437001

98-4176

ANNUAL REPORT-EL 7/97
NINE MILE BCH,KING IS.
MINERAL HOLD.-D.DUNCAN

EL7/97

See folio 29

EXPLORATION LICENCE 7/97
NINE MILE BEACH
KING ISLAND

ANNUAL REPORT ON EXPLORATION
JULY 1997 TO JUNE 1998

for
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June 19

98-4176

ANNUAL REPORT-EL 7/97
NINE MILE BCH,KING IS.
MINERAL HOLD.-D.DUNCAN

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EL 7/97- Nine Mile Beach, King Island- Annual Report

1.0 Introduction

EL 7/97 was granted to Mineral Holdings Australia Pty Ltd in July 1997 for 5 years to 20th June 2002 over an area of 49 sq km in State Waters off Nine Mile Beach in NE King Island.

The licence was applied for to cover the sediment accumulations of the present delta of the Sea Elephant River in the south and of a beach-parallel structure to the north representing a previous delta or palaeochannel of the river or an ancient strand line of Nine Beach.

The exploration target is heavy minerals sands containing rutile, ilmenite and zircon (as well as possible credits of cassiterite, gold, rare earths and platinoids). Adjacent onshore deposits at Naracoopa and Cowper Point of 25 million tonnes of 5% zircon and rutile are planned to be developed by Australian Titanium Minerals Ltd.

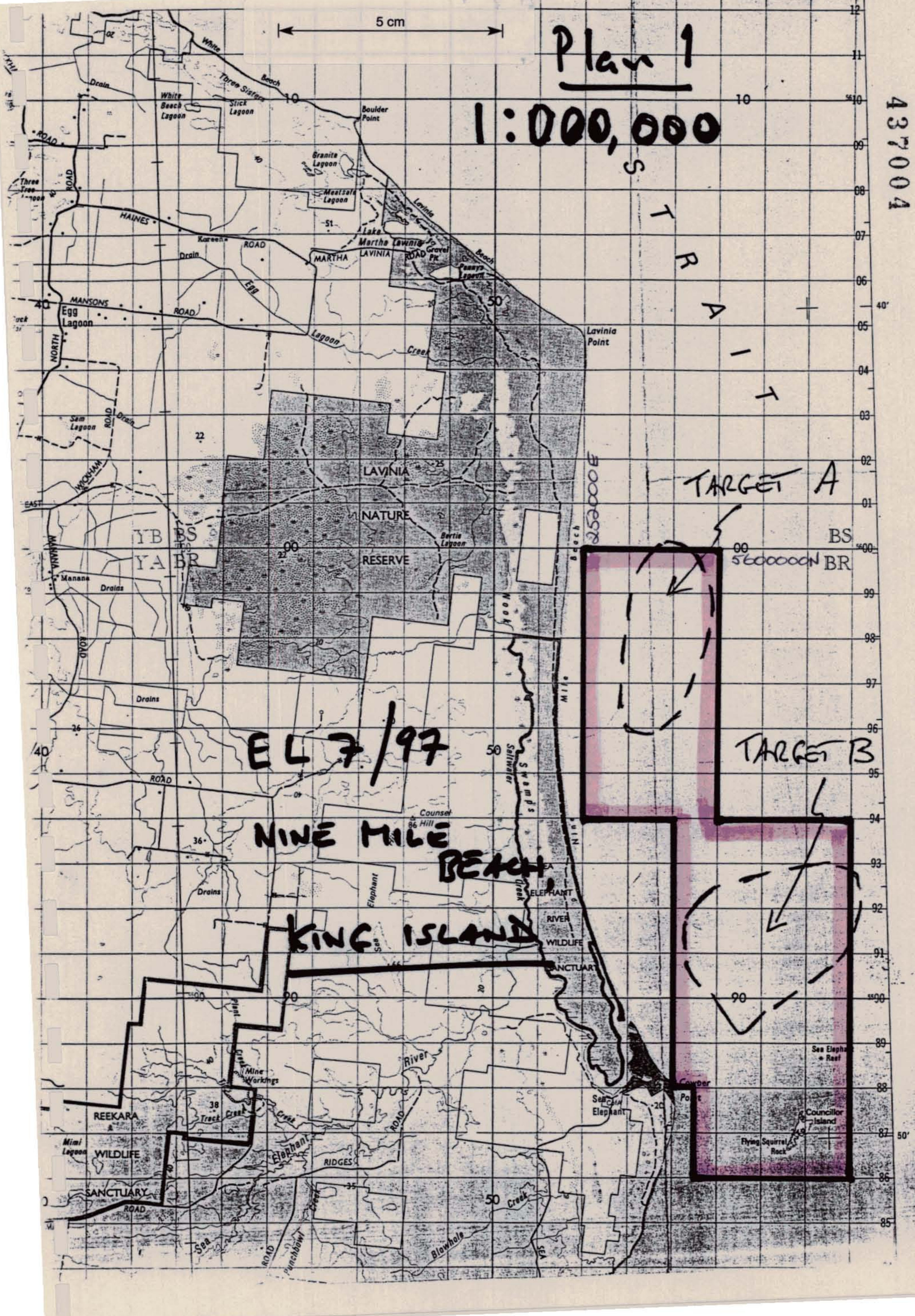
2.0 Previous Exploration

A brief review of the Ocean Mining A. G. reports contained in the Mines Department, Hobart was carried out to establish if untested areas of possible heavy mineral sand deposits remained after that company's exploration effort from 1965 to 1969 in the offshore area of Sea Elephant Bay. The final report of the exploration recorded that neither of the two major targets selected from survey results was adequately tested by drilling because of persistently heavy sea conditions during the cruises of the vessel Wando River. The two targets were - a major, deep, sediment- filled channel and an area described as Elephant Shoal.

The Ocean Mining exploration consisted of bathymetric and seismic surveys followed by OMAG jetlift sampling by MV Aardvark and drilling by MV Wando River. The water depth and sediment thickness (both in fathoms) off Sea Elephant Bay and Nine Mile Beach are shown in Figures 1 and 2 respectively. The 4, 10 and 18-fathom water-depth contours are marked in red, blue and green respectively in Fig. 1 and the 10-fathom line shows the area of the Sea Elephant Shoal about 10km offshore with a deeper channel immediately inshore and to the west. The sediment thickness contours with the 4-fathom line in red in Fig. 2 outlines the sediment-filled channel off Sea Elephant Beach with three feeder channels extending from the shore, an area of presumably delta sediments at the mouth of Sea Elephant River, and a channel of sediments some 2km off the Nine Mile Beach with a seaward extension of sediments thickening to the east.

Figure 3 gives the position of 25 jet lift sample sites with the results in Table 1. The best results in titanium and zircon are recorded from sediments on either side of Sea Elephant Shoal (Fig 3- 4 positions marked in red). Figure 4 shows the position of 11

437004


Plan 1
1:000,000
5 cm
STRAIT
TARGET A
TARGET B
EL 7/97
NINE MILE BEACH,
KING ISLAND
2520000E
5600000N
YB BS
YA BR
BS
BR
LAVINIA
NATURE
RESERVE
White Beach
Three Sisters
White Beach Lagoon
Stick Lagoon
Boulder Point
Granite Lagoon
Mealsafe Lagoon
Lavinia Beach
Lake Martha Lavinia
MARTHA LAVINIA ROAD
Gravel Pit
Penny's Lagoon
Lavinia Point
HAINES ROAD
Kareen
Drain
Egg Lagoon
MANSONS ROAD
Egg
Lagoon Creek
NORTH ROAD
Three Tree Lagoon
Sam Lagoon
WICKHAM ROAD
EAST
MANANA ROAD
Manana
Drains
Bertie Lagoon
Nook
Nine Mile Beach
Saltwater
Swamps
Counsel Hill
Elephant
SEA ELEPHANT RIVER WILDLIFE SANCTUARY
Creek
Cowper Point
Sea Elephant
Sea Elephant Reef
Councillor Island
Flying Squirrel Rock
Plant Creek
Mine Workings
Track Creek
REEKARA
Mimi Lagoon
WILDLIFE
SANCTUARY
ROAD
Elephant
RIDGES
Sea
Punchbowl Creek
Blowhole Creek
River
SEA
40'
50'

250E

DELTA OF SEA ELEPHANT RIVER

COWRIE PT.

SEA ELEPHANT RK.

AUST. TITANIUM MINERALS

Prohibited Anchorage

Submarine Cables

NARACOOPA

SEA ELEPHANT CHANNEL

5572N

A 10 fathoms (60' - 18 m)

A 8 fathoms (48' - 14.5 m)

BATHYMETRY KING ISLAND

CONTOUR INTERVAL - 2 fathoms

1 : 100,000

Fig 1

5 cm

4372005

1:100,000

5 cm

KING ISLAND
SEDIMENT THICKNESS (ISOPACHS)
CONTOUR INTERVAL - 2 fathoms

4 FATHOM THICK

283/297 = 0.95

5600

250,000mE

250E

NINE MILE BEACH

BEACH CHANNEL FEEDS

72m

1 FATHOM

DELTA

20m

5572N

Fig 2

437006

5 cm

1:100,000

JET LIFT SAMPLES
O MAG DRILL

5 mins
5 tens
4 Elevens.
1 twelve
3 thirteens.
19

1/9/13'

Area A

3/9/4'b

2/9/22'

4/9/18?b

5/9/5?b

250E

2/11/9'

3/11/4'

Area B

1/11/12?b

1/10/5'

2/10/0'

3/10/5'

4/10/10'

B

5/10/9'

4/11/4'

1/12/12'

3/13/18'

2/13/14'

1/7/0'

1/13/0'

2/7/5'

7/8/14'

4/13/2'

1/8/0'

6/8/0'

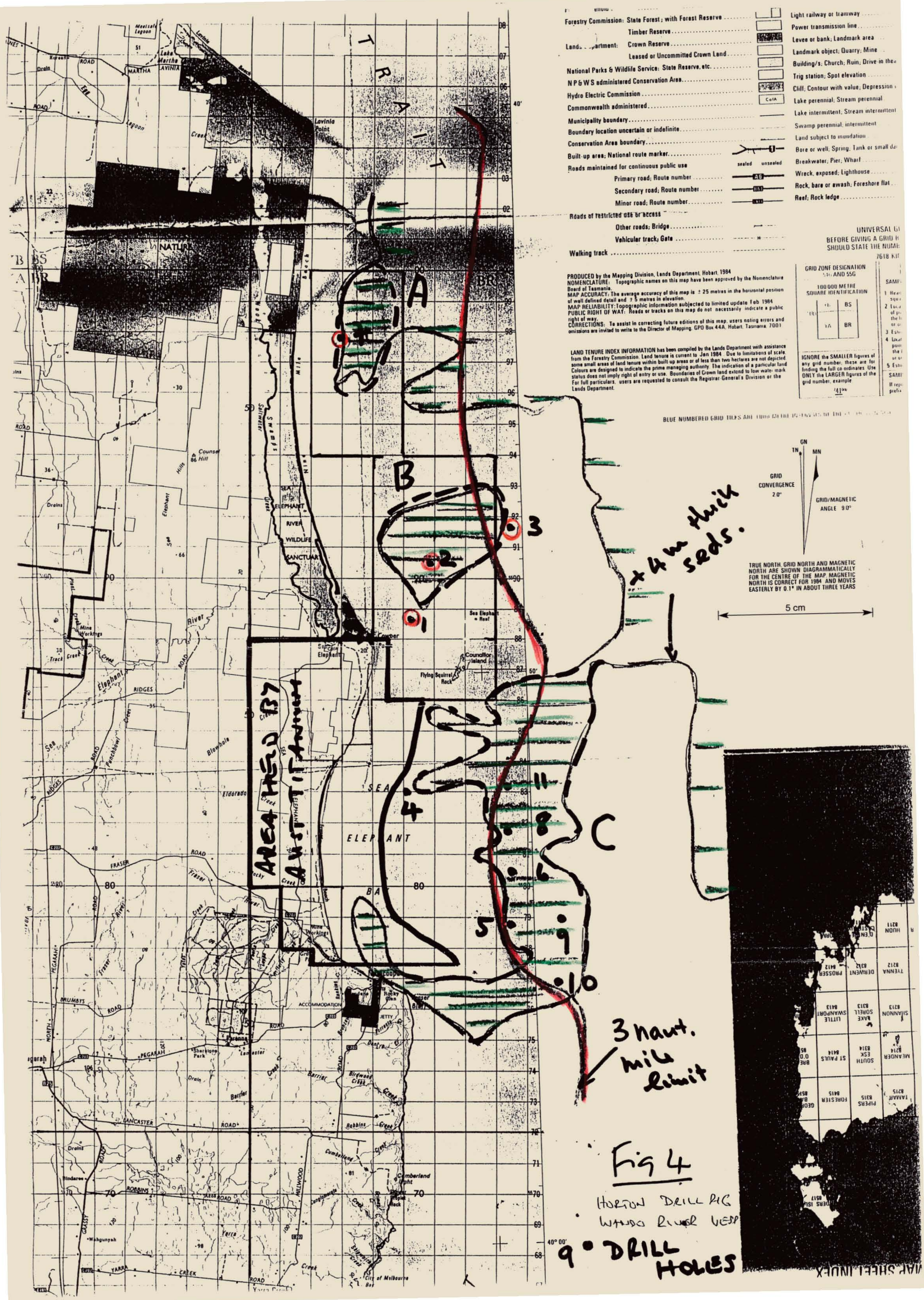
2/8/2'

