#### SOUTH AUSTRALIA

### DEPARTMENT OF MINES AND ENERGY



# OPEN FILE ENVELOPE NO. 6816

EL 1353, IFOULD LAKE

PROGRESS AND FINAL REPORTS FOR THE PERIOD 19/11/86 TO 19/8/88

Submitted by

BHP Minerals Ltd

1988

# (c) South Australian Department of Mines and Energy:30/9/88

This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia. The Department accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of original text or drawings.

All rights reserved under the copyright. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the S.A. Department of Mines and Energy, P.O. Box 151, Eastwood, S.A. 5063.

# **ENVELOPE 6816**

TENEMENT:

EL 1353, Ifould Lake

TENEMENT HOLDER:

BHP Minerals Ltd

# CONTENTS

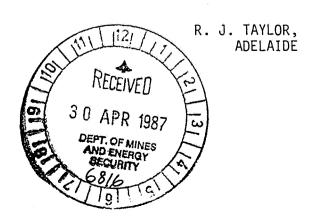
				CADAMI NO	
REPORT:	Taylor, R.J., 1986. Fourth quarterly report for Ifor Australia, for the period ending 19th November, 1986.	uld Lake EL (CRAE repor	1353, South t no. 5359).	SADME NO. 6816 R 1 Pgs 3-10	
PLANS	•	Scale	Drawing no.		
Fig. 1	Location map.	1:1000 000	A4-461b	Pg. 5	
Fig. 2	Location of Drill traverses, drillholes and stream samples.	1:100 000	A1-902	6816-1	A1
REPORT:	Taylor, R.J., and Tedder, I., 1987. First quarterly	report for Ifou	ld Lake EL	6816 R 2	
	1353, South Australia, for the period ending 19th February no. 5398).	uary, 1987. (C	RAE report	Pgs 11-25	
APPENDIX A:	Drilling logs - Traverse 2.			Dec 26 52	
APPENDIX B:	Drilling logs - Traverse 7.			Pgs 26-53	
APPENDIX C:	Drilling logs - Traverse 3.			Pgs 54-61	
PLANS	2	Scale	Duguela e a e	Pgs 62-82	
Fig. 1	Location map.	1:1000 000	Drawing no.	D= 10	
Fig. 2	Location of Drill traverses, drillholes and stream	1:1000 000	A4-461b	Pg. 18	4.7
_	samples.	1:100 000	A1-902	6816-1	A1
Fig. 3	Geological sections for Traverses 2, 3 & 7.	1:10 000	A1-923	6816-2	<b>B1</b>
REPORT:	Taylor, R.J., 1987. Second quarterly report for Ifou	ıld Lake, EL	1353, South	6816 R 3	
A PONTE TO THE A	Australia, for the period ending 19th May, 1987. (CR.	AE report no.	5468).	Pgs 83-92	
APPENDIX A:	Observers data sheet - Traverse 2.			Pgs 93-124	
APPENDIX B:	Observers data sheet - Traverse 7.			Pgs 125-136	
APPENDIX C:	Observers data sheet - Traverse 3.			Pgs 137-163	
	Samples held at SADME, Glenside, core library.			Pg. 224	
PLAN		Scale	Drawing no.	Ģ	
Fig. 1	Location map.	1:1000 000	A4-461b	Pg. 85	
REPORT:	Taylor, R.J., 1987. Third quarterly report for Ifou	ld Lake, EL 1	1353, South	6816 R 4	
	Australia, for the period ending 19th August, 1987. (C	RAE report no	o. 5554).	Pgs 164-168	
PLAN	-	Scale	Drawing no.	•	
Fig. 1	Location map.	1:1000 000	A4-461b	Pg. 166	
REPORT:	Taylor, R.J., 1987. Fourth quarterly report for Ifou	ld Lake, EL	1353, South	6816 R 5	
	Australia, for the period ending 19 November, 1987. (	CRAE report	no. 5708).	Pgs 169-173	
PLAN		Scale	Drawing no.	<b>3</b>	
Fig. 1	Location map.	1:1 000 000		Pg. 171	
REPORT:	First quarterly report for Ifould Lake, EL 1353, South	Anotrolia fo	r the norted	(01( P (	
	ending 19th February, 1988. (CRAE report no. 5884).	i Ausuana, 101	me benod	6816 R 6	
	6 m - vocam), 1500. (Citaris report 110, 5004).			Pgs 174-178	

Fig. 1	Location map.	Scale 1:1 000 000	Drawing no. A4-461b	SADME NO. Pg. 176
REPORT:	Grey, K., 1988. Second quarterly report for Ifould Australia, for the period ending 19th May, 1988. (CRA	Lake, EL 1	353, South	6816 R 7
PLAN Fig. 1	Location map.	Scale 1:1000 000	Drawing no. A4-461b	Pgs 179-183 Pg. 181
REPORT: APPENDIX A:	Grey, K., 1988. Third quarterly report for Ifould Lake, for the period ending 19th August, 1988. (CRAE report Observers data sheet - Traverse 2.	EL 1353, Sout et no. 6261).	h Australia,	6816 R 8 Pgs 184-189 Pgs 190-222
PLANS Fig. 1 Fig. 3	Location map. Geological section - Traverse 2.	Scale 1:1000 000 1:10 000	<b>Drawing no.</b> A4-461b A3-345	Pg. 186 Pg. 223

**END OF CONTENTS** 

CR5359

EXPLORATION LICENCE 1353 IFOULD LAKE, SOUTH AUSTRALIA REPORT FOR THE QUARTER ENDED 19TH NOVEMBER 1986



# CONTENTS

4		
1	CEMEDIAL	CTATEMENT
1 -	GENERAL	STATEMENT

- 2. TITLE
- 3. FIELD INVESTIGATIONS
  - 3.1 Reconnaissance
  - 3.2 Track location for drill traverses
  - 3.3 Drilling
- 4. FUTURE PROGRAMME
- 5. EXPENDITURE

