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DEPT. OF MINES				
REF. No: 1861/82				

PROJECT NAME: EL 28/76 DERBY - TASMANIA
 (Australian Anglo American Prospecting Proprietary
 TITLE: Limited - AMDEX Ringarooma Joint Venture)
SIX MONTHLY REPORT TO THE
DEPARTMENT OF MINES, TASMANIA FOR PERIOD
21 JUNE TO 22 DECEMBER 1981

MICROFILMED

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES:

COMMODITY/IES:

TEXT PAGES NO: 8
 PLAN NOS: See attached list
 TABLE NOS: 2
 APPENDICES: 1
 AUTHOR/S: R A A Munro
 DATE: 2 February 1982

AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

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EL 28/76 DERBY - TASMANIA

(Australian Anglo American Prospecting Proprietary
Limited - AMDEX Ringarooma Joint Venture)

SIX MONTHLY REPORT TO THE

DEPARTMENT OF MINES, TASMANIA FOR PERIOD

21 JUNE TO 22 DECEMBER 1981

1. INTRODUCTION

1.1. Title and Tenement Details

Detailed within this report are results of exploration conducted on portions of 33 square kilometre Moruka Tin Pty Ltd Licence. The period of activity reviewed here is between 21 June and 22 December 1981. EL 28/76 is being prospected as part of the Australian Anglo American - AMDEX Ringarooma Joint Venture.

Twelve percent of the Licence is excluded from investigation by other mining tenements. Approximately 2% of these excluded lands became available upon the lapsing of Mineral Holding pending EL 54/80. This area was marked out in the name of Moruka Tin Pty Ltd on 14 October 1981 and has been subject to exploration following approval. It is designated for inclusion into 28/76 but is at present termed 47/81 (figure 1).

1.2. Scope of Report

Exploration for the period under review has concentrated in the same area as the previous two reports. Investigation undertaken in this area bounded by hard rock outcrops along the Tasman Highway to the south, the Ringarooma River to the north and east and the tenement boundary to the west are based on recommendation by Newton-Smith (1981) and Munro (1981). Exploration has focused on the Branxholm Creek Lead which has partly been exploited by the old Arba Mine.

2. THE BRANXHOLM CREEK DEEP LEAD

This relatively short Middle Tertiary fluvial placer system is situated within an enclave at the north western corner of the main, exposed Blue Tier batholith block of granitic rocks.

For purposes of description in this report this lead has been divided into two sections based on the position of the most downstream extent of deep lead mining - the old Arba Mine face.

- (a) The unexploited, partly sub-basaltic, deepening down stream continuation, which is yet to be conclusively defined, both in terms of course and cassiterite grade.

2.

- (b) The almost wholly worked out upstream section consisting of old workings upon which the approximate channel position can be determined.

2.1. North of the Arba Mine Face

2.1.1. Current Australian Anglo American Prospecting Proprietary Limited - Amdex Mining Limited Exploration

On 9 November 1981 and between 20 and 25 of the same month 13 sample holes were satisfactorily completed using Reverse Circulation Methods. The holes were in two sub-parallel lines on the Ringarooma floodplain north of Arba Hill. Their location is shown on plan in figure 2, parameters are summarised on table 1 and the drill logs are appendix 1. Total meterage drilled was 721.2m.

2.1.1.1. Rationale Behind the Selection of Holes Sites - First Line

The sites for the first line of nine holes (ARC1 to ARC9) were selected to test for alluvial tin mineralisation and to provide information on several possible geological situations. Essentially, the holes were designed to:

- a) Test for possible extension of the Arba Lead.
- b) Test for the existance of the Proto-Ringarooma River, that is, the Tertiary Ringarooma River.
- c) To extend and close off the line of holes drilled by the Tasmanian Department of Mines in 1976/77.

2.1.1.2. Drilling Results - First Line

Nine holes averaging 54m to basement and 9g SnO₂/m³ were bored over a 650m section of flat pasture. The river flat was systematically drilled from the toe of the basalt capped buttress, close to Branxholm Estate homestead, to the Ringarooma River proximate to the most northern Mines Department percussion hole.

3.

The line bisects the 70 acre river block owned by the Byrne family of 'Riverside', Telita. Sole access was via a rough steep farm track which fords the Ringarooma River. The hole locations are shown on figure 2.

Drilling has partly defined a broad basin of shallow concavity. (See figure 3.) True margins to the basin along this line should be encountered some 300m+ to the SW and 200m to the NE. In comparison with other alluvial areas drilled in NE Tasmania, basement is unusually flat. Sediment types are more consistent laterally and a simple stratigraphy is more easily discernable. At North Arba, several contrasting strata are clearly evident. Paraconformities probably exist above and below the third (shingle) layer depicted in figure 3. This figure also summarises the stratigraphy which is more detailed on the drill logs.

Mineralisation is virtually absent. The only trend is for minor traces of cassiterite in gravels and clayey gravels about the 140m in RL level.

2.1.1.3. Rationale Behind the Selection of Hole Sites - Second Line

Figure 2 shows a dense line of exploratory drilling at the foot of the northern slopes of Arba Hill. Earlier, an examination of basement reduced levels of known data, suggested more drilling was warranted. [Munro (1981).] In this report three drill holes 50m apart were recommended to infill a gap of 300m which could readily contain the mineralised portion of the Branxholm Creek lead.

This ground was made available for prospecting in mid November following a successful application for its inclusion in the Exploration Licence.

2.1.1.4. Drilling Results - Line 2

This line is comprised of four new holes filling the gap in previous drilling, recommended for three holes by Munro (1981). All reached a Mathinna Group basement, averaging 51.9m below the flat surface. Spacing was 60m and average surface to basement grade was $47\text{g SnO}_2/\text{m}^3$. The improvement of this figure over the first line is solely due to the intersection of moderate cassiterite mineralisation throughout the sub-surface river shingle horizon.

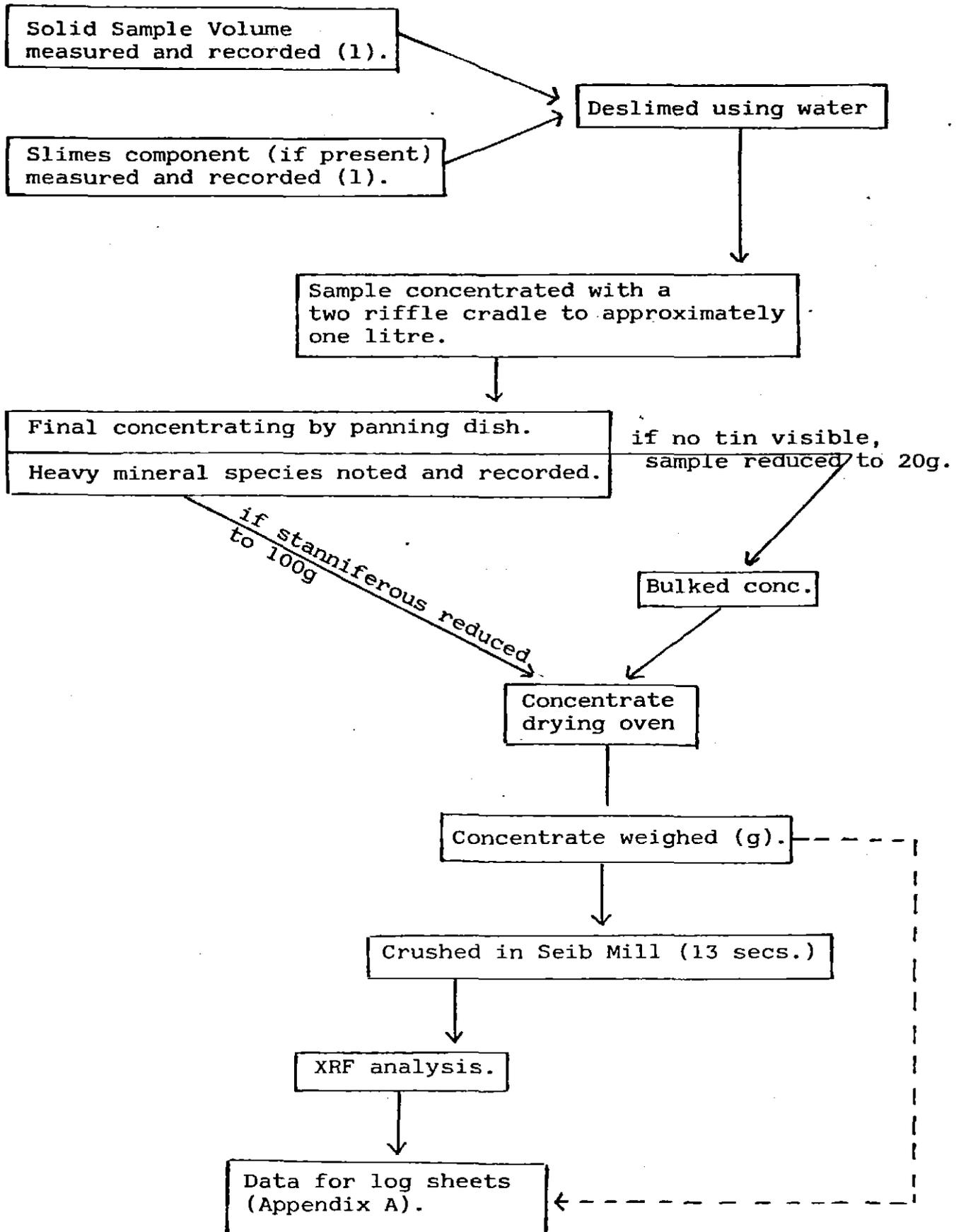
Below this perched placer, mineralisation levels were similar to Line 1, i.e. near barren. Again a trace of stanniferous gravel was detected about the 140m RL level. The stratigraphy was also similar to Line 1, however, lignitic brown clay horizons and wood fragments were more numerous. A horizon composed of such material has been consistently intersected between 29 and 30m. Other beds are shown and described on figure 3.

The general stratigraphy, sediment type and mineral distribution will be discussed under heading 2.1.2.

2.1.1.5. Notes on the Drilling Apparatus and Technique

A Jetstream 100 model, dual tube, reverse circulation scout sampling rig was employed for the entire programme. The contractor, Kitching Consultants and Suppliers Pty Ltd, of Brisbane, Queensland, designed and constructed this unit, which consisted of three sub-units (see photograph 4). The drill rig itself was mounted on a Toyota Landcruiser. The ancillary support vehicle, also a Toyota Landcruiser, carried drill rods, tools, spares etc, plus drill water in built-in tanks. The third sub-unit, a 125 cfm compressor, was towed by the support Toyota.

Bits, manufactured by the contractor, were a nominal BW size (59.9mm diameter) with tungsten carbide inserts as cutting points. During the drilling programme, the contractor experimented with bit design to produce longer bit life and the final product was a heavy duty bit liberally coated with hard facing.

SAMPLE SHED TREATMENT FLOW SHEET

5.

Samples were collected at the surface in large plastic bags. Sediment type was continually monitored at the discharge pipe (see photograph 3). All material was collected for analysis. Each day samples were conveyed to the Amdex Mining Ltd sample treatment shed at Pioneer where they were treated according to the accompanying flow sheet.

To check the quality of the sample taken by the Jetstream rig, two holes were drilled ahead of the Pioneer Pit at sites previously tested by both Churn Drill and Wallis Reverse Circulation rigs. The comparison of results is as follows:

Site	Churn Drill g SnO ₂ /m ³	Wallis RC Rig g SnO ₂ /m ³	Jetstream RC Rig g SnO ₂ /m ³
K 81	444	465	277
K111	365	313)	173
		317)	

It thus appears that the Jetstream rig indicates approximately half the grade indicated by the other two rigs, although it must be emphasised that the test is not conclusive, due to the rapid lateral variation in grades within an alluvial tin deposit.

2.1.2. Review of Exploration North of the Arba Mine Face

The thirteen holes first documented in this report swell the useful number of bores north of Arba Hill to fifty. This is sufficient to tentatively contour the basement surface. This, along with the mapping of basement rock type has been attempted in figure 6. Most apparent is a broad basin-channel with a slight down channel trend in an easterly direction. Though a constriction may occur at the easterly margin of the map (Long Bridge), limited information for several kilometres further east is most consistent with the theory of a large Tertiary infilled drainage channel, with a gentle easterly slope.