Hole No	Date MAY 96	Hole depth (ft)
2	9	22'

b bedrock

Fig 3

437007



Forestry Commission: State Forest; with Forest Reserve
Timber Reserve
Lands Department: Crown Reserve
Leased or Uncommitted Crown Land
National Parks & Wildlife Service: State Reserve, etc.
N P & W S administered Conservation Area
Hydro Electric Commission
Commonwealth administered
Municipality boundary
Boundary location uncertain or indefinite
Conservation Area boundary
Built-up area; National route marker
Roads maintained for continuous public use
sealed
unsealed
Primary road; Route number
Secondary road; Route number
Minor road; Route number
Roads of restricted use or access
Other roads; Bridge
Vehicular track; Gate
Walking track
Light railway or tramway
Power transmission line
Levee or bank; Landmark area
Landmark object; Quarry; Mine
Building/s; Church; Ruin; Drive-in thea
Trig station; Spot elevation
Cliff; Contour with value; Depression
Lake perennial; Stream perennial
Lake intermittent; Stream intermittent
Swamp perennial; intermittent
Land subject to inundation
Bore or well; Spring; Tank or small da
Breakwater; Pier; Wharf
Wreck, exposed; Lighthouse
Rock, bare or awash; Foreshore flat
Reef; Rock ledge
PRODUCED by the Mapping Division, Lands Department, Hobart, 1984
NOMENCLATURE: Topographic names on this map have been approved by the Nomenclature Board of Tasmania.
MAP ACCURACY: The average accuracy of this map is ± 25 metres in the horizontal position of well defined detail and ± 5 metres in elevation.
MAP RELIABILITY: Topographic information subjected to limited update Feb 1984
PUBLIC RIGHT OF WAY: Roads or tracks on this map do not necessarily indicate a public right of way.
CORRECTIONS: To assist in correcting future editions of this map, users noting errors and omissions are invited to write to the Director of Mapping, GPO Box 44A, Hobart, Tasmania 7001
LAND TENURE INDEX INFORMATION has been compiled by the Lands Department with assistance from the Forestry Commission. Land tenure is current to Jan 1984. Due to limitations of scale, some small areas of land tenure within built up areas or of less than two hectares are not depicted. Colours are designed to indicate the prime managing authority. The indication of a particular land status does not imply right of entry or use. Boundaries of Crown land extend to low water mark. For full particulars, users are requested to consult the Registrar-General's Division or the Lands Department.
UNIVERSAL GI
BEFORE GIVING A GRID R
SHOULD STATE THE NUMB
GRID ZONE DESIGNATION
100 000 METRE SQUARE IDENTIFICATION
BS
BR
IGNORE the SMALLER figures of any grid number, these are for finding the full co-ordinates. Use ONLY the LARGER figures of the grid number, example
GN
TN
MN
GRID CONVERGENCE 2.0°
GRID/MAGNETIC ANGLE 9.0°
TRUE NORTH, GRID NORTH AND MAGNETIC NORTH ARE SHOWN DIAGRAMMATICALLY FOR THE CENTRE OF THE MAP. MAGNETIC NORTH IS CORRECT FOR 1984 AND MOVES EASTERLY BY 0.1° IN ABOUT THREE YEARS
5 cm
T R A I T
Lavinia Point
Lake Martha Lavinia
NATURE
Saltwater Swamps
Nine Mile Beach
SEA ELEPHANT RIVER WILDLIFE SANCTUARY
Counsel Hill
Elephant Hills
Sea Elephant Reef
Councillor Island
Flying Squirrel Rock
Cowper Pt
SEA ELEPHANT BAY
Eldorado
Blowhole
Fraser Road
Pegarah
Lancaster Road
Robbins Road
Yarra Creek Road
Naracoopa
ACCOMMODATION
Fraser Bluff
Cumberland Bight
City of Melbourne Bay
MAP SHEET INDEX
A
B
C
1
2
3
4
5
6
8
9
10
11
+ 4 m thick seds.
3 naut. mile limit
AREA HELD BY AUSTIT
Fig 4
HORTON DRILL RIG
WANDO RIVER VESSEL
9 • DRILL HOLES

437008

TABLE 8

RESULTS OF SEMI-QUANTITATIVE ANALYSES ON SAMPLES FROM THE KING ISLAND LICENCE AREA

Should be V

Hole No. May date	Hole depth in feet	Nature of sample	Offshore locality	Parts Per Million				
				Sn	Zr	Ti	U	Cr
2/7	5	Sluice	Sea Elephant Bay	60	100	1500	20	200
2/8	2	"	Naracoopa Pt.	3	100	2000	50	1500
3/8	3	"	Brig Rocks	3	100	5000	50	400
4/8	3	"	Grassy Bay	1	50	200	10	30
5/8	6	"	Grassy Bay	25	50	600	50	20
7/8	14	"	Sea Elephant Bay	1	300	800	10	15
1/9	13	"	Lavinia Pt.	70	50	400	2	5
2/9	22	"	Lavinia, Cowper Bay	60	500	1500	20	250
3/9	4	"	Lavinia, Cowper Bay	2	300	1500	30	500
4/9	18	"	Lavinia, Cowper Bay	2	50	200	12	600
5/9	5	"	Lavinia, Cowper Bay	80	300	1500	12	400
1/10	5	"	Cowper Pt.	1	80	1000	50	10
3/10	5	"	Cowper Pt.	1	200	1500	10	200
4/10	10	"	Cowper Pt.	3	50	300	8	7
5/10	9	"	Sea Elephant Bay	60	300	3000	50	2000
1/11	12	"	Sea Elephant Bay	80	500	3000	50	700
2/11	9	"	Lavinia, Cowper Bay	60	300	1500	8	50
3/11	4	"	Lavinia, Cowper Bay	60	500	5000	50	600
4/11	4	"	Sea Elephant Bay	1	300	2000	10	500
1/12	12	"	Elephant Shoal	2	2000	10000	50	500
2/13	14	"	Elephant Shoal	3	1000	>10000	70	1000
3/13	18	"	Elephant Shoal	2	1500	10000	50	1500
4/13	2	"	Sea Elephant Bay	2	1500	>10000	120	1500

Area A Area B

June '66

TABLE 1.

HORTON DRILL RIG
MV. LANDOO RIVER

437009
81-1619 / 11 29.

TABLE 9. ASSAY RESULTS
EAST KING ISLAND LICENCE
JANUARY, 1967

Hole No.	Sample No.	Head Assay			
		Non Magnetic Percent	p.p.m. Metals		
			Sn	Ti	Zr
1	KI 1	0.06	Tr.	19	42
2	2	0.06	Tr.	20	53
3	3	0.03	Nil	7	22
	4	0.03	Tr.	14	31
	5	0.04	Nil	14	25
HOLE B	6	0.07	Nil	19	49
	7	0.02	Tr.	8	16
	8	0.04	Nil	13	35
4	9	0.02	Tr.	33	21
	10	0.02	Nil	34	13
5	11	0.04	Nil	61	46
	12	0.03	Tr.	32	30
6	13	0.03	Tr.	11	14
	14	0.03	Nil	12	14
	15	0.04	Tr.	14	16
8	16	0.03	Tr.	27	27
	17	0.03	Nil	27	22
	18	0.03	Tr.	28	22
	19	0.08	Nil	31	2

TABLE 2.

81-1619 #12

20

TABLE 8. ASSAY RESULTS
EAST KING ISLAND LICENCE
FEBRUARY 1967

Hole No.	Sample No.	Head Assay			
		Non Magnetic Percent	p.p.m. Metals		
			Sn	Ti	Zr
8	KI 20	0.54	3	151	73
9	21	2.05	4	287	185
	22	2.21	4	630	442
	23	1.51	8	717	159
	24	1.49	7	74	74
10	25	0.79	Tr.	40	43
	26	0.39	Tr.	70	51
	27	0.66	Tr.	33	43
	28	0.69	Tr.	10	Nil
11	29	0.18	Tr.	4	Nil
	30	0.28	Tr.	6	7
	31	0.23	Tr.	2	Nil
	32	0.49	Tr.	25	34

TABLE 2 (cont.).

NB.
Hole No
7 – no core, no results, Area A

drill holes relative to the areas of sediment (marked in green) thicker than 4-fathoms (24 feet). These are described in turn.

Area A- up to 72 feet thickness of sediments interpreted, structure 4 by 1km
- not tested by hole 7 on edge

Area B- up to 60 feet thickness of sediments interpreted, delta 3 by 3km
- tested by holes 1, 2 and 3 (two on edge)

Area C- up to 84 feet thickness of sediments interpreted, main structure 10 by 2km
- tested by holes 4, 5, 6, 8, 9, 10 and 11

Of the eleven holes drilled, only hole 9 showed elevated values of Ti and Zr (Table 2). Overall, only about half of the core was recovered in the drilling. Ocean Mining concluded that, because of the sea conditions which had curtailed the planned drilling program, the potential of these areas remained largely untested for rutile, zircon and tin.

3.0 Current Exploration

The present licence was designed to cover only Areas A and B within the 3 nautical mile limit (Plan 1). Area C was omitted as it was not thought possible that the licence in Commonwealth Waters would be granted before the expected date of arrival of the dredge- the Volvox Delta. As it turned out, the dredge was not made available to the project as it was required elsewhere on work of greater priority.

While awaiting the availability of a suitable dredge to carry out a bulk sampling program, it was decided to investigate the seabed with abalone divers using 15 foot boats equipped with GPS for navigation. Mineral Holdings acknowledges the work carried out by the divers- Guy Barnes, King Island and Edward Shelmerdine, Melbourne.

Grab sampling of seabed sediments was carried out initially using a jar collecting about 0.4- 0.6 kg sand (samples 1-88 and A-F) and latterly using a 0.75m long bait pump for greater depth penetration of up to 0.60m (samples 101-158). Samples 101 to 158 were taken by bait pump and separated into top and bottom samples and analysed separately as a comparison. There are gaps in the sample number sequence with 89 to100 not being used. No sample was taken for number 51 as the bottom was reef.

Samples were collected on east-west lines 900m apart with samples every 500m in Area B closing to 250m over Area A where the target was narrower. At each sample site, GPS location was recorded along with water depth (Appendix).

