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2. McDOUGALL'S TIN PROSPECTING AREA, TOMAHAWK RIVER

by R. Jack

LOCATION AND ACCESS

The prospecting area Special Prospector's Licence 376 of 6 square miles is located on the headwaters of the Tomahawk River 15 miles NE of Scottsdale. Access is by a forestry road which branches from the Scottsdale-Forester road and runs E-W through the area. A timber road branching from this gives access to the southern part of the prospecting area.

OBJECT

At the request of the licence holders, an inspection was made to estimate the tin potential of the area and to sample the prospect holes dug by the licence holders.

GEOLOGY

Most of the area is covered by Tertiary sediments of varying thickness, consisting mainly of sands, sandy gravels and in places coarse gravels. The maximum depth of sediment seen is approximately thirteen feet.

The sediments are underlain by sandstone and shale of the Mathinna Group, and granite, the contact between which probably occurs on the prospecting area but cannot be delineated owing to the Tertiary cover.

The granite contributed a typical coarse sand to the Tertiary sediments while the rocks of the Mathinna Group contributed boulders of grey quartzite and boulders and pebbles of grey to white vein quartz.

WORKINGS

Old workings exist along the banks of the headwaters of the Tomahawk River. These are shallow—generally less than 8 feet in depth and of limited extent. They probably represent richer patches of tin that were concentrated by the present streams from the Tertiary sediments.

The present licensees are concentrating more on finding the source of this tin in the Tertiary sediments than on finding small rich patches along the streams. Their prospecting consists mainly of sinking small holes into the Tertiary gravels and trying to follow the small leads thus found.

SAMPLING

Wherever possible samples were taken by cutting a channel down the side of the holes, but in the case of some of the holes which were full of water, samples were taken from the dump material. The channel samples give a true indication of grade, but those from the dump material are probably higher than the actual value as much of the finer clay material has been washed away by rain.

A sample was taken from one old prospecting hole which is reported to have been dug about 12 years ago and sampled by the Department at that time, but no record of the result can be found.

RESULTS

Sample	Depth (ft)	Value (lbs/ cu. yd)	Location	Remarks
1.	12	0.07	¼ mile W of timber road and ½ mile S of forestry road.	Mainly granite gravel and small wash. Sample from dump.
2.	8	0.26	Old prospect hole 20 yds W of timber road.	Coarse gravelly wash, may not be on true bottom.
3.	4	0.05	100 yds N of Sample 2	Coarse gravelly wash, may not be on true bottom.
4.	7	0.11	200 yds N of forestry road and ½ mile W of previous samples	Fine sandy gravel and some boulders. Sample from dump.
5.	6	0.01	Same as Sample 4	Medium sand and gravel.
6.	2	0.03	100 yds S of Sample 4	Coarse gravelly wash and sand.

The sampling results show that there is very little tin present in the Tertiary sediments, and except for sample No. 2, of too low grade to warrant further work. Sample No. 2 may possibly be on or near an old creek bed beneath the Tertiary cover as the depth here was greater than sample No. 3 nearby and the pebbles more rounded. Whether any higher grade material could be found in the vicinity of sample No. 2 can only be determined by further prospecting.

CONCLUSIONS

It is doubtful if any further prospecting is warranted except in the vicinity of sample No. 2, and unless the grade improves and there is an appreciable area available it would not be economic to work. No large resources of economic grade are likely to be found on the prospecting area, but small patches of richer ground may possibly exist in small leads beneath the Tertiary sediment cover.