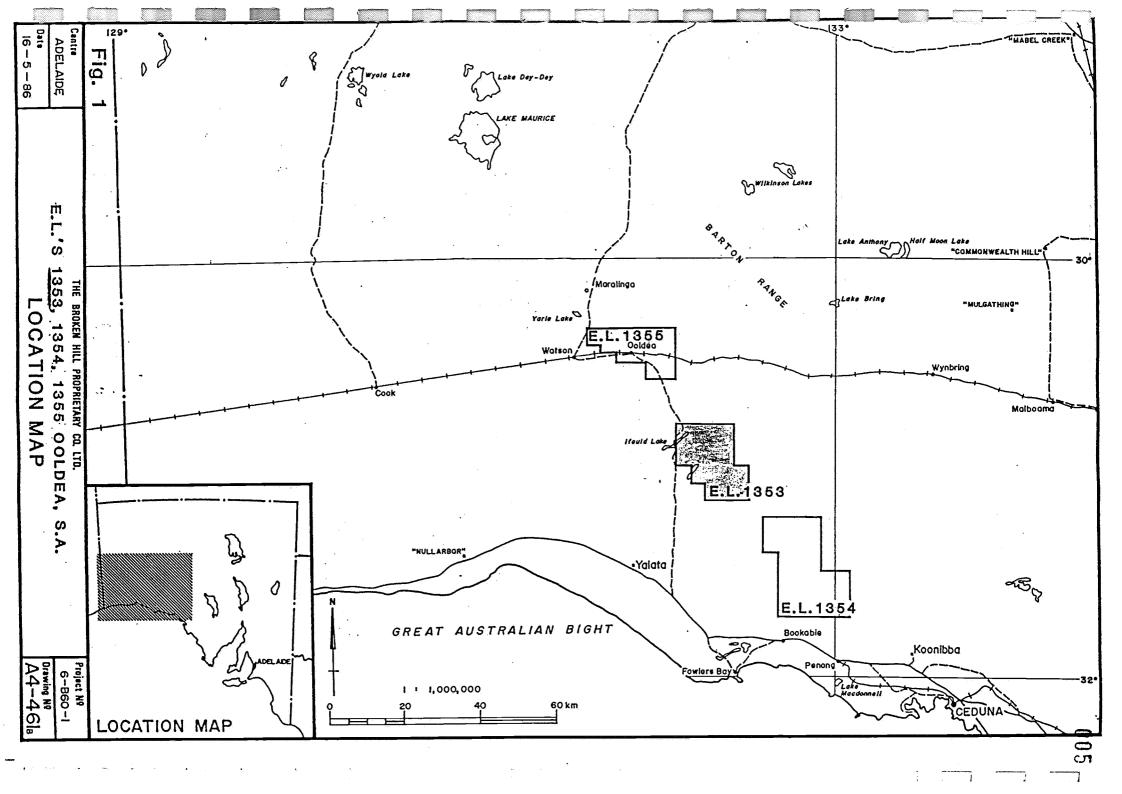
# FIGURES

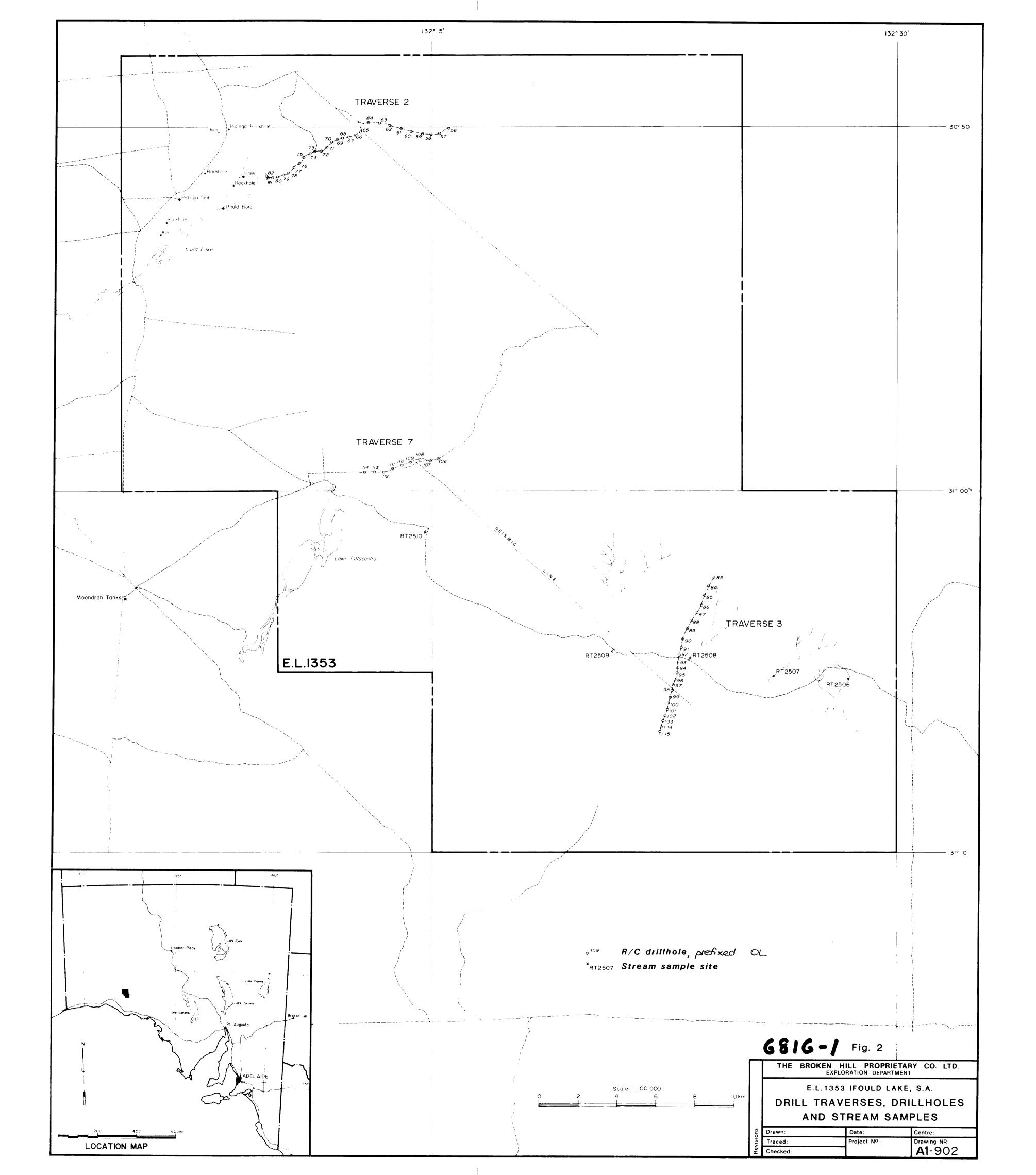
1. EL1353, Ifould Lake, South Australia Location Map

A4-461B

EL1353, Ifould Lake, South Australia Location of Drill Traverses, Drill Holes, Stream Samples

A1-902





### EXPLORATION LICENCE 1353

#### IFOULD LAKE, SOUTH AUSTRALIA

# QUARTERLY REPORT FOR THE PERIOD 20.8.86 TO 19.11.86

### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby ELs 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sands preservation may exist.

Reconnaissance geological field work and sampling has been carried out. Drill traverse lines have been delineated and cleared by bulldozer and drill testing commenced early in November 1986.