Samples (1-30) were passed through a 5mm screen to remove pebbles or shell fragments and the resulting fine fraction analysed for tin, titanium, zirconium and tungsten using XRF fused disc methods at Temco, Bell Bay. The metal concentrations reported (see Appendix) from the laboratory were then recalculated to give the head

grades of the sediments as they lie on the sea floor. Later samples were analysed unscreened.

4.0 Results

The results are presented in Tables 1-12 in the Appendix and plotted on Plans 2-5 where they are colour-coded to reflect the various concentration classes of heavy minerals.

The TiO2 plus ZrO2 concentrations reach up to 1.56% with 8 samples (5%) over 0.6% and 77 samples in 152 (51%) over 0.3%. In the latter category, these values are more widespread in the northern area compared with the southern area. The highest value of 1.56% occurs just outside the EL boundary in the south and inshore (Plan 2).

In the north, the values show no clear correlation with the defined target, while in the south, the values are concentrated west of the target.

Tin concentrations reach 100g/t Sn in 4 samples (3%) and over 50g/t in 22 (14%) of 152 samples. The values tend to be grouped towards the north of the northern target and on the south-western edge of the southern target (Plan 4). The highest tin samples are different from those with the highest combined TiO2 and ZrO2 values.

Tungsten analyses were carried out on samples 1-88 but were discontinued for later samples as, apart from sample 57 at 15ppm WO3 in Area B, all of the results were 10ppm or less.

The bait pump samples (101-158) which were separated into top and bottom had values of both tin and combined TiO2 plus ZrO2 (Plans 2 and 4 compared with 3 and 5) which showed no clear tendency to either increase or decrease with depth.

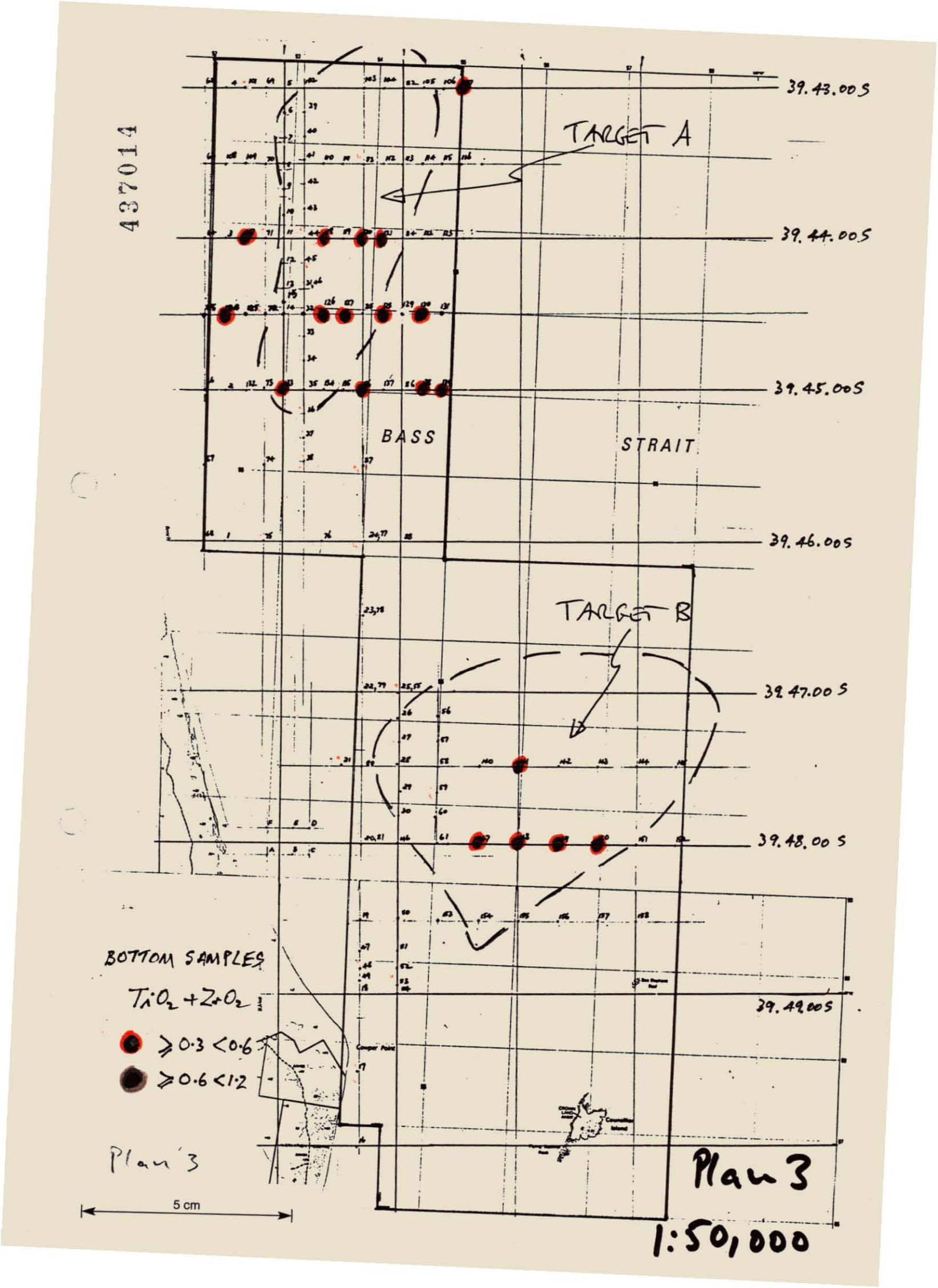
Sizing analyses for metal contents were carried out on 6 samples, the results of which are in the Appendix. The analysis shows that there is both coarse (+600um) and very fine tin (minus 150um) present. Zircon is mostly in the fine grained range (150-300um) and is coarser than the titanium minerals (minus 150um).

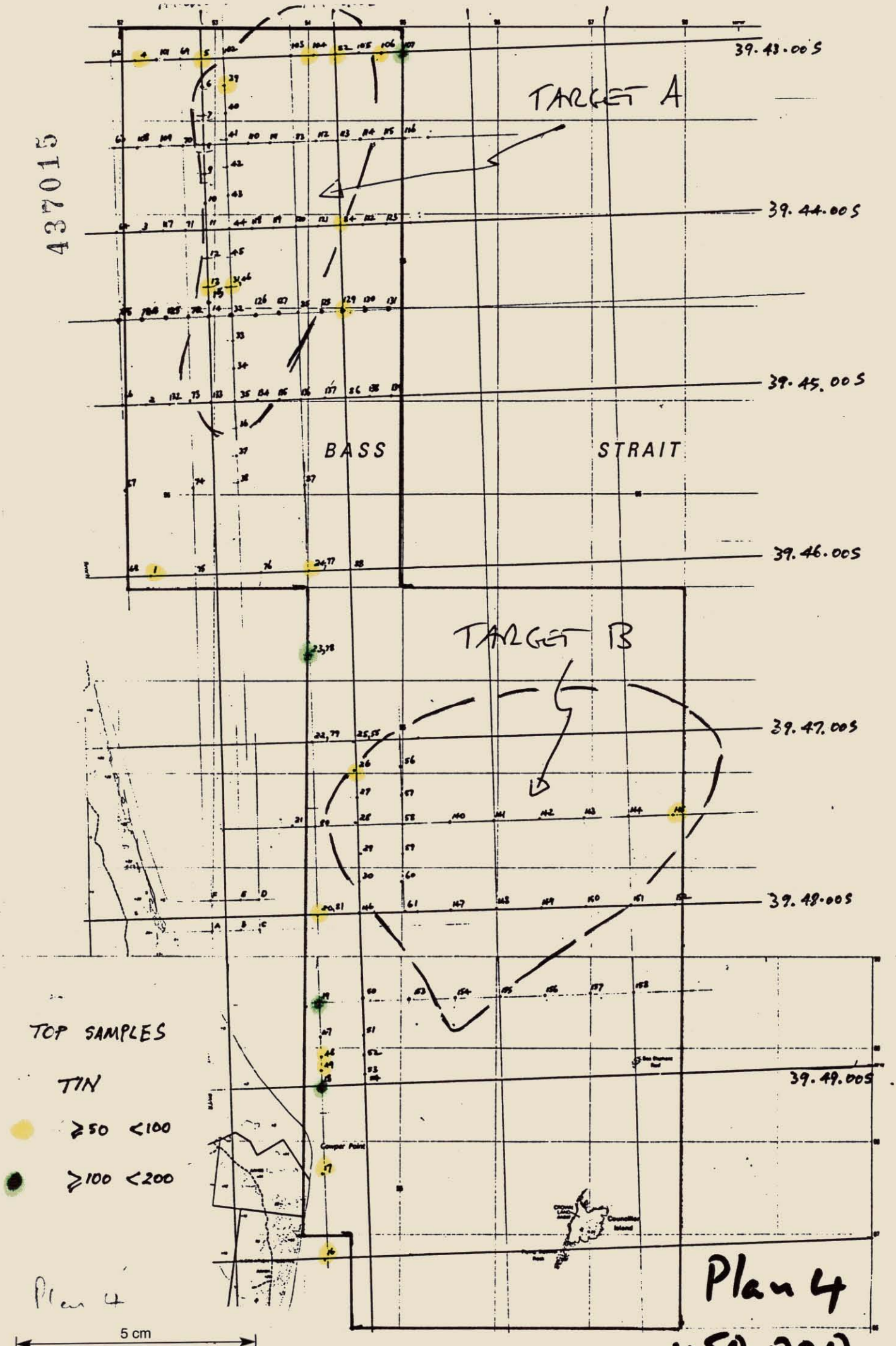
5. Interpretation

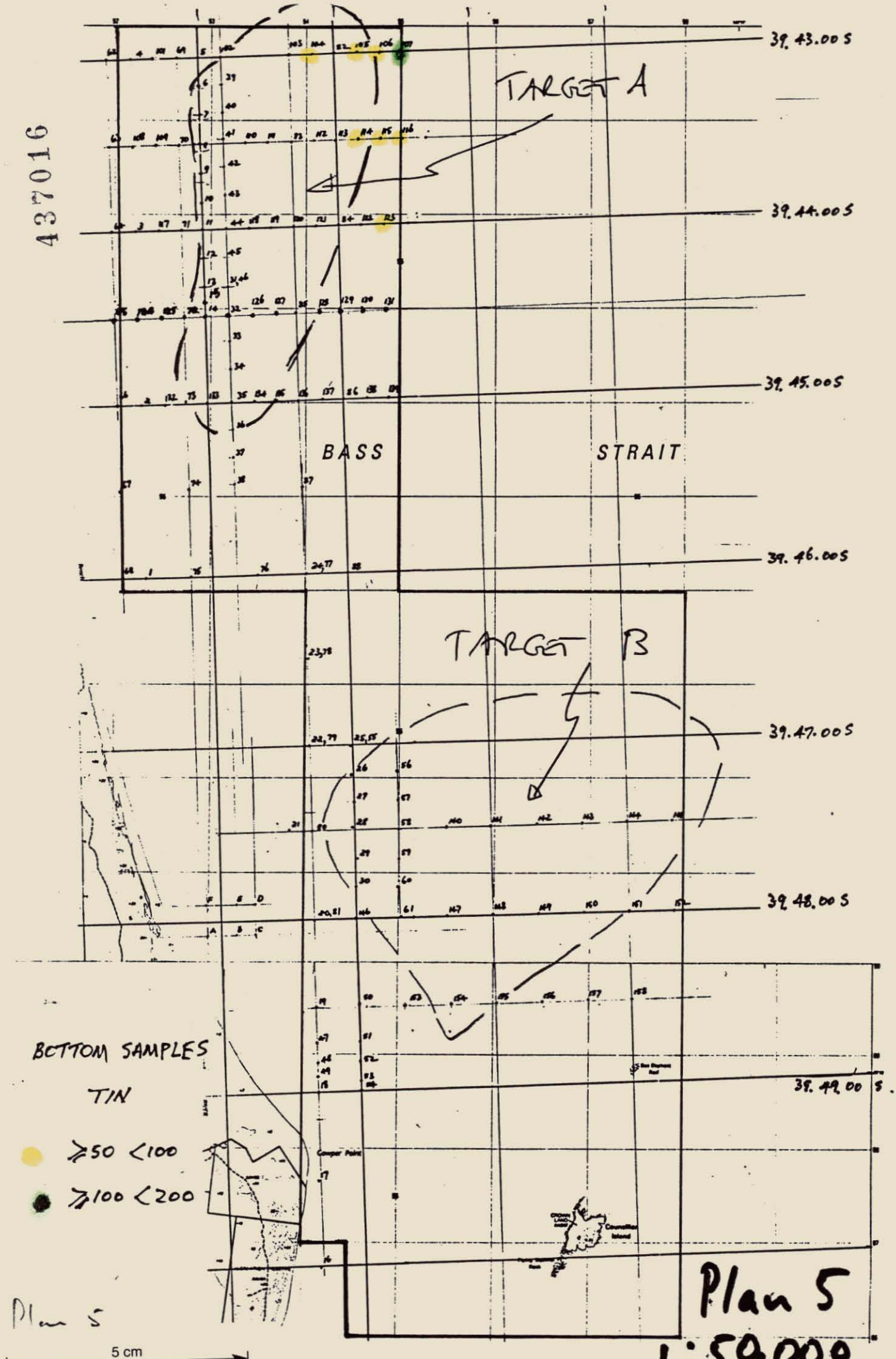
Grab sampling by abalone divers of active seabed sediments has detected widespread values of combined TiO2 and ZrO2 in the range 0.3- 0.6% particularly in the northern Area A. These values are encouraging as they are close to the cut off grades of Eastern Australian heavy mineral deposits at 0.5- 0.8%. Occasional values in the range 0.6-1.5% are close to the average values of rutile and zircon defined for some of the heavy mineral deposits outlined in adjacent areas on onshore King Island (eg. East, Back Beach and Lanherne Deposits).

