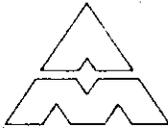


996001



AMDEX MINING LIMITED
TRIAKO MINES N.L., BUKA MINERALS N.L.,
GIPPSLAND MINERALS N.L., KIBUKA MINES PTY. LTD.
 169 MILLER STREET, NORTH SYDNEY. AUSTRALIA 2060

TECHNICAL REPORT

E.L. 28/76 DERBY, TASMANIA

*REPORT FOR THE SIX MONTHS
PERIOD 22ND JUNE, 1980 TO
21ST DECEMBER, 1980*

OPEN FILE

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AUTHOR: R.A.A. MUNRO

INVESTIGATIONS CONDUCTED BY: R.A.A. MUNRO

TYPED BY: S. MORRISON

DATE: 23 RD JANUARY, 1981

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 G.L. MORRIS, HOBART, TASMANIA

PROJECT:

1 : 250,000 SHEET INDEX No.: SK55-4

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FIGURES

1. North-Eastern Tasmania Location Map
(following page 1) Scale 1:250,000
2. Arba Mine Area - Previous Drilling
(in end pocket) Scale 1:10,000
3. Arba Mine Area - Geology
(in end pocket) Scale 1:10,000
4. Arba Mine Area - Land Use, 1980
(in end pocket) Scale 1:10,000
5. Arba Mine Area - Basement Topography
and Grades (in end pocket) Scale 1:10,000

1. INTRODUCTION.

This report details exploration activities conducted on E.L. 28/76 during the six month period from 2nd June 1980 to 1st December, 1980.

E.L. 28/76, an area of 33 square kilometres, was granted to L. W. Morris of Burnie towards the end of 1976. Kibuka Mines Pty. Ltd. and Morris entered into an agreement whereby Kibuka Mines would conduct investigations into the area on behalf of a jointly owned company known as Moruka Tin Pty. Ltd. Successive six month renewals have been continued by Kibuka Mines Pty. Ltd.

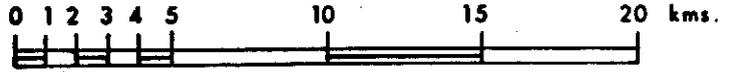
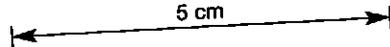
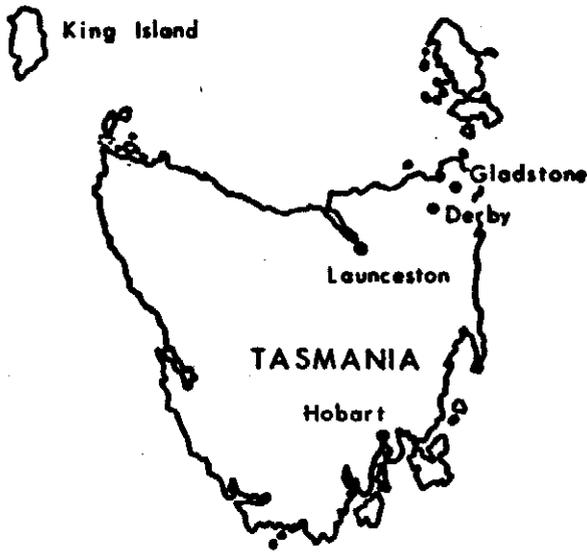
The licence area surrounds the town of Derby in North East Tasmania. The location of E.L. 28/76 and other exploration licences held by this company are shown on Figure 1.