# 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year. Its location is shown in Figure 1.

# FIELD INVESTIGATIONS

# 3.1 Reconnaissance Sampling

An initial field visit was made to ascertain track access, to collect geological field evidence and take a number of stream samples to be tested for heavy mineral content. Five samples, RT2506-2510, were collected from minor creeks draining the south western flank of the Ooldea Sand Ridge to test for the presence of economic heavy minerals such as rutile, ilmenite and zircon.

These stream samples comprised approximately 20 kg of minus 4 mm stream sediment collected at the most favourable trap site found. The locations of these sample sites are shown in Figure 2.

The samples were submitted to our Mineral Laboratory in Perth and the results can be summarised as follows:

Sample No.	Received Wt kg	Recovered HMs grms	Wt % H.M.s	Principal Heavy Minerals Observed
RT2506	15.5	19.0	0.12	Zircon > Rutile
RT2507	14.0	19.9	0.14	Zircon > Rutile
RT2508	17.5	38.7	0.22	Zircon > Rutile
RT2509	16.5	43.1	0.26	Zircon >Rutile
RT2510	18.0	58.4	0.32	Zircon > Rutile

These samples were only collected to see if any heavy minerals were present. They were not planned as quantitative assessments of the economic minerals. In all five samples the zircon weight was much greater than the rutile weight, but the presence of both minerals was encouraging.

# 3.2 Track Location for Drill Traverses

The exploration target is a heavy mineral strand-line in marine sands of Tertiary age on the south western flank of the Ooldea Ridge. This ridge is up to 15 km wide giving a distance of 7 or 8 kilometres from the summit ridge southwestwards to the change of slope on the edge of the Nullarbor Plain. Evidence from previous exploration in the area and from SADME personnel indicate the presence of marine sediments along the seaward margin of the ridge which are of Eocene to Miocene age.

Two traverses were selected to test this basic concept within this Exploration Licence. Track reconnaissance was carried out in early September. Mines Department approval for these tracks and the subsequent drilling programme was received on 12th September

1986. The tracks were prepared by a local contractor, Euria Pastoral Company Limited of Nundroo, between 25th September and 7th October, 1986.

Traverse 2. This traverse was sited in the north of the EL as shown in Figure 2 and was 9.7 kilometres long. The upper part of the line east of the SE/NW seismic line was new track, but west of this line, existing tracks were used and the traverse was terminated in a clay pan adjacent to the eastern end of Ifould Lake. The elevation ranged from 200 metres on the ridge to 80 metres adjacent to Ifould Lake.

Traverse 3 This traverse was sited in the east of the EL ranging from a height of 165 metres close to the ridge southwestwards for 7.5 kilometres and terminated at 80 metres which was considered to be the edge of the Nullarbor Plain. Most of the track was positioned across open grassland with very few trees.

<u>Traverse 7</u> This was a shorter traverse which tested the lower flanks of the ridge between 150 m and 90 m along an existing track over a relatively short distance of 3 kilometres.

# 3.3 <u>Drilling</u>

The drilling programme was designed to test for the presence of economic heavy minerals and a reverse circulation rig was chosen. Wallis Drilling of Perth were contracted to carry out the work using a Gemco H12 Air Core Rig mounted on a Bedford Truck. The two adjacent ELs 1354 and 1355 were included in this drilling programme which started on 5th November and was completed on 27th November 1986.

# Depth of Drill Holes

Drill holes were planned to a depth of 20 metres with occasional holes to go deeper to give extra stratigraphical information. Bedrock was encountered in some holes giving an average depth of 15.7 metres.

### Drill Hole Spacing

The higher part of each drill traverse was drilled at a 400 metre hole spacing and the lower section at 200 metre spacing.

### Sampling Procedure

The Reverse Circulation system gives an accurate sample from a known depth with minimal contamination. Each 2 metre interval was taken as a single sample. A Jones Splitter was used on site to reduce the size of the sample. A 25% split averaged between 3 and 5 kg and was bagged for detailed analysis. The remaining 75% split was used for geological logging and to give a composite sample for the complete hole. This was taken when the hole was finished and each 20 metre composite was derived from grab samples collected from each 2 metre interval left on the ground at the drillsite. A representative portion from each sample was also panned on site to give a visual estimation of the relative amount of heavy minerals present. A descriptive range from very light trace (v.l.t.), light trace (l.t.), trace, good trace (g.t.), very good trace (v.g.t.) and very very good trace (v.v.g.t.) was This served the purpose of highlighting specific samples used. and groups of samples for detailed analysis. Each individual sample was designated a sample number in the series RT1669 onwards.

### **Drilling Statistics**

Traverse No. of Holes	Hole Numbers	Total Metres	Average Hole Depth
2 27, 28 3 20 7 7	OL56 - OL82 OL83 - OL102 OL106- OL112	392.5 350 121.3	14.0 17.5 17.3
55		863.8	15.7

### Sample Analysis

All the composite samples from each hole have been submitted to BHP Mineral Laboratory in Belmont, Perth for analysis together with selected individual 2 metre samples. These were selected on the basis of the field panning as described above. Each sample will be processed to give a heavy mineral concentrate which will then be analysed for the relative proportions of economic, titanium bearing heavy minerals.

Details of the laboratory analyses will be reported as soon as they become available. As the drilling was not completed during this quarter the geological interpretation and drill logs will be reported in the next quarterly report.

#### 4. FUTURE PROGRAMME

The results of the recent drilling programme are now awaited and future work will depend upon these analyses. The geological data collected will be reported in the next quarterly report.

# 5. <u>EXPENDITURE</u>

The expenditure in the first three months of this licence to the end of November 1986 is summarised as follows:

	. \$
Wages and salaries	14,575
Field Support	1,066
Drilling	8,696
Vehicles	1,887
Bulldozing	3,194
Geochemistry	1,214
Maps/Photos	225
Tenement Fees	2,261
Office Expenses	236
Drafting	339
Laboratory Charges	807
Administration	1,725
	\$36,225