Defining the character and course of the lower Branxholm Creek lead is a task not yet resolved. The lead may have been breached by the ARC drilling on the second line, though this is not supported by basal mineralisation or basal sediment type. The sedimentation and stratigraphy point rather; to an association with those encountered on Line 1. This would suggest that the deepest part of Line 2 was an embayment or incursion related to the Proto - Ringarooma.

By using the Pioneer and Valley leads as case examples, it is valid to suggest a possible sudden decrease in mineralisation levels under Arba Hill. This situation is supported by the relatively small size of the present watershed which has been denuded of 'tin' granite and frequent greissen veins similar in character to the nearby Bells Plains area. The Branxholm Creek area is noted for a coarse grade of cassiterite with frequent grains exhibiting fresh crystal faces, thus suggesting a close source.

Examination of the cross section of Line 2 (figure 3) does little to elucidate any of these problems. No pattern can be discerned for the lower part of the drill holes. The channel indicated by 1937 Government Bore 4 may be a continuation of the Black Creek Lead.

A further possibility is a westerly exit from under Arba Hill. The lead might then snake northwesterly south of the Groper workings and under the Branxholm Estate. The known basement configuration is not supportive of this theory.

A layer of river shingle 0.5 to 2.5m thick, extends over the whole flood plain north of Arba Hill. The pattern of mineralisation suggests that the cassiterite and pleonaste concentrations have originated from rejuvenated streams in the direction of the present Branxholm Creek. Grades for the four holes - (surface to the base of the shingle layer) ARC10-13 are shown on table 1. This perched placer has been exploited by the Groper and Roma workings. Deposition of this layer and subsequently the fining up sequence is a result in base level changes of this part of the Ringarooma River. Faulting in the vicinity of Derby is postulated as a mechanism. Abundant basalt clasts suggest a Pliocene or more probably a Pleistocene age for this horizon. It is apparent that the landscape was physiographically similar to the present, though it is evident that the scarps of the basalt plateaus were steep.

2.2. Exploration South and in the Vicinity of the Arba Mine Face

At present most of this area is not available for prospecting. It is held under mineral lease by Arba Tin Pty Ltd. The boundary of their lease is shown on figure 2.

This area has been previously reviewed by Munro (1981). As such, only additional information is included below:

- (a) Mr A Edwards of Branhholm has been interviewed about the recent working history of the Arba Mine area. He and his brother last worked the main face (see oblique aerial photo) on a small operating scale over a decade up to 1959. Records show at least 9.3t SnO₂ were recovered. Depth limitation of the hydraulic elevator prevented the deepest part of the lead being worked to granite basement.
- (b) Twelve additional Briseis Consolidated NL - Burma Malay Bores have been scaled on to the compilation map from the report - Rattigan (1957). Data for these bores is included in Table 2.
- (c) Enquiries were commenced regarding drilling data commissioned for United Petroleum Resources in 1970/71. It is understood at least five holes were bored through the basalt cap in the vicinity of the main face. It is possible that data on this drilling is already lost or in an irretrievable form. Mr Edwards, an 8% shareholder in Arba Tin knows the position of several of these bores, but most have been ploughed under.

3. CONCLUSIONS

3.1. Conclusions and Future Investigations

Exploration results from the six month period under review have mainly been inconclusive or negative. This will not encourage large outlays of exploration funds in the future, unless any of the ongoing and new tasks listed below provide fresh stimulus for investigation.

- (a) Petrological descriptions are at present being produced for a number of interesting pebble and pebble fragments collected from drill holes.
- (b) Information on past UPR drilling is being sought from the company.

8.

- (c) Further delineation of the mineralised segment of the sub-surface shingle layer is being planned.
- (d) Arrangements for a Landsat interpretation study of geomorphic features of the area have been instigated.

Sites for possible further drilling are:

- (a) A redrill of 1937 Government Bore 4.
- (b) Two holes in Branxholm Creek south of the Groper workings.
- (c) Holes through the basalt cap of Arba Hill by arrangement with Arba Tin Pty Ltd. These would be relatively easily accomplished using a 190mm down the hole hammer, followed by a 95mm reverse circulation or 160mm percussion unit.



R A A Munro

RAAM:AML

2 February 1982

Approved by



R J Kernick
Exploration Manager



1. Arba Mine from the air -
Looking North West.



2. Kitching Jetstream Reverse
Circulation Air Blast Rig.



3 Sample Collection



4 Kitching Jetstream Reverse Circulation
Air Blast Rig.



5. Kitching Bits. Left - 3 blade clay bit.
 Right - 6 blade hard rock bit. Bottom
 right - 4 blade heavy duty bit.
 Remainder - Standard 4 blade bits.



6. Kitching 4 tooth bits-
 new and worn

I, OSVALDO TIBURCIO FILOMENO FONSECA of 56 Partridge Crescent, Frankston in the State of Victoria, Accountant DO SOLEMNLY AND SINCERELY DECLARE as follows:-

1. That the details of work for the six months ended 22 December 1981 on Exploration Licence 28/76 in conjunction with the other tenements in the Ringarooma Joint Venture are described in the accompanying report.
2. That in the nine months ended 22 December 1981 we have expended \$103 369 on the Ringarooma Joint Venture analysed as follows -

	\$
(a) Field staff and associated costs	34 795
(b) Operating costs	2 047
(c) Tenement costs	74
(d) Specialist services	5 279
(e) Project management	8 806
(f) Drilling	47 942
(g) Contractors	1 335
(h) Capital expenditure	3 091
	\$103 369

AND I MAKE this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of an Act of the Parliament of Victoria rendering persons making a false declaration punishable for wilful and corrupt perjury.

DECLARED at

Melbourne

in the State of Victoria

this

26th
January

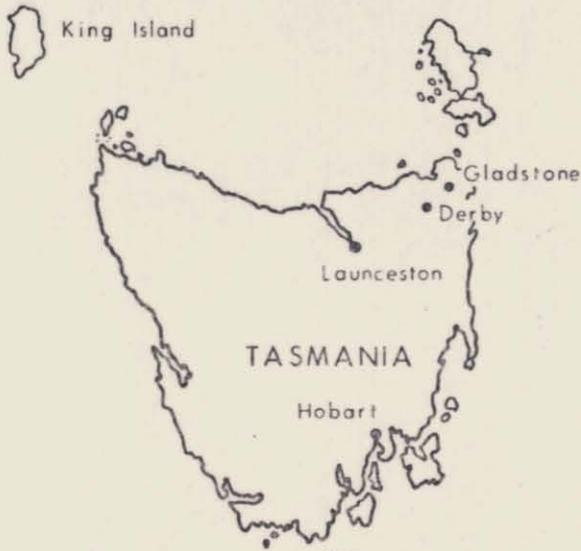
day of

1982

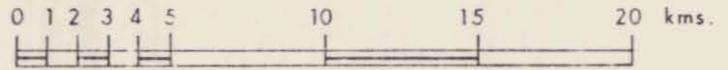
O. Fonseca

Before me:

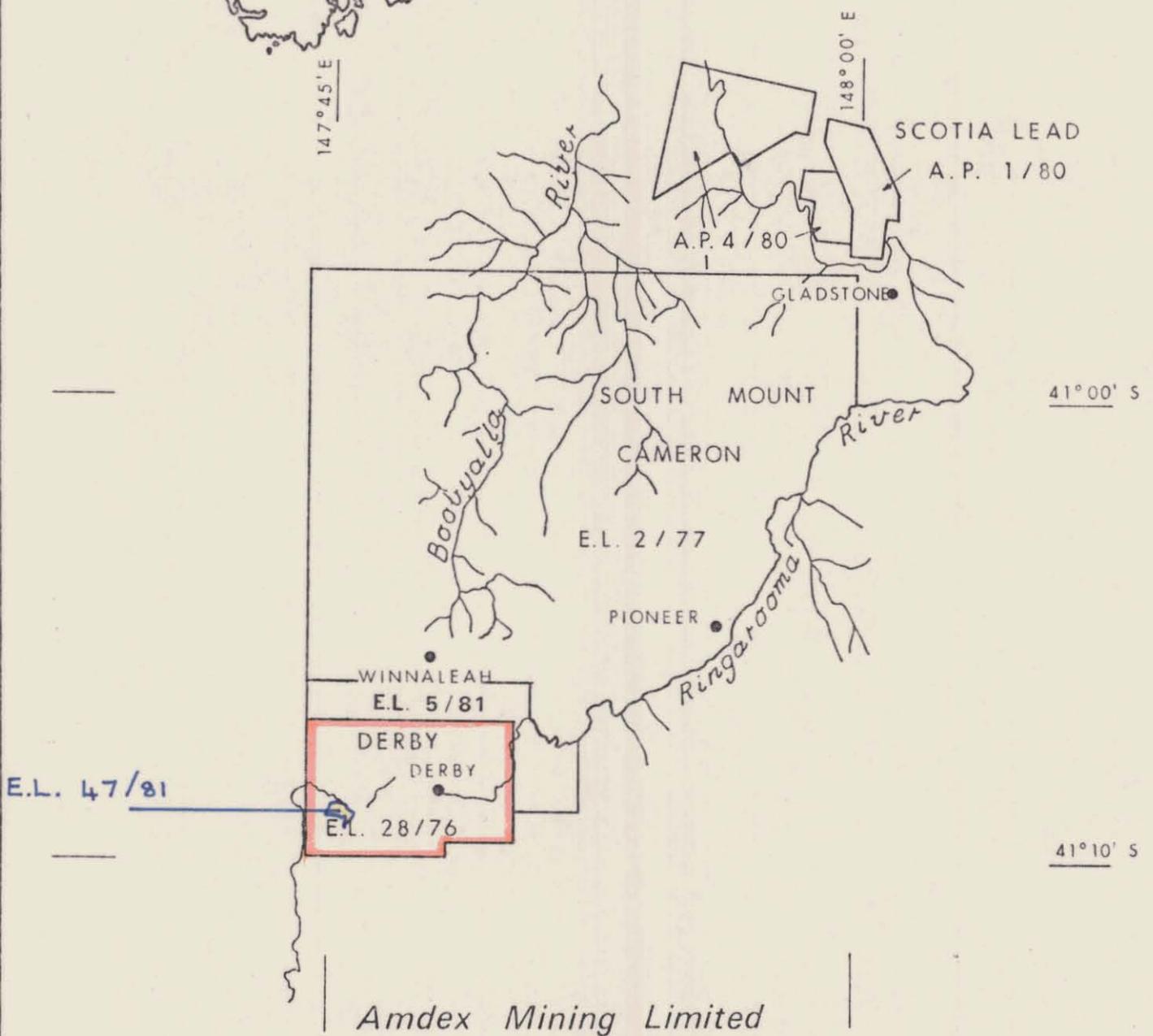
[Signature]



5 cm



Scale 1 : 250 000



Amdex Mining Limited

NORTH - EASTERN TASMANIA LOCATION MAP

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

AMDEX MINING LIMITED - NORTH EAST TASMANIA - DRILLING SUMMARY

AREA: 'North' Arba

YEAR: 1981

DRILLING METHOD: 60mm Reverse Circulation

Hole No	Caller Coordinates		Surface R.L.	Basement R.L.	Depth Drilled (m)	Depth to Basement (m)	Area of influence (m ²)	Volume (m ³)	Total rec. volume to basement (m ³)	Total rec. SnO ₂ (g)	Grade * (g SnO ₂ /m ³)	Contained SnO ₂ (kg)	Grade + (g SnO ₂ /m ³)	Contained SnO ₂ (kg)	SUB-SURFACE TIN RESULTS			
	mN	mE													Depth (m)	Total rec. SnO ₂ (g)	Grade + (g SnO ₂ /m ³)	
ARC 1	44010	62850	160.6	110.6	53	50				0.61			5					
ARC 2	44030	62940	160.7	-	41	-				0.54			5					
ARC 2a	44030	62940	160.7	107.7	56	53				0.72			5					
ARC 3	44050	63005	160.6	106.4	58	54.2				1.43			10					
ARC 4	44075	63080	160.3	104.5	59	55.8				1.02			7					
ARC 5	44090	63155	160.0	102.0	60	58				1.44			10					
ARC 6	44120	63235	160.0	100.5	61.2	59.5				1.36			8					
ARC 7	44150	63305	159.8	105.1	58	54.7				1.21			7					
ARC 8	44185	63380	159.6	106.1	56	53.5				1.32			8					
ARC 9	44215	63460	159.2	111.4	52	47.8				1.81			14					
ARC 10	43640	63210	162.4	109.1	56	53.3				11.72			91		10	9.39	402	
ARC 11	43620	63160	163.1	109.3	56	53.8				3.31			24		10	2.02	87	
ARC 12	43610	63095	162.7	114.4	52	48.3				6.42			53		10	4.72	202	
ARC 13	43645	63270	162.0	110.1	53	51.9				2.66			18		10	1.19	51	
TOTALS					771.2	$\bar{X}=53.4$												$\bar{X}=186$

