DEPARTMENT OF MINES
SOUTH AUSTRALIA

RADIOMETRIC SURVEY OF VARISCHETTI'S URANIUM PROSPECT MINERAL CLAIM 2341 NEAR BIMBOWRIE

by

I.A.MUMME ✓

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Associated Plan 58-386

SUMMARY:

A ground scintillometer survey was carried out at the request of the Senior Geologist (Uranium & Fuel Section) on M.E. Varischetti's prospect, near Bimbowrie. Although uranium mineralization had been located in an abandoned open-cut, the survey did not locate any anomalies which could be related to additional exposed or shallow seated uraniferous material.

Further testing by jack hammer holes is recommended.

INTRODUCTION:

Uranium mineralization was located in an abandoned open cut at this prospect by Mr. M.E. Varischetti during mining operations for felspar, mica and beryl.

A radiometric survey was conducted by the writer on the recommendation of W. Johnson.

An area of 1300 feet by 700 feet was gridded in detail but no further exposures of uranium mineralization were located.

PREVIOUS GEOLOGICAL AND GEOPHYSICAL WORK:

The immediate area surrounding the open cut was mapped by W. Johnson and N. Hiern (of the Uranium and Fuel Section, Department of Mines, S.A.) and the results incorporated in Report DM 906/58 entitled "Progress Report on the Geological Investigation of a Uranium bearing pegmatite, near Bimbowrie, Olary Province - M.E. Varischetti" by W. Johnson.

Active exploration work was carried out in the general area by geologists and prospectors of the S.A. Department of Mines from 1951 to 1954 but no radioactivity was recorded at this mine which was then an abandoned feldspar-beryl mine.

The area was flown by the Bureau of Mineral Resources in a DC3 aircraft while conducting regional scintillometer and magnetometer surveys, and the results incorporated in plan No. G143-4, Outalpa.

METHODS USED:

A base line 1300 feet long was laid out bearing 28° E of Mn. and 12 traverses 100 ft. apart and 700 feet long, offset in a westerly direction.

Readings were taken at intervals of 25 feet resulting in a square pattern. The results were corrected for drift and an isorad plan prepared showing the variations in the surface radioactivity.

INTERPRETATION OF RESULTS:

No significant radiometric anomalies were located which could be related to outcropping or shallow seated uraniferous lodes.

Surface radiometric investigations show that the scintillometer readings over the granite are higher than the readings over the pegmatite in which the uranium mineralization occurs.

This is possibly due to the fact that the granite is a potash granite and contains traces of uranium minerals (or thorium minerals) while the pegmatite is a soda type.

Slight radioactivity was located at the southern end of the open cut in the granite itself. This may be due to traces of uranium minerals in the granite.

No aerial scintillometer anomalies occur adjacent to the prospect but a number of third order anomalies occur further away as well as a first order anomaly. The first order anomaly occurs 2½ miles south of the prospect. It is possible that uranium mineralization may occur at several of these anomalies.

A short distance away, about 700 feet, another uranium prospect occurs in granite. (Nejaims prospect).

RECOMMENDATIONS AND CONCLUSIONS:

The writer recommends that Varischetti continues exploration on the uranium mineralization exposed in the open cut as the original indications of uranium mineralization were small and since have somewhat improved with depth.

To ascertain whether or not further concentrations of uranium minerals occur at depth below the known exposures in the open cut, it is recommended that a number of drill holes be drilled in a pattern with a jack hammer into the radioactive zone, and the holes be logged with radiometric borehole logging equipment.

The radioactive material is high grade and is easy to hand pick and would be a valuable bi-product in the mining of beryl from the open cut.

I.A. Mumme
GEOPHYSICIST

IAM:AGK
11/11/58

LEGEND

- *Radiometric Contour* — 15
- *Survey peg* .... •
- *Lease peg* .... △

To accompany report by I.A. Mumme

S.A. DEPT. OF MINES			
Reg. No. / D.M. / Compiled from	URANIUM OCCURRENCE ON MINERAL CLAIM 2341 NEAR BIMBOWRIE (M.E. VARISCHETTI) ISORAD PLAN	Approved / Passed / Director of Mines	Drn. / Tcd. D.K.B / Ckd. R.R. / Exd.
Associated Drawing / No. / No. / Amendment / Exd. / Date			Scale 40 feet to 1 inch 58-386 F1 Date 12 · 11 · 58

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