CR 5398

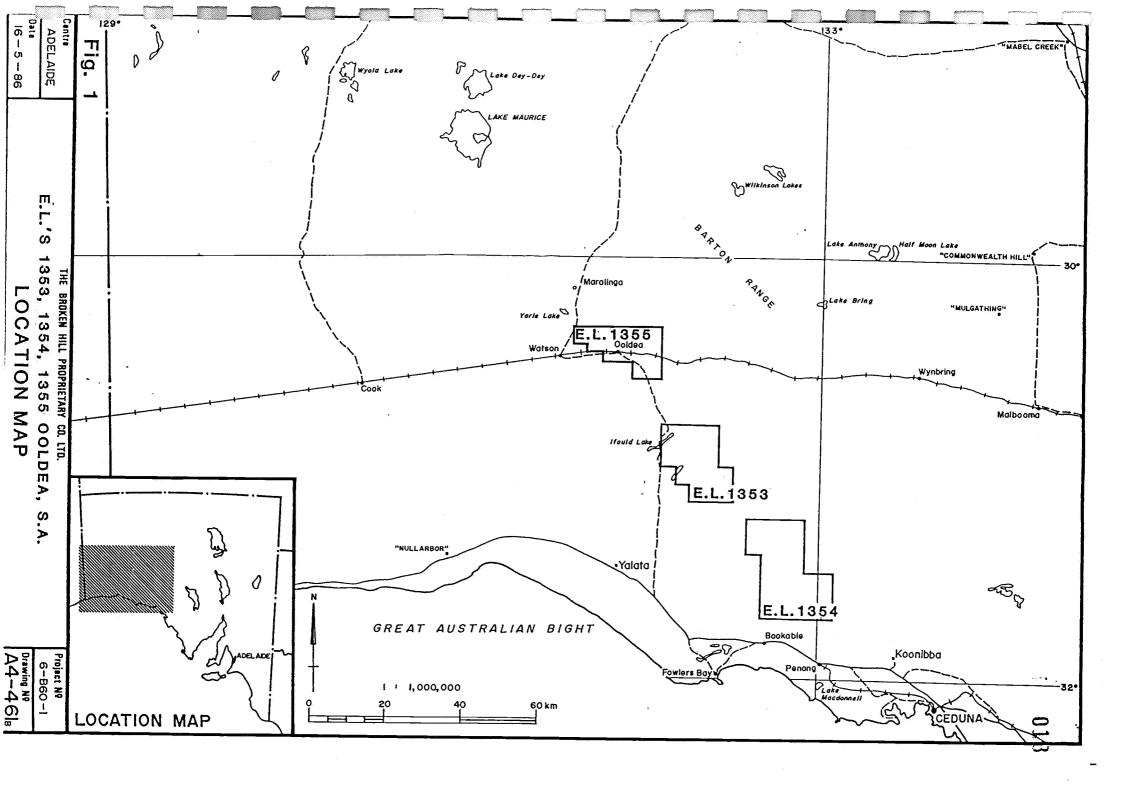
EXPLORATION LICENCE 1353 IFOULD LAKE, SOUTH AUSTRALIA REPORT FOR THE QUARTER ENDED 19TH FEBRUARY 1987

