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MINING AND GEOLOGICAL CONSULTANTS

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E.L. 39/87 TASMANIA

**RELINQUISHMENT REPORT ON EXPLORATION COMPLETED
IN THE GEORGETOWN - WEYMOUTH AREA OF
NORTH - EASTERN TASMANIA**

OPEN FILE

90-3075

Prepared for Bach Holdings Pty. Ltd
and Pennant Holdings Ltd.

A. Dove
December, 1989

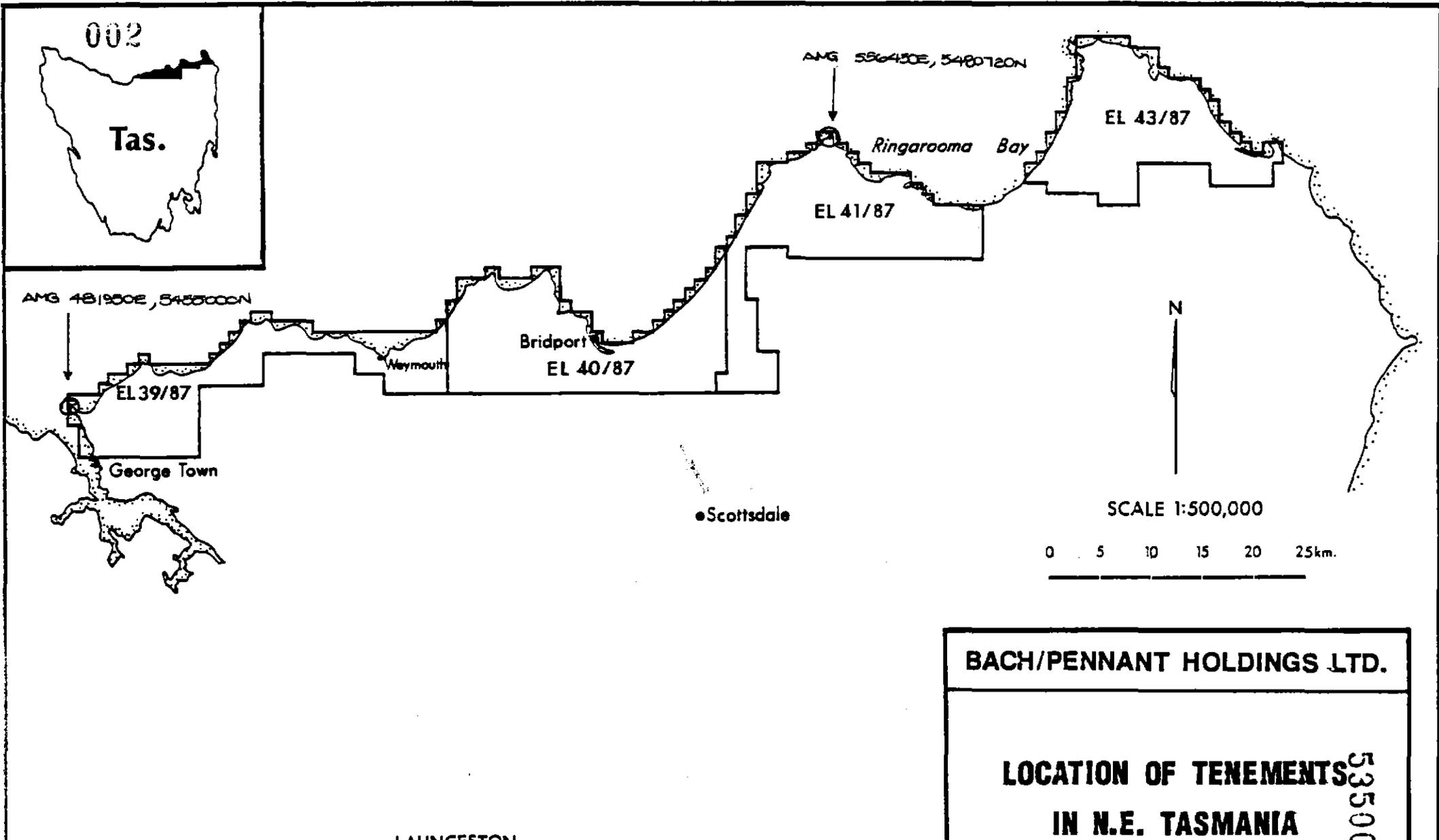
AMG REFERENCE POINTS ADDED

CONTENTS**SYNOPSIS**

	Page
1. AIM	1
2. REASON	1
3. SUMMARY AND CONCLUSIONS	1
4. RECOMMENDATIONS	2

REPORT

5. INTRODUCTION	4
6. TENEMENT INFORMATION	5
7. FIELD INVESTIGATIONS	6
8. LABORATORY INVESTIGATIONS	7
9. DISCUSSION	8
APPENDIX 1 - DRILLHOLE DESCRIPTIVE LOGS	10
APPENDIX 2 - LABORATORY RESULT CERTIFICATES	18



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AMG REFERENCE POINTS ADDED

BACH/PENNANT HOLDINGS LTD.		
LOCATION OF TENEMENTS		535003
IN N.E. TASMANIA		
(as originally granted)		
Author: A. DOVE	Date: MAR. '89	Fig.No: 1

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SYNOPSIS

1. AIM

To examine the Tasmanian north coast between Georgetown and Weymouth for economic heavy mineral sand occurrences.

2. REASON

Increases in the price of mineral sand commodities, particularly rutile and zircon, over recent years has resulted in a resurgence of exploration activity for these mineral commodities. The price rises, combined with technological advances in processing mineral sands have given impetus to the examination of areas previously considered to be unattractive.

3. SUMMARY AND CONCLUSIONS

- 3.1 Exploration Licence 39/87 originally covered an area of 201 km² in the Georgetown - Weymouth district of northern Tasmania.
- 3.2 Upon licence renewal in 1989 the area was reduced to 50 km² following aerial photography studies and ground reconnaissance.
- 3.3 Exploration activities were confined to a small coastal Aeolian dune system at Bellbuoy Beach, north of Georgetown.

