

HYLAND BAY HEAVY MINERAL BEACH SANDS NORTHERN TERRITORY

Placer Prospecting (Australia) Pty. Ltd., Sydney, N.S.W. Australia - June, 1969

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Summary

An Authority to Prospect (A/P No. 1969) and granted to Australus Mining Co., Pty. Ltd., comprising approximately 15 square miles in area was examined in October, 1968. Hand boring, and panning of a surface sample and a channel sample failed to disclose mineralization of economic significance.

Locality & Description

This A/P is located on the NW coastline of Northern Territory on the Timor Sea at approximately the intersection of $14^{\rm O}00'$ South Latitude and $129^{\rm O}40'$ East Longitude, which is roughly 132 airline miles SW of Darwin. The drainage at this point consists of the Moyle River proper flowing through Moyle Plain, a featureless savannah of canegrass swamps and scattered paperbark eucalypts. However, the potentiality for mineralization here was thought to be excellent as the headwaters of the Moyle, particularly Tom Turners Creek, drains a large area of Permian sandstone which includes several Precambrian granite stocks exhumed by erosion.

North-trending littoral currents have deposited the coarser sediments discharged into Hyland Bay along some 2 miles of beach front. The shore platform here varies between 150'-200' in width and has an average depth of 3'-4'. A modest development of ancient strand line ridges some 4'-5' high extends a half mile inland from the present storm tide line. However, the deposit is completely exposed with no natural protective anchorage closer than Port Keats which is 10 to 15 miles to the south.

The attached map showing location of A/P is taken from the Army Map Series, Cape Scott, SD52-7, Edition 1, Series R502, Scale: 1:250,000.

Examination of Area

Access to the area was by a diesel-powered 50 ton shallow-vee work boat, the Larrpan II, skippered by Capt. Sid Hawks with a crew of two. Transportation from ship to shore was by motorized dinghy. A Dormer Engineering Works portable hand auger set with aluminium rods and steel casing was used for drilling. Two geologists, a professional prospector and a field assistant composed the exploration team.

A general examination of the beach and dune area was made. One surface sample of beach concentrates was taken to establish the heavy mineral assemblage and an 8' channel sample was cut from a wave-truncated dune section some 4800' south of the single hole bored. This hole bottomed in hard, gray clay at a depth of 9' and yielded only a thin show of heavy tailings upon panning. The cuttings were coned, quartered and aliquot portions panned for the heavy mineral content. The remainders were bagged, labelled and returned to the laboratory at Darwin River Camp for whatever additional investigation was deemed desirable.

Sample data, together with expenses allocated to this investigation are included in the Appendix.

Conclusions

Although it is estimated that approximately 9,000,000 cubic yards of beach and berm-type dune sand occur in this area, the negative factors encountered are insurmountable. These are, principally, the complete isolation and extreme exposure of this area to the severe monsoonal storms encountered each season, together with the lack of significant commercial mineralization. Therefore, in the writer's opinion, this deposit is completely non-economic at the present time.

APPENDIX

Drill Logs and Sample Data

Hole 1

<u>Depth</u> <u>Section</u>	<u>Description</u>	Weight H.M. Grams	lbs/cu.yd.	<u>H.M. %</u>
0'-5'	coarse brown, sand and shell	2.5	2.5	0.09
5'-9'	coarse brown, sand and shell Bottom of grey clay	3.2	3.2	0.11
Surface Sample	Brown sand	74.5	74.5	2.78
Channel Sample	Coarse, shelly sand from 8' bank	15.2	15.2	0.56

Driller: W. Barber

Date : 22/10/68

Expenses Allocated to Exploration

	<u>\$</u>
Camp Operation & Field Expenses	50.00
Geology	150.00
Hand Drilling	125.00
Sampling and Assaying	60.00
Transportation	115.00
Office Overhead (15%)	75.00

Rounded Total:

\$575.00

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