Tin values of plus 50g/t in some areas show the possibility of useful credits being available in any mineral concentrates produced.


437013
39. 43. 00 S
TARGET A
39. 44. 00 S
39. 45. 00 S
BASS
STRAIT
39. 46. 00 S
TARGET B
39. 47. 00 S
39. 48. 00 S
39. 49. 00 S
TOP SAMPLES
$TiO_2 + ZrO_2$
≥ 0·3 <0·6
≥ 0·6 <1·20
≥ 1·20
Plan 2
5 cm
Plan 2
1: 50,000


437014
TARGET A
TARGET B
BASS
STRAIT
39.43.00S
39.44.00S
39.45.00S
39.46.00S
39.47.00S
39.48.00S
39.49.00S
BOTTOM SAMPLES
$TiO_2 + ZrO_2$
≥0·3 <0·6
≥0·6 <1·2
Plan 3
5 cm
Plan 3
1:50,000


437015
TARGET A
TARGET B
BASS
STRAIT
39.43.00S
39.44.00S
39.45.00S
39.46.00S
39.47.00S
39.48.00S
39.49.00S
TOP SAMPLES
TIN
≥50 <100
≥100 <200
Cooper Point
Plan 4
5 cm
Plan 4
1:50,000


437016
TARGET A
39. 43.00 S
39. 44.00 S
39. 45.00 S
BASS
STRAIT
39. 46.00 S
TARGET B
39. 47.00 S
39. 48.00 S
39. 49.00 S
BOTTOM SAMPLES
TIN
≥50 <100
≥100 <200
Plan 5
5 cm
Plan 5
1:50000

Examination of the bottom values of the bait pump samples show that some heavy minerals persist at depth at least within the first metre. However, these results cannot be taken as proof of significant heavy mineral grades at depth in the sediments without further drilling or bulk sampling to basement in these areas.

From the limited information to date, there is no real pattern that the higher heavy mineral values are related to either the coarse- or the fine-grained sands.

6. Conclusions

Previous exploration by Ocean Mining (Mines Dept Reports TCR 81- 1617, 81-1618 and 81-1619) has shown that areas of potential for mineral sands- particularly rutile and zircon - have been defined offshore from Naracoopa, King Island. These areas have structures containing thicker sediments which have been incompletely tested by drilling with occasional elevated values in titanium and zirconium. Onshore, another company- Australian Titanium Resources- is setting up an operation to develop mineral sand deposits of 25 million tonnes of 5% zircon and rutile.

The current grab sampling program has outlined widespread values of heavy minerals- zircon and rutile- approaching the cut off concentrations found in established deposits in Eastern Australia. Because of the small sample size, these heavy mineral values are indications only of potential metal concentrations and require follow-up drilling or bulk sampling throughout the sediment column. The seabed sampling results provide hope that sources of heavy minerals and concentrating mechanisms were operating in the past to provide economic deposits in the target areas.

The program has provided additional information on sediments, structures, bedrock, vegetation and depth to the seabed. There is no preference at present for the higher metal values to be with the coarser sediments.

7. Future Program

Consideration will be given to completing the seabed sampling program and to follow up the higher metal values. It may also be worth extending the EL by several sq. km. to cover the area of high metal values adjacent and inshore of the EL towards the present mouth of the Sea Elephant River.

While waiting for joint venture participation on the substantial drilling program necessary to test the target areas to basement, Mineral Holdings is considering a bulk sampling program.

Mineral Holdings is monitoring the movements of marine construction vessels currently being operated in Australia by the experienced Dutch company Van Oord ACZ and also the WEST HAM DREDGING Company and is hoping to use the window of opportunity this provides to avoid the costly location fees reflected in long steaming distances to Australia.

Four bulk samples will be taken from Ringarooma Bay and two from King Island. Final choice of sites will be determined following review of the current sea bed sampling program.

This is an exploration program to test for the presence of heavy mineral resources and is not a full scale mining project. The samples will be removed entirely for processing on land. Because the water depth is within storm-surge base, the seabed contours will be reformed by natural processes rapidly. It is therefore appears that water turbidity due to suspended fines in the excess water returned to the sea will be no more than transitory. It is envisaged that fish and crustacean mortality in the immediate vicinity of the sample points will be a tangible but minor possibility.

REFERENCES

Anon. 1965. Prospectus for a Joint Offshore Mineral Exploration Program in Australia- Tasmania. Ocean Mining A.G., TCR 81-1617.

Anon. 1967. Tasmania Offshore Exploration Program. Operation Reports-March 1966 to December 1967. Ocean Mining A.G., TCR 81-1618

Anon. 1968. Tasmania Offshore Exploration Program. Operation Reports-January 1967 to December 1967. Ocean Mining A. G., TCR 81-1619

APPENDIX

: **Tables 1-12 —Locations, minus 5mm screen assays, calculated head assays of Sn, TiO2 and ZrO2 in sediments**

: **Sizing analyses of selected samples**

: **Analytical Results from BHP-TEMCO, Bell Bay**

437020

Table KI-1

Location of samples

Sample No.	Latitude	Longitude	Depth (m)
KI- 1	39.46.00S	144.06.30E	7.3
KI- 2	39.45.00S	144.06.30E	8.8
KI- 3	39.44.00S	144.06.30E	11.1
KI- 4	39.43.00S	144.06.30E	9.4
KI- 5	39.43.00S	144.07.00E	18.6
KI- 6	39.43.10S	144.07.00E	17.8
KI- 7	39.43.20S	144.07.00E	17.7
KI- 8	39.43.30S	144.07.00E	17.1
KI- 9	39.43.40S	144.07.00E	16.7
KI-10	39.43.50S	144.07.00E	16.7
KI-11	39.44.00S	144.07.00E	16.8
KI-12	39.44.10S	144.07.00E	17.0
KI-13	39.44.20S	144.07.00E	18.1
KI-14	39.44.30S	144.07.00E	17.3
KI-15	39.44.26.2S	144.07.00E	17.2

Latitude and longitude readings are in degrees, minutes, seconds and decimal points of a second.

0·60 × 74 = 44·4

Table KI-2

Samples screened on 5mm screen and -5mm fraction assayed

Sample No.	Total mass of sample g	% -5mm	Assays of -5mm fraction Sn g/t	TiO2%	ZrO2%
KI- 1	1105.1	99.8	70	0.15	0.16
KI- 2	1118.5	99.9	< 30	0.09	0.15
KI- 3	1054.6	99.8	30	0.27	0.16
KI- 4	1097.8	100.0	70	0.04	0.15
KI- 5	1284.8	99.3	60	0.06	0.16
KI- 6	1152.5	94.0	< 30	0.08	0.16
KI- 7	1195.0	98.0	< 30	0.17	0.15
KI- 8	1174.2	99.2	< 30	0.14	0.16
KI- 9	1144.2	99.8	30	0.19	0.15
KI-10	1113.2	97.0	50	0.09	0.15
KI-11	1192.1	99.6	< 30	0.16	0.14
KI-12	1282.6	99.6	< 30	0.13	0.15
KI-13	1161.8	99.8	60	0.25	0.16
KI-14	1256.0	99.4	30	0.21	0.16
KI-15	1206.9	98.7	< 30	0.21	0.15

Table KI-3
Calculated head assays

Sample No.	Calculated Head Assays Sn g/t	TiO2%	ZrO2%	
KI- 1	70	0.15	0.16	#
KI- 2	< 30	0.09	0.15	#
KI- 3	30	0.27	0.16	#
KI- 4	70	0.04	0.15	*
KI- 5	60	0.06	0.16	#
KI- 6	< 28	0.08	0.15	
KI- 7	< 29	0.17	0.15	
KI- 8	< 30	0.14	0.16	#
KI- 9	30	0.19	0.15	#
KI-10	49	0.09	0.15	
KI-11	< 30	0.16	0.14	#
KI-12	< 30	0.13	0.15	#
KI-13	60	0.25	0.16	#
KI-14	30	0.21	0.16	#
KI-15	< 30	0.21	0.15	#

* Actual head assays

\# Calculated head assays the same as -5mm assays

Sample 2-15, AREA A

Sn less than 100 ppm

TiO_2% < 0.27

ZrO_2% < 0.16

Table KI-4

Location of samples

Sample No.	Latitude	Longitude	Depth (m)
KI-16	39.50.01S	144.07.39.2E (0.65)	4.0
KI-17	39.49.30S	144.07.47.9E (0.80)	4.0
KI-18	39.49.00S	144.07.40E (0.67)	6.0
KI-19	39.48.30S	144.07.40E (0.67)	13.5
KI-20	39.47.59.2S	144.07.40.5E	15.8
KI-21	39.47.29.6S	144.07.29.3E	15.8
KI-22	39.47.00S	144.07.40E	17.4
KI-23	39.46.29.2S	144.07.40.3E	17.8
KI-24	39.45.59.6S	144.07.40.3E	19.3
KI-25	39.47.01.7S	144.07.59.6E	18.2
KI-26	39.47.10.8S	144.07.59.5E	17.6
KI-27	39.47.21.6S	144.08.00E	16.6
KI-28	39.47.41.6S	144.07.58.4E	17.0
KI-29	39.47.41.6S	144.08.01.3E	16.7
KI-30	39.47.50.5S	144.08.00.1E	15.5

Latitude and longitude readings are in degrees, minutes, seconds and decimal points of a second.

