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PROSPECTING IN THE CROCKER'S WELL AREA.PROGRESS REPORT AND RECOMMENDATIONS.

Intensive geological examination and prospecting in the Crocker's Well area is bringing in a steady flow of uranium discoveries of varying size and significance. Many of these are clearly small prospects, pegmatitic in character, which could very well and profitably be opened up by a pair of prospectors and could make a useful uranium contribution. Others require attention on a larger scale.

CROCKER'S EAST: Over an area extending from 1 mile to 1½ miles east of the Crocker's Well occurrence, residual absite on granite has now been mapped. The full significance of this widespread superficial mineral has not yet been assessed. It is proposed to undertake diamond drilling immediately in one area and gradually to extend this type of testing.

It is desirable however, to localise the centres of most intense mineralisation and evaluate their  $U_3O_8$  content by surface sampling. Experience at Crocker's Well has shown that this can be done effectively only by trenching and bulk sampling.

Accordingly it is recommended that a sampling team be engaged to cut a series of trenches each trench being approximately 100 feet in length and spaced 100 feet apart. A total of 600 feet of trenching is recommended initially. Trenches should be 2 feet in depth, and all material broken should be removed for bulk sampling.

The total cost of this operation, including transport of material either to Radium Hill or Adelaide and subsequent treatment would be of the order of £4,000. A detailed estimate of costs should be obtained from the State Mining Engineer and from the Chief Metallurgist.

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PLUMBAGO PROSPECT: Diamond drilling is now in progress on the small radioactive prospect north-east of Plumbago Station. This is not considered a particularly promising prospect but being a proto-type of several others which have since been located, and it is desirable to obtain a clear understanding of the occurrence.

CROCKER'S WEST - Davidite Prospect: Very coarse davidite has been discovered in quartz pegmatites, 1½ miles westerly from Crocker's Well. The mineral is remarkably pure, and largely free from ilmenite. The pegmatites are associated with an aplitic rock which also contains davidite in disseminated form.

This prospect has distinct possibilities for small scale production of a high grade hand picked davidite concentrate. The occurrence has all the erratic characteristics of normal pegmatitic mineralisation, and the first impression suggests that it could best be exploited on a small scale by a pair of prospector-miners.

It is proposed to sample the occurrence and subsequently design one or more boreholes to test it at greater depth.

OTHER PROSPECTS: A swarm of minor radio-active anomalies has now been located south and also west of the original Crocker's Well prospect. In many of these absite and/or davidite mineralisation have been identified. A complete examination of each is in progress and recommendations for further action will be submitted if warranted.

Plan. US 211, prepared by Geologist, D. King, and Assistant Geologist, I. Campbell, is submitted with this report. Detailed geological plans have also been prepared and will accompany a subsequent geological report.

(L. W. PARKIN)

Senior Geologist.

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