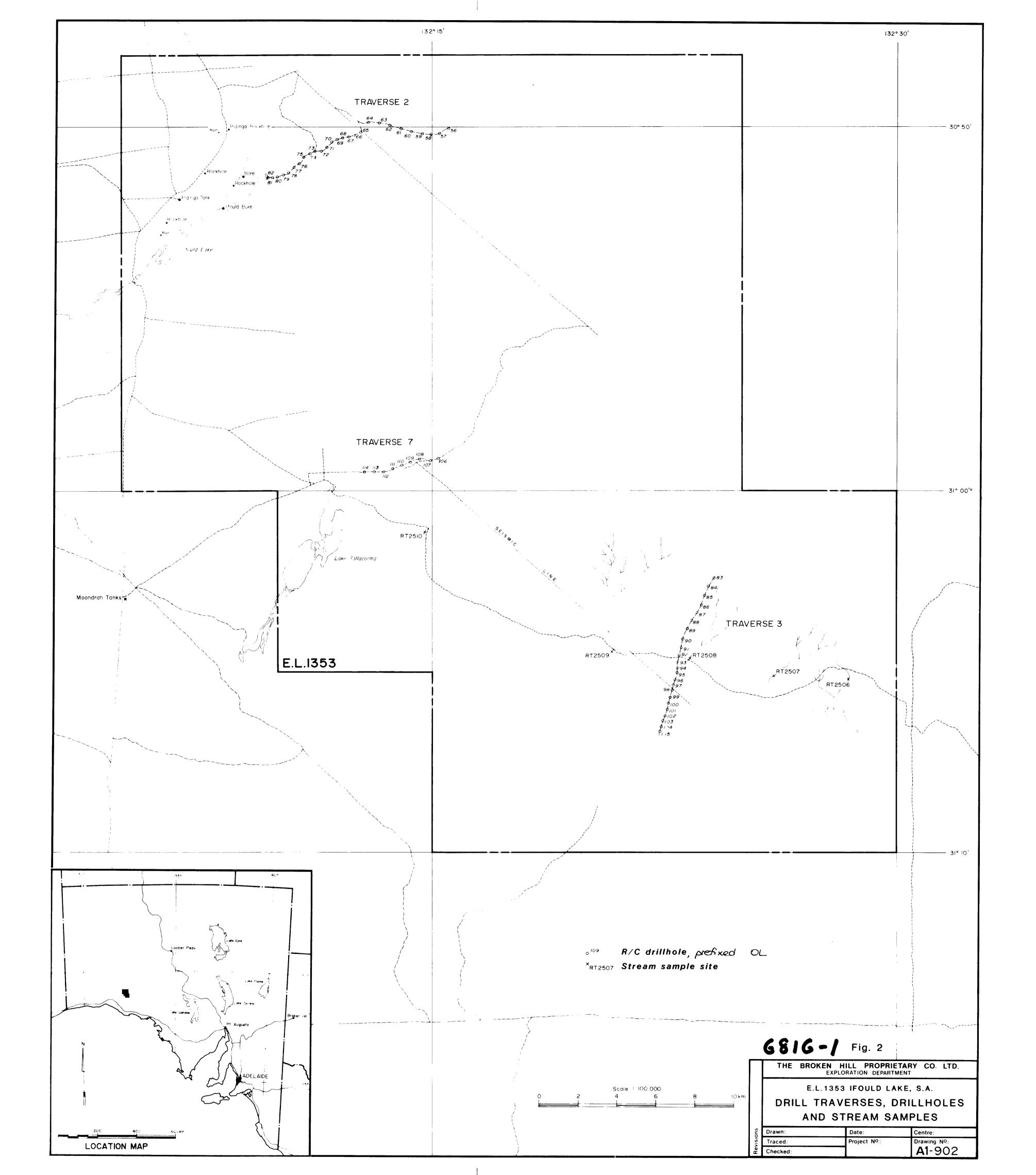


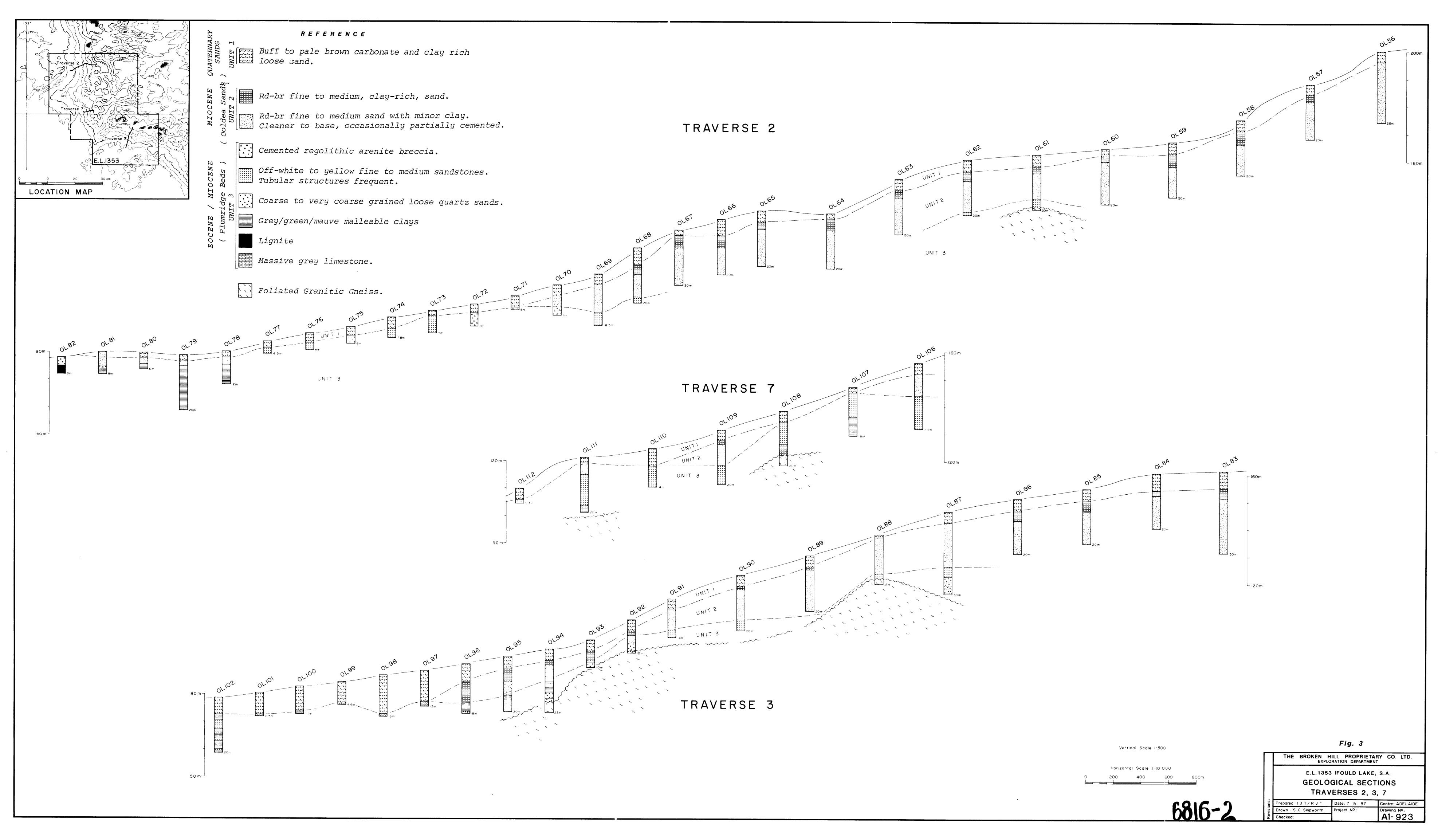
R.J. TAYLOR
I. TEDDER
ADELAIDE

# CONTENTS

1.	GENERAL STATEMENT	
2.	TITLE	
3.	FIELD INVESTIGATIONS AND RESULTS 3.1 Drilling	
	3.2 Geological Interpretation	
	3.3 Sample Analysis	
4.	FUTURE PROGRAMME	
5.	EXPENDITURE .	
	FIGURES	
1.	EL.1353, Ifould Lake South Australia Location Map	A4-461B
2.	EL.1353, Ifould Lake, South Australia Location of Drill Traverses, Drill Holes, Stream Samples	A1-902
3.	EL.1353, Ifould Lake, South Australia Geological Sections for Traverses 2, 3, 7.	A1-923
	APPENDICES	
۹.	Drill Logs - Traverse 2	
3.	Drill Logs - Traverse 7	
<b>.</b>	Drill Logs - Traverse 3	







#### EXPLORATION LICENCE 1353

#### IFOULD LAKE, SOUTH AUSTRALIA

#### QUARTERLY REPORT FOR THE PERIOD 20.11.86 TO 19.2.87

#### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby ELs 1354 and 1355. A literature search and geological assessment of the tertiary sediments of the Ooldea Ridge showed that the environment for beach sands preservation may exist.

Reconnaissance geological field work and sampling has been carried out. Drill traverse lines have been delineated, cleared by bulldozer and were drill tested in November 1986. Geological interpretation has been completed but analytical results are still incomplete.

### 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year. Its location is shown in Figure 1.

### 3. FIELD INVESTIGATIONS AND RESULTS

No field work has been carried out during this quarter.

#### 3.1 Drilling

The drilling programme was described in detail in the previous quarterly report and the statistical information can be summarised as follows:-

Traverse	No. of Holes	Hole Numbers	Total Metres	Average Hole Depth
2	28	OL 56 - OL 82	392.5	14.0
7	7	OL106 - OL112	121.3	17.3
3	20	OL 83 - OL102	350.0	17.5
3	55		863.8	15.7

Drilling was completed on the 27th November 1986.

# 3.2 <u>Geological Interpretation</u>

A reverse circulation rig was used and each 2 metre interval was separated and used as the basis of the geological logs. In most holes soft sediments and rock chips were produced, but occassional short lengths of core up to a few centimetres long were recovered from more lithified units.

The interpretation of this geological data was combined with similar information from the adjacent ELs 1354 and 1355. Pleistocene and Tertiary sediments intersected are broadly similar across all three ELs, with the main differences being within the lower marine sediments and the underlying basement. A common stratigraphical column has been used for each of the three licences. The Ooldea Stratigraphy is summarised in Table 1.

Traverses 2 and 3 were initially planned to test for the presence of heavy mineral bearing strand-lines on the south-western slope of the Ooldea Range and Traverse 7 was added during the drilling programme to give extra data utilising an existing track.

#### Table 1

#### OOLDEA STRATIGRAPHY

#### RECENT DUNES

- not drilled, 8-12 m
- all holes sited in interdunal corridors

#### PLEISTOCENE SANDS

#### - <u>Unit 1</u>

Brown clay and carbonate rich fine medium grained sand. Calcrete nodules/layers common. Average 2-3 m thick up to 6 m maximum. Predominantly aeolian in origin.