56 × 0.65 = 36.4
56 × 0.80 = 44.8
56 × 0.67 = 37.5

Table KI-5

Samples screened on 5mm screen and -5mm fraction assayed

Sample No.	Total mass of sample g	% -5mm	Assays of -5mm fraction Sn g/t	TiO2%	ZrO2%
KI-16	1076.0	99.9	80	0.07	0.14
KI-17	970.3	100.0	60	0.23	0.16
KI-18	1226.8	100.0	100	0.11	0.17
KI-19	1042.1	100.0	100	0.26	0.17
KI-20	1088.8	100.0	90	0.26	0.16
KI-21	1194.9	99.9	< 30	0.38	0.17
KI-22	1108.0	98.4	50	0.71	0.21
KI-23	1304.6	92.1	110	0.03	0.17
KI-24	1099.6	98.9	60	0.28	0.17
KI-25	1230.6	99.9	40	0.19	0.17
KI-26	1202.0	93.2	60	0.13	0.17
KI-27	1392.4	91.5	30	0.28	0.16
KI-28	1191.3	97.8	50	0.44	0.19
KI-29	1094.1	99.9	< 30	0.13	0.15
KI-30	1458.4	97.0	< 30	0.09	0.14

Table KI-6
Calculated head assays

Sample No.	Calculated Head Assays Sn g/t	TiO2%	ZrO2%	
KI-16	80	0.07	0.14	#
KI-17	60	0.23	0.16	*
KI-18	100	0.11	0.17	*
KI-19	100	0.26	0.17	*
KI-20	90	0.26	0.16	*
KI-21	< 30	0.38	0.17	#
KI-22	49	0.70	0.21	
KI-23	101	0.03	0.16	
KI-24	59	0.28	0.17	
KI-25	40	0.19	0.17	#
KI-26	56	0.12	0.16	
KI-27	27	0.26	0.15	
KI-28	49	0.43	0.19#	
KI-29	< 30	0.13	0.15	#
KI-30	< 29	0.09	0.14	

* Actual head assays

\# Calculated head assays the same as -5mm assays

17 - 30 , Area B

Sn some >100 ppm.

$TiO_2 < 0.43\%$

$ZrO_2 < 0.21\%$

Table KI-7

Location of samples

Sample No.	Latitude	Longitude	Depth (m)
KI- 31	39.44.20S	144.07.10E	19.0
KI- 32	39.44.30S	144.07.10E	19.0
KI- 33	39.44.40S	144.07.10E	18.8
KI- 34	39.44.50S	144.07.10E	20.0
KI- 35	39.45.00S	144.07.10E	17.5
KI- 36	39.45.10S	144.07.10E	19.0
KI- 37	39.45.20S	144.07.10E	18.0
KI- 38	39.45.30S	144.07.10E	17.5
KI- 39	39.43.10S	144.07.10E	19.8
KI- 40	39.43.20S	144.07.10E	20.4
KI- 41	39.43.30S	144.07.10E	18.6
KI- 42	39.43.40S	144.07.10E	18.2
KI- 43	39.43.50S	144.07.10E	17.9
KI- 44	39.44.00S	144.07.10E	17.8
KI- 45	39.44.10S	144.07.10E	18.6
KI- 46	39.44.20S	144.07.10E	18.0
KI- 47	39.48.38S	144.07.40E	11.0
KI- 48	39.48.46S	144.07.40E	10.0
KI- 49	39.48.54S	144.07.40E	5.0
KI- 50	39.48.30S	144.08.00E	12.5
KI- 51	39.48.38S	144.08.00E	11.3
KI- 52	39.48.46S	144.08.00E	11.0
KI- 53	39.48.56S	144.08.00E	10.0
KI- 54	39.49.00S	144.08.00E	9.5
KI- 55	39.47.00S	144.08.00E	17.1
KI- 56	39.47.10S	144.08.20E	17.0
KI- 57	39.47.20S	144.08.20E	16.4
KI- 58	39.47.30S	144.08.20E	16.2
KI- 59	39.47.40S	144.08.20E	16.0
KI- 60	39.47.50S	144.08.20E	15.4
KI- 61	39.48.00S	144.08.20E	15.0
KI- 62	39.43.00S	144.06.21E	4.4
KI- 63	39.43.30S	144.06.20E	5.1
KI- 64	39.44.00S	144.06.20E	5.6
KI- 65	39.44.30S	144.06.20E	5.6
KI- 66	39.45.00S	144.06.20E	6.0
KI- 67	39.45.30S	144.06.20E	5.0
KI- 68	39.46.00S	144.06.20E	4.0
KI- 69	39.43.00S	144.06.50E	16.6
KI- 70	39.43.30S	144.06.50E	15.8
KI- 71	39.44.00S	144.06.50E	15.4
KI- 72	39.44.30S	144.06.50E	15.8
KI- 73	39.45.00S	144.06.50E	14.3
KI- 74	39.45.30S	144.06.50E	13.7
KI- 75	39.46.00S	144.06.50E	12.2
KI- 76	39.46.00S	144.07.20E	17.9
KI- 77	39.46.00S	144.07.40E	18.1

Sample No.	Latitude	Longitude	Depth(m)
KI- 78	39.46.30S	144.07.40E	16.6
KI- 79	39.47.00S	144.07.40E	16.6
KI- 80	39.47.30S	144.07.40E	15.0
KI- 81	39.48.00S	144.07.40E	13.9
KI- 82	39.43.00S	144.08.00E	24.5
KI- 83	39.43.30S	144.07.40E	21.4
KI- 84	39.44.00S	144.08.00E	21.5
KI- 85	39.44.30S	144.07.40E	21.0
KI- 86	39.45.00S	144.08.00E	21.0
KI- 87	39.45.30S	144.07.40E	20.0
KI- 88	39.46.00S	144.08.00E	19.7
KI- A	39.48.05.2S	144.06.54.3E	4.0
KI- B	39.48.05.7S	144.07.05.2E	7.0
KI- C	39.48.05.5S	144.07.15E	10.0
KI- D	39.47.55S	144.07.15E	11.0
KI- E	39.47.55S	144.07.05E	6.3
KI- F	39.47.55S	144.06.55E	3.3

Latitude and longitude readings are in degrees, minutes, seconds and decimal points of a second.

Table KI-8

Description of bottom

Sample No.	
KI- 31	Coarse gravel to 250mm then dark sand
KI- 32	Sand
KI- 33	Coarse gravel
KI- 34	Gravel and sand
KI- 35	Sand
KI- 36	Sand
KI- 37	300mm only - hit layer of shell
KI- 38	Ditto
KI- 39	Gravel and sand
KI- 40	Sand
KI- 41	Sand
KI- 42	Sand
KI- 43	Sand
KI- 44	Sand
KI- 45	Soft sand
KI- 46	Sand
KI- 47	Fine sand
KI- 48	Sand
KI- 49	Sand
KI- 50	Patches of reef
KI- 51	No sample - only reef
KI- 52	Sand
KI- 53	Sand
KI- 54	Sand
KI- 55	Sand
KI- 56	Sand
KI- 57	Sand
KI- 58	Sand
KI- 59	Sand
KI- 60	Sand
KI- 61	Sand
KI- 62	Sand
KI- 63	Sand
KI- 64	Sand
KI- 65	Sand
KI- 66	Sand
KI- 67	Sand
KI- 68	Sand
KI- 69	Sand
KI- 70	Sand
KI- 71	Sand
KI- 72	Sand
KI- 73	Sand
KI- 74	Sand
KI- 75	Sand
KI- 76	Gravel - hit shell at 350mm
KI- 77	Coarse sand

Sample No.	
KI- 78	Coarse sand
KI- 79	Coarse sand - bottom of core sample hard
KI- 80	Coarse sand
KI- 81	Coarse sand
KI- 82	Sand and gravel
KI- 83	Sand and gravel
KI- 84	Sand and gravel
KI- 85	Sand and gravel
KI- 86	Sand and gravel
KI- 87	Sand and gravel
KI- 88	Sand and gravel
KI- A	Fine sand
KI- B	Fine sand
KI- C	Fine sand
KI- D	Fine sand
KI- E	Fine sand
KI- F	Fine sand

Table KI-9

Sample No.		Assays Sn g/t	TiO2%	ZrO2%
KI-31		< 30	0.06	0.16
KI-32		< 30	0.23	0.19
KI-33		< 30	0.35	0.20
KI-34		< 30	0.19	0.17
KI-35		< 30	0.43	0.20
KI-36		< 30	0.16	0.17
KI-37		< 30	0.25	0.18
KI-38		< 30	0.31	0.19
KI-39		60	0.09	0.19
KI-40		< 30	0.09	0.18
KI-41		< 30	0.10	0.16
KI-42		< 30	0.12	0.16
KI-43		< 30	0.22	0.18
KI-44		< 30	0.24	0.17
KI-45		< 30	0.17	0.16
KI-46		50	0.21	0.19
KI-47		< 30	0.18	0.16
KI-48		50	0.21	0.18
KI-49		< 30	0.09	0.16
KI-50		30	0.26	0.19
KI-51	No sample			
KI-52		< 30	0.16	0.17
KI-53		< 30	0.17	0.17
KI-54		< 30	0.15	0.17
KI-55		< 30	0.13	0.17
KI-56		< 30	0.12	0.17
KI-57		< 30	0.09	0.15
KI-58		< 30	0.11	0.17
KI-59		< 30	0.13	0.18
KI-60		< 30	0.09	0.17
KI-61		< 30	0.09	0.16
KI-62		< 30	0.03	0.15
KI-63		< 30	0.03	0.16
KI-64		< 30	0.06	0.17
KI-65		< 30	0.12	0.17
KI-66		< 30	0.12	0.17
KI-67		< 30	0.12	0.16
KI-68		< 30	0.07	0.15
KI-69		< 30	0.12	0.16
KI-70		< 30	0.16	0.18
KI-71		< 30	0.30	0.17
KI-72		< 30	0.15	0.16
KI-73		< 30	0.67	0.21
KI-74		< 30	0.20	0.15
KI-75		< 30	0.33	0.19
KI-76		< 30	0.20	0.16
KI-77		< 30	0.56	0.22

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Sample No.	Assays Sn g/t	TiO2%	ZrO2%
KI-78	< 30	0.26	0.18
KI-79	< 30	0.30	0.18
KI-80	< 30	0.25	0.17
KI-81	30	0.41	0.21
KI-82	70	0.10	0.18
KI-83	< 30	0.18	0.18
KI-84	50	0.12	0.18
KI-85	< 30	0.24	0.16
KI-86	< 30	0.23	0.17
KI-87	< 30	0.20	0.18
KI-88	< 30	0.22	0.19
KI- A	< 30	0.14	0.15
KI- B	40	0.13	0.16
KI- C	< 30	1.29	0.27
KI- D	< 30	0.56	0.19
KI- E	30	0.12	0.16
KI- F	< 30	0.19	0.17

Table KI-10

Location of samples

Site No.	Latitude	Longitude
KI- 101	39.43.00S	144.06.40E
KI- 102	39.43.00S	144.07.10E
No samples	39.43.00S	144.07.20E
No samples	39.43.00S	144.07.30E
KI- 103	39.43.00S	144.07.40E
KI- 104	39.43.00S	144.07.50E
KI- 105	39.43.00S	144.08.10E
KI- 106	39.43.00S	144.08.20E
KI- 107	39.43.00S	144.08.30E
KI- 108	39.43.30S	144.06.30E
KI- 109	39.43.30S	144.06.40E
KI- 110	39.43.30S	144.07.20E
KI- 111	39.43.30S	144.07.30E
KI- 112	39.43.30S	144.07.50E
KI- 113	39.43.30S	144.08.00E
KI- 114	39.43.30S	144.08.10E
KI- 115	39.43.30S	144.08.20E
KI- 116	39.43.30S	144.08.30E
KI- 117	39.44.00S	144.06.40E
KI- 118	39.44.00S	144.07.20E
KI- 119	39.44.00S	144.07.30E
KI- 120	39.44.00S	144.07.40E
KI- 121	39.44.00S	144.07.50E
KI- 122	39.44.00S	144.08.10E
KI- 123	39.44.00S	144.08.20E
KI- 124	39.44.30S	144.06.30E
KI- 125	39.44.30S	144.06.40E
KI- 126	39.44.30S	144.07.20E
KI- 127	39.44.30S	144.07.30E
KI- 128	39.44.30S	144.07.50E
KI- 129	39.44.30S	144.08.00E
KI- 130	39.44.30S	144.08.10E
KI- 131	39.44.30S	144.08.20E
KI- 132	39.45.00S	144.06.40E
KI- 133	39.45.00S	144.07.00E
KI- 134	39.45.00S	144.07.20E
KI- 135	39.45.00S	144.07.30E
KI- 136	39.45.00S	144.07.40E
KI- 137	39.45.00S	144.07.50E
KI- 138	39.45.00S	144.08.10E
KI- 139	39.45.00S	144.08.20E
KI- 140	39.47.30S	144.08.40E
KI- 141	39.47.30S	144.09.00E
KI- 142	39.47.30S	144.09.20E
KI- 143	39.47.30S	144.09.40E
KI- 144	39.47.30S	144.10.00E
KI- 145	39.47.30S	144.10.20E

Site No.	Latitude	Longitude
KI- 146	39.48.00S	144.08.00E
KI- 147	39.48.00S	144.08.40E
KI- 148	39.48.00S	144.09.00E
KI- 149	39.48.00S	144.09.20E
KI- 150	39.48.00S	144.09.40E
KI- 151	39.48.00S	144.10.00E
KI- 152	39.48.00S	144.10.20E
KI- 153	39.48.30S	144.08.20E
KI- 154	39.48.30S	144.08.40E
KI- 155	39.48.30S	144.09.00E
KI- 156	39.48.30S	144.09.20E
KI- 157	39.48.30S	144.09.40E
KI- 158	39.48.30S	144.10.00E

Latitude and longitude readings are in degrees, minutes, and seconds.

