

# PLACECO AUSTRALIA PTY LTD

## EXPLORATION LICENCE 24/86 DOCTORS ROCKS

### FINAL AND RELINQUISHMENT REPORT YEAR 3 27 March 1989 — January 1990

90-3078  
MINES

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2. Location and results of sediment sampling, June 1987 (1: 25 000). In back pocket

## **TENEMENTDETAILS**

Exploration Licence 24/86 (Doctors Rocks) covers 26 sqkm, extending offshore in a northeasterly direction into Bass Strait from the coast between Wynyard and Somerset in northwestern Tasmania (Figures 1 and 2).

On 6th January 1987, Placeco entered a joint venture option agreement with Bass Strait Oil and Gas (Holdings) N. L. to explore the EL. The option was exercised on April 9th 1987.

## **EXPLORATION PHILOSOPHY AND OBJECTIVES**

EL 24/87 was applied for mainly because of the long history of known placer gold occurrences on the coastline near Doctors Rocks. It was thought that the offshore palaeo-beach sediments might contain gold as an extension of the mineralisation on the present beaches.

Three main lithologies were considered as a source for the gold:

- Upper Carboniferous — Permian glacial and fluvial-glacial sediments
- Tertiary alluvial channel deposits extending offshore from Doctors Rocks
- Quartz-veined Precambrian metasediments

## **SUMMARY OF WORK COMPLETED**

The primary objective of exploration was to assess the extent and grade of placer gold mineralisation in off-shore sediments, and to determine the source of the metal. An off-shore sediment sampling programme was conducted in Year 1. This survey revealed a close spatial relationship between placer gold and host sediments derived from Permo-Carboniferous rocks.

As a result, the engineering company Dawson Offshore prepared a proposal for a pilot plant scale offshore sampling programme. This proposal was included as an Appendix to the Year 1 Annual Report.

## **DETAILS OF WORK COMPLETED**

In June 1987, a seafloor sediment sampling programme was undertaken to determine

- the distribution of visible gold in off-shore sediments
- the provenance of the host sediments
- whether long-shore drift and sediment mixing was occurring
- water depth, sediment thickness and bedrock distribution

Between June 17th and 20th, 1987, 25 samples were collected by divers from the seafloor between Burntwood Point and the western edge of Somerset. Sample locations are shown in Figure 2. The 5-7.5kg samples were panned down and any visible gold recorded. The divers (John and Scott Griffiths, Boat Harbour, Tasmania) worked from an inflatable Zodiac boat. Samples, mainly of poorly sorted gravel, were trowelled from potholes and crevices into plastic buckets. Water depth ranged from 5-11m (no tidal correction), and the survey ranged up to about 1km from shore.

Fragments of bedrock were returned in most samples. The results of the survey were:

- Traces of gold in the very fine sand to coarse sand range were recovered from 8 of the 25 samples (8/25)
- All gold-bearing samples were taken from gravels overlying Permo-Carboniferous tillite basement (8/14). No samples taken on Precambrian sediments yielded gold (0/8)
- Gravel composition compared with tillite bedrock indicated very little long-shore drift had occurred
- The gravel is generally 10-30cm thick, but in places is covered with sand ranging from 20cm to an unknown thickness
- Sediment cover was about 40% of the surveyed seafloor

## CONCLUSIONS AND RECOMMENDATIONS

The Year 1 survey established that the Permo-Carboniferous bedrock exposed over a coastal strike length of about 5km near Doctors Rocks have yielded trace amounts of very fine placer gold to near-shore Recent sediments. Longshore drift appears insignificant, and the work has defined the western and eastern margins of the gold-bearing tillite-derived gravels. The seaward extent remains undefined. The gravels are thin and their distribution patchy.