### MIOCENE, OOLDEA SANDS

#### - Unit 2

Red-brown fine to medium clay sands. Partially cemented and lighter coloured to the base with decreasing clay content, possible weathering effect. Termite burrows in lithified layers. Probably Aeolian origin (some frosted grains).

# MIOCENE/EOCENE - PLUMRIDGE BEDS - MARINE SANDS?

#### - Unit 3

Predominantly a sandstone with varying Fe content. Fine to coarse grained often well sorted. Lithified and often mottled (? lateritic weathering).

Minor sequences of brown/white/grey/purple laminated clays towards the base with interbedded lignites to 3 metres. Silicified sandstone very hard. Minor grey/green limestone in T3 = Nullabor limestone? Interpreted as a shoreline facies of ? Miocene age.

# PRE-TERTIARY BASEMENT.

Bedrock varies from grey/green Palaeozoic Shales and Siltstones in Tl and T6 to Granitic Gneisses in T3 nad T5.

#### TRAVERSE 2 (T2)

#### Introduction

Traverse 2 commenced about 1 kilometre south west of the Ooldea Range crest at approximately latitude 30°50', longitude 132°16'. The top of the Ooldea Range in this locality is very wide and quite flat. The traverse progressed south west down the ridge towards the northeastern end of Ifould Lake and stopped just short of the lake. Hole spacing was at 500m for the first 10 holes (to 0L65), then at 250m until the end of the traverse. These spacings were positioned on an ideal traverse normal to the ridge crest and projected onto the access track. Drill hole locations are shown in Figure 2.

#### Logistics

Length:

9.7 km

Holes drilled:

28

Hole numbers:

OL56 to OL82

Metres drilled:

392.5 m

No. of Samples:

226

Sample numbers:

RT 2969 to RT 3186

#### Geology

Three stratigraphic units were identified on Traverse 2. They will be described in some detail in this section for reference purposes, as the same units were noted on the other traverses, 3 and 7.

<u>Unit 1.</u> Pale brown to buff coloured, carbonate and clay rich fine to medium grained sand. The carbonate occurred as fine dust and/or calcrete fragments. The unit on Traverse 2 was up to 6 m thick. It is interpreted to be Quaternary in age and predominantly aeolian in origin.

<u>Unit 2</u>. Generally fine to medium grained, (minor coarse grains) poorly sorted clay rich sand. The coarser grains are subrounded and have a frosted appearance. There are three distinct zones in Unit 2.

Zone 1: Red brown, clay rich lumpy fine to medium grained sand. Thickness generally 2 to 3 metres.

Zone 2: Red brown, clay rich, loose, fine to medium grained sand. The sand becomes cleaner with an orangy-red colour towards the base.

Thickness 10 to 15 m.

Zone 3: Curry yellow to pale yellow loose fine to medium grained sand.

These zones are basically differentiated on their clay content and show systematic relationship to the topography of the Ooldea Sand Ridge. It would appear the zones reflect the effects of weathering. Partially cemented layers sometimes occur within zones 2 and 3. Termite burrows were commonly observed where core of these lithified layers was returned.

Unit 2 is considered to be of aeolian origin. It is interpreted as the Ooldea Beds referred to by M. Benbow (BMR Record 1983/27) and given a Late Miocene to Pliocene age.

<u>Unit 3</u>. This is a complex stratigraphic unit compared to the others. It predominantly comprises fine to coarse grained sandstone with a wide range of iron stain colours. The recovery of some core indicated the sandstones retained a few primary bedding structures. Sorting can be quite good. Three other lithologies can be assigned to this unit.

- 1) A malleable clay of grey green to mauve colour associated occasionally with lignite.
- 2) A silica cemented, ferruginous sandstone breccia.
- 3) A pale grey green limestone, equated with the Nullabor Limestone.

These last three lithologies tend to occur on the lower slopes of the Ooldea Sand Range.

Two features were used in the field to distinguish the sandy type lithologies of this Unit from the other Units.

- 1) The sands are commonly very lithified, cemented by either iron oxides or silica cement.
- The sandstone was often mottled indicating it has suffered a degree of lateritic weathering.

Unit 3 is correlated with the Plumridge Beds. This unit is considered to be the shore line facies of the Nullabor Limestone. Its age is Mid Miocene.

#### Discussion

Distribution of the 3 Units on Traverse 2 is fairly typical for the traverses along the Range. Unit 3 dominates the lower southwestern slopes of the Ooldea Sand Range. Clays and lignites were intersected in the last 5 holes of the traverse. The 8 preceeding holes met silicified, ferruginised sandstone breccias. Penetration rates of the drill rig in this lithology were extremely slow (e.g. 20 cm in half an hour). The breccias are interpreted to be silicified regolith, indicating a Miocene weathering period. Pisolites in sandstone breccia in hole OL70 supports this theory. Unit 3 was logged at the base of two other holes, OL61 and OL62. Here the mottled cemented nature of the sandstones differentiate it from Unit 2.

Unit 2 is confined to the upper two thirds of Traverse 2. The aeolian sands are generally 15-18m thick, thinning out completely over a distance of 750 m by 0L71. The three weathering zones can be identified in most holes. Termite burrows preserved in cemented layers occur in at least three holes on the lower slopes of the ridge. There are more cemented horizons on the lower parts of the Ooldea ridge in Unit 2 than higher up, mimicking a pattern noted in Unit 2.

Unit 1 is fairly evenly distributed over the three units. It was not recognised on the last two holes OL81 and OL82, which were sited on a recent dune and a salt lake, respectively.

This geology is summarised in Figure 3 and the drill logs for Traverse 2 are included as Appendix A.

### TRAVERSE 7 (T7)

#### Introduction

Traverse 7 was planned while the drilling programme was in progress. It was sited along a convenient track that allowed ready access to the lower slopes of the Ooldea Range, but not the upper part. The traverse was drilled parallel a deep (3m) gully which exposed several outcrops of fine grained white sandstone.

Unfortunately 2 of the 9 holes planned were not drilled due to rig break down and logistic constraints. (Figure 2)

### Logistics

Traverse Length:

3 km

Holes drilled:

7

Hole numbers:

0L106 - 0L112

Metres drilled:

121.3 m

Number of samples:

69

Sample numbers

RT 3397 - RT 3465

#### <u>Geology</u>

The geology on Traverse 7 is a little more difficult to interpret, possibly due to the short length of the traverse, its location on the lower slopes of the Ooldea Sand Range where the geology is more complex and the wide hole spacing (500 m).

