

REPORT ON

PERON ISLAND HEAVY MINERAL BEACH SANDS

NORTHERN TERRITORY

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

c.c. Placer, Vancouver
" Oakland
Darwin
Sydney
Nevsam, Melbourne

PERON ISLAND HEAVY MINERAL BEACH SANDS

NORTHERN TERRITORY

Summary

An Authority to Prospect (A/P No. 1971) was granted to the Australus Mining Co. Pty. Ltd. which consists of an area of approximately 3 square miles. Only half of this is underlain by sand. The area was investigated in October, 1968 but hand borin g disclosed no heavy mineralization.

Locality & Description

The A/P is located on the N.W. coastline of the Northern Territory on the Timor Sea at approximately the intersection of 13° 10' S.Lat. and 130° 05' E.Long. This is roughly 80 airline miles S.W. of Darwin. The island group consists of two principal islands about 3 to 7 miles off the mainland coastline fringed by rocky lateritic reefs. Sand of any consequence occurs only on Peron Island North. It is possible these were once connected to the mainland as the remaining high points are outcroppings of gritty quartz-laterite pebble conglomerate cemented with shell fragments.

The accumulation of sand along the 1½ mile long tombolo-like beach line was probably partly derived from disintigration of the island groups and partly from sediments discharged into Anson Bay by the Daly River.

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.

Three holes were bored to obtain a section at the widest part of the deposit. These were located 3500' north of an isthmus and were spaced 200' and 1800' apart. The first hole was put down on the storm tide line; the second hole on the first or foredune; and the third hole on the last parallel dune on the landward side of the island.

The holes were bored to depths of 15', 15' and 9' respectively and encountered only coarse-grained reddish-brown sand which was very shelly throughout. Water was encountered at 5' in the first two holes but none in the third. Panning of each increment of cuttings disclosed only light tails of heavies -- nothing of significance. The third hole was terminated prematurely because of a hard shell-and-coral base.

As in all of this series of beach sand investigations, each 5' hole increment was coned and quartered and an aliquot part panned on the spot. The remaining portions were bagged, labelled and stored in the Darwin River Camp laboratory as referee samples.

One surface sample was taken from the extreme north end of the island at the base of a prominent hill marked U307, a former survey station. This consisted of Skimmings from the beach surfaces in the area. The heavy mineral suite here was fairly typical of those encountered along this portion of the Timor Sea coastline. The material is predominantly (60%) very fine-grained (-50 mesh) magnetite and hematite, with subsidiary amounts (20%) of equally fine-grained ilmenite, the remainder (20%) chiefly zircon, garnet, tourmaline, rutile and monazite, and roughly in that order of frequency.

Field logs of the bore holes, together with expenses allocated to this job are included in the Appendix.

Conclusions

Although there are possibly 18,000,000 cu. yds. of sand present on this A/P, practical considerations involving accessibility (off-shore reefs); weather protection (none); or favourable dredge or plant sites (questionable), together with total lack of mineralization make it unnecessary to give this Authority any further consideration.

APPENDIX

DRILL LOGS

Hole 1

<u>Depth Section</u>	<u>Description</u>	<u>Weight H.M. Grams</u>	<u>lbs/Cu Yd.</u>	<u>H.M. %</u>
0' - 5'	coarse grained dark brown sand & shells	0.2	0.2	0.01
5' - 10'	finer grained dark brown sand & shells	0.2	0.2	0.01
10'- 15'	finer grained dark brown sand & shells	0.3	0.3	0.01

Coarse shell fragments prevented further drilling. No H.M.

Hole 2

0' - 5'	coarse grained reddish sand	0.7	0.7	0.03
5' - 10'	coarse grained reddish sand	0.7	0.7	0.03
10'- 15'	coarse grained reddish sand	0.2	0.2	0.01

Hole terminated, no values evident.

Hole 3

0' - 5'	coarse reddish sand	0.4	0.4	0.02
5' - 9'	coarse reddish sand	2.0	2.0	0.07

Indurated Sand 3' to 9' too hard to drill.

Surface Sample

very concentrated	12.6	12.6	0.47
-------------------	------	------	------

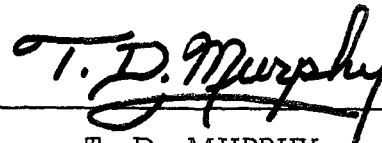
Only evident concentration on surface.