Table KI-12

Sample No.	Assays Sn g/t	TiO2%	ZrO2%	
KI-101 B	< 30	0.10	0.16	
KI-101 T	< 30	0.13	0.17	
KI-102 T	< 30	0.34	0.20	*
KI-103 B	< 30	0.05	0.15	
KI-103 T	30	0.06	0.17	
KI-104 B	50	0.10	0.19	
KI-104 T	60	0.10	0.19	
KI-105 B	60	0.09	0.20	
KI-105 T	30	0.11	0.18	
KI-106 B	60	0.10	0.19	
KI-106 T	90	0.10	0.18	
KI-107 B	100	0.14	0.20	
KI-107 T	100	0.16	0.20	
KI-108 B	< 30	0.11	0.17	
KI-108 T	< 30	0.30	0.21	
KI-109 B	30	0.06	0.18	
KI-109 T	< 30	0.05	0.20	
KI-110 B	< 30	0.08	0.20	
KI-110 T	< 30	0.08	0.18	
KI-111 B	< 30	0.06	0.17	
KI-111 T	< 30	0.09	0.17	
KI-112 B	< 30	0.10	0.16	
KI-112 T	< 30	0.12	0.16	
KI-113 B	< 30	0.06	0.17	
KI-113 T	< 30	0.08	0.16	
KI-114 B	60	0.07	0.18	
KI-114 T	< 30	0.08	0.18	
KI-115 B	60	0.07	0.18	
KI-115 T	30	0.09	0.16	
KI-116 B	50	0.11	0.18	
KI-116 T	40	0.11	0.19	
KI-117 B	< 30	0.24	0.18	
KI-117 T	< 30	0.22	0.18	
KI-118 B	< 30	0.16	0.17	
KI-118 T	< 30	0.~~47~~ 17	0.15	
KI-119 B	< 30	0.13	0.12	
KI-119 T	< 30	0.16	0.17	
KI-120 B	< 30	0.14	0.16	
KI-120 T	< 30	0.16	0.13	
KI-121 B	< 30	0.15	0.15	
KI-121 T	< 30	0.16	0.18	
KI-122 B	< 30	0.10	0.15	
KI-122 T	< 30	0.10	0.16	
KI-123 B	60	0.08	0.16	
KI-123 T	< 30	0.11	0.17	
KI-124 B	< 30	0.14	0.18	
KI-124 T	< 30	0.09	0.18	

Sample No.	Assays Sn g/t	TiO2%	ZrO2%	
KI-125 B	< 30	0.06	0.18	
KI-125 T	< 30	0.15	0.17	
KI-126 B	< 30	0.26	0.15	
KI-126 T	< 30	0.31	0.20	
KI-127 B	< 30	0.31	0.19	
KI-127 T	< 30	0.38	0.15	
KI-128 B	< 30	0.20	0.14	
KI-128 T	< 30	0.22	0.19	
KI-129 B	< 30	0.05	0.18	
KI-129 T	50	0.06	0.10	
KI-130 B	< 30	0.21	0.17	
KI-130 T	< 30	0.25	0.21	
KI-131 B	30	0.11	0.19	
KI-131 T	< 30	0.11	0.17	
KI-132 B	< 30	0.07	0.19	
KI-132 T	< 30	0.10	0.13	
KI-133 B	< 30	0.21	0.16	
KI-133 T	< 30	0.23	0.18	
KI-134 B	< 30	0.06	0.14	
KI-134 T	< 30	0.08	0.19	
KI-135 B	< 30	0.05	0.14	
KI-135 T	< 30	0.21	0.18	
KI-136 B	< 30	0.27	0.18	
KI-136 T	< 30	0.46	0.19	
KI-137 T	< 30	0.14	0.16	*
KI-138 B	< 30	0.11	0.19	
KI-138 T	< 30	0.10	0.20	
KI-139 B	< 30	0.24	0.20	
KI-139 T	< 30	0.26	0.08	
KI-140 B	< 30	0.07	0.16	
KI-140 T	< 30	0.07	0.16	
KI-141 B	< 30	0.13	0.17	
KI-141 T	< 30	0.13	0.15	
KI-142 B	< 30	0.10	0.15	
KI-142 T	< 30	0.08	0.15	
KI-143 B	< 30	0.03	0.15	
KI-143 T	< 30	0.05	0.13	
KI-144 T	< 30	0.02	0.14	*
KI-145 T	60	0.05	0.14	*
KI-146 B	< 30	0.14	0.15	
KI-146 T	< 30	0.13	0.14	
KI-147 B	< 30	0.23	0.16	
KI-147 T	< 30	0.18	0.17	
KI-148 B	< 30	0.22	0.13	
KI-148 T	< 30	0.11	0.15	
KI-149 B	< 30	0.15	0.16	
KI-149 T	< 30	0.12	0.17	
KI-150 B	< 30	0.27	0.19	
KI-150 T	< 30	0.15	0.17	

Sample No.	Assays Sn g/t	TiO2%	ZrO2%	
KI-151 B	< 30	0.07	0.18	
KI-151 T	< 30	0.04	0.15	
KI-152 T	< 30	0.03	0.15	*
KI-153 B	< 30	0.04	0.14	
KI-153 T	< 30	0.05	0.15	
KI-154 B	< 30	0.06	0.14	
KI-154 T	< 30	0.07	0.15	
KI-155 B	< 30	0.06	0.14	
KI-155 T	< 30	0.08	0.13	
KI-156 B	< 30	0.05	0.14	
KI-156 T	< 30	0.07	0.12	
KI-157 B	< 30	0.09	0.15	
KI-157 T	< 30	0.07	0.15	
KI-158 B	< 30	0.05	0.17	
KI-158 T	< 30	0.04	0.15	
Councillor Island	< 30	0.39	0.18	

KING ISLAND

Site 50

Size fraction	% mass	% mass cum.	Sn g/t	TiO2 %	ZrO2 %	Distribution Sn %	Distribution TiO2 %	Distribution ZrO2 %
+4.75mm	2.7	2.7						
+2.36mm	1.6	4.3)						
+1.18mm	3.9	8.2)						
+ 600um	5.1	13.3)	120	0.09	0.17	42.3	1.6	7.0
+ 425um	5.2	18.5)						
+ 300um	7.7	26.2)	<30	0.05	0.14	6.4	1.1	7.0
+ 150um	44.6	70.8	<30	0.08	0.15	22.2	5.9	25.9
+ 75um	28.7	99.5)						
- 75um	0.5	100.0)	30	0.75	0.21	29.1	91.4	60.1
Calc. Head			29	0.59	0.25	100.0	100.0	100.0
Assay Head			30	0.26	0.19			

Site 59

Size fraction	% mass	% mass cum.	Sn g/t	TiO2 %	ZrO2 %	Distribution Sn %	Distribution TiO2 %	Distribution ZrO2 %
+4.75mm	6.3	6.3						
+2.36mm	2.4	8.7)						
+1.18mm	3.7	12.4)						
+ 600um	16.3	28.7)	130	0.04	0.19	68.7	6.5	24.5
+ 425um	17.0	45.7)						
+ 300um	13.5	59.2)	<30	0.02	0.17	10.8	4.4	29.7
+ 150um	35.1	94.3	<30	0.06	0.16	12.4	15.1	32.3
+ 75um	5.3	99.6)						
- 75um	0.4	100.0)	60	1.80	0.41	8.1	74.0	13.5
Calc. Head			40	0.13	0.16	100.0	100.0	100.0
Assay Head			<30	0.13	0.18			

Site 71

Size fraction	% mass	% mass cum.	Sn g/t	TiO2 %	ZrO2 %	Distribution Sn %	Distribution TiO2 %	Distribution ZrO2 %
+4.75mm	0.9	0.9						
+2.26mm	1.1	2.0)						
+1.18mm	1.6	3.6)						
+ 600um	2.9	6.5)	110	0.15	0.17	30.6	2.7	5.1
+ 425um	2.7	9.2)						
+ 300um	5.0	14.2)	<30	0.11	0.16	5.7	2.7	6.6
+ 150um	65.3	79.5	<30	0.09	0.17	48.5	18.6	59.7
+ 75um	19.9	99.4)						
- 75um	0.6	100.0)	<30	1.17	0.26	15.2	76.0	28.6
Calc. Head			20	0.31	0.18	100.0	100.0	100.0
Assay Head			<30	0.30	0.17			

Site 77

Sixe fraction	% mass	% mass cum.	Sn g/t	TiO2 %	ZrO2 %	Distribution Sn %	Distribution TiO2 %	Distribution ZrO2 %
+4.75mm	1.4	1.4						
+2.36mm	0.8	2.2)						
+1.18mm	1.0	3.2)						
+ 600um	2.1	5.3)	170	0.07	0.19	22.3	0.4	2.9
+ 425mm	2.8	8.1)						
+ 300um	5.9	14.0)	<30	0.13	0.18	4.3	1.7	6.0
+ 150um	65.5	79.5	<30	0.22	0.17	32.6	24.0	48.5
+ 75um	19.6	99.1)						
- 75um	0.9	100.0)	60	2.45	0.54	40.8	73.9	42.6
Calc. Head			30	0.68	0.26	100.0	100.0	100.0
Assay Head			<30	0.56	0.22			

NOTE Where tin assays of size fractions were given as <30g/t a figure of 15g/t was used to determine the tin distribution. The tin distributions are therefore not to be taken as accurate but as an indication of the probable distribution only.