* Grade calculated by relating recorded volume to recovered tin

Author: R Munro

+ Grade calculated by relating Radford factored volume to recovered tin (Rad Fac = 80%)

Date: 4.12.81

AMDEX MINING LIMITED - NORTH EAST TASMANIA - DRILLING SUMMARY

AREA: NORTH ARBA - BLACK CREEK YEAR: 1976-1977

DRILLING METHOD: 6" PERCUSSION - MINES DEPARTMENT

Hole No	Collar Coordinates mN mE	Surface R.L.	Basement R.L.	Depth Drilled (m)	Depth to Basement	Area of Influence (m ²)	Volume (m ³)	Total rec. volume to basement	Total rec. SnO ₂ (g)	Grade * (gSnO ₂ /m ³)	Contained SnO ₂ (kg)	Grade + (gSnO ₂ /m ³)	Contained SnO ₂ (kg)					BED ROCK TYPE
BH 1		160.6	151.8	9.0	8.8													Dg
BH 2		160.1	151.1	13.5	9.0													Dg
BH 3		160.0	150.5	13.5	9.5													Dg
BH 4		160.0	140.0	25.5	20.0													Dg
BH 5		159.2	116.7	47.5	42.5													Sm
BH 6		158.7	112.7	49.5	46.0													Sm
BH 7		157.9	107.7	52.5	52.2													Sm?
BH 8		158.2	102.7	57.5	55.5													Sm
BH 9		158.2	109.2	49.0	49.0													Sm
BH 10		157.8	99.3	60.0	58.5													?
BH 11		158.2	98.2	65.5	60.0													Sm
BH 12		158.1	104.1	55.0	54.0													Dg
BH 13		157.8	110.3	48.0	47.5													Dg
BH 14		157.7	118.7	40.5	39.0													Dg
BH 15		158.2	121.2	39.0	37.0													Dg
BH 16		158.5	134.5?	24.0	-													Dg
BH 17		157.6	136.0?	21.0	-													Dg
BH 18		158.4	148.4?	10.0	-													Dg
TOTALS																		

*Grade calculated by relating recorded volume to recovered tin

+Grade calculated by relating Radford factored volume to recovered tin (Rad Fac = 80%)

Author: R MUNRO

Date: 16.12.81

Dg = Granite
Sm = Mathinna Beds

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AMDEX MINING LIMITED - NORTH EAST TASMANIA - DRILLING SUMMARY

AREA: ARBA MINE

YEAR: Late 1930's

DRILLING METHOD: HAND PLANT/ PERCUSSION

Hole No	Collar Coordinates mN	Surface R.L.	Basement R.L.	Depth Drilled (m)	Depth to Basement	Area of influence (m ²)	Volume (m ³)	Total rec. volume to basement	Total rec. SnO ₂ (g)	Grade * (gSnO ₂ /m ³)	Contained SnO ₂ (kg)	Grade (gSnO ₂ /m ³)	Contained SnO ₂ (kg)	Total Depth if related to old surface	Grade if related to old surface
1					21.3							468		33.8	295
2					38.4							332		70.7	180
3					28.4							380		62.5	173
4					22.3							249		52.4	107
5					19.5							320		50.3	125
6					19.5							160		49.1	63
7					7.6							148		36.6	31
8					7.3							261		36.0	54
9					32.0							291		51.2	182
10					16.3							251		26.2	164
11		~ 178	~ 158		19.8							148		19.8	148
12					34.4							901		69.5	446
13				32.0	N.B.							30.0		-	-
14		~ 176	~ 157		19.2							5		19.2	5
15					No date							-		-	
16		~ 176	~ 165		11.6							47		?	?
17		~ 178	~ 165		13.1							148		?	?
18					21.0							36		?	?
TOTALS															

* Grade calculated by relating recorded volume to recovered tin

Author: R MUNRO

+ Grade calculated by relating Radford factored volume to recovered tin (Rad Fac = 80%)

Date: 4.12.81

N.B. = NOT BOTTOMED

816021

AMBER MINING LIMITED - NORTH-EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: ARC1 Collar Co-ordinates: 5444010 mN, 562850 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 160.6 m Basement R.L.: 110.6 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres
 Date: 10/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (g SnO ₂ /m ³)	Grade † (g SnO ₂ /m ³)	Description of Sample
From	To									
0	2			0.25LTRS	152.2	0.28	0.61	4.8		0-2m brown sand & grit 2-4m silty white clay, soft organic silty clay 4-6m tenacious grey clay, softer silty grey clay & a lge. basalt boulder together with shingle comprising of mathinna clasts
2	4			2.00				4.8		6-8m drift, angular gravels of rounded quartz & sandstone pebbles, minor brown silt
4	6			2.00				4.8		8-14m as for 6-8m with additional white, v. gritty clay
6	8			1.50				4.8		14-16m as above with fewer pebbles 16-18m as for 8-14m 18-20m layers of drift & white, moderately tenacious clay tog, with occasional pebbles & gravel
8	10			2.25				4.8		20-25.5m drifts, f. gravels, & some light brown silt 25.5-26m white clayey silt & bands of drift
10	12			2.50				4.8		26-28m white soft clayey drift 28-30m slightly yellow soft clayey drift with layers of sm. quartz gravel
12	14			2.50				4.8		30-32m light brown clayey drift, quartz pebbles
14	16			3.00				4.8		32-34m drift, sub-angular to rounded pebbles of quartz & Mathinna sandstone, light brown silt, gravels & clay
16	18			2.25				4.8		34-36m as for 32-34m but with lgr. pebbles & also cobbles
18	20			2.20				4.8		36-38m drift, f. gravels, pebbles & cobbles all in a white clay matrix
20	22			3.25				4.8		38-42m as above with pebbles & cobbles coarser 42-44m Mathinna sandstone cobbles dominant also quartz pebbles & cobbles, drift, grits & white clay
22	24			7.00				4.8		
24	26			3.00				4.8		44-50m as above, other pebble types recorded inc. quartzite, iron lithofied sandstone & yellow quartz
26	28			3.00				4.8		50-53m grey Mathinna sandstone siltstone basement
28	30			3.00				4.8		

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 50 m. Grade from surface to inferred basement at 50 m. g SnO₂ / m³ *
 Total recovered volume, surface to basement 7.00 l. Contd./ Sheet 2. at 50 m 5 g SnO₂ / m³ +
 Total recovered tin 0.61 gSnO₂

Area: ARBA Hole No: ARC1 Collar Co-ordinates: 5444010 mN 562850 mE Drilling Method: Kitching Reverse Circulation

Surface R.L.: 160.6 m Basement R.L.: 110.6 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 10/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade † (gSnO ₂ /m ³)	Description of Sample
From	To								
<u>Mineralogical Description</u>									
30	32		3.00LTRS				4.8	0-4m 4-10m	No tr. of mineral Tr. ilmenite
32	34		3.50				4.8	10-12m 12-14m	Tr. f. tin, ilmenite Tr. ilmenite
34	36		1.50				4.8	14-16m 16-18m	V.f. tr. of tin, ilmenite Tr. ilmenite
36	38		2.00				4.8	18-22m 22-24m	" " V.f. tr. tin, ilmenite
38	40		2.00				4.8	24-50m 50-53m	Tr. ilmenite Tr. pyrite
40	42		2.25				4.8		
42	44		3.00				4.8		
44	46		3.00				4.8		
46	48		1.50				4.8		
48	50		0.50				4.8		
50	52		0.25				4.8		
52	53		0.25				4.8		

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 50 m. Grade from surface to inferred basement at 50 m 5 g SnO₂ / m³ *
 Total recovered volume, surface to basement = 1. Total recovered tin = 0.61 g SnO₂ at 50 m 5 g SnO₂ / m³ †

AMBEX MINING LIMITED - NORTH-EAST SAMBABA DILL LOG

Area: ARBA Hole No.: ARC2 Collar Co-ordinates: 5444030 \pm N 562940 \pm E Drilling Method: Kitching Reverse Circulation

Surface R.L.: 160.7 m Basement R.L.: 107.7 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 10/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section Metres		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * gSnO ₂ /m ³	Grade * gSnO ₂ /m ³	Description of Sample
From	To								
0	2		1.00LTRS	139.6	0.27	0.54	5.0	0-2m light brown sand & f. gravels 2-4m pure dark grey silt, minor angular grits, gravel & pebbles, some root material. 4-5m grit, sm. pebbles, & yellow silt	
2	4		2.00				5.0	5-8m Mathinna group & basalt cobbles & pebbles most sub-rounded to rounded, also brown silt 8-9m drifts in light yellow silty clay	
4	6		2.00				5.0	9-10m drifts, gravel & occasional pebbles in yellow silty clay 10-12m brown silty clay with drift, occasional pebbles & minor quartz grit (angular) & gravels	
6	8		3.50				5.0	12-18m same as before with silty clay being white in colour	
8	10		2.75				5.0	18-27.5m drifts, white silty clay, pebbles, minor angular quartz grits, gravels & sand	
10	12		4.25				5.0	27.5-28m white moderately tenacious silt layered with thin bands of drift & pebbles 28-35m	
12	14		3.75				5.0	35-41m drift, f. grit & gravels pebbles & cobbles of quartz & sandstone, light brown yellow silt	
14	16		3.00				5.0	At 41m tubes blocked, rods withdrawn & rig moved from site without second drilling attempt	
16	18		3.25				5.0		
18	20		3.25				5.0	<u>Mineralogical Description</u>	
20	22		4.75				5.0	0-12m tr. ilmenite 12-16m v.f. tr. of tin, ilmenite 16-20m tr. ilmenite	
22	24		4.00				5.0	20-24m tr. tin, ilmenite 24-41m tr. ilmenite	
24	26		8.00				5.0	41-46m tr. ilmenite 46-48m pyrite, tin, ilmenite	
26	28		11.00				5.0	48-50m tr. ilmenite 50-52m v.f. tr. tin, ilmenite	
28	30		5.00				5.0	52-56m tr. ilmenite	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad F = 80%

Drill's reported basement at 53 m. Grade from surface to inferred basement at m. g SnO₂ / m³ *

Total recovered volume, surface to basement l. Contd./ Sheet 2. at 53 m 5 g SnO₂ / m³ *

Total recovered tin 0.22 g SnO₂

816027

Area: ARBA Hole No: AKC2 Collar Co-ordinates: 5444030 mN 562940 mE Drilling Method: ...Kitching Reverse Circulation
 Surface R.L. 160.7 m Basement R.L. 107.7 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres

Date: 10/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade ° (g SnO ₂ /m ³)	Grade * (g SnO ₂ /m ³)	Description of Sample
From	To								
30	32		5.75LTRS					5.0	Contd./ 41-44m F. sub-angular quartz gravels & grits, drift, sub-rounded pebbles mainly sandstone & siltstone sometimes reaching cobble size occasional quartz clasts
32	34		4.75					5.0	44-46m as above but cobbles more common
34	36		3.25					5.0	46-53m pebbles & cobbles of sandstone, siltstone, quartzite & quartz mainly sub-rounded to sub-angular, sub angular gravels & grits & occasional sometimes gritty yellow white clay layers with visible ilmenite as a heavy mineral
36	38		3.00					5.0	
38	40		4.25					5.0	
40	41		2.50					5.0	53-56m decomposed Mathinna group sandstone siltstone basement
41	42		4.03	115.8	0.11	0.18		4.9	
42	44		4.00					4.9	
44	46		4.25					4.9	
46	48		4.00					4.9	
48	50		4.25					4.9	
50	52		3.00					4.9	
52	54		2.00					4.9	
54	56		1.50					4.9	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 53 m. Grade from surface to inferred basement at 53 m. g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 53 m. 5 g SnO₂ / m³ *
 Total recovered tin 0.72 g SnO₂