The dominant unit drilled was Unit 3. As usual a variety of lithologies were encountered. Fine grained, moderately well sorted sands and sandstone with a wide range of colours from white and yellow through to orange, red-brown and purple occurred. There was no recognisable pattern of lithification down hole. For example, hole OL108 penetrated hard sandstone layers before entering loose flowing sands. The opposite happened in OL110 where the sands became increasingly impenetrable.

A moderately lithified mottled argillite and sandstone horizon occurred in OL107. The adjacent holes did not intersect it.

The last two holes, OL111 and OL112 drilled initially into siliceous, ferruginous, regolithic breccias with sandstone and argillite clasts. Pisolites, some quite well developed were observed in both holes in this siliceous zone. Only OL111 drilled through into underlying lithified fine grained sandstone.

Unit 2 is recognised in only two widely separated holes (OL106 and OL109). The weathering zones (described in Traverse 2 Report) were identified in both holes.

Unit 1, the carbonate rich clayey sand occurs as a blanket cover over the whole traverse as usual.

#### Discussion

This traverse clearly only tested a small part of the Ooldea Sand Range. The hole spacing is double that of the other traverses at the equivalent section of the ridge so making this traverse appear a little more complex. However, the basic features seen on the others were noted here. For example, Unit 3 is lithologically complex and has undergone weathering. This has resulted in the silicification and ferruginisation of the sands and erosion of an unknown amount of sand from the unit.

This geology is summarised in Figure 3 and the drill logs for Traverse 7 are included as Appendix B.

#### TRAVERSE 3 (T3)

#### Introduction

This traverse commenced within 2 km of the top of the Ooldea Sand Range at approximately 31 degrees 02 minutes south and 132 degrees 24 minutes east. Holes were drilled on a bulldozed line heading SSW. Initial hole spacing of 500 m was decreased to 250 m after OL91. (Figure 2)

Traverse 3 continued

# Logistics

Traverse length:

7.5 km

Holes drilled:

20

Hole numbers:

0L83 - 0L102

Metres drilled:

350 m

Number of samples:

202

Sample numbers:

RT 3195 - RT 3396

Holes OL103, OL104 and OL105 were not drilled.

(Figure 2)

#### Geology

The lithologies on this traverse are much the same as on the other traverses. For detailed lithological description of the units refer to Traverse 2 (T2).

The three Units logged on this traverse were:

Unit 1: Quaternary, carbonate and clay rich fine

to medium grained sand.

Unit 2: Late Miocene - Pliocene red-brown clay rich, fine to medium grained sand.

Unit 3: Miocene aged group of lithologies which include:

- malleable grey green clay (with or without lignite).

- pale grey green limestone (Nullabor Limestone

- mottled, silicified, fine to coarse grained sandstone.

Basement was intersected in 3 holes (OL88, OL92 and OL94). Two other holes, OL87 and OL93 were very close to basement judging from the coarse grained poorly sorted gritty sands that usually appear just before basement is hit. Basement lithologies varied from hole to hole. Very coarse grained granitic gneiss was observed in OL92, while foliated gneiss occurred in OL88.

#### Unit 3

The lower half of the traverse had a string of 5 holes (OL87 - OL101) that intersected limestone, yet holes on either side only penetrated malleable clays. Thin ferruginous sandstones are interbedded with the malleable clays in OL102 suggesting the sand acted as an aquifer for iron rich groundwaters. The iron could well have come from upslope where there are fractured ferruginous argillites (OL95) and mottled sandstones.

#### Unit 2

Unit 2, with its typical weathering zones (clay rich top grading down to relatively clean yellow sands) occurs over the upper two thirds of Traverse 3. The Unit generally thins down slope (south). Maximum thickness of over 23 m was intersected in the first hole.

#### Unit 1

Unit 1 lies as a blanket over the whole traverse. The only unusual feature is that it is particularly thick (about 10 to 14 m) on the lower slopes of the ridge.

#### Discussion

An irregular topographically high crystalline basement is apparent on the cross section of the traverse. This basement would have had ultimate control on the form and distribution of the prospective marine sediments during the Miocene (Unit 3).

Unit 2 is considered to be an aeolian product derived from the erosion and reworking of Unit 3 sands. This may have implications for heavy mineral deposits on the Range and may require a transfer of emphasis from marine sediments to aeolian sands.

Some lithologies intersected in Unit 3 on the lower slopes, clays and/or limestones, are not condusive to the accumulation of heavy mineral strand-lines and thus holes OL103, 104 and 105 were not drilled.

These geological interpretations are summarised in Figure 3 and the drill logs for Traverse 3 are included as Appendix C.

#### 3.3 Sample Analysis

The sampling procedure was described in the previous quarterly report. For each hole a composite sample was collected from grab samples derived from every 2 metre interval for a 20 m depth of hole. Each 2 metre interval was sampled by taking a 25% split of the original drill material.

All the composite samples from each hole have been submitted to the BHP Mineral Laboratory in Belmont, Perth for analysis together with selected individual 2 metre samples. These were chosen on the basis of the field panning as described in the previous quarterly report, where concentrates were graded visually in a qualitative manner only. These samples are being processed to give a heavy mineral concentrate from which the relative proportions of economic heavy minerals will be ascertained.

The analytical work is only partially completed and therefore will be fully documented in the next report. To date the concentrations of economic heavy minerals, rutile, zircon and ilmenite, fall within the range 0.12% to 0.39% for these traverses.

#### 4. FUTURE PROGRAMME

The results of this drilling are incomplete and future work will depend upon the assessment of these analyses when they are all received.

#### 5. EXPENDITURE

The expenditure in the second quarter of this licence to the end of February 1987 is summarised as follows:-

	\$
Wages and Salaries	3,617
Field Support	1,836
Drilling	12,665
Vehicles	1,255
Equipment	312
Surveys/Photos	85
Office Supplies	81
Freight	38
Laboratory Costs	1,077
Drafting	135
Administration & Overheads	1,055
	<del></del>

\$22,156

The total expenditure to date for EL.1353 is \$58,381.

This report is submitted to the Department of Mines and Energy as required by Clause 2 of EL.1353

# APPENDIX A

DRILL LOGS - TRAVERSE 2

Drill Holes OL56 - OL82

# Abbreviations used in geological logs:-

H.M.C.

Heavy mineral concentrate.

tr.

trace

v.1, 1, g, v.g.tr.

very light, light, good, very good trace.

f.m.g.

fine to medium grained.

ċ∙g.

coarse grained.