- 3.4 One north - south traverse line containing eight (8) drillholes was drilled using hand auger and hand operated cased sludging techniques.
- 3.5 All samples were tested by the Tasmanian Department of Mines Laboratory in Launceston.
- 3.6 A number of encouraging heavy mineral grades were recorded in the lower sample intervals of the frontal dune system.
- 3.7 The grades tend to suggest a thin mineralised strand line system underlying the Aeolian dune system.
- 3.8 While some encouraging results are present, the overall sand tonnages are small and this combined with the recent extensive subdivisions, make the area a target of low prospectivity.

4. RECOMMENDATIONS

It is recommended that this exploration licence be relinquished since:

- results obtained to date have indicated that a deposit larger than is likely to occur would be needed to achieve economic viability.
- the prevailing uncertain situation with respect to

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future exploration and subsequent mining within reserves, protected and conservation areas mitigates against continued expenditure on projects which depend upon significant resources within such land categories.

REPORT

5. INTRODUCTION

A preliminary programme of exploration was carried out by Peter H. Stitt & Associates on behalf of Pennant Holdings Ltd. and Bach Holdings Pty. Ltd on their jointly held Exploration Licence 39/87 located on the north coast of Tasmania. The work is recorded in Report No. 4/89, prepared by Peter H. Stitt & Associates Pty. Ltd.

The exploration was principally directed at testing the coastal dunes for heavy mineral sand deposits, containing economic minerals: particularly rutile, leucoxene, ilmenite (TiO₂ raw materials), zircon and monazite. In addition exploration was carried out to recognize any other detrital minerals if they occurred in economic quantities.

During the past four years the world market has been dominated by a short fall in supply, particularly for the TiO₂ pigment minerals, zircon and the rare earth heavy minerals. As a consequence the price for these minerals has risen to historically high levels.

This combined with technological advances and the greater understanding of heavy mineral deposits has resulted in a re-evaluation of prospective areas.

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6. TENEMENT INFORMATION

Exploration Licence 39/87 was originally granted to Bach Holdings Pty. Ltd. and Minproc Mining (Tasmania) Pty. Ltd. The licence covered an area of 201 square kilometres in the Land District of Dorset in the vicinity of the east of Georgetown (see figure 1). Pennant Holdings Ltd. later replaced Minproc Mining as joint title holder with Bach Holdings.

Upon licence renewal on the 22/3/89 only an area of 50 square kilometres was retained. The area retained was in two parts with the area encompassing the Stony Head Artillery Range separating the two parts of the licence. The area relinquished generally represented hard rock basement outcrop with no or little development of coastal sand dunes or shore lines. These areas were recognised following aerial photography studies and ground reconnaissance.

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7. FIELD INVESTIGATIONS

Exploration activities within the licence were confined to the area known as Bellbuoy Beach located to the north of Georgetown. (see figure 2)

Eight (8) drillholes were drilled on one east-west traverse line, located in the middle of the beach. All drilling was carried out by hand auger and hand operated cased sludging, using Dormers Engineering equipment. Holes were hand augered to water table using a 50mm. diameter hand auger. When water table was reached 50mm. casing was inserted into the hole and the hole advanced by sludging using a whistle top sludger on aluminium extension rods. Samples were logged and bagged at two metre intervals and delivered to the laboratory for heavy mineral test work.

The drilling completed a total of 33.3 metres over a traverse length of 240 metres.

A log for each drillhole showing heavy mineral assay data is included as Appendix 1 of this report.

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8. LABORATORY INVESTIGATIONS

All samples were treated by the Tasmanian Department of Mines, Metallurgical Laboratory in Launceston. The test procedure adopted is as follows:

1. Dry sample as recieved.
2. Screen on a coarse sieve (say 2mm.) to break up agglomerated lumps.
3. Riffle split to obtain an approximately 100 gm. working sample.
4. Re-pack balance of sample.
5. Weigh working sample.
6. Screen on a 1mm. seive and weigh plus 1mm. fraction.
7. Using TBE, seperate heavy minerals.
8. Dry and weigh heavy minerals.
9. Calculate heavy minerals as a percentage of the sample weighed in step 6 above.
10. Package heavy mineral for despatch.

Copies of the laboratory result certificates are included as Appendix 2 of this report.

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9. DISCUSSION

As previously mentioned a north - south traverse line was located at Bellbuoy Beach approximately seven (7) kilometres north of Georgetown.

While the area only consists of a small Aeolian sand body running along the coastal strip a ~~number of encouraging assay results were obtained.~~ All the sample intervals representing the frontal dune system returned grades of 0.5% or greater. The best results occur in the lower intervals, ~~with these returning grades of up to 3.5%.~~

The increased grades at the bottom of drillholes tends to suggest that there is a mineralised strand line system underlying the Aeolian dune system.

Although the area returned some encouraging results the overall tonnages are very low. Assuming that the mineralised strandline continues along the length of the beach (1.5 km), has a width of 120 metres and a depth of 10 metres, a maximum of three (3) million tonnes of sand exist. Assuming an average heavy mineral grade of 1.5%, only a maximum of 45 000 tonnes of heavy mineral is present.

This combined with the fact that currently extensive subdivisions and development are occurring in the area, the target must be considered as unprospective.

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Additionally, the prevailing uncertain situation with respect to future exploration and subsequent mining within reserves, protected areas and conservation areas mitigates against continued expenditure on projects which depend upon significant resources within such land categories.