AMDEX MINING LIMITED - NORTH EAST TASMANIA

Area: ARBA Hole No.: ARC3 Collar Co-ordinates: 5444050 mN 563005 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 160.6 m Basement R.L.: 106.4 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres
 Date: 25/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade + (gSnO ₂ /m ³)	Description of Sample
From	To								
0	2		1.00LTR	105.4	0.95	1.43		9.3	0-2m brown sand & grit 2-5.3m brown slightly clayey silt with some wood fragments & minor sand
2	4		2.00					9.3	5.3-8m shingle band composed of basalt sandstone siltstone & quartz pebbles & cobbles with interstitial silty clay & yellow silt
4	6		1.25					9.3	8-12m angular to sub-angular drift, sub-angular quartz gravel & grit sub-angular small pebbles, brown & white silty clay
6	8		3.00					9.3	
8	10		3.50					9.3	12-14m sub-angular quartz gravel & grit, white silty clay, drift, quartz & occasional sandstone pebbles
10	12		2.50					9.3	14-16m drift, sub-angular quartz gravels & grits white moderately tenacious clay, quartz & occasional sandstone pebbles
12	14		3.00					9.3	
14	16		4.00					9.3	16-22m drift, sub-angular quartz gravel & grits, white silt, occasional pebbles
16	18		6.00					9.3	22-24m drift, sub-angular quartz grits & gravels white silt, moderate to lge. quartz pebbles, sub-rounded
18	20		4.75					9.3	24-32m drift, sub-angular quartz gravels & grits, gritty white clay & occasional pebbles sub-rounded
20	22		5.00					9.3	
22	24		4.25					9.3	32-34m drift, sub-angular quartz gravels & grits, yellow silty clay, minor pebbles Contd
24	26		2.75					9.3	
26	28		6.25					9.3	
28	30		5.00						

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 54.2 m. Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 54.2 m 10 g SnO₂ / m³ +
 Total recovered tin 1.43 gSnO₂

Area: ARBA Hole No.: ARC3 Collar Co-ordinates: 5444050 mN, 563005 mE Drilling Method: Kitching Reverse Circulation

Surface R.L.: 160.6 m Basement R.L.: 106.4 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 25/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade ° g SnO ₂ / m ³	Grade * g SnO ₂ / m ³	Description of Sample
From	To								
30	32		9.25LTRS					9.3	Contd./ 34-36m as for previous interval but more sub-rounded pebbles
32	34		9.00					9.3	36-38m drift, sub-angular quartz grits & gravels sub-rounded to sub-angular sandstone &
34	36		7.25					9.3	quartz pebbles & a few cobbles, grey white silt
36	38		6.00					9.3	38-45m as for previous interval but only rare cobbles
38	40		7.50					9.3	45-48m sub-angular quartz gravels & grits, sub-rounded to sub-angular sandstone & occasional
40	42		4.50					9.3	quartz pebbles & cobbles, yellow silt, a little drift
42	44		4.00					9.3	48-51m sandstone, quartzite & quartz cobbles, pebbles & minor grit mostly sub-angular, light grey silt
44	46		3.50					9.3	51-54.2m sandstone cobbles & pebbles, occasional
46	48		5.50					9.3	bands of white gritty clay, also light grey silt
48	50		5.00					9.3	54.2-58m decomposed Mathinna group f. sandstone basement
50	52		3.00					9.3	<u>Mineralogical Description.</u> 0-18m Tr. ilmenite
52	54		2.00					9.3	18-20m Tr. f. tin, ilmenite
54	56		1.00					9.3	20-30m tr. ilmenite
56	58		2.50					9.3	30-32m tr. pyrite
								9.3	32-38m tr. ilmenite
								9.3	38-58m tr. pyrite

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 54.2 m. Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 54.2 m 10 g SnO₂ / m³ +
 Total recovered tin g SnO₂

AMDEX MINING LIMITED - NORTH-EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: ARC4 Collar Co-ordinates: 5444075 mN 563080 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 160.3 m Basement R.L.: 104.5 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres
 Date: 24/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * gSnO ₂ /m ³	Grade † gSnO ₂ /m ³	Description of Sample
From	To									
0	2		1.00LTR.	86.8	0.82	1.02		7.1	0-2m brown grits & sand 2-4.5m brown gritty silt 4.5-8m a shingle layer, cobbles, pebbles & a boulder of sandstone, quartzite, quartz & basalt with interstitial yellow silty grit	
2	4		1.50					7.1		
4	6		1.50					7.1	8-10m mostly drift but also angular quartz grits & gravels, rare sub-rounded pebbles	
6	8		1.75					7.1	10-12m mostly grits but some angular quartz grits & gravels & yellow silty clay	
8	10		3.00					7.1	12-14m drift, angular quartz grits & gravels & a little yellow silty clay	
10	12		4.00					7.1	14-16m drifts, sand, white clayey silt, minor sub-angular quartz gravels	
12	14		5.00					7.1	16-22m as above with also occasional quartz pebbles 22-22.4m a white silty clay layer	
14	16		5.50					7.1	22.4-28m drift, sub-angular quartz grits & gravels sub-rounded quartz pebbles, yellow & sometimes brown silts	
16	18		5.75					7.1	28-30m as above with additional white yellow silty clay	
18	20		5.75					7.1	30-34m drift with some iron cement, quartz grits & gravels, occasional sub-rounded pebbles light yellow silt	
20	22		5.25					7.1		
22	24		3.50					7.1	34-36m as above with cobbles including one of basalt?	
24	26		7.00					7.1	36-44m as above without basalt?, sandstone, siltstone pebbles & cobbles becoming increasingly common	
26	28		6.75					7.1	44-46m sandstone & siltstone pebbles & cobbles, quartz/grit! & one green quartz pebble noted	
28	30		5.75					7.1	contd./	

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F=80%
 Drillers reported basement at 55.8 m Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 55.8 m 7 g SnO₂ / m³ †
 Total recovered tin 1.02 gSnO₂

AMDEX MINING LIMITED - NORTHEAST MARMANIA DRILL LOG

Sheet 2

Area: ARBA Hole No.: ARC4 Collar Co-ordinates: 5444075 mN, 563080 mE Drilling Method: Kitching Reverse Circulation

Surface R.L.: 160.3 m Basement R.L.: 104.5 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 24/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade † (gSnO ₂ /m ³)	Description of Sample
From	To									
30	32			5.00LTRS				7.1		Contd./ 46-50m basically similar with white gritty clay noted
32	34			6.50				7.1		52-54m cobbles & sm. boulders of sandstone dark quartzite, quartz & basalt? with grey silt & white moderately tenacious clay
34	36			5.00				7.1		54-55.8m mainly sandstone pebbles & cobbles & perhaps a boulder, grits & grey silt
36	38			5.00				7.1		55.8-59m grey siltstone sandstone Mathinna group basement
38	40			3.00				7.1		
40	42			2.25				7.1		<u>Mineralogical Description</u>
42	44			3.25				7.1		0-14m Tr. ilmenite 14-16m ilmenite
44	46			3.50				7.1		16-22m Tr. ilmenite
46	48			2.25				7.1		22-24m Tr. tin & ilmenite
48	50			2.00				7.1		24-34m Tr. ilmenite
50	52			4.25				7.1		34-38m Pyrite
52	54			3.25				7.1		38-42m Tr. ilmenite & pyrite
54	56			3.00				7.1		42-44m Tr. ilmenite
56	58			3.00				7.1		44-52m Tr. ilmenite
58	59			0.50				7.1		52-54m Tr. ilmenite & pyrite
										54-58m Tr. pyrite
										58-59m No tr. of mineral

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 55.8 m Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 55.8 m g SnO₂ / m³ +
 Total recovered tin g SnO₂

816032

AMDEX MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Area: ARBA Hole No: ARC5 Collar Co-ordinates: 5444090 mN, 563155 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 160.0 m Basement R.L.: 102.0 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres
 Date: 24/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * gSnO ₂ /m ³	Grade + gSnO ₂ /m ³	Description of Sample
From	To								
0	2		1.00LTR	85.7	1.18	1.44		10.0	0-2m brown grits & sand 2-5m brown grits, sand & minor gravels 5-8m shingle layer consisting of pebbles, cobbles & occasional boulders of quartzite, sandstone, basalt & milky quartz drift, sub-angular to angular quartz grits
2	4		0.50					10.0	8-14m & gravels sub-angular quartz pebbles, yellow silty clay
4	6		1.75					10.0	14-16m drift, yellow silty clay, sub-angular quartz grits & gravels, occasional pebbles
6	8		0.25					10.0	16-18m layers of yellow brown clayey silt, between drift & sub-angular quartz grits & gravels
8	10		2.75					10.0	18-20m white clayey silt with minor drift
10	12		4.00					10.0	20-30m drift, sub-angular quartz grits & minor gravel, occasional pebbles & yellow silt
12	14		4.25					10.0	30-34m drift, sub-angular quartz grits & gravel, sub-rounded quartz pebbles & light grey silt
14	16		3.75					10.0	34-36m drift, sub-angular to angular quartz drift grits & gravel, sub-rounded quartz pebbles
16	18		5.50					10.0	yellow brown silt
18	20		4.50					10.0	36-39m as above with one fragment of basalt seen at about 37m
20	22		6.25					10.0	39-40m drift- sub-angular quartz, grits & gravels sub-angular quartz & sandstone pebbles & rare cobbles, moderately tenacious mottled grey white clay
22	24		8.00					10.0	40-44m as above but clays replaced by grey white silt
24	26		3.00					10.0	44-46m increased cobble frequency, minor iron cement noted
26	28		4.50					10.0	46-50m drift, quartz & sandstone pebbles & occasional cobbles, sub-angular quartz
28	30		5.50					10.0	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F=80%
 Drillers reported basement at 58 m. Grade from surface to inferred basement at 58 m 10 g SnO₂/m³
 Total recovered volume, surface to basement 1.44 l. at 58 m 10 g SnO₂/m³
 Total recovered tin 1.44 gSnO₂

AMBER MINING LIMITED - NORTH-EAST TASMANIAN DRILL LOG

Area: ARBA Hole No.: ARC5 Collar Co-ordinates: 5444090 mN 563155 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 160.0 m Basement R.L.: 102.0 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.
 Date: 24/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade + (gSnO ₂ /m ³)	Description of Sample
From	To								
30	32		5.50					10.0	Contd./ grits & gravels, moderately tenacious whit gritty clay
32	34		4.00					10.0	50-53.9m white gritty clay, occasional sandstone pebbles & cobbles, minor grits & gravel
34	36		5.00					10.0	53.9-56.8m brown silt of an organic nature 56.8-58m white grey mottled soft clays & silts,
36	38		5.00					10.0	brown silt, sand & wood fragments 58-60m grey decomposed Mathinna group sandstone siltstone? basement
38	40		5.50					10.0	
40	42		2.00					10.0	<u>Mineralogical Description</u>
42	44		3.00					10.0	0-4m Tr. ilmenite 4-6m Tr. ilmenite, pyrite 6-20m Tr. ilmenite
44	46		4.00					10.0	20-22m Tr. tin, ilmenite 22-24m Sm. amount tin, ilmenite
46	48		3.00					10.0	24-46m Tr. ilmenite 46-48m Tr. pyrite, ilmenite
48	50		2.00					10.0	48-56m Tr. ilmenite 56-60m Tr. ilmenite & pyrite
50	52		4.75					10.0	
52	54		2.00					10.0	
54	56		4.50					10.0	
56	58		1.25					10.0	
58	60		2.00					10.0	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 58 m. Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 58 m 10 g SnO₂ / m³ +
 Total recovered tin 1.44 g SnO₂

AMDEX MINING LIMITED - NORTH-EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: ARC6 Collar Co-ordinates: 5444120 N 563235 E Drilling Method: Kitching Reverse Circulation

Surface R.L.: 160.0 m Basement R.L.: 100.5 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres

Date: 24/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade † (gSnO ₂ /m ³)	Description of Sample
From	To								
0	2		1.00LTR	115.0	0.83	1.36		8.4	0-2.5m c. sand & grit 2.5-5m dark grey humic silt & angular quartz gravel
2	4		0.50					8.4	5-6m shingle layer composed of pebbles & gravel of rock types sandstone quartzite basalt & milky quartz, interstitial yellow silt
4	6		1.25					8.4	6-8m yellow tenacious gritty clay, quartz & sandstone gravels, drift & angular quartz grit & gravel
6	8		2.25					8.4	8-10m quartz sand & grits, yellow silt
8	10		4.00					8.4	10-16m drift, sub-angular to sub-rounded quartz & occasional sandstone pebbles, angular grits & gravels, yellow silt & sand
10	12		3.00					8.4	16-20m drift, white slightly silty clay sub-rounded to angular gravels & grit & occasional sm. pebbles
12	14		4.00					8.4	20-22m drift, sub-rounded to angular gravels & grits white silty clay & rare sm. pebbles
14	16		3.75					8.4	22-26m as above pebbles larger & more numerous
16	18		3.75					8.4	26-28m as above, pebbles absent
18	20		5.00					8.4	28-35.5m drift, sub-rounded to angular/gravels & grits, white to light grey clayey silt, sub-rounded mainly quartz pebbles
20	22		5.50					8.4	35.5-44m as above but with a much higher frequency of angular to sub-angular sandstone pebbles
22	24		4.75					8.4	occasional cobbles, rare quartzite clasts also noted
24	26		8.50					8.4	44-46m as above with yellow white moderately tenacious clay seams
26	28		7.25					8.4	46-48m white silty clay, drift & sm. sandstone pebbles
28	30		7.00					8.4	48-54m sub-angular sandstone pebbles & cobbles subordinate quartz pebbles & cobbles, grey

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 59.5? m. Grade from surface to inferred basement at 59.5 m 8 g SnO₂/m³
 Total recovered volume, surface to basement l. at 59.5 m 8 g SnO₂/m³
 Total recovered tin 1.36 g SnO₂

AMBEY MINING LIMITED - NORTHEAST TASMANIA ORE LOG

Sheet 2

Area: ARBA Hole No.: ARC6 Collar Co-ordinates: 5444120 N. 563235 E Drilling Method: Kitching Reverse Circulation

Surface R.L.: 160.0 m Basement R.L.: 100.5 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 24/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade † (gSnO ₂ /m ³)	Description of Sample
From	To								
30	32		8.00LTRS				8.4	Contd./ 54-58m silt grits & f. gravels as above with several 20cm layers of white silty moderately tenacious clay	
32	34		7.25				8.4	58-59.5m green white grey moderately tenacious gritty clay, minor grits, gravels & occasional pebbles	
34	36		5.50				8.4		
36	38		3.00				8.4	59.5-60.2m probable Mathinna Group basement - hard sandstone core.	
38	40		2.50				8.4	Hole terminated at 60.2m by blocked rods, subsequent redrill attempts failed to advance the hole any further	
40	42		4.00				8.4		
42	44		3.25				8.4	<u>Mineralogical Description</u>	
44	46		3.00				8.4	0-10m Tr. ilmenite	
46	48		5.00				8.4	10-14m Tr. tin, ilmenite	
48	50		3.00				8.4	14-36m Tr. ilmenite	
50	52		5.00				8.4	36-40m Tr. pyrite, ilmenite	
52	54		4.00				8.4	40-50m Tr. ilmenite	
54	56		5.00				8.4	50-56m Tr. pyrite & ilmenite	
56	58		5.50				8.4	56-60.20m Pyrite	
58	60		7.50				8.4		

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%

Drillers reported basement at 59.5? m Grade from surface to inferred basement at m g SnO₂ / m³ *

Total recovered volume, surface to basement l. at 59.5 m g SnO₂ / m³ †

Total recovered tin g SnO₂

AMDEX MINING LIMITED - NORTH-EAST BARMANIA DRILL LOG

Area: ARBA Hole No.: ARC7 Collar Co-ordinates: 5444150 mN, 563305 mE Drilling Method: Kitching Reverse Circulation

Surface R.L.: 159.8 m Basement R.L.: 105.1 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 27/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (g SnO ₂ /m ³)	Grade † (g SnO ₂ /m ³)	Description of Sample
From	To								
0	2		2.00LTRS	82.8	1.02	1.21		6.4	0-2m quartz grit, occasional pebbles, some c. brown sand 2-5.3m brown silt containing some plant material
2	4		3.00					6.4	5.3m-8m pebble layer consisting of pebble & shingle sized quartzite, sandstone, milky quartz & basalt with brown silt & quartz grit
4	6		2.50					6.4	8-12m drift, sub-angular f. quartz gravel & grit
6	8		2.00					6.4	yellow silt, sub-angular occasional sm. quartz pebbles
8	10		5.00					6.4	12-16m as above with a white silty clay layer from 13.8-14
10	12		5.00					6.4	16-20m as above with sm. seams of white silty clay 20-24m same again with more frequent pebbles
12	14		7.00					6.4	24-27.5m drift, sub-angular quartz grit & f. gravels, white silty clay, sand
14	16		6.00					6.4	27.5-30m drift, sub-angular quartz grits & f. gravels, occasional pebbles, yellow silt
16	18		5.00					6.4	30-35.5m as above but white brown light brown silt instead of yellow silt
18	20		6.50					6.4	35.5-38m drifts, sandstone pebbles & rare sandstone cobbles, sub-angular quartz grits & gravels,
20	22		7.00					6.4	38-43m white brown silty clay as above also pebbles of quartzite & occasionally quartz, milky quartz noted, thin layers of white clay also recorded
22	24		5.00					6.4	43-44m grey brown moderately tenacious slightly silty clay with subordinate gravel grit
24	26		6.00					6.4	layers
26	28		6.50					6.4	44-46m sub-angular quartz grits & f. gravels, drift, sub-rounded to sub-angular pebbles of sandstone & quartz, light grey to white
28	30		10.50					6.4	

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 54.7 m. Grade from surface to inferred basement at m g SnO₂ / m³ +
 Total recovered volume, surface to basement l. at 54.7 m g SnO₂ / m³ +
 Total recovered tin 1.21 g SnO₂

AMBEY MINING LIMITED - NORTH-EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: St2.ARC7 Collar Co-ordinates: 5444150 mN, 563305 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 159.8 m Basement R.L.: 105.1 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.
 Date: 27/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * gSnO ₂ /m ³	Grade † gSnO ₂ /m ³	Description of Sample
From	To								
30	32		6.00LTRS				6.4	Contd. silt 46-50m as above with the silt becoming med. grey in colour & more common	
32	34		8.00				6.4	50-52m as for previous sample with also white silty clay recorded & wood fragments noted	
34	36		7.00				6.4	52-54.7m sandstone pebbles & cobbles, sub-angular to angular quartz grits & gravels, some sand, much of this is cemented with a pyritic cement	
36	38		6.00				6.4		
38	40		5.00				6.4	54.7-58m hard, spotted hornfels in places exhibiting banding usually tilted at about 45 degrees.	
40	42		4.00				6.4	This rock which was recovered as core & chips is thought to be Mathinna group basement.	
42	44		5.00				6.4		
44	46		8.00				6.4	<u>Mineralogical Description</u>	
46	48		9.00				6.4	0-22m Tr. ilmenite 22-26m Tr. tin, ilmenite	
48	50		6.00				6.4	26-38m Tr. ilmenite 38-44m Tr. pyrite & ilmenite	
50	52		7.00				6.4	44-58m Tr. pyrite	
52	54		16.00				6.4		
54	56		7.00				6.4		
56	58		8.00				6.4		

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 54.7m. Grade from surface to inferred basement atm g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 54.7m g SnO₂ / m³ †
 Total recovered tin 1.21 gSnO₂

AMDEY MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: ARC8 Collar Co-ordinates: 5444185 mN, 563380 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 159.6 m Basement R.L.: 106.1 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.
 Date: 27/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade * g SnO ₂ /m ³	Grade + g SnO ₂ /m ³	Description of Sample
From	To								
0	2		3.00LTRS	86.2	1.07	1.32		7.2	0-2m f. sand & grits 2-4m dark brown silt with plant material 4-8m shingle layer usual pebble types include basalt quartzite sandstone & milky quartz
2	4		4.00					7.2	all sub-angular to sub-rounded, dolerite pebbles also? interstitial yellow silts present
4	6		2.00					7.2	
6	8		3.50					7.2	8-18m yellow & white silty clay becoming less common with depth, drift, sub-angular quartz, grits & gravels & sm. quartz pebbles
8	10		4.00					7.2	18-20m as above except silt colour change to light brown
10	12		4.00					7.2	20-28m as above but another change with silts becoming white & more clayey
12	14		6.50					7.2	as above with silts more common
14	16		7.00					7.2	30-33m sand, f. drift, white clayey silt 33-38m sandstone pebbles & rare cobbles, gravel
16	18		7.00					7.2	mainly quartz also sub-angular quartz grits, drift, white silt, rare quartzite pebbles
18	20		5.25					7.2	38-48m as above with more pebbles & silt at 43m sandstone pebble with cross beading was recorded, also about this depth basalt fragments? were recorded
20	22		9.00					7.2	
22	24		11.50					7.2	48-50m as above but with also white siltstone noted 50-53.5m as above but generally fewer pebbles, more sand & extra sandy white clay & sandy grey clay
24	26		11.00					7.2	
26	28		9.00					7.2	53.5-56m cored & fragments of siltstone & spotted hornfels i.e. Mathinna group basement
28	30		6.00					7.2	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 53.5 m Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 53.5 m g SnO₂ / m³ +
 Total recovered tin 1.32 g SnO₂

AMDEX MINING LIMITED NORTH EAST TASMANIA DOLL LOG

Sheet 2

Area: ARBA Hole No.: ARC8 Collar Co-ordinates: 5444185 mN, 563380 mE Drilling Method: Kitching Reverse Circulation

Surface R.L.: 159.6 m Basement R.L.: 106.1 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 27/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade ° (g SnO ₂ /m ³)	Grade † (g SnO ₂ /m ³)	Description of Sample
From	To									
30	32			5.00LTRS				7.2		0-4m Tr. ilmenite 4-6m Tr. tin, blackjack
32	34			6.00				7.2		6-38m Tr. ilmenite 38-44m Tr. pyrite & ilmenite
34	36			8.50				7.2		44-56m Tr. pyrite
36	38			8.00				7.2		
38	40			5.00				7.2		
40	42			7.00				7.2		
42	44			4.50				7.2		
44	46			7.00				7.2		
46	48			5.00				7.2		
48	50			8.00				7.2		
50	52			6.00				7.2		
52	54			7.50				7.2		
54	56			6.00				7.2		

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 53.5 m. Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume surface to basement l. at 53.5 m 8 g SnO₂ / m³ +
 Total recovered tin 1.32 g SnO₂

AMDEX MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: ARC9 Collar Co-ordinates: 5444215 mN, 563460 mE Drilling Method: Kitching Reverse Circulation
 Surface R.L.: 159.2 m Basement R.L.: 111.4 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.
 Date: 25/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade + (gSnO ₂ /m ³)	Description of Sample
From	To								
0	2		1.00LTR	108.4	1.17	1.81		12.8	0-5.5m brown silts & sand, minor grit, a little plant material 5.5m-6.5m pebble band, sm. pebbles of sandstone & quartz, brown silt later followed with depth by yellow silt
2	4		0.50					12.8	
4	6		2.00					12.8	6.5-8m drift, angular quartz gravels, grit, occasional sm. pebbles, yellow brown silt
6	8		3.00					12.8	8-10m as above with yellow to white moderately tenacious clay
8	10		4.00					12.8	10-12m as for 8-10m clay less tenacious 12-14m as above, no clay
10	12		3.50					12.8	14-16m as for 12-14m, silts more deep yellow colour 16-18m sm. drift, yellow silty clay, minor grits & gravels, 1 sandstone pebble
12	14		3.75					12.8	18-20m dominantly sm. drift, little yellow silty clay, rare pebbles of quartz & sandstone
14	16		4.00					12.8	20-22m angular quartz grits, drift, sand, yellow brown silt
16	18		3.00					12.8	22-24m mainly drifts, much of it iron coated, some grit, angular sm. quartz pebbles, 1 sm. sandstone pebble, a little yellow silt
18	20		4.50					12.8	
20	22		4.50					12.8	24-26m drift, angular quartz grits, occasional sub-rounded pebbles, yellow silt & a little quartz gravel
22	24		5.00					12.8	26-32m as above
24	26		4.25					12.8	32-34m drift, quartz grit, brown silt 34-36m as for 32-34m with occasional sub-rounded sandstone pebbles
26	28		5.00					12.8	36-38m drift, angular sub-angular quartz grits, brown silt, occasional sub-rounded quartz & sandstone pebbles, lumps of white clay
28	30		10.00					12.8	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F=80%
 Drillers reported basement at 47.8 m Grade from surface to inferred basement at 47.8 m 14 g SnO₂/m³ *
 Total recovered volume, surface to basement l. at m 14 g SnO₂/m³ +
 Total recovered tin 1.81 g SnO₂

AMDEX MINING LIMITED - NORTH-EAST TASMANIA DRILL LOG

Area: ARBA Hole No.: ARC9 Collar Co-ordinates: 5444215 mN, 563460 mE Drilling Method: Kitching Reverse
 Circulation
 Surface R.L.: 159.2 m Basement R.L.: 111.4 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.
 Date: 25/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade + (gSnO ₂ /m ³)	Description of Sample
From	To								
30	32		5.75LTRS				12.8	Contd./ 38-40m 40-42m as above but also c. sand present drift, sub-rounded pebbles mainly sandstone but also quartzite & quartz, sub-angular quartz gravel & grits, minor grey brown silt	
32	34		11.00				12.8	42-44m 44-46m as above but silt yellow in colour as above but silt now back to grey in colour, 1 basalt? fragment recorded	
34	36		9.00				12.8	46-47.8m 47.8-52m as above but clasts reaching cobble size hard Mathinna group hornfels	
36	38		3.25				12.8		
38	40		6.00				12.8		
40	42		4.00				12.8	<u>Mineralogical Description</u> 0-14m Tr. ilmenite	
42	44		2.25				12.8	14-16m 16-40m Tr. tin, ilmenite Tr. ilmenite	
44	46		4.50				12.8	40-50m 50-52m Tr. pyrite No tr. of mineral	
46	48		7.50				12.8		
48	50		2.75				12.8		
50	52		2.25				12.8		

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 47.8 m. Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 47.8 m 14 g SnO₂ / m³ +
 Total recovered tin 1.81 g SnO₂

AMDEX MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Kitching Reverse?