2. CONCLUSIONS AND RECOMMENDATIONS.

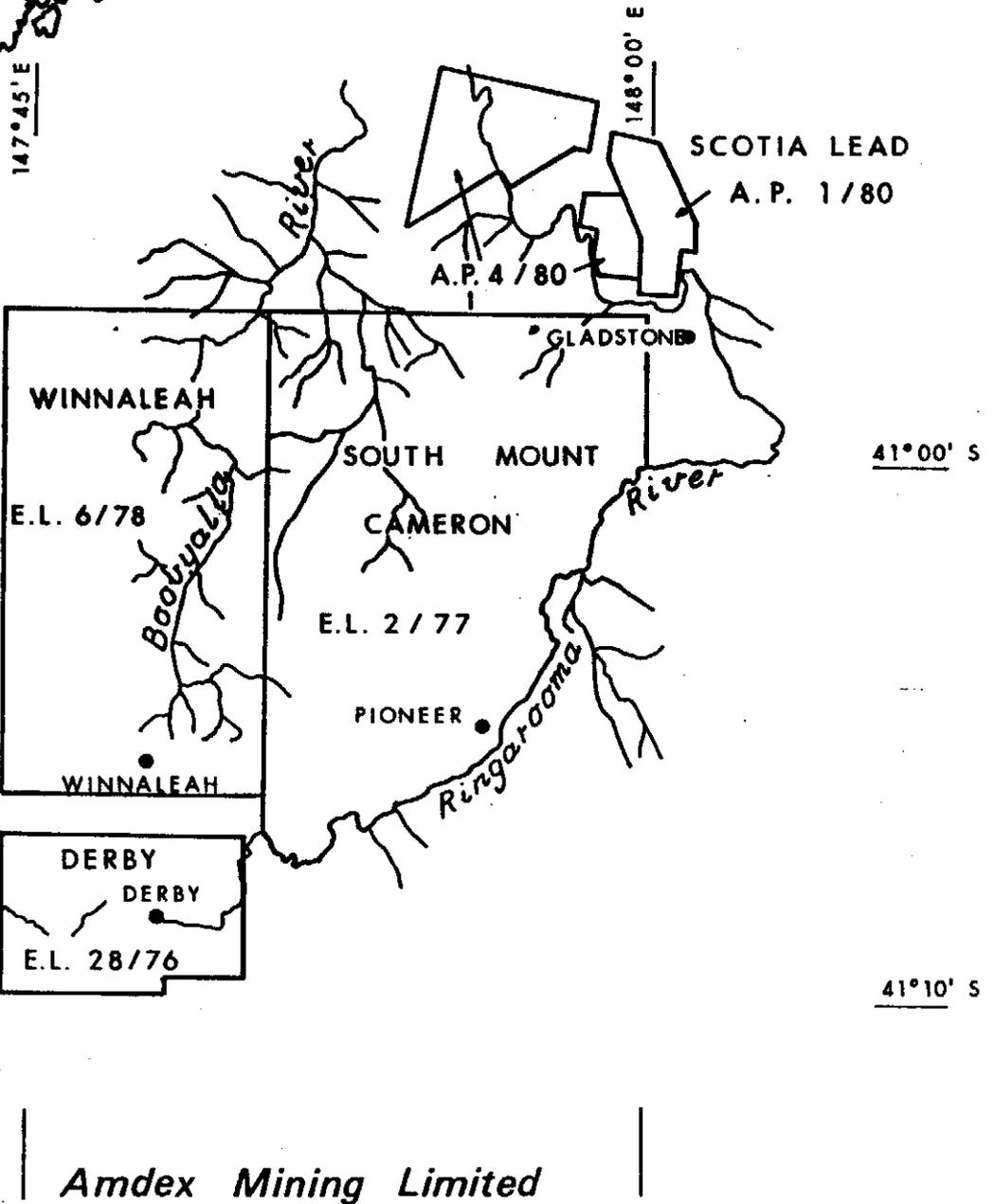
Exploration to test the path and cassiterite content of the Cascade Lead is probably not warranted unless an option agreement is negotiated with the present lease holder of the Briseis Mine. This deposit will however be further examined in the next six month period.

The Branxholm Lead can be more easily be tested over its unmined portion than the Cascade Lead. Our company would undertake some investigative action if it had tenure over crucial sections of the lead. The lease holder of the Arba Mine will be contacted in January for discussions regarding the Arba Mine.

The valley Mine area continues to be a lower priority area regarding exploration. A more thorough examination of its potential should be undertaken in the near future.



Scale 1 : 250 000



Amdex Mining Limited

NORTH - EASTERN TASMANIA LOCATION MAP

Author:	Date:	Dwg. No.:	Fig. 1
Drafting:	Report No.:	Base Plan:	

3. CURRENT EXPLORATION.

3.1 Cascade Lead.

An examination of the western portion of the Cascade Lead began in July 1980, but as yet has not been completed.

Attempts have been made to review all known geological information relevant to this topic. Clarifying the R. J. Hayes/Moruka Tin boundary in the vicinity of the Cascade Lead has involved considerable effort due to conflicting information.

Findings to date do not justify the deep, difficult drilling of the lead in the area explored by the Mines Department and Austral Geo-Prospectors in the mid 1960's.

