackstone Survey District, Central Otago.

As this system had yielded good returns in the early reefing periods it was decided to give this area a thorough test, first of all by opencuts and trenching, and finally by driving and sinking methods. The Otago Central Reef, Dovers Reef Nos. 1, 2, 3, and 4, West of England, Great Eastern, Gardiners, Gardiners North, Perseverance, Paynes, Lloyds, Connells, Golden Progress, and the North of England lines of reefs were located by trenching and opencutting, and the whole of the reefing system was plotted and a plan made showing the relationship of these lines of reef.

Where promising prospects were obtained the trenches were deepened, drives were put in, and, in the Otago Central Reef and the Dover No. 3 reef, prospecting-shafts were sunk to a depth of 50 ft. In all cases the width and value of the leaders decreased at depth. In order to test Paynes reef at depth a level was reconditioned and the face extended to a distance of 264 ft. from the surface, but the reef did not live down, and there was only a reef track 2 in. wide carrying a little mineral when the reef line was intersected.

The results obtained from this prospecting showed that the reefs and leaders became poorer at depth and that here again the early reef miners had extracted all the payable blocks of surface quartz.

Eight men were employed under Supervisor George Carson from May, 1937, to September, 1938.

Barewood, Nenthorn Survey District.

Similar prospecting and mapping work was carried out on the Barewood line of reefs, from January to April, 1938, under the supervision of Mr. Archibald Graham, Mining Geologist.

This area is situated in the Nenthorn Survey District, Otago, and lies between the Taieri River and its tributary, Flat Stream. The Taieri Gorge Reef, the Castle Creek Reef, Main Barewood Reef, Ewarts Reef, Coolgardie Reef, and an unnamed reef lying to the south of Trig. A were prospected by trenching and open-cut methods. The results obtained proved that the surface gold and scheelite blocks of ore had been stoped out when this field was previously worked, and that the only methods of testing the possibilities of this area at depth are by means of core drilling or a combination of shaft sinking and core drilling.

Glenorchy, Earnslaw Survey District.

Special prospecting-work, under Supervisor James Reid, was carried out in the Upper Oxburn basin situated in Blocks XVI and XVII and parts Blocks XIII and XIV in Earnslaw Survey District, where there were numerous reef outcrops.

Two men were employed in March and April, 1938, and fifty samples were taken from reef outcrops. These samples were assayed, but the values proved to be low, ranging from 2 dwt. 23 gr. downwards. No further work was carried out, as the prospects of locating payable reefs were poor.