PROJECT: OOLDEA

LOCATION: PIDINGA IFOULD SHEET T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 237734.0mE 6585628mN

LOGGED BY: I. TEDDER

DRILLHOLE: OL 56

TOTAL DEPTH: 26 m

OPERATOR: WALLIS

RIG: GEMCO H12

DATE: 17/11/86

SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION	COMMENTS
RT2969	0 - 2	l tr	Pale brown carbonate and clay rich f.m.q. sand	
RT2970	2 - 4	1 tr	Brown carbonate and clay with rich f.m.g. sand	
RT2971	4 - 6	1 tr	Reddish brown, clay rich f.m.g. sand.	
RT2972	6 - 8	1 tr	Reddish brown, minor clay, f.m.g. sand loose,	
			mod. sorting, some c. grains.	
RT2973	8 - 10	1 tr	H H H H H	
RT2974	10 - 12	1 tr	" " 5% lumps "	
RT2975	12 - 14	1 tr	" " 10% lumps "	
RT2976	14 - 16	l tr	" " 5% lumps "	
RT2977	16 - 18	1 tr	tt ti ti ti ti ti	
RT2978	18 - 20	1 tr	Yellow brown f.m.g. mod. poorly sorted, loose	
-			sand, cleaner.	
RT2979	20 - 22	1 tr	и и о о о о	
RT2980	22 - 24	1 tr	Crmy. yellow f.m.g. mod. poorly sorted loose	
			Sand. V. clean.	
RT2981	24 - 26	1 tr	Crmy. yellow f.m.g. " " " " "	
			Just at 26 m hit harder cemented red brown sand -	
-			better sorted grain size etc.	
			Sands above 26 probably mod. well sorted with	
			c.g. layers.	
			Composite RT2982 0 - 26 m	

PROJECT: OOLDEA

DRILLHOLE: OL 57

LOCATION: PIDINGA IFOULD SHEET T2

TOTAL DEPTH: 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 237251.0mE 6585327.0mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 17/11/86 13

LOUGLD DI.	1. 166	DULK	DATE: 17/11/00 -:	•
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION	COMMENTS
RT2983	. 0 - 2	*1 tr	Pale brown cb and clay rich f.m.g. sand, minor	
**************************************	;		loose c.g.,mod poor sorted.	
RT2984	2 - 4	1 tr	u n n n	
RT2985	4 - 6	1 tr	Dark red brown clay lumpy f.m.g. sand. Minor c.g.	
· · · · · · · · · · · · · · · · · · ·			Moderately poor sorted.	
RT2986	6 - 8	1 tr	Red brown loose clayey f.m.g. sand, minor c.g.	
			Moderate poor sorted.	
RT2987	8 - 10	vl tr	8 0 U U O U	
RT2988	10 - 12	vl tr	и и и и и и	
RT2989	12 - 14	l tr	и и и и и и	
RT2990	14 - 16	vl tr	Yellowish red. loose clayey f.m.g. sand, as	
			above 10% lumps.	
RT2991	16 - 18	vl tr	и и и и и и и	
RT2992	18 - 20	1 tr	0 H 0 1 H 0 H 0 H 0	
·				·
		:		
			Composite RT2993 O to 20 m	<del>,</del>
			* Very light trace to light trace! - Less than	
			in hole OL56.	
		· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>
· · · · · · · · · · · · · · · · · · ·				<del>inang ngapantan bandan</del>

PROJECT: OOLDEA

LOCATION: IFOULD T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 236784.0mE 6585266.0mN

LOGGED BY:

I. TEDDER

DRILLHOLE: 0L58

TOTAL DEPTH: 20 m

OPERATOR: WALLIS

RIG: GEMCO H12

DATE: 17/11/86

			DATE: 17/11/80 -3	
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION	COMMENTS
RT2994	. 0 - 2	l tr	Pale brn carbonate clay rich f.m.g.(minor cg)	
			loose sand	
RT2995	2 - 4	1 tr	u u a u u a	
RT2996	4 - 6	v l tr	Red brown clay rich lumpy f.m.g. (minor cg) sand	
RT2997	6 - 8	v l tr	H H H H H H	
RT2998	8 - 10	v l tr	Red brown clay rich loose f.m.g. (minor cg) sand	
RT2999	10 - 12	v l tr	n u n n, n	
RT3000	12 - 14	l tr	n n n n n	
RT3001	14 - 16	l tr	11 H H H	
RT3002	16 - 18	1 tr	n n n n n	
RT3003	18 - 20		0 H H U B U H	<del></del>
				<u></u>
			Composite RT3004 O to 20 m	· · · · · · · · · · · · · · · · · · ·
			N.B. The heavy minerals (H,) are very fine	
			grained in OL56, 57 and 58.	
		-		
		-		
	• .	•		
				-
	· · · · · · · · · · · · · · · · · · ·			

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 236362.0mE 6585342.0mN

DRILLHOLE: OL59

TOTAL DEPTH: 20 m

OPERATOR: WALLIS

RIG: GEMCO H12

LOGGED BY:	I.	TEDDER	DATE: 17/11/86	
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION	COMMENTS
RT3005	. 0 - 2	1 tr	Pale brn carbonate and clay rich f.m.g. (minor	
·			cg) loose sand	
RT3006	.2 - 4	v l tr	Brn carbonate " " " " " "	
RT3007	4 - 6	v l tr	Brn clay rich lumpy f.m.g. (minor cg) sand	
RT3008	6 - 8	v 1 tr	n o n n n	
RT3009	8 - 10	v 1 tr	Red brn clay rich loose f.m.g. (minor cg) sand	
RT3010	10 - 12	v 1 tr	и и и и и	
RT3011	12 - 14	v l tr	ar ar ar ar ar	
RT3012	14 - 16	v l tr	n n n n n	
RT3013	16 - 18	v l tr	0 n n n n n	
RT3014	18 - 20	1 tr	и и и и и и	
			Composite RT3015 0 - 20 m	
			:	
			·	
	-	· · · · · · · · · · · · · · · · · · ·		
* ()				

PROJECT: OOLDEA

DRILLHOLE: OL60

LOCATION:

T2

TOTAL DEPTH: 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 235804.0mE 6585387.0mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 18/11/86

			DATE. 10/11/00 15	**
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION	COMMENTS
RT3016	0 - 2	1 tr	Pale brown/ish carbonate clay rich f.m.g. (minor	
:			cg) <sup>+</sup> 50% calcrete	
RT3017	2 - 4	1 tr	Red brown lumpy clay rich f.m.g. (minor cg) sand	
*A <sup>†</sup> ruma-ii-a-manaika-ii-j-, as-ii-			Mod. poor sorted.	
RT3018	4 - 6	v l tr	Red brown loose clayey f.m.g. (minor c.g.) mod.	
			sorted sand.	
RT3019	6 - 8	v l tr	a n a n a n	
RT3020	8 - 10	v 1 tr	0 0 0 0 0 0 0 0	
RT3021	10 - 12	v 1 tr	is is a man in the state of the	
RT3022	12 - 14	v l tr		
Rