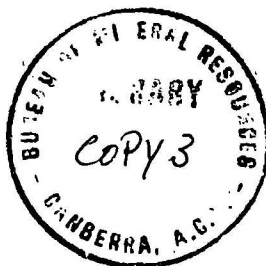


COMMONWEALTH OF AUSTRALIA

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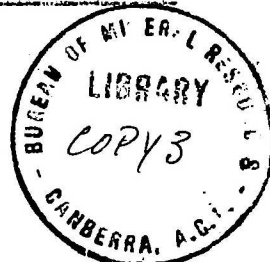
BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

Record 1957/85



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1957/85

Report on a Radioactive "find" in the Mt. Johnstonearea, Strangways Range, N. T.Introduction

At the request of Mr. P. Ciccone, some samples of a black mineral obtained by him from his mine in the Strangways Range were examined at the Mines Branch, Alice Springs. The mineral was tested for radioactivity and a reading of over 8,000 counts per minute was obtained. As a result the mineral was forwarded to the Bureau of Mineral Resources, Darwin for further testing.

The mineral assayed 2.64% c. U_3O_8 and was identified as samarskite. Some further samples supplied by Mr. Ciccone gave readings of 300-400 counts per minute.

The samarskite was obtained from a pegmatite in the Mt. Johnstone area in the Strangways Range. The pegmatite has produced some mica and the samarskite was found associated with the mica.

The pegmatite lies about 4 miles north-north-east of Mt. Johnstone, on the head waters of Ammarra Creek. Access is by a rough road from Mud Tank which lies on the road to the Harts range Rice field. Mud Tank is about 55 miles from the Stuart Highway, and about 110 miles from Alice Springs.

Geology.

The pegmatite is composed mainly of quartz, plagioclase, orthoclase, mica and green apatite: it intrudes gneiss and amphibolite of the Arunta Complex. The pegmatite is about 80 feet long and 30 feet wide. Mica has been won from two very small open cuts within the pegmatite. The bigger open cut is about 8' deep and the samarskite is reported to have been found, associated with mica, in this open cut.

No further samples of any black mineral were seen in any of the workings. Mr. Ciccone claims to have taken about 100 lbs of this black mineral from the open cut but this had been removed to his camp at Undippa.

Readings were taken with a Geiger Counter (Type HM200) and the following results were obtained.

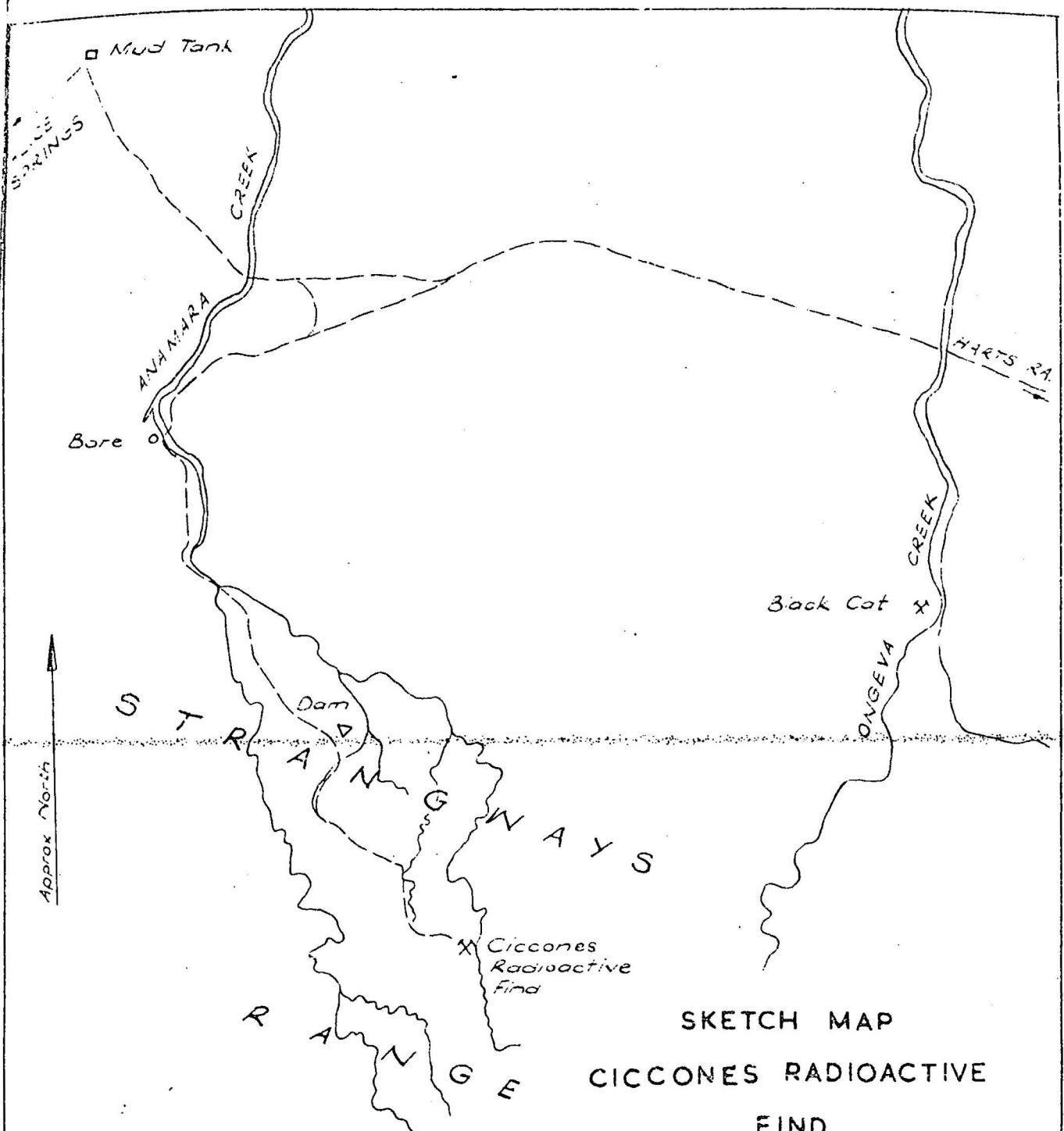
<u>Source</u>	<u>Highest Reading in counts per minute</u>
Face of workings	250
Dump material	240
Mica	200
Gneiss	150
Pegmatite (away from open cut)	220
Amphibolite	200
Adjacent Quartz Reef	200
Instr. background (Alice Springs)	100

The nearest known occurrence of radioactivity is at the Black Cat Mine on the west bank of Ongeva Creek: about 7 miles to the north-east.

Recommendations and Conclusions

No radioactive minerals were found in the pegmatite and the highest count obtained in the area was $2\frac{1}{2}$ times instrument background. This was recorded at the face where the samarskite is reported to have been found.

Other small pockets of radioactive material are probably present within the pegmatite. However no further examination is warranted.



SKETCH MAP
CICCONES RADIOACTIVE
FIND.

STRANGWAYS RANGE, N.T.

MT. JOHNSTONE

2 1 0 2 MILES