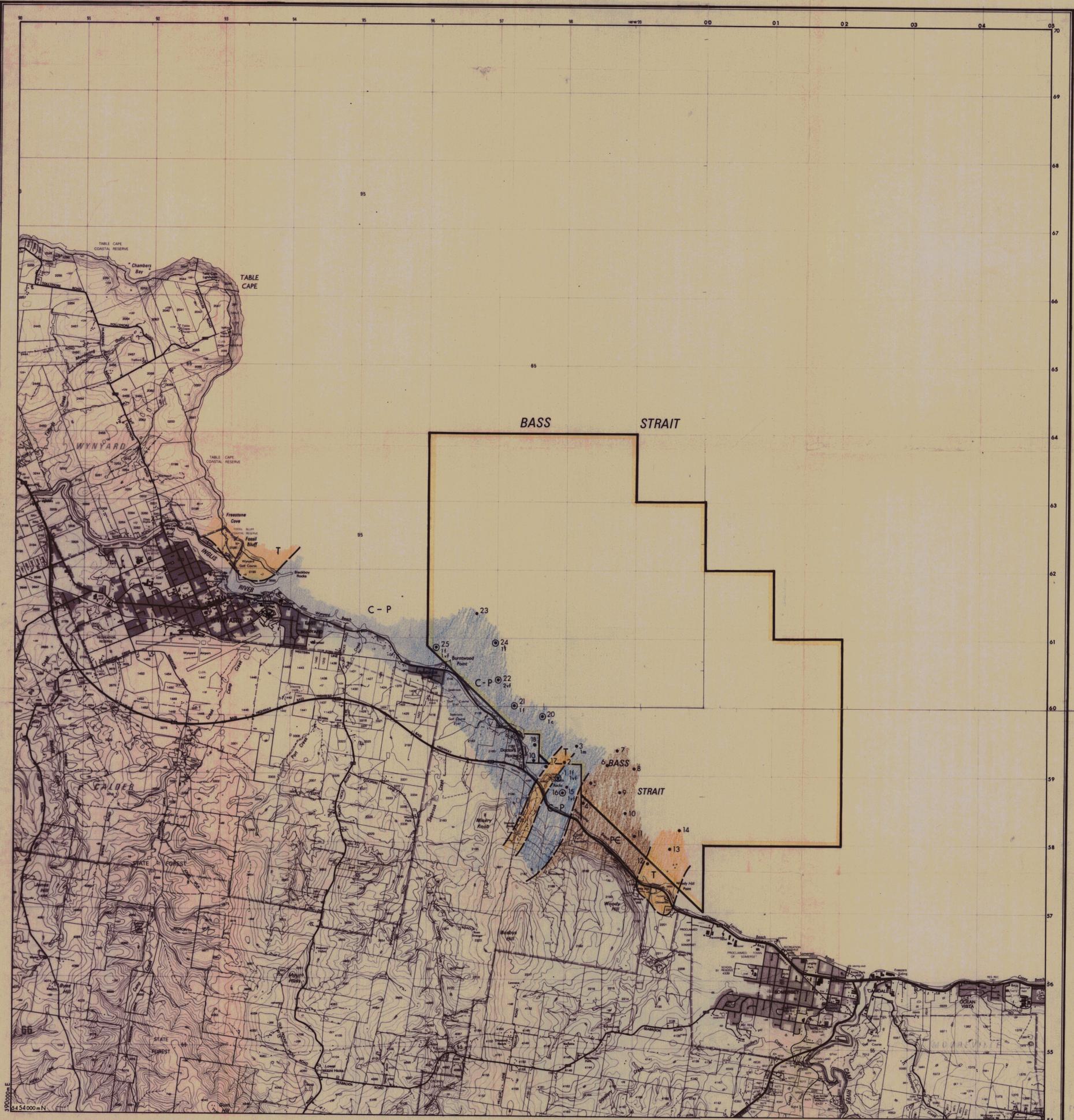
Placeco commissioned a budgetary proposal from Dawson Offshore for more detailed offshore sampling to determine grades and reserves. The recommendations of this proposal were not considered cost-effective in view of the possibly small reserves indicated by preliminary sampling. A follow-up bulk sampling programme was outlined for Year 2. However, this was not carried out because of economic considerations — including a sustained drop in the price of gold.