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APPENDIX 1

DESCRIPTIVE DRILLHOLE LOGS

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CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G.LAVELL

HOLE No. : FM-0

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-0.5		SAND EOH 0.5m.		47.1	0.9
DOWN HOLE AVERAGE					0.9

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014

CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G. LAVELL

HOLE No. : FM-4

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-2.0		SAND		1.3	3.1
2.0-2.4		SAND		1.1	0.5
EOH 2.4m					
DOWN HOLE AVERAGE					2.7

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CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G. LAVELL

HOLE No. : FM-8

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-2.0		SAND		2.9	0.9
2.0-4.0		SAND		1.3	0.6
4.0-6.0		SAND		0.2	0.8
6.0-8.0		SAND		0.1	2.3
8.0-10.0		SAND		0.5	3.5
		EOH 10.0m			
DOWN HOLE AVERAGE					1.6

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016

CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G.LAVELL

HOLE No. : FM-12

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-2.0		SAND		0.8	0.8
2.0-4.0		SAND		0.1	0.7
4.0-6.0		SAND		Trace	1.0
6.0-8.0		SAND		Trace	0.8
8.0-10.0		SAND		Trace	1.0
EOH 10.0m					
DOWN HOLE AVERAGE					0.9

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CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G.LAVELL

HOLE No. : FM-16

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-2.0		SAND		6.2	0.3
2.0-4.0		SAND		2.2	0.2
		EOH 4.0m			
DOWN HOLE AVERAGE					0.3

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CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G.LAVELL

HOLE No. : FM-20

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-2.0		SAND EOH 2.0m		2.5	0.2
DOWN HOLE AVERAGE					0.2

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CLIENT : BACH/PENNANT HOLDINGS

TITLE No. : EL 39/87

AREA : FOUR MILE BEACH

LINE No. : 1

LOGGED BY : G.LAVELL

HOLE No. : FM-24

METHOD : HAND

DRILL DATE: 17.4.89

INTERVAL (m)	DRY Wt. (kg)	DESCRIPTION	SLIMES %	+1000um %	H.M. %
0-2.0		SAND		1.0	0.4
2.0-4.0		SAND		5.2	0.3
4.0-4.4		SAND		3.1	0.5
		EOH 4.4m			
DOWN HOLE AVERAGE					0.4

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APPENDIX 2

LABORATORY RESULT CERTIFICATES

DEPARTMENT OF MINES

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TASMANIA

Peter H. Stitt Pty Ltd

Enquiries: 5th Floor
 Phone: 32 York Street
 Your ref: Sydney 2000
 Our file:

Launceston Office:
 Chemical and Metallurgical
 Laboratory,
 287 Wellington Street,
 LAUNCESTON 7249

4.7.89

Reg. Nos 893056-154 & 893262-280

Dear Sir,

Please find below results of samples submitted to
 this laboratory.