437039

BFP CONSULTANTS PTY LTD

TEST RESULTS

materials testing laboratories
369A Bass Highway Prospect Vale
ACN 073 692 270

job no 25969
sample no L97/792–795

client	Mineral Holdings Australia Pty Ltd	date tested	20/11/97
project	King Island	tested by	BC
location	Tasmania	certificate no	969AC

sample identification: Sand ex King Island
sampled by: L. Rhodes — date received: 19/11/97
sample description: SAND, fine to coarse grained, non plastic fines

Test Description AS 1141	test method	Sample Identification Q534	Q544	Q551	Q557
Sieve Size mm	Sect 11	Percent Retained Each Sieve			
4.75		2.5 (shell)	5.8 (shell)	0.9 (shell)	1.1 (shell)
2.36		1.5	2.2	1.0	0.5
1.18		3.6	3.5	1.4	0.8
0.600		5.0	17.9	2.6	2.0
0.425		5.2	16.7	2.4	2.6
0.300		8.0	13.2	4.9	5.9
0.150		45.0	34.9	66.3	66.7
0.075		28.8	5.3	20.2	19.8

1141/MQ/10/97

Authorised signatory
M. A. Maundrill

24/11/97
date of issue

437040

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 28.11.97

REFERENCE: Mineral Sands samples

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
534 +600 (Q585)	120	0.09	0.17							
534 +300 (Q586)	<30	0.05	0.14	SAMPLE 50, AREA B						
534 +150 (Q587)	<30	0.08	0.15							
534 -150 (Q588)	30	0.75	0.21							
544 +600 (Q589)	130	0.04	0.19							
544 +300 (Q590)	<30	0.02	0.17	SAMPLE 59, AREA B						
544 +150 (Q591)	<30	0.06	0.16							
544 -150 (Q592)	60	1.80	0.41							
551 +600 (Q593)	110	0.15	0.17							
551 +300 (Q594)	<30	0.11	0.16	SAMPLE 71, AREA A						
551 +150 (Q595)	<30	0.09	0.17							
551 -150 (Q596)	<30	1.17	0.26							
557 +600 (Q597)	170	0.07	0.19							
557 +300 (Q598)	<30	0.13	0.18	SAMPLE 77, AREA A						
557 +150 (Q599)	<30	0.22	0.17							
557 -150 (Q600)	60	2.45	0.54							

50

59

71

77

COMMENTS:

ANALYST: DG, CF **CHEMIST:** R. Gelston.

KING ISLAND

Site 107 T

Size fraction	% mass	% mass cum.	Sn g/t	TiO2 %	ZrO2 %	Distribution Sn %	Distribution TiO2 %	Distribution ZrO2 %
+2.00mm	14.6	14.6	160	0.10	0.18	31.3	8.7	14.0
+ 710um	7.0	21.6	190	0.04	0.19	17.7	1.7	7.0
+ 500um	5.3	26.9	90	0.04	0.17	6.4	1.2	4.8
+ 390um	6.7	33.6	90	0.05	0.18	8.1	2.0	6.5
+ 300um	13.0	46.6	50	0.05	0.18	8.7	3.9	12.5
+ 150um	45.5	92.1	30	0.15	0.18	18.2	40.5	43.7
+ 75um	7.2	99.3	80	0.89	0.25	7.7	38.0	9.6
- 75um	0.7	100.0	200	0.96	0.50	1.9	4.0	1.9
Calc. Head			75	0.17	0.19	100.0	100.0	100.0
Assay Head			100	0.16	0.20			

Site 107 B

Size fraction	% mass	% mass cum.	Sn g/t	TiO2 %	ZrO2 %	Distribution Sn %	Distribution TiO2 %	Distribution ZrO2 %
+2.00mm	13.3	13.3	180	0.10	0.19	29.6	8.8	13.6
+ 710um	7.5	20.8	160	0.04	0.18	14.9	2.0	7.3
+ 500um	5.7	26.5	90	0.04	0.17	6.4	1.5	5.3
+ 390um	8.3	34.8	80	0.05	0.17	8.2	2.7	7.6
+ 300um	20.0	54.8	40	0.09	0.18	9.9	11.9	19.4
+ 150um	39.2	94.0	50	0.15	0.18	24.3	38.9	38.2
+ 75um	5.5	99.5	80	0.88	0.25	5.4	32.0	7.5
- 75um	0.5	100.0	210	0.65	0.42	1.3	2.2	1.1
Calc. Head			81	0.15	0.19	100.0	100.0	100.0
Assay Head			100	0.14	0.20			

437042

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 20.02.98

REFERENCE: Mineral Sands samples

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 826 (+2mm)	160	0.10	0.18							
Q 827 (+710um)	190	0.04	0.19							
Q 828 (+500um)	90	0.04	0.17							
Q 829 (+390um)	90	0.05	0.18							
Q 830 (+300um)	50	0.05	0.18		Sample 107T, AREA A					
Q 831 (+150um)	30	0.15	0.18							
Q 832 (+75um)	80	0.89	0.25							
Q 833 (-75um)	200	0.96	0.50							
Q 834 (+2mm)	180	0.10	0.19							
Q 835 (+710um)	160	0.04	0.18							
Q 836 (+500um)	90	0.04	0.17							
Q 837 (+390um)	80	0.05	0.17							
Q 838 (+300um)	40	0.09	0.18		Sample 107B, AREA A					
Q 839 (+150um)	50	0.15	0.18							
Q 840 (+75um)	80	0.88	0.25							
Q 841 (-75um)	210	0.65	0.42							

03 6229566

COMMENTS: Samples Q 826 to Q 833 inclusive represent size fractions from sample Q 648.
Samples Q 834 to Q 841 inclusive represent size fractions from sample Q 664.
Sample Q 686: <10ppm WO_3

ANALYST: AB,AH **CHEMIST:** R. Gelston.

437043

TASMANIAN ELECTRO METALLURGICAL CO.PTY.LTD.

BELL BAY - TASMANIA.

LABORATORY REPORT: SIEVE ANALYSIS **DATE:** **18/2/98.**

MATERIAL: Mineral Sands sample. **Q 648**

SIEVE DURATION: SAMPLE 1071

SIEVE STANDARD:

SIEVE DIAMETER:

SIEVE MEDIUM:

APERTURE RANGE(mm)	MASS(g)	MASS CUMULATIVE	%	% CUMULATIVE
+2	63	63	14.6	14.6
+0.71	30	93	7.0	21.6
+ 0.5	23	116	5.3	26.9
+0.39	29	145	6.7	33.6
+0.3	56	201	13.0	46.6
+0.15	196	397	45.5	92.1
+0.075	31	428	7.2	99.3
-0.075	3	431	0.7	100.0
TOTAL:	431			

ORIGINAL SAMPLE MASS:

TOTAL OF FRACTION MASSES:

WEIGHT LOSS: g PERCENT LOSS: %

COMMENTS:

SAMPLED BY: MW. CHEMIST: R. Selotoy.

437044

TASMANIAN ELECTRO METALLURGICAL CO.PTY.LTD.

BELL BAY - TASMANIA.

LABORATORY REPORT: SIEVE ANALYSIS **DATE:** **19/2/98.**

MATERIAL: Mineral Sands sample. **Q 664**

SIEVE DURATION: SAMPLE 107 B

SIEVE STANDARD:

SIEVE DIAMETER:

SIEVE MEDIUM:

APERTURE RANGE(mm)	MASS(g)	MASS CUMULATIVE	%	% CUMULATIVE
+2	53	53	13.3	13.3
+0.71	30	83	7.5	20.8
+ 0.5	23	106	5.8	26.5
+0.39	33	139	8.3	34.8
+0.3	80	219	20.0	54.8
+0.15	157	376	39.3	94.0
+0.075	22	398	5.5	99.5
-0.075	2	400	0.5	100.0
TOTAL:	400			

ORIGINAL SAMPLE MASS:

TOTAL OF FRACTION MASSES:

WEIGHT LOSS: g PERCENT LOSS: %

COMMENTS:

SAMPLED BY: MW. CHEMIST: R. Selston.

437045

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 3.7.97

REFERENCE: Mineral Sands samples

TO: L.Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
K1 1+ (Q464)	70	0.15	0.16							
K1 2- (Q465)	<30	0.09	0.15							
K1 3- (Q466)	30	0.27	0.16							
K1 4- (Q467)	70	0.04	0.15							
K1 5- (Q468)	60	0.06	0.16							
K1 6- (Q469)	<30	0.08	0.16							
K1 7- (Q470)	<30	0.17	0.15							
K1 8- (Q471)	<30	0.14	0.16							
K1 9- (Q472)	30	0.19	0.15							
K1 10- (Q473)	50	0.09	0.15							
K1 11- (Q474)	<30	0.16	0.14							
K1 12- (Q475)	<30	0.13	0.15							
K1 13- (Q476)	60	0.25	0.16							
K1 14- (Q477)	30	0.21	0.16							
K1 15- (Q478)	<30	0.21	0.15							

COMMENTS: WO_3 analyses to follow.

ANALYST: AH, AB **CHEMIST:** R. Gelston.

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437046

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 29.8.97

REFERENCE: Mineral Sands samples

TO: L.Rhodes

SAMPLE IDENT.	WO_3(ppm)									
K1 1+ (Q464)	<10									
K1 2- (Q465)	10									
K1 3- (Q466)	10									
K1 4- (Q467)	<10									
K1 5- (Q468)	10									
K1 6- (Q469)	<10									
K1 7- (Q470)	<10									
K1 8- (Q471)	10									
K1 9- (Q472)	<10									
K1 10- (Q473)	10									
K1 11- (Q474)	10									
K1 12- (Q475)	10									
K1 13- (Q476)	10									
K1 14- (Q477)	<10									
K1 15- (Q478)	<10									

COMMENTS:

ANALYST: RG **CHEMIST:** R. Gelston.

4351047

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: **10.7.97**

REFERENCE: **Mineral Sands samples**

TO: **L.Rhodes**

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
K1 16- (Q485)	80	0.07	0.14							
K1 17- (Q486)	60	0.23	0.16							
K1 18- (Q487)	100	0.11	0.17							
K1 19- (Q488)	100	0.26	0.17							
K1 20- (Q489)	90	0.26	0.16							
K1 21- (Q490)	<30	0.38	0.17							
K1 22- (Q491)	50	0.71	0.21							
K1 23- (Q492)	110	0.03	0.17							
K1 24- (Q493)	60	0.28	0.17							
K1 25- (Q494)	40	0.19	0.17							
K1 26- (Q495)	60	0.13	0.17							
K1 27- (Q496)	30	0.28	0.16							
K1 28- (Q497)	50	0.44	0.19							
K1 29- (Q498)	<30	0.13	0.15							
K1 30- (Q499)	<30	0.09	0.14							

COMMENTS: WO_3 analyses to follow.

ANALYST: AH, AB **CHEMIST:** R. Gelston.

437048

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 29.8.97

REFERENCE: Mineral Sands samples

TO: L.Rhodes

SAMPLE IDENT.	WO_3(ppm)									
K1 16- (Q485)	10									
K1 17- (Q486)	10									
K1 18- (Q487)	<10									
K1 19- (Q488)	10									
K1 20- (Q489)	10									
K1 21- (Q490)	10									
K1 22- (Q491)	10									
K1 23- (Q492)	10									
K1 24- (Q493)	10									
K1 25- (Q494)	<10									
K1 26- (Q495)	10									
K1 27- (Q496)	10									
K1 28- (Q497)	10									
K1 29- (Q498)	10									
K1 30- (Q499)	10									

COMMENTS:

ANALYST: RG **CHEMIST:** R. Gelston.

437049

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

58
64
112
234

DATE: 17.11.97

REFERENCE: Mineral Sands samples

TO: N. Thomas

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)
31 (Q515)	<30	0.06	0.16
32 (Q516)	<30	0.23	0.19
33 (Q517)	<30	0.35	0.20
34 (Q518)	<30	0.19	0.17
35 (Q519)	<30	0.43	0.20
36 (Q520)	<30	0.16	0.17
37 (Q521)	<30	0.25	0.18
38 (Q522)	<30	0.31	0.19
39 (Q523)	60	0.09	0.19
40 (Q524)	<30	0.09	0.18
41 (Q525)	<30	0.10	0.16
42 (Q526)	<30	0.12	0.16
43 (Q527)	<30	0.22	0.18
44 (Q528)	<30	0.24	0.17
45 (Q529)	<30	0.17	0.16
46 (Q530)	50	0.21	0.19
47 (Q531)	<30	0.18	0.16
48 (Q532)	50	0.21	0.18
49 (Q533)	<30	0.09	0.16
50 (Q534)	30	0.26	0.19

COMMENTS: WO_3 analyses to follow.

ANALYST: AH, AB, DG, CF **CHEMIST:** a. Gelston

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437050

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 17.11.97

REFERENCE: Mineral Sands samples

TO: N. Thomas

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)
51 (Q535)	No	Sample	
52 (Q536)	<30	0.16	0.17
53 (Q537)	<30	0.17	0.17
54 (Q539)	<30	0.15	0.17
55 (Q540)	<30	0.13	0.17
56 (Q541)	<30	0.12	0.17
57 (Q542)	<30	0.09	0.15
58 (Q543)	<30	0.11	0.17
59 (Q544)	<30	0.13	0.18
60 (Q545)	<30	0.09	0.17
61 (Q546)	<30	0.09	0.16
62 (Q564)	<30	0.03	0.15
63 (Q565)	<30	0.03	0.16
64 (Q566)	<30	0.06	0.17
65 (Q567)	<30	0.12	0.17
66 (Q547)	<30	0.12	0.17
67 (Q548)	<30	0.12	0.16
68 (Q549)	<30	0.07	0.15
69 (Q568)	<30	0.12	0.16
70 (Q550)	<30	0.16	0.18

COMMENTS: WO_3 analyses to follow.

ANALYST: AH, AB, DG, CF **CHEMIST:** R. Gelston

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437051

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 17.11.97

REFERENCE: Mineral Sands samples

TO: N. Thomas

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)
71 (Q551)	<30	0.30	0.17
72 (Q552)	<30	0.15	0.16
73 (Q553)	<30	0.67	0.21
74 (Q554)	<30	0.20	0.15
75 (Q555)	<30	0.33	0.19
76 (Q556)	<30	0.20	0.16
77 (Q557)	<30	0.56	0.22
78 (Q569)	30	0.26	0.18
79 (Q558)	<30	0.30	0.18
80 (Q559)	<30	0.25	0.17
81 (Q570)	30	0.41	0.21
82 (Q573)	70	0.10	0.18
83 (Q574)	<30	0.18	0.18
84 (Q575)	50	0.12	0.18
85 (Q576)	<30	0.24	0.16
86 (Q577)	<30	0.23	0.17
87 (Q578)	<30	0.20	0.18
88 (Q579)	<30	0.22	0.19
A (Q571)	<30	0.14	0.15
B (Q560)	40	0.13	0.16

COMMENTS: WO_3 analyses to follow.

ANALYST: AH, AB, DG, CF **CHEMIST:** R. Gelston.

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437052

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 17.11.97

REFERENCE: Mineral Sands samples

TO: N. Thomas

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)
C (Q572)	<30	1.29	0.27
D (Q561)	<30	0.56	0.19
E (Q562)	30	0.12	0.16
F (Q563)	<30	0.19	0.17

COMMENTS: WO_3 analyses to follow.

ANALYST: AH, AB, DG, CF **CHEMIST:** R. Gelston.

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437053

BHP

Copy to
L. Hodes.
D. Duncan.
G. Barker.

TEMCO
Bell Bay
BHP Manganese

Facsimile Communication

DATE: Monday, 24 November 1997 R. 24/11

TO: Mineral Holdings Pty. Ltd.

ATTENTION: Neil M. Thomas

FACSIMILE NUMBER : (03) 9650 3855

FROM : Ricky Gelston

COPIES:

TOTAL NUMBER OF PAGES INCLUDING THIS HEADER : 1

☐ Urgent ☒ Routine

If there are any problems with this transmission please telephone 03 63820200

OUR FAX NO. IS (03) 63820410 within AUSTRALIA and (613) 63820410 INTERNATIONALLY

Dear Neil,

WO_3 results follow: from King Island Samples.

Sample 57: **15 ppm WO_3**

Samples 32, 33, 34, 36, 37, 38, 40, 41, 48, 50, 54, 56, 60, 63,65, 67, 68, 69, 72, 73, 74, 75, 77, 78, 79, 80, 81, 83, 84, 87, A, BL 1, BL2 and BL3: **10 ppm WO_3**

All other samples: **<10 ppm WO_3**

R. Gelston.

Ricky Gelston
Senior Chemist

TEMCO is a Business name of the Tasmanian Electro Metallurgical Company Pty. Ltd. A.C.N. 004 458 035
Which is part of the BHP Manganese Division of BHP Minerals
TEMCO Road, Bell Bay, Tasmania, Australia 7253 (PO Box 164 George Town, Tasmania 7253 Australia)
Telephone 03 63820200 Facsimile 03 63820410

437054

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 16.02.98

REFERENCE: Mineral Sands samples KING ISLAND

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 646 (KI 102T)	<30	0.34	0.20							
Q 647 (109B)	30	0.06	0.18							
Q 648 (107T)	100	0.16	0.20	-	SIZED ANAL. DUMS					
Q 649 (124B)	<30	0.14	0.18							
Q 650 (106B)	60	0.10	0.19							
Q 651 (105B)	60	0.09	0.20							
Q 652 (125B)	<30	0.06	0.18							
Q 653 (117T)	<30	0.22	0.18							
Q 654 (103B)	<30	0.05	0.15							
Q 655 (125T)	<30	0.15	0.17							
Q 656 (105T)	30	0.11	0.18							
Q 657 (114T)	<30	0.08	0.18							
Q 658 (109T)	<30	0.05	0.20							
Q 659 (117B)	<30	0.24	0.18							
Q 660 (108T)	<30	0.30	0.21							
Q 661 (116B)	50	0.11	0.18							
Q 662 (106T)	90	0.10	0.18							
Q 663 (104B)	50	0.10	0.19							
Q 664 (107B)	100	0.14	0.20	-	S.A. Dump					
Q 665 (115T)	30	0.09	0.16							

COMMENTS:

ANALYST: AB,KD,DG,RM **CHEMIST:** R. Gelston.

437055

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 16.02.98

REFERENCE: Mineral Sands samples KINGISLAND

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 666 (K1 116T)	40	0.11	0.19							
Q 667 (115 B)	60	0.07	0.18							
Q 668 (101 T)	<30	0.13	0.17							
Q 669 (104 T)	60	0.10	0.19							
Q 670 (101 B)	<30	0.10	0.16							
Q 671 (108 B)	<30	0.11	0.17							
Q 672 (103 T)	30	0.06	0.17							
Q 673 (114 B)	60	0.07	0.18							
Q 674 (124 T)	<30	0.09	0.18							
Q 675 (131 T)	<30	0.11	0.17							
Q 676 (129 B)	<30	0.05	0.18							
Q 677 (131 B)	30	0.11	0.19							
Q 678 (128 T)	<30	0.22	0.19							
Q 679 (133 T)	<30	0.23	0.18							
Q 680 (118 B)	<30	0.16	0.17							
Q 681 (119 T)	<30	0.16	0.17							
Q 682 (111 B)	<30	0.06	0.17							
Q 683 (110 T)	<30	0.09	0.17							
Q 684 (110 T)	<30	0.08	0.18							
Q 685 (113 B)	<30	0.06	0.17							

COMMENTS:

ANALYST: AB,KD,DG,RM **CHEMIST:** R. Gelston

437056

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 16.12.98

REFERENCE: Mineral Sands samples – KINGISLAND

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 686 KI	<30	0.39	0.18	Cornellan Island						
Q 687 (141T)	<30	0.13	0.15							
Q 688 (148B)	<30	0.22	0.13							
Q 689 (123T)	<30	0.11	0.17							
Q 690 (128B)	<30	0.20	0.14							
Q 691 (126B)	<30	0.26	0.15							
Q 692 (139T)	<30	0.26	0.08							
Q 693 (129T)	50	0.06	0.10							
Q 694 (132T)	<30	0.10	0.13							
Q 695 (157B)	<30	0.09	0.15							
Q 696 (136T)	<30	0.46	0.19							
Q 697 (134B)	<30	0.06	0.14							
Q 698 (135B)	<30	0.05	0.14							
Q 699 (137T)	<30	0.14	0.16							
Q 700 (122T)	<30	0.10	0.16							
Q 701 (133B)	<30	0.21	0.16							
Q 702 (138B)	<30	0.11	0.19							
Q 703 (132B)	<30	0.07	0.19							
Q 704 (138T)	<30	0.10	0.20							
Q 705 (134T)	<30	0.08	0.19							

COMMENTS:

ANALYST: AB,KD,DG,RM **CHEMIST:** R. Gelston

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437057

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 16.02.98

REFERENCE: Mineral Sands samples KING ISLAND

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 706 (KI 127T)	<30	0.38	0.15							
Q 707 (135T)	<30	0.21	0.18							
Q 708 (136B)	<30	0.27	0.18							
Q 709 (130B)	<30	0.25	0.21							
Q 710 (110B)	<30	0.08	0.20							
Q 711 (139B)	<30	0.24	0.20							
Q 712 (121T)	<30	0.16	0.18							
Q 713 (122B)	<30	0.10	0.15							
Q 714 (112T)	<30	0.12	0.16							
Q 715 (113T)	<30	0.08	0.16							
Q 716 (119 B)	<30	0.13	0.12							
Q 717 (126T)	<30	0.31	0.20							
Q 718 (121 B)	<30	0.15	0.15							
Q 719 (112B)	<30	0.10	0.16							
Q 720 (123B)	60	0.08	0.16							
Q 721 (130B)	<30	0.21	0.17							
Q 722 (120T)	<30	0.16	0.13							
Q 723 (118T)	<30	0.17	0.15							
Q 724 (127B)	<30	0.31	0.19							
Q 725 (120B)	<30	0.14	0.16							

COMMENTS:

ANALYST: AB,KD,DG,RM **CHEMIST:** R. Gelston.

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON

437058

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 16.02.98

REFERENCE: Mineral Sands samples – KING ISLAND

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 726 (148T)	<30	0.11	0.15							
Q 727 (157T)	<30	0.07	0.15							
Q 728 (142B)	<30	0.10	0.15							
Q 729 (147B)	<30	0.23	0.16							
Q 730 (155T)	<30	0.08	0.13							
Q 731 (156T)	<30	0.07	0.12							
Q 732 (146B)	<30	0.14	0.15							
Q 733 (143B)	<30	0.03	0.15							
Q 734 (149B)	<30	0.15	0.16							
Q 735 (153T)	<30	0.05	0.15							
Q 736 (155B)	<30	0.06	0.14							
Q 737 (140T)	<30	0.07	0.16							
Q 738 (156B)	<30	0.05	0.14							
Q 739 (140B)	<30	0.07	0.16							
Q 740 (145T)	60	0.05	0.14							
Q 741 (143T)	<30	0.05	0.13							
Q 742 (153B)	<30	0.04	0.14							
Q 743 (154B)	<30	0.06	0.14							
Q 744 (144T)	<30	0.02	0.14							
Q 745 (142T)	<30	0.08	0.15							

COMMENTS:

ANALYST: AB,KD,DG,RM **CHEMIST:** R. Gelston.

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437059

CHEMICAL LABORATORY : INPLANT ANALYSIS REPORT

DATE: 16.02.98

REFERENCE: Mineral Sands samples KING ISLAND

TO: L. Rhodes

SAMPLE IDENT.	Sn(ppm)	TiO_2(%)	ZrO_2(%)							
Q 746 (149T)	<30	0.12	0.17							
Q 747 (151B)	<30	0.07	0.18							
Q 748 (141B)	<30	0.13	0.17							
Q 749 (147T)	<30	0.18	0.17							
Q 750 (150B)	<30	0.27	0.19							
Q 751 (146T)	<30	0.13	0.14							
Q 752 (152T)	<30	0.03	0.15							
Q 753 (154T)	<30	0.07	0.15							
Q 754 (151T)	<30	0.04	0.15							
Q 755 (150T)	<30	0.15	0.17							
Q 756 (158T)	<30	0.04	0.15							
Q 757 (158B)	<30	0.05	0.17							

COMMENTS:

ANALYST: AB,KD,DG,RM **CHEMIST:** R. Gelston.

QA:DOC:12 REV.02 DATE:22.03.95 AUTHORISED BY: R.GELSTON