No further work has been done in the current year. After a reassessment of the prospectivity of the area, Placeco has elected to fully relinquish the tenement.

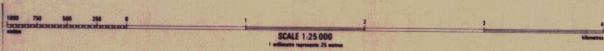
## REFERENCES

- HOFTO, V. and MORRISON, K. C., 1989. EL 24/86 Doctors Rocks. Annual Report Year 2. *Placeco Australia Pty Ltd Unpubl. Rept.*
- MORRISON, K. C., HOFTO, V. and DAVIDSON, J. K., 1988. EL24/86 Doctors Rocks. Annual Report Year 1. *Placeco Australia Pty Ltd Unpubl. Rept.*





LEGEND

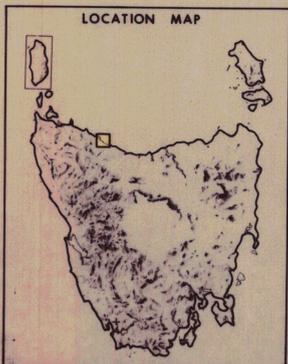


Caravan park, Camping ground	Public rubbish dump area, Cemetery	Topographic contour, Spot elevation	Contour with value, Depression contour	Quarry or open cut mine	Saline rock surface	Dune forest, Medium forest	Low dense vegetation, Distinctive grass	Orchard, Pine plantation	Wellhead	Swamp, Land subject to flooding	Waterfall, Rapids	Indicative shoreline or beachbank, Lagoon	Tidal rocks or ledge, Offshore rock	Lighthouse, Exposed wreck	Bank, Tidal reef	Saline coastal flat, Tidal flats	Jetty, Landing pier
Built up area with commercial centre	Roads maintained for continuous public use	Roads of restricted use or private	Walking track, Bridge	Railway station	Light railway	Power transmission line and poles/pillars	Building, Feature of special interest, Run, Mine	Post office, Police station, Fire station, School	Boundaries shown on this map are NOT authoritative. For full particulars please consult the Registrar General's Department or the Lands Department. Property and land parcel boundaries are shown as at September 1981. Areas within proclaimed towns or local government boundaries are not depicted. To give a land parcel reference, prefix parcel number with municipal number.	Municipality name	Municipality number	Municipality boundary	Ward name	Ward boundary	Town boundary	Reserve boundary	Property boundary, Land parcel boundary and number

T	Tertiary volcanics, pyroclastics and sediments
C-P	Upper Carboniferous - Permian glacial, fluvioglacial sedimentary rock
P-C	Precambrian metasedimentary rock

6	Sample site
21	Sample with visible gold
1f	One fine sand grain
vf	very fine sand grain
m	medium " "
c	coarse " "

PROJECTION: Universal Transverse Mercator (UTM).  
 HORIZONTAL DATUM: Australian Spheroid Datum (1966).  
 VERTICAL DATUM: Australian Spheroid Datum (1966) - orthometric height.  
 GRID: 1000 metre intervals of the Universal Transverse Mercator (UTM) Zone 55 (Antarctic) Grid. Antarctic National Standard Grid values are shown in full at the south west corner of the map.  
 COORDINATE INTERVALS: 10 metres north-south; 50 metres east-west.  
 WORLD GEODETIC SYSTEM 1972: To convert an easting from this datum to WGS 84, add 100 metres to the easting value. To convert a northing from this datum to WGS 84, subtract 100 metres from the northing value.  
 MAGNETIC VARIATION: True, Grid and Magnetic North are shown approximately for the extent of this map. Magnetic North is correct for 1981 and varies annually about 0.17" every five years.



9044  
 5 cm

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EL 24/86	No.	24/86 - 2
SEDIMENT SAMPLING	DATE	SEPT. 1987
	COMPILED	K.M., W.C.
	DRAWN	J.M.T.

TO ACCOMPANY: YEAR 1 ANNUAL REPORT - APPENDIX 2