

Boring for alluvial gold in the South Esk and Ringarooma river valleys

by V. M. Threader

A churn drilling program is recommended in the South Esk and Ringarooma valleys to determine the thickness of river sediments and their gold content. Portions of these valleys have been mined on a small scale in the past, but no attempt has been made to employ large scale methods, or to assess the feasibility of such methods. The South Esk and tributary valleys comprise 30 square miles of alluvials from the Dan Rivulet confluence to the Tower Rivulet confluence. The Dorset and New River valleys comprise 3 square miles of alluvials plus another 10 including the sub-basalt flats downstream. If these areas prove payable then the potential areas could be increased by including areas further downstream. This is particularly so in the South Esk River valley where a broad valley extends to and beyond Avoca and where old drilling records have proved depths in excess of 200 feet. The total area being considered here is greater than 40 square miles and this would contain approximately 1,000 million cubic yards of river sediment per yard depth. The average grade of these sediments and the location of buried channels can only be ascertained after systematic drilling.

The South Esk River tributaries were panned and cradled for gold many years ago but there is no record of production. The main areas were Long and Black Horse gullies at Mathinna (grades varying from $\frac{1}{2}$ to 30 dwt per cubic yard were quoted by Twelvetrees, 1906) and Sailors, Sharkeys and Majors gullies at Mangana. These gullies are small and shallow and are probably of comparatively recent origin. It is doubtful if they would ever be large producers.

The Ringarooma River valley contains two large tributaries, the Dorset and New rivers, which drain from rich quartz reef country. Near their confluence a rich alluvial field was mined by hydraulic sluicing between 1937 and 1942, and also on a smaller scale between 1897 and 1915. Total production is given as 2660 ounces but this is considered to be less than the actual figure.

Scout boring in 1937 failed to locate further areas of payable ground but there is no record of the depth or location of these holes. Dredging and sluicing operations in the lower reaches of the Ringarooma River indicate that an average grade of $\frac{1}{2}$ a grain of gold per cubic yard is obtained as far as 40 miles downstream from the source area.

To evaluate the river sediments of the main valleys, it will be necessary to bore lines of holes across their width. The holes should be at 200 yard intervals initially, with closer spacing later to complete the profile and locate deep leads. Sampling should be in 5 feet lengths to allow an assessment of average tenor of alluvium. Five lines of holes are shown on the accompanying maps, and it should be possible to site these holes on public road reserves.

The localities of the 5 lines are:

1. South Esk River – Dans Rivulet confluence
2. South Esk River – Evercreech Rivulet confluence
3. South Esk River – Tower Rivulet confluence
4. Dorset River – New River confluence
5. Ringarooma River – Maurice River confluence

Other lines of holes should be drilled if the above program is successful.

The smaller tributary gullies should also be drilled but this is a subsidiary operation and could be undertaken after the main work detailed above has been completed.

REFERENCE

TWELVETREES, W. H. 1906. Report on the Mathinna Goldfield. *Report Secretary for Mines Tasmania* 1906:i–lxviii.

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