Area: ARBA Hole No.: ARC10 Collar Co-ordinates: 54 43640 EN 56 3210 mE Drilling Method: Circulation

Surface R.L.: 162.4 m Basement R.L.: 109.1 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 25/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade * (g SnO ₂ /m ³)	Grade † (g SnO ₂ /m ³)	Description of Sample
From	To								
0	2		1.50LTRS	84.4	0.14	0.17	12.0	0-4m drift, angular quartz sands & grit, sm. rounded pebbles, quartz, sandstone, siltstone 1 angular piece of greisen type material, minor brown silt. This interval is possibly	
2	4		2.00				12.0	all tailings.	
4	6		1.00				12.0	4-6m sandy dark grey silt with plant material	
6	8						0.0	6-8m no sample 8-10.5m quartz sand & grit, sub-angular to rounded pebbles of quartzite, plain quartz, sandstone & shale	
8	10		1.75	94.1	6.86	9.22	1972.2	10.5-14m white to yellow soft moderately tenacious clay	
10	12		5.75	97.0	1.68	2.33	17.6	14-18m drift & grits, sub-angular quartz gravels & pebbles, minor yellow silt	
12	14		3.75				17.6	18-22m drift, f. quartz gravels, grits, occasional sub-rounded quartz pebbles, minor grey brown silt	
14	16		3.00				17.6	22-24m as above with silt colour change to yellow brown	
16	18		5.00				17.6	24-27.7m as above with occasional sandstone pebbles	
18	20		4.50				17.6	27.7-28.8m white to grey moderately tenacious clay 28.8-29.9m brown silty clay with wood material	
20	22		3.75				17.6	29.9m-30.1m white moderately tenacious clay 30.1-32m quartz grits & f. gravel, drift, yellow silt	
22	24		4.00				17.6	32-33.9m as above with occasional quartz pebbles 33.9-35m brown silty clays with wood material	
24	26		7.00				17.6	35-36m drift, quartz grits & some sub-rounded quartzite, sandstone & quartz pebbles,	
26	28		8.00				17.6	yellow white silt 36-41m as above with larger pebbles & some cobbles	
28	30		4.00					sandstone being the most numerous clast type, light brown to grey silts Contd.	

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 53.3 m Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. Contd./ Sheet 2 at 53.3 m g SnO₂ / m³ †
 Total recovered tin 11.22 g SnO₂

Area: ARBA Hole No.: ARC10 Collar Co-ordinates: mN mE Drilling Method:

Surface R.L.: m Basement R.L.: m Cutting Shoe / Bit diameter: Theoretical Volume: litres.

Date: 25/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade * g SnO ₂ /m ³	Grade + g SnO ₂ /m ³	Description of Sample
From 30	To 32		7.50LTRS					17.6	Contd./ 41-42m as above but no cobbles & fewer pebbles 42-44m as for 36-41m with 2 minor white yellow clay
32	34		13.50					17.6	44-49.9m pebbles & cobbles mainly of sandstone but
34	36		6.50					17.6	also quartz, quartzite, black quartzite, iron rich siliceous conglomerate & f. grain granite,
36	38		9.00					17.6	drift, quartz grit, white to grey silt
38	40		5.50					17.6	49.9-50.3m gritty yellow moderately tenacious clay
40	42		4.50					17.6	50.3-52m grey to v. dark grey silts, cobbles & pebbles mainly of sandstone
42	44		2.25					17.6	52-53.3m quartz grits & sand, minor drift, occasional sandstone pebbles, grey silt
44	46		3.00					17.6	53.3-56m siltstone & hard spotted hornfels type Mathinna group basement became too hard to drill at 56m
46	48		2.25					17.6	Mineralogical Description 0-2m Tr. v. f. tin, ilmenite, blackjack
48	50		2.50					17.6	2-4m Tr. ilmenite, blackjack 4-6m No tr. of mineral
50	52		3.50					17.6	6-8m No sample 8-10m C. tin, blackjack
52	54		5.50					17.6	10-12m Tr. tin, ilmenite 12-24m Ilmenite
54	56		2.00					17.6	24-26m V.f. tr. tin, ilmenite 50-52m Tr. c. tin, 26-28m Tr. ilmenite lge amount pyr.
									28-30m No tr. of mineral 52-54m lge amount 30-34m Tr. ilmenite Pyrite
									34-38m Tr. ilmenite & pyrite 54-56m as above 38-50m Pyrite

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 53.3m. Grade from surface to inferred basement at m g SnO₂/m³
 Total recovered volume, surface to basement - l. at 53.3 m 91 g SnO₂/m³
 Total recovered tin 11.72 g SnO₂

AMDEX MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Kitching Reverse

Area: ARBA Hole No.: ARC11 Collar Co-ordinates: 54 43620 mN 563.160 mE Drilling Method: Circulation

Surface R.L.: 163.1 m Basement R.L.: 109.3 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 26/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section Metres		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade ° gSnO ₂ /m ³	Grade + gSnO ₂ /m ³	Description of Sample
From	To								
0	2		3.00LTRS	97.6	0.11	0.15		8.2	0-2.5m drift & sand with some sm. pebbles mainly siltstone or quartzite
									2.5-4.7m as above but also additional dark brown silt with plant material
2	4		3.00					8.2	4.7-7.9m light brown clay, slightly silty
4	6		3.75					8.2	7.9-10m sub-rounded to sub-angular pebbles of dominantly hard sandstone, quartzite, milky quartz & shale, these accompanied by drifts, quartz grits & minor brown silt
6	8		3.00					8.2	
8	10		2.00	91.7	1.43	1.87		400.6	10-12m quartz grits, drift, quartz pebbles, minor gravel, light yellow to brown silt
10	12		4.00	124.1	0.73	1.29		9.2	12-16.3m angular quartz grits, drift & soft yellow silty clay
12	14		5.25					9.2	16-3-18m quartz pebbles, brown silt, a few sandstone pebbles, drift & angular grits
14	16		5.00					9.2	18-21m as above, colour change for silt to grey
16	18		6.00					9.2	21-23.4m as above, " " " to light brown, more gravel evident
18	20		7.00					9.2	23.4-24.6m light brown soft to moderately tenacious silty clay
20	22		8.00					9.2	24.6-25.3m white moderately tenacious slightly gritty clay
22	24		9.00					9.2	25.3-36m drift, quartz grits, & a little white to yellow silt
24	26		8.00					9.2	26-29m quartz gravel, grits, drift, sm. pebbles of quartz & sandstone
26	28		8.50					9.2	29-29.5m as above but colour change to bright yellow
28	30		9.00					9.2	29.5-30m mottled tenacious white & orange clay
								9.2	30-32m brown silty moderately tenacious clay with wood fragments
								9.2	32-34.5m soft white slightly sandy clay

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F=80%

Drillers reported basement at 53.8 m. Grade from surface to inferred basement at m g SnO₂ / m³ *

Total recovered volume, surface to basement l. Contd./ Sheet 2 at 53.8 m 24 g SnO₂ / m³ +

Total recovered tin g SnO₂

Area: Arba Hole No.: ARC11 Collar Co-ordinates: mN mE Drilling Method:

Surface R.L.: m Basement R.L.: m Cutting Shoe / Bit diameter: Theoretical Volume: litres.

Date: 26/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade + (gSnO ₂ /m ³)	Description of Sample
From	To								
30-	32		6.50LTRS					9.2	Contd./ 34.5-37m yellow silts, quartz grits drift, few pebbles of quartz, minor white tenacious clay lumps
32	34		6.00					9.2	37-38m similar to above sample, additional layers of brown silty clay with wood fragments
34	36		4.75					9.2	38-52m quartz grit & gravel, pebbles & cobbles, dominantly sandstone or siltstone but also some quartz & quartzite, these ironstoned in places, cobbles largest over the 50-52m level, minor yellow & white silts & clays
36	38		4.00					9.2	52-53.8m as above but more grit & also sand
38	40		6.00					9.2	53.8-58m Mathinna group basement basically hard sandstone
40	42		4.00					9.2	
42	44		3.00					9.2	<u>Mineralogical Description</u> 0-2m Tr. f. tin, blackjack
44	46		4.00					9.2	2-8m Tr. ilmenite 8-10m Sm. amount c. tin, blackjack
46	48		3.00					9.2	10-22m Tr. ilmenite 22-28m Tr. tin, ilmenite
48	50		5.75					9.2	28-30m Tr. ilmenite 30-34m Tr. pyrite
50	52		5.50					9.2	34-40m Tr. ilmenite 40-42m Tr. pyrite
52	54		8.50					9.2	42-48m Tr. pyrite & ilmenite 48-56m Tr. pyrite
54	56		6.00					9.2	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 53.8 m. Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. at 53.8 m 24 g SnO₂ / m³ +
 Total recovered tin 2.31 g SnO₂

SHEET 2

816047

AMDEX MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Kitching Reverse

Area: ARBA Hole No.: ARC12 Collar Co-ordinates: 54 43610 mN 563 095 mE Drilling Method: Circulation

Surface R.L.: 162.7 m Basement R.L.: 114.4 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres.

Date: 26/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (g SnO ₂)	Grade * g SnO ₂ /m ³	Grade + g SnO ₂ /m ³	Description of Sample
From	To								
0	2		2.00LTRS	85.00	0.66	0.80	42.8	0-2.5m tailings comprised of quartz, sands, drift, grit & rounded sm. pebbles 2.5-7m similar material but with also dark silt & plant matter	
2	4		3.00				42.8	7-10m pebbles of hard sandstone, siltstone, milky quartz, yellow silt also present	
4	6		2.00				42.8	10-12m drift, quartz grit, sub-rounded to sub-angular pebbles, mainly of quartz or quartzite, yellow white silty clays	
6	8		3.00				42.8		
8	10		4.00	94.7	2.90	3.92	839.0	12-14m as above but no pebbles 14-16m as for 10-12m	
10	12		4.00	93.0	1.28	1.70	13.2	16-21m sm. quartz gravel & drift, white silty soft clay	
12	14		5.00				13.2	21-21.8m yellow to white tenacious clay & drift bands 21.8-22.2m brown silty clay with minor wood	
14	16		6.00				13.2	22.2-24m white silty clay with drift & grit bands 24-27m drift, angular quartz gravel, sub-angular quartz pebbles, light orange coloured silt, minor white clay	
16	18		6.00				13.2		
18	20		6.00				13.2	27-29.3m white moderately tenacious somewhat silty clay	
20	22		8.00				13.2	29.3-32m drift, f. gravels, grit, white silty clay, sand	
22	24		5.00				13.2	32-33m as above with a colour change to grey silty clay	
24	26		5.00				13.2	33-36m yellow soft silty clay, drifts & gravels with poorly developed ironstone band	
26	28		6.00				13.2	36-38.5m drift, quartz grits, some sm. sub-angular quartz gravel & a little white silty clay	
28	30		6.00				13.2	38.5-40m white silty clay later followed by dark brown silty clay with some wood, layers of	

* Grade calculated by relating recovered volume to recovered tin + Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 48.3 m. Grade from surface to inferred basement at m g SnO₂ / m³ +
 Total recovered volume, surface to basement l. Contd./ Sheet 2 at 48.3 m 53 g SnO₂ / m³ +
 Total recovered tin 6.42 g SnO₂

816048

AMDEX MINING LIMITED - NORTH EAST TASMANIA DRILL LOG

Sheet 2

Area: ARBA Hole No: AR12 Collar Co-ordinates: AN Drilling Method:

Surface R.L.: m Basement R.L.: m Cutting Shoe / Bit diameter: Theoretical Volume: litres.