3.2 Branxholm Lead.

3.2.1 Introduction to the Branxholm area.

A portion of the Branxholm alluvial tin field is contained within the South West corner of this licence.

An Amdex internal report, based on a brief field examination and a review of published geological and mine information was produced in October 1980. This report and its maps are reproduced in this section.

Since the Branxholm Lead was examined and reported on, recent events have affected future Amdex involvement. In November 1980 Mineral Holdings successfully applied for an area which was once the Mines Department exempt area, S.R. 1976/106 (revoked 1978). Our company erroneously believed this one square kilometre area to be part of E.L. 28/76. The Cainozoic sediments within this area have some potential for placer tin deposits. The sites for three proposed deep drill holes were located in this area.

3.2.2 Past Mining and Exploration Review.

The mining history to 1925 is adequately described by P. B. Nye (1925) in his study of the placer deposits in the Ringarooma Valley. Since that date (when tributors were still working about the Arba Mine) no mining details are recorded in the literature for this deep lead system (see Bibliography).

W. A. Walsh and party are known to have worked shallow ground to the east of the abandoned Arba face. Walsh's workings may include Tertiary deposits described by Nye as a portion of an "unnamed tributary lead". Walsh appears to have been actively engaged in mining in the period between the 1929 depression and the Second World War.

In 1971-72 a small hydraulic mining venture was operating on Black Creek beside the eastern Arba Mine tailings. This lease was first held in the name of J. P. Targett and others, and later in the name of Seidenburg and Wilkinson (see fig. 3).

The testing for further extensions to the worked deposits in this area have been partly reviewed by Nye (1972). His article reviews exploration, investigating a continuation of the Branhholm Lead north of Arba Hill and the testing of deep Tertiary sediments related to the Ringarooma Lead in the same area. All drilling documented in Nye (1972) is located on Figure 2. Other inclusions on this map are locations of the Briseis Consolidated N.L. drilling in the main Arba face, showing high cassiterite grades and two lines of Government Bores on Ringarooma Flats drilled since 1972.

Exploration of the Arba Deep Lead has been incomplete and inconclusive to date. Several geophysical surveys have done little to clarify the geological situation. Exploration has been hampered by the following conditions :-

- 1) The presence of a long held mineral lease over all Arba

Hill on which no exploration activities have been undertaken.

2) The difficulty of drilling to depths exceeding 40 metres by some exploration companies.

3) The knowledge that the depth of overburden would probably preclude the profitable mining of any cassiterite deposit that might be discovered.

3.2.3 Amdex Appraisal.

Shallow Sediments.

There is little scope for even a small mining operation of this type. Walsh and party appear to have exhaustively worked the economic remnants of this category. An area of pasture (see Land-Use map, Fig. 4) to the east of the cemetery may be of minor potential. The area is partly covered by tailings. Past investigations have probably found this small area to be unpayable.

Branxholm Deep Lead (under Arba Hill).

This portion of the lead has never been tested. The continuity of the grades found by the Briseis Consolidated in the old face down lead is therefore unknown. Drilling to the north of the hill has not intersected any ore, however it has also failed to confirm or disprove the concept of a northerly or north-easterly trending lead. Most indicators point to a decrease in cassiterite grade in this section. Other placer deposits such as the Valley Lead demonstrate the rapidity with which cassiterite content can diminish in a short distance down lead.

This area is wholly within Edwards/Arba Tin Pty. Ltd. 160P/M mineral lease. At present, Amdex Mining Limited is not in a position to further evaluate. If the recommended drilling (see next section) achieves its goals, drilling or perhaps reflection seismology could be used as exploration tools on this area.

A partially theoretical ore reserve is appended to this report. It indicates the potential of this section if cassiterite grades found in the abandoned face are maintained under this hill.

Branxholm Lead, Ringarooma Lead - Ringarooma Flats area.

This area is the most intensely drilled (Fig. 5), however, only one hole has recorded a grade figure greater than 100g/m³. Most cassiterite recorded from drill holes in this area is from two perched placers well above basement. The east-west line of drill holes at the foot of the northern Arba Hill slopes has a gap of over 300 metres, where the postulated lead is indicated on Figure 5. It is recommended that three drill holes 50 metres apart be drilled to infill this gap.

Further exploration away from the toe of Arba Hill is not advised.

3.2.4 Ore Reserve Exercise - Arba Hill Area.

- expected maximum reserves for a block (Fig. 5) underneath Arba Hill.