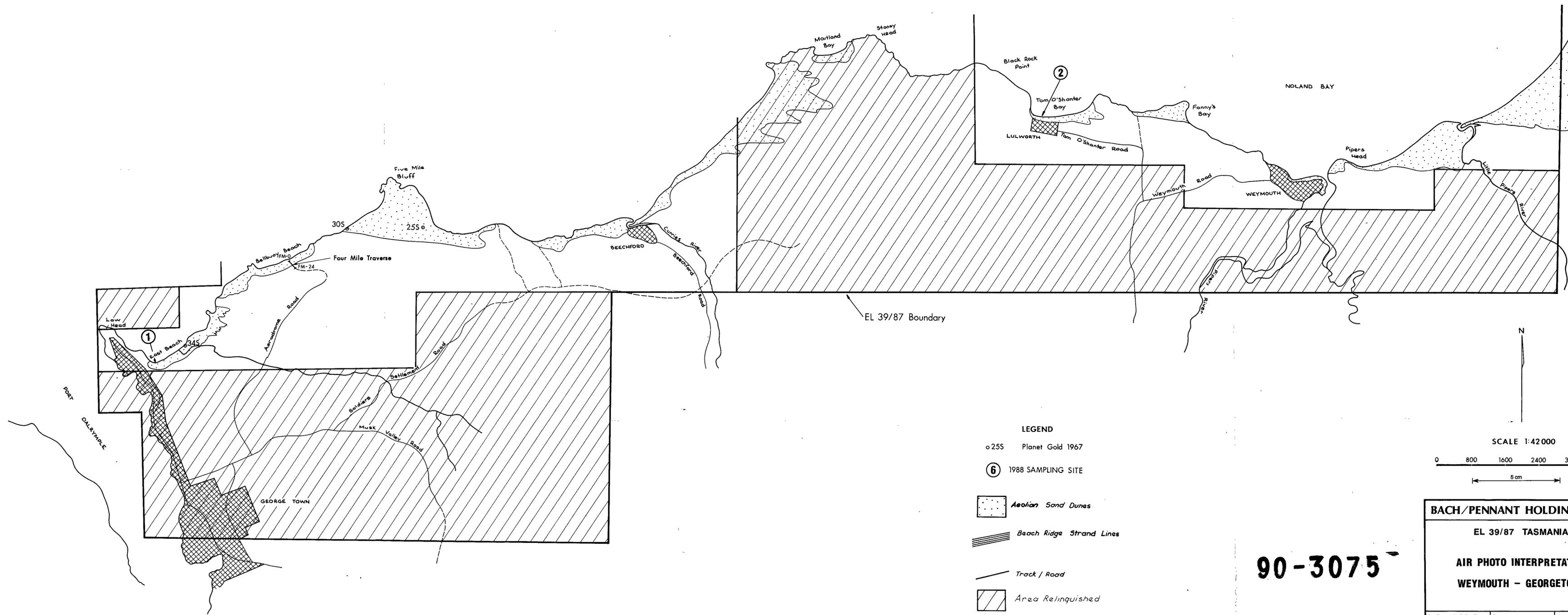
<u>Reg. No</u>	<u>Desc.</u>	<u>% + 1.00mm</u>	<u>% Heavy Minerals</u>	
893262	FM 0	0 - 0.5	47.1	0.9
263	FM 4	0 - 2.0	1.3	3.1
264	FM 4	2.0 - 2.4	1.1	0.5
265	FM 8	0 - 2.0	2.9	0.9
266		2.0 - 4.0	1.3	0.6
267		4.0 - 6.0	0.2	0.8
268		6.0 - 8.0	0.1	2.3
269		8.0 - 10.0	0.5	3.5
270	FM 12	0 - 2.0	0.8	0.8
271		2.0 - 4.0	0.1	0.7
272		4.0 - 6.0	Trace	1.0
273		6.0 - 8.0	Trace	0.8
274		8.0 - 10.0	Trace	1.0
275	FM 16	0 - 2.0	6.2	0.3
276		2.0 - 4.0	2.2	0.2
277	FM 20	0 - 2.0	2.5	0.2
278	FM 24	0 - 2.0	1.0	0.4
279		2.0 - 4.0	5.2	0.3
280		4.0 - 4.4	3.1	0.5

Senior Metallurgist *[Signature]*

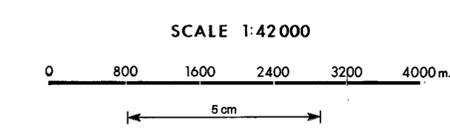
Yours faithfully,

(P.L. James)

Chief Chemist & Metallurgist



- LEGEND**
- o255 Planet Gold 1967
 - ⑥ 1988 SAMPLING SITE
 - Aeolian Sand Dunes
 - Beach Ridge Strand Lines
 - Track / Road
 - Area Relinquished
 - FM-0 FM-50 Traverse Line



BACH/PENNANT HOLDINGS LTD.

EL 39/87 TASMANIA

AIR PHOTO INTERPRETATION

WEYMOUTH - GEORGETOWN

Author: A. DOVE Date: DEC. '89 Fig. No: 2

90-3075