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Alleged Uranium Discovery at Flinders Island

by Terence D. Hughes

Towards the end of 1957 considerable publicity was given on the A.B.C. news to a discovery of uranium at Flinders Island, and R. Saville, of Flinders Island, left specimens with the Chief Chemist at the Department of Mines, Launceston. One of these specimens consisted of greisenised granite, containing green torbernite, similar in appearance to material from the open cut at Royal George; another closely resembled the altered granite containing yellow uranium ochre from the Tasmanian United Uranium prospect at Rossarden. After some correspondence with Mr. Saville, a visit to the island was arranged and under the guidance of Messrs. Saville and Aitken an inspection of three areas was made.

These three areas were:—

1. Killiecrankie Bay. Twenty-five miles north of Whitemark and near the northern end of the island is the small fishing anchorage of Killiecrankie Bay. At the northern end of the bay the granite mass of Mt. Killiecrankie rises to a height of over a thousand feet; at the southern end behind the small settlement are lower granite hills. It is along the northern face of one of these hills that the uranium was stated to occur and at one spot, both Messrs. Saville and Aitken state, the needle of a P.R.M. Austronic Counter set at $\times 200$ went off scale.

The granite is the normal quartz-mica-felspar Devonian granite so common both in the islands and in the north-eastern part of Tasmania. It is the granite from which the extensive tin deposits of these areas owe their origin. It is of medium texture and contains subordinate orthoclase as well as plagioclase. Sometimes large phenocrysts of the latter stand out on weathered surfaces. A well-developed joint pattern, with the major system striking in a north-westerly direction is readily visible. Quartz veins and pegmatite veins containing large phenocrysts of felspar and books of muscovite occur, mainly following the joint pattern.

Readings with a P.R.M. 200 Austronic Geiger Counter were taken at intervals along the granite hillside. Background on the soil away from any rock was 60 c.p.m., background on broken granite was 100 c.p.m., and background on bold outcrop 120 c.p.m. At no place could a reading in excess of 150 c.p.m. be obtained. Messrs. Saville and Aitken stated that at one spot the needle of their counter, set even at the the maximum multiplication, went off scale. Two days were spent by them in efforts to re-locate this spot but they were unable to find it. No uranium mineralization could be found anywhere in this locality.

2. Mt. Leventhorpe Area. This area is located six to eight miles north-east of Whitemark and east of the Pats River Tin field. A traverse was made from the Radio-Telephone Station across Leventhorpe Creek to No. 6 Road of the Closer Settlement Subdivision. The Mathinna Group of slates and quartzites outcrops on the hill

on which the station is located, but the granite contact is not far to both the south and east. Readings were taken at intervals along the traverse and more detailed examinations made in areas of granite both north and south of No. 6 Road. At no time could readings above the normal granite background count be obtained and, although there is some silicification of the granite near No. 6 Road, there is no sign of any uranium mineralization.

3. A few miles north-east of Whitemark, close to the road to Pats River and just west of the Pats River Tin Workings, a small trench has been put into detrital material derived from the granite. No solid rock can be seen in the trench and there are probably several feet of granite gravel below it. No reading above background was expected and none obtained in this trench.

Nowhere in the areas examined in Flinders Island could be found any trace of uranium minerals and no count above that which may be expected from a reasonably "hot" granite could be obtained. Although this is a well known tin province and one in which uranium could occur in commercial quantities, there does not seem to be any direct evidence to justify the extension of prospecting in the areas examined and any further work should only be the further exploration by geiger counter.