Date: 26/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade ° (g SnO ₂ /m ³)	Grade † (g SnO ₂ /m ³)	Description of Sample
From	To								
30	32		6.00ltrs				13.2	Contd./ 40-42m drift & quartz grits	
32	34		16.00				13.2	drift, sands & quartz grits, iron indurated sandstone, quartz in pebble form, a little yellow silt	
34	36		4.00				13.2	42-44m as above but more of the sandstone & indurated sandstone in cobble form	
36	38		7.00				13.2	44-45.5m silty moderately tenacious sandy yellow clay	
38	40		5.00				13.2	45.5-48.3m pebbles of sandstone & iron indurated sandstone, yellow silt, drift with iron coatings	
40	42		4.00				13.2	48.3-52m Mathinna bed basement which was first hard iron indurated siltstones followed by reddish sandstones exhibiting almost vertical bedding	
42	44		5.00				13.2		
44	46		4.50				13.2	<u>Mineralogical Description</u> 0-2m Tr. f. tin, ilmenite, blackjack	
46	48		7.00				13.2	2-4m ilmenite, blackjack 4-6m ilmenite	
48	50		9.00				13.2	6-8m Tr. c. tin, blackjack 8-10m C. tin, blackjack	
50	52		4.00				13.2	10-24m Tr. ilmenite, 24-28m Tr. f. tin & ilmenite 28-42m Tr. ilmenite 42-52m Tr. pyrite	

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at 48.3m. Grade from surface to inferred basement atm g SnO₂ / m³ *
 Total recovered volume, surface to basementl. at 48.3m 53 g SnO₂ / m³ †
 Total recovered tin 6.42 gSnO₂

AMBEX MINING LIMITED - NORTH-EAST TASMANIA ORE LOG

Area: ARBA Hole No. ARC13 Collar Co-ordinates: 5843645 mN 564270 mE Drilling Method: Kitching Reverse Circulation

Surface R.L.: 162.0 m Basement R.L.: 110.1 m Cutting Shoe / Bit diameter: 61mm Theoretical Volume: 5.84 litres

Date: 26/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section		Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (gSnO ₂ /m ³)	Grade † (gSnO ₂ /m ³)	Description of Sample
From	To								
0	2		2.50LTRS	83.7	0.14	0.17	9.0	0-4m tailings comprised of quartz grits & gravels a little gravels & drift, a few sm. pebbles ranging from angular to rounded	
2	4		2.50				9.0	4-7.5m grits & drift plus organic plant matter, some dark brown silt	
4	6		2.00				9.0	7.5-9m soft grey slightly gritty clay	
6	8		3.00				9.0	9-10m a shingle layer with drift & quartz grits, pebble types include hard sandstone, sandstone siltstone, milky quartz & several basalt pebbles, one with an amygdule of a blue translucent mineral	
8	10		3.00	97.8	0.73	1.02	218.1		
10	12		4.00	116.1	0.89	1.47	10.1	10-13m yellow to white moderately tenacious gritty clay with layers of well sorted drift & quartz grit	
12	14		5.00				10.1	13-16m similar to above but more drift & some sub-angular quartz pebbles	
14	16		3.50				10.1	16-19m white silty clay, drifts, grit & sm. quartz pebbles, generally sub-rounded	
16	18		6.00				10.1	19-20m as above with brown silt replacing white silty clay	
18	20		5.00				10.1	20-22.5m tenacious white gritty clay with seams of f. drift & quartz grit	
20	22		8.50				10.1	22.5-24m white slightly silty moderately tenacious clay	
22	24		6.50				10.1	24-26m well sorted f. sands & layers of moderately tenacious silty clay	
24	26		6.00				10.1	26-27m a thicker layer of white silty clay	
26	28		8.00				10.1	27-28.5m brown silty clay with wood fragments	
28	30		7.00				10.1	28.5-31.5m well sorted sub-equal f. drift, quartz grits & f. quartz gravel	
								31.5-33m white to light brown clay, moderately	

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F=80%
 Drillers reported basement at 51.9 m Grade from surface to inferred basement at m g SnO₂ / m³ *
 Total recovered volume, surface to basement l. Contd./ Sheet 2 at 51.9 m 18 g SnO₂ / m³ †
 Total recovered tin 2.66 gSnO₂

816050

AMERICAN MINING LIMITED - NORTH-EAST ROMANIA - DELTA LUG

Sheet 2

Area: ARBA Hole No.: ARC13 Collar Co-ordinates: mN mE Drilling Method:

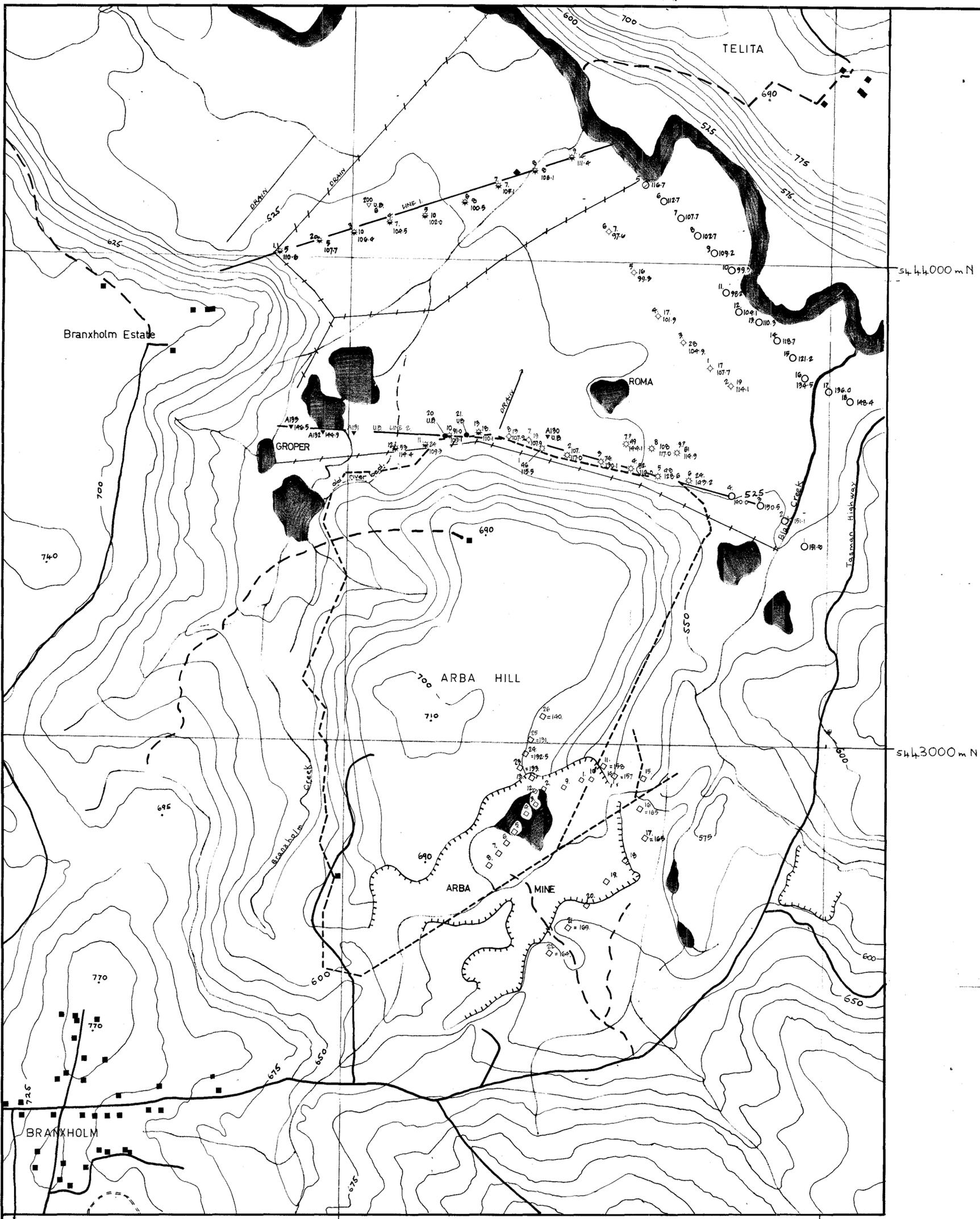
Surface R.L.: m Basement R.L.: m Cutting Shoe / Bit diameter: Theoretical Volume: litres.

Date: 26/11/81 Driller: G. Morgan Assistant: E. Hodgson Sample Washer: S. Moore Geologist: R. Munro

Section	Metres	Sample No.	Recovered Volume (l)	Weight Conc. (g)	Conc. Assay (%Sn)	Recovered Tin (gSnO ₂)	Grade * (g SnO ₂ /m ³)	Grade † (g SnO ₂ /m ³)	Description of Sample
From	To								Contd./
30	32		6.00LTRS					10.1	33-34m tenacious, with wood fragments brown clays with seams of f. grit & drift
32	34		6.00					10.1	34-37m f. drift, quartz grit & some sub-angular quartz pebbles, bright yellow silt
34	36		6.00					10.1	37-38m as above with plenty of sandstone pebbles & some cobbles
36	38		8.00					10.1	38-48m as above with increased cobble frequency & decreased drift frequency, some material coated with an iron cement
38	40		9.50					10.1	48-50m dominantly sandstone pebbles & cobbles
40	42		7.00					10.1	with subsidiary grit, quartz grit & gravel occasional pebbles of quartz or quartzite
42	44		8.00					10.1	grey silt, some of the finer material has been cemented by authigenic pyrite
44	46		6.00					10.1	50-50.3m sands & quartz grit
46	48		6.00					10.1	50.3-51.9m as for sample interval 48-50m with cobbles more numerous
48	50		4.00					10.1	51.9-53m hard Mathinna group sandstone siltstone basement
<u>Mineralogical Description</u>									
50	52		7.00					10.1	0-8m Tr. ilmenite
52	53		6.00					10.1	8-10m Sm. amount c. tin, blackjack
									10-50m Tr. ilmenite
									50-53m Tr. pyrite

* Grade calculated by relating recovered volume to recovered tin † Grade calculated by relating Radford factored theoretical volume to recovered tin Rad.F = 80%
 Drillers reported basement at m Grade from surface to inferred basement at m
 Total recovered volume, surface to basement l at m
 Total recovered tin gSnO₂ at m

816051



TITLE : 563000 m E 564000 m E

DRILL HOLE LOCATION MAP

82-1715

AUSTRALIAN ANGLo AMERICAN LTD. - AMDEX MINING LTD. EXPLORATION

DRILL HOLE LOCATION MAP - ALL DRILLING - ARBA AREA - BRANXHOLM N.E. TASMANIA.

Drill Hole Positions Showing : Company, Hole Number, Grade and Basement R.L.

Drilling Company Legend

- * AUSTRALIAN ANGLo AMERICAN. - 1981.
- TASMANIAN DEPARTMENT OF MINES. - 1976-77.
- UTAH DEV. CO. ROTARY HOLES. - 1969.
- ▼ UTAH DEV. CO. AUGER HOLES. - 1969.
- ▽ UTAH DEV. CO. PERCUSSION HOLES. - 1969.
- ◇ BRITISH CONS. N.L. HAND PLANT. - 1970.
- ⊛ TASMANIAN DEPARTMENT OF MINES. - 1977.
- ⊜ TASMANIAN DEPARTMENT OF MINES. - 1991.

Drill Hole Legend

- 2. ———— DRILL HOLE NUMBER.
- ⊛ 107. ———— GRADE SURFACE TO BASEMENT. g.s.o./m?
- ⊜ 117.0 ———— BASEMENT R.L. (m).