Assumptions :-

- 1) Safe mining conditions would necessitate a cut at the base of at least 120 metres and a batter of 70° or less.
- 2) Grade used in calculations representative of the width of the cut.
- 3) Length of unmined section under hill is 780 metres.
- 4) Depth of basement from top of the basalt is
 - a) southern end = 61 metresBlock 1
 - b) northern end = 105 metresBlock 2
- 5) Average grade 600g/m³ - Block 1, 350g/m³ - Block 2 (ie. optimistic). Grade partly based on Briseis Consolidated drilling in mine face.

Results :-

Block 1	Total Volume	3,380,000m ³
	Volume of Basalt O/B	1,100,000m ³
	Volume of Drifts etc.	2,290,000m ³
	SnO ₂ content	1,264,000Kg

Block 2	Total Volume	6,480,000m ³
	Volume of Basalt O/B	1,470,000m ³
	Volume of Drifts etc.	5,010,000m ³
	SnO ₂ content	1,474,000Kg

Total Volume	=	10,860,000m ³
Total SnO ₂ content	=	2,738,000Kg
Average grade	=	277g/m ³

Note : Minimum reserve figures could be as low as 10% of the last two quoted figures, ie. if the lead is not mineralized.

All reserves are on developed, private land covered by a mineral lease - 160P/M.

3.2.5 Bibliography - Arba Area.

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N.L. Q32/5.
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Branxholm. Unpub. Rept. Tas. Dept. Mines.
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- Warin, O. N. and Appleby, W. R. - 1964. Proposed Drilling
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No. 130 Q32/14.
- _____ 1965. Progress of Investigations for tin in
N.E. Tas. Utah Report No. 135 Q32/15.

4. EXPENDITURE SUMMARY

E.L. 28/76 - DERBY

SIX MONTHS ENDING 31ST DECEMBER, 1980

Salaries & Overheads	1676.26
Consultants - Fees & Expenses	204.35
Travel	
Stores	14.00
Hire of Equipment	1671.02
Drilling	
Geochemistry	
Geophysics	
Administrative Costs & Overheads	<u>356.54</u>
T O T A L	<u>\$3922.17</u> =====

932000 yds

931000 yds

930000 yds

929000 yds

928000 yds

927000 yds

926000 yds

560 000 yds

561 000 yds

562 000 yds

563 000 yds

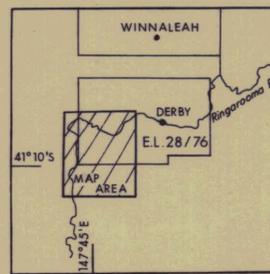
564 000 yds



TO DERBY

TO WELD BOROUGH

LOCATION MAP

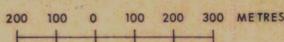


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BASE MAP DETAILS

Photography - 1964 at 1:32,240
Orientation - Grid North (Imperial)
Contour Interval - 20 feet

SCALE 1:10,000



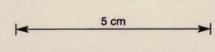
TOPOGRAPHIC LEGEND

- Road
- River
- Mine workings - water filled
- Mine faces
- Contours

DRILLING LEGEND

- Lease boundaries (positions approx.)
- Government boring (1931)
- " " (1937)
- + 2 Briseis Consolidated boring (1938)
- 200 Utah - percussion (1965)
- 20 " - rotary (1965)
- × 130 " - auger (1965)
- 1 Government boring (197-)

Note: Briseis Consolidated boring (1938) north of Arba Hill not shown



AMDEX MINING LIMITED
DERBY E.L. 28/76, BRANXHOLM,
N.E. TASMANIA

ARBA MINE AREA
PREVIOUS DRILLING

Author: R. MUNRO Date: SEPTEMBER, 1980 Dwg. No.: P136/111
Drafting: C. C. Report No.: P60 Base Plan: P136/110

FIG. 2

932000 yds

931000 yds

930000 yds

929000 yds

928000 yds

927000 yds

926000 yds

560 000 yds

561 000 yds

562 000 yds

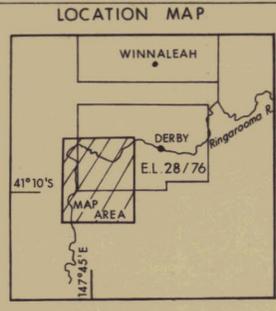
563 000 yds

564 000 yds



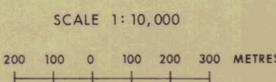
TO DERBY

TO WELDBOROUGH



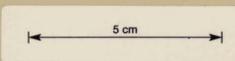
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BASE MAP DETAILS
 Photography - 1964 at 1:32,240
 Orientation - Grid North (Imperial)
 Contour Interval - 20 feet



