THE GREAT PYRAMID MINE
UPPER SCAMANDER.
CHECK SAMPLING

At the request of the holder of Special Prospector's Licence number 322, Mr. MacDermott, some sampling was carried out at the Great Pyramid Mine as a check on sampling already carried out and recorded on mine plans available. From these plans it is evident that systematic sampling of the mine was carried out by at least two previous operators.

In the year 1911 Geological Survey Bulletin No. 9, "The Scamander Mineral District", by the then Government Geologist Mr. W.H. Twelvetrees, was published. In that Bulletin it is recorded that Tin was discovered in the area in the year 1909 and that the Great Pyramid Tin Mine operated till the end of 1910. There is no record of production from the mine and it is evident that development and sampling was all that was done.

Mr. Twelvetrees records

"The Company took up these sections last year and carried out a prospecting scheme by means of which it was anticipated that a large tin mine would be opened up. Some of the statements circulated by visitors and others were decidedly extravagant, and rested on no proper basis. As the work of testing the property proceeded, it became apparent that the expectations of the over-sanguine promoters would not be realised and work was finally abandoned at the end of last year."

Mr. Twelvetrees was satisfied that

"the company's sampling and assays have been systematic and comprehensive."

The plan accompanying Bulletin No. 9 shows a series of eleven adits driven from both sides of the hill and at different altitudes. Many costeans and several shallow shafts are also shown. In most of these workings sampling was carried out in a regular manner the sample length being in general 10 feet, with samples adjoining each other to give a complete cross section.

On August 29th 1912, portion of these leases were applied for, by Mary Roach of St. Helens, as leases 5975/M, 5976/M and were so held until 17th May, 1920.

Apparently during the year 1914 an option was granted to the Troy Tin Syndicate. Plans dated 24/10/1914 carrying the name of that syndicate show that some of the adits driven by the Great Pyramid company have been extended and cross-cuts from some adits driven. A further sampling campaign was carried out during which a great portion of the old workings were re sampled and all the new work was sampled.

The Troy Tin Syndicate's sampling appears to be systematic for a continuous section is shown of samples at 5 feet intervals over larger sections of the workings.

During the year 1920 the leases were surrendered and included in consolidated lease 8575/M in the name of Mary Roach and J.S. Robertson and as such were held until 21st March, 1925, when they became void.

On 6th March, 1925, the area became lease No. 9450 in the name of H. Aulich who held it until 10th January, 1936, when it was transferred to Messrs. B. Espie and J.L. Murrison of New Norfolk and finally became void on 4th June, 1941.

The present prospecting area dates from 27th May, 1957.

During the history of the mine there is no record of any production. The only development has been in the nature of prospecting adits and sampling. In one instance only has an ore body been developed and then only to the extent of a small rise from the north adit to surface.

There is little variation in grade of ore when comparison is made between the sampling of the Great Pyramid company and the Troy Tin Syndicate with, in general, the syndicate sampling being the lower grade. An actual comparison of the grade in the No. 2 south low level adit shows the Great Pyramid sampling over a continuous width of 120 feet for a grade of 0.358% tin is high compared with an average grade of 0.174% tin over a length of 90 feet by the Troy Syndicate.

The recent sampling by the Department of Mines was designed to check the general accuracy of the sampling already done. For this purpose only a small number of samples were taken at selected positions where sample plans showed generally high grade ore.

The results of the sampling are tabulated and as a comparison the results of the Great Pyramid and Troy Tin Syndicate sampling of identical positions are also shown.

Sample No.	Dept. 1957 % Tin	Gt.Pyramid 1909 % Tin	Troy Syn. 1914 % Tin	Workings
1	Tr	0.62	0.481	North Adit
2	0.37	0.22	0.573	" "
3	Tr	NS	NS	" "
4	0.42		1.149	x Cut from No.2 Nth.
5	0.37		1.368	Low Level Adit
6	0.83		0.63	x Cut by Troy Syn.
7	Tr			Pug Vein
8	0.1	0.7	0.98	"C" Adit
9	Tr	0.7	0.708	"C" "
10	0.4	1.9	0.66	"C" "
11	0.1		2.77	x Cut from No.2 South
12	1.48		1.16	Low Level Adit
13	0.33		0.57	x Cut by Troy Syn.
14	0.10		0.175	No.2 South Low Level Adit
15	0.23		0.35	Adit extended by Troy Syn.
16	0.13		0.87	No.1 South Low Level Adit
17	1.66		0.26	North Adit Rise

The sampling has shown that the general grade is low but high grade veins of ore occur. There has been no development towards proving the lateral extent of these veins except at the north adit where a short development has proved that that particular vein has no appreciable lateral extent. Work done by Mr. Gulline has established that the strike of the country rock is

towards the North West and that some individual tin bearing veins, where observed, have a strike at right angles to that of the rocks and a dip to the north west at an estimated 50 degrees. From these observations it would appear that there is a possibility of the vein cut by the north adit at the position of the present rise to surface recurring in the crosscut from No. 2 North Lower Level Adit at or near its present face. In confirmation of this opinion high grade vein material was observed near the present face of the cross cut. Its lateral extent has, however, not been proved. These observations suggest that future prospecting should be in the form of costeans cut in a north westerly direction to reveal any tin bearing veins which may occur. Having determined their occurrence their lateral extent should be proven by parallel costeans when, if their extent and grade warrant it, development at depth should be considered.

There is no doubt that high grade ore occurs in some of the tin bearing veins, for selected samples have shown approximately 15% tin and many selected samples exceed one and two percent tin.

No development has been carried out on any of the high grade veins. The adits have effectively prospected the country through which they have passed and the grade of ore revealed therein has been confirmed in shallow shafts, costeans and surface workings.

It has been concluded that low grade tin ore occurs on the Great Pyramid Hill, resulting from the presence of high grade veinlets in barren rock. These veinlets are not of regular occurrence but where seen yield high grade ore in selected samples, and specimens are easily obtained. The veins have never been tested for lateral extent. Sampling has been systematic and has given an account of the sections sampled and the grade of ore in those workings. The recent sampling has failed to suggest any improvement in grade of ore available but tends to show that previous sampling has been optimistic.

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