General Information

- CROSS SECTION (FIGURE 9) ORIENTATION.
- BOUNDARIES OF MINERAL LEASE 180 P/A. - ARBA TIN PTY. LTD.
- BUILDINGS.
- OLD MINE FACES.
- +— FENCE LINES (SURVEYED).
- GRID: APPROXIMATE A.M.G.

5 cm

CONTOUR INTERVAL : 25 FEET.
DATE : 17.12.91
SCALE : 1 : 9,000.

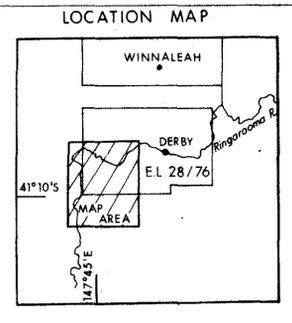
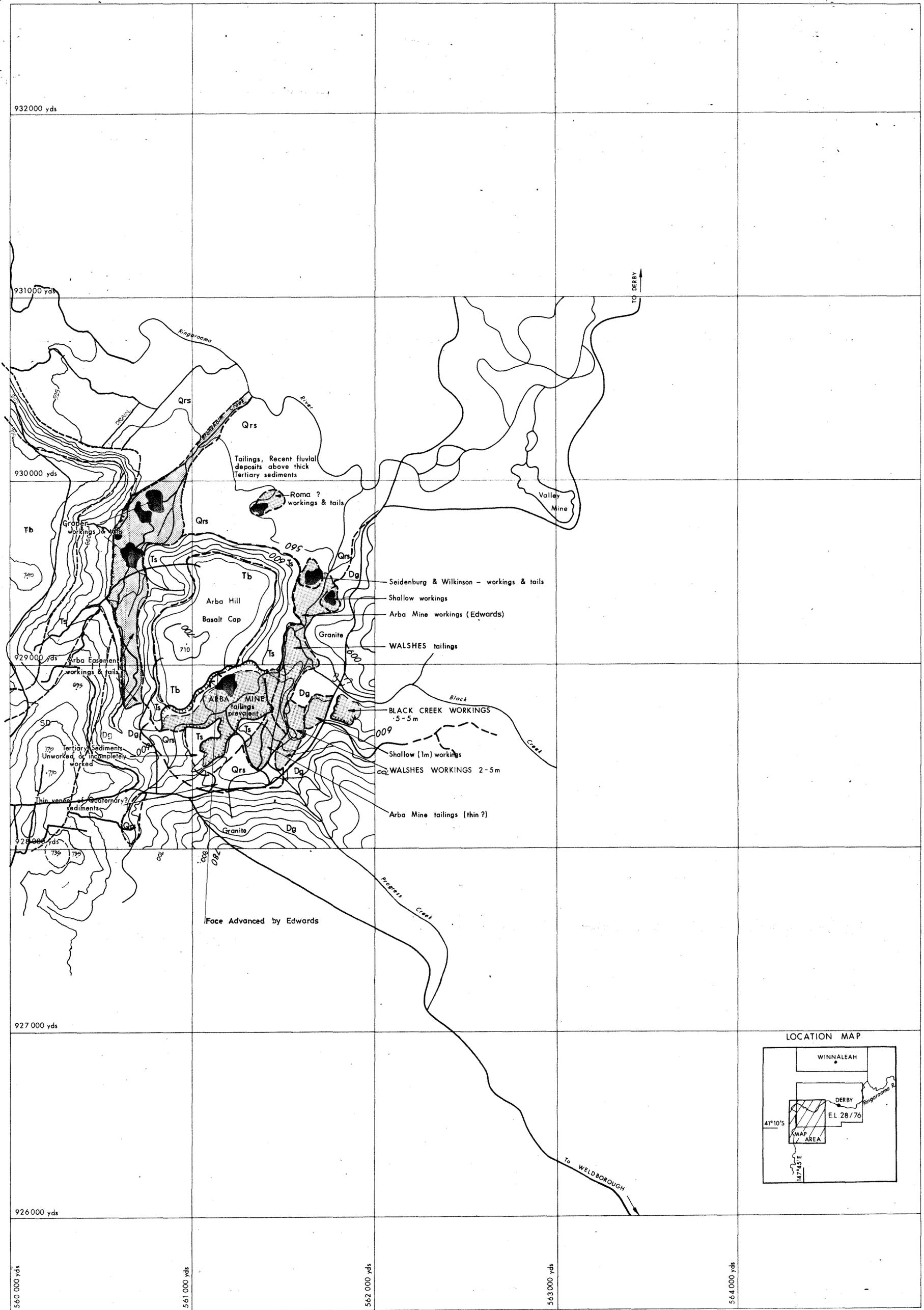
0 100 200 300 400 m.

DRAWN : d.j. DATA : R. MUNRO.

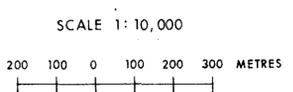
TAS-10-13

FIGURE 2.

816052



BASE MAP DETAILS
 Photography - 1964 at 1:32,240
 Orientation - Grid North (Imperial)
 Contour Interval - 25 feet

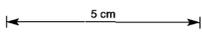


TOPOGRAPHIC LEGEND

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

GEOLOGICAL LEGEND

- Recent-soils, river terrace deposits, alluvium, tailings
- Tertiary - basalt
- Tertiary - alluvial sediments
- Devonian - Carboniferous - granitic rocks
- Silurian - Devonian Mathinna Beds

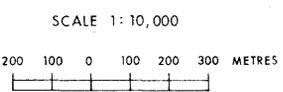


AMDEX MINING LIMITED
 DERBY E.L. 28/76, BRANXHOLM,
 N.E. TASMANIA
ARBA MINE AREA
GEOLOGY

82-1715 816054 TAS-10-75
 Author: R. MUNRO Date: SEPTEMBER, 1980 Dwg No.: P136/112
 Drafting: C. C. Report No.: Base Plan: P136/110 FIG. 4



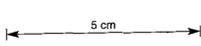
BASE MAP DETAILS
 Photography - 1964 at 1:32,240
 Orientation - Grid North (Imperial)
 Contour Interval - 25 feet



TOPOGRAPHIC LEGEND

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

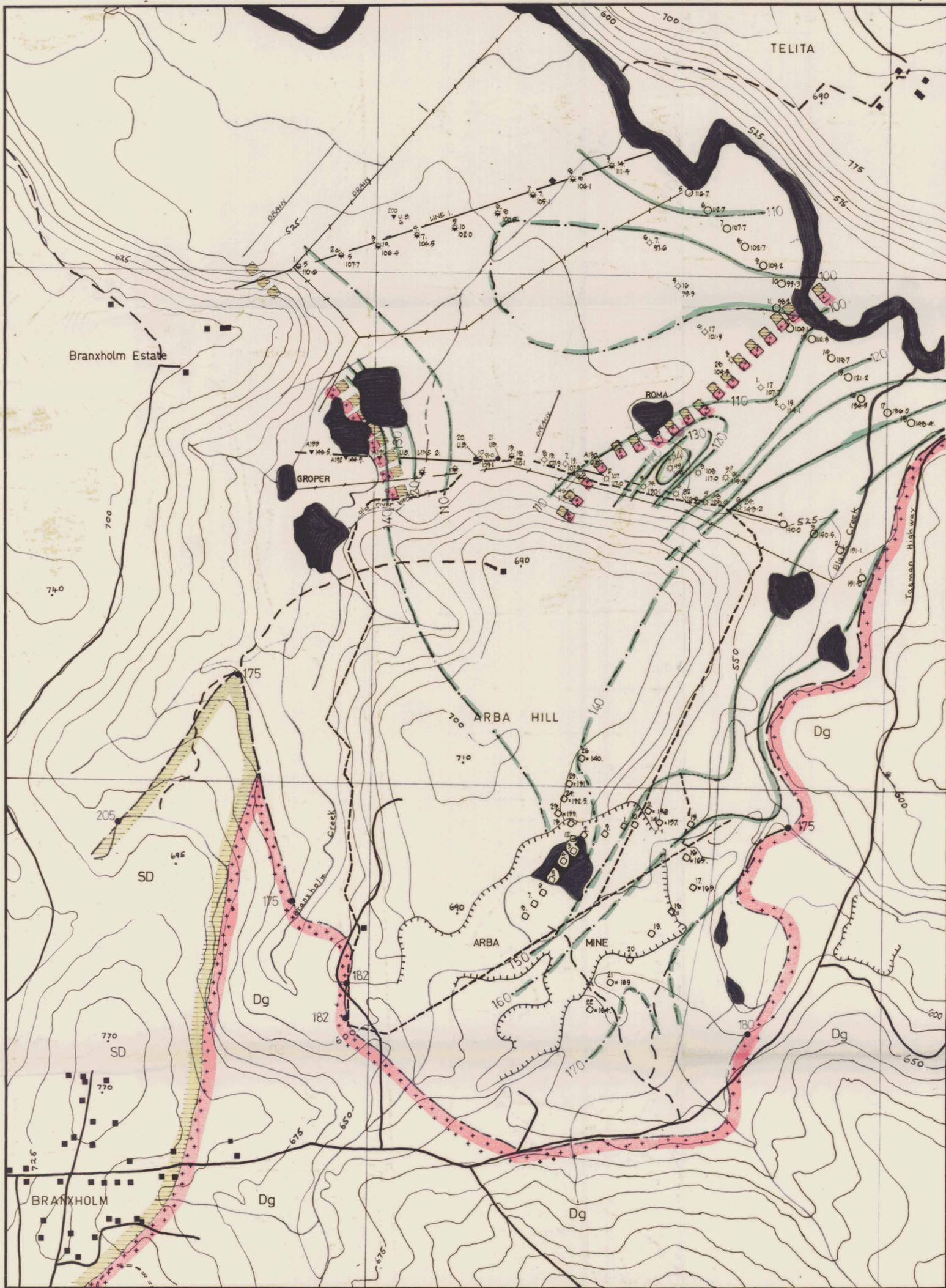
- Prime, developed pasture
- Pasture
- Eucalypt forest
- Eucalypt - wattle - scrub regrowth, barren ground
- Pines - well established
- Pines - recently established



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

82-17/5. 816055 TAS-10-16

Author: R. MUNRO	Date: SEPTEMBER, 1980	Dwg No.: P136/113	FIG. 5
Drafting: C. C.	Report No.:	Base Plan: P136/110	



TITLE :

**BASEMENT GEOLOGY AND
CONTOUR INTERPETATION**

563000 m E

SURFACE MATHINNA GROUP

SURFACE GRANITE ROCKS

564000 m E

- Basement Contours (10m intervals) (two levels of confidence)
- Limits of bedrock outcrop
- 160 Spot heights (m)

82-175.

AUSTRALIAN ANGLO AMERICAN LTD. - AMDEX MINING LTD. EXPROATION.

DRILL HOLE LOCATION MAP - ALL DRILLING - ARBA AREA - BRANXHOLM N. E. TASMANIA.

Drill Hole Positions Showing : Company, Hole Number, Grade and Basement R. L.

Drilling Company Legend

- * AUSTRALIAN ANGLO AMERICAN - 1901.
- TASMANIAN DEPARTMENT OF MINES - 1976-77.
- UTAH DEV. CO. ROTARY HOLES - 1969.
- ▼ UTAH DEV. CO. AUGER HOLES - 1969.
- ▽ UTAH DEV. CO. PERCUSSION HOLES - 1969.
- ◇ 1919/20 CONS. N.L. HAND PLANT - 1970.
- ◇ TASMANIAN DEPARTMENT OF MINES - 1997.
- ◇ TASMANIAN DEPARTMENT OF MINES - 1991.

Drill hole Legend

- DRILL HOLE NUMBER.
- GRADE SURFACE TO BASEMENT. g.s.m./m.
- BASEMENT R.L. (m)

General Information

- CROSS SECTION (FIGURE 9), ORIENTATION.
- BOUNDARIES OF MINERAL LEASE 100 P/A - ARBA, TIN PTY. LTD.
- BUILDINGS.
- OLD MINE FACES.
- FENCE LINES (SURVEYED).
- GRID: APPROXIMATE. A.M.G.

816056

0 100 200 300 400 m.

CONTOUR INTERVALS : 25 FEET.
DATE : 17.12.01.
SCALE 1:5,000.

DRAWN : d.j. DATA : R. MUNRO.

TAS - 10 - 17

FIGURE 6.