Driller : W. Barber

Date : 24.10.68

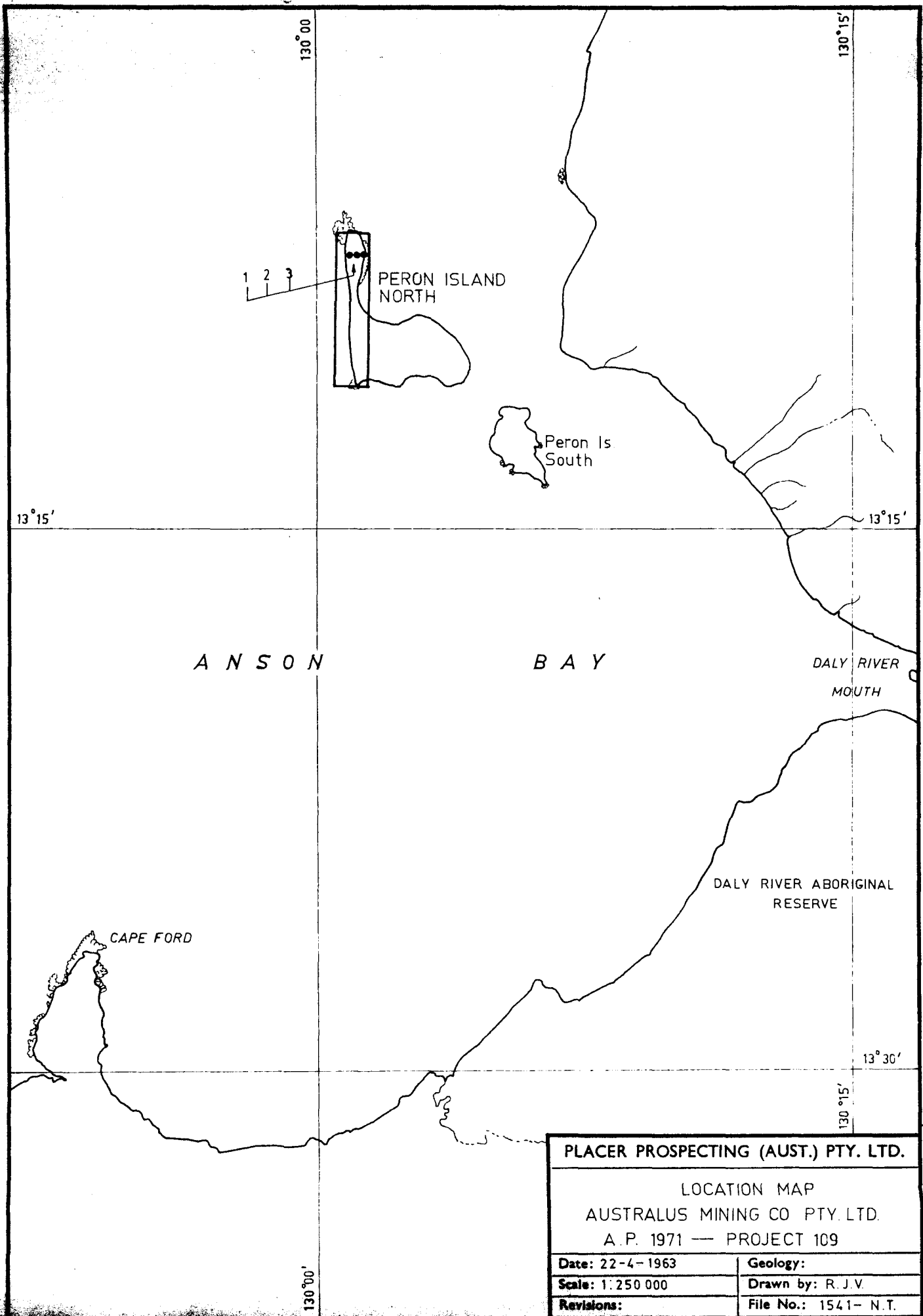
Expenses Allocated to Exploration

	\$
Camp etc.	45
Geology	135
Hand etc.	85
Sampling etc.	85
Transportation	150
Office etc.	75
	<hr/>
Rounded Total :	\$ 575
	<hr/>



T. D. MURPHY
Consulting Mining Geologist
Placer Prospecting (Aust.) Pty. Ltd.

TDM. JP. 69/810



PLACER PROSPECTING (AUST.) PTY. LTD.	
LOCATION MAP	
AUSTRALUS MINING CO PTY. LTD.	
A. P. 1971 — PROJECT 109	
Date: 22-4-1963	Geology:
Scale: 1:250 000	Drawn by: R. J. V.
Revisions:	File No.: 1541- N.T.