- TOPOGRAPHIC LEGEND**
- Road
 - ~ River
 - Mine workings - water filled
 - ▭ Mine faces
 - ~ Contours
 - ▨ Mine workings and tailings

- GEOLOGICAL LEGEND**
- Qrs Recent-soils, river terrace deposits, alluvium, tailings
 - Tb Tertiary - basalt
 - Ts Tertiary - alluvial sediments
 - Dg Devonian - Carboniferous - granitic rocks



AMDEX MINING LIMITED
 DERBY E.L. 28 / 76, BRANXHOLM,
 N.E. TASMANIA
ARBA MINE AREA
GEOLOGY

81-1529

932000 yds

931000 yds

930000 yds

929000 yds

928000 yds

927000 yds

926000 yds

560 000 yds

561 000 yds

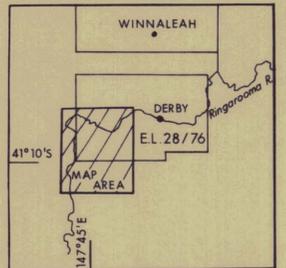
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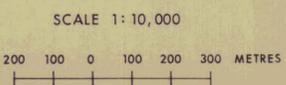


LOCATION MAP



996015

BASE MAP DETAILS
 Photography - 1964 at 1:32,240
 Orientation - Grid North (Imperial)
 Contour Interval - 20 feet



TOPOGRAPHIC LEGEND

- Road
- River
- Mine workings - water filled
- Mine faces
- 600 Contours

- ▨ Prime, developed pasture
- ▨ Pasture
- ▨ Eucalypt forest
- ▨ Eucalypt - wattle - scrub regrowth, barren ground
- ▨ Pines - well established
- ▨ Pines - recently established



AMDEX MINING LIMITED
 DERBY E.L. 28/76, BRANXHOLM,
 N.E. TASMANIA
ARBA MINE AREA
LAND USE 1980

Author: R. MUNRO Date: SEPTEMBER, 1980 Dwg No.: P136/113
 Drafting: C. C. Report No.: P 60 Base Plan: P136/110

932 000 yds

931 000 yds

930 000 yds

929 000 yds

928 000 yds

927 000 yds

926 000 yds

560 000 yds

561 000 yds

562 000 yds

563 000 yds

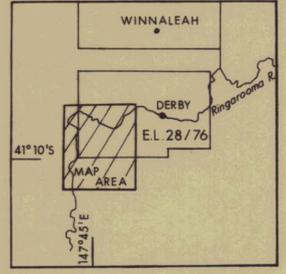
564 000 yds



TO DERBY

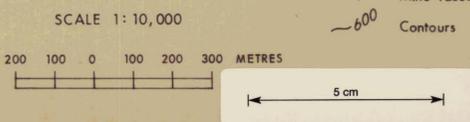
TO WELDBOROUGH

LOCATION MAP



996016

BASE MAP DETAILS
 Photography - 1964 at 1:32,240
 Orientation - Grid North (Imperial)
 Contour Interval - 20 feet



TOPOGRAPHIC LEGEND

- Road
- River
- Mine workings - water filled
- ▭ Mine faces
- ~ Contours

○ 451 Approx. basement R.L.'s, values in feet
 + Indicates hole unbottomed

CODING FOR GRADE VALUES

- 0 - 50g SnO₂/m³
- 50 - 100g SnO₂/m³
- 100 - 200g SnO₂/m³
- 200 - 400g SnO₂/m³
- 400 - SnO₂/m³

→ Position or inferred position of deep leads

Possible lead positions?

AMDEX MINING LIMITED
 DERBY E.L. 28 / 76, BRANXHOLM,
 N.E. TASMANIA

ARBA MINE AREA
BASEMENT TOPOGRAPHY
AND GRADES

Author: R. MUNRO Date: SEPTEMBER, 1980 Dwg. No.: P136/114a
 Drafting: C. C. Report No.: P60 Base Plan: P136/110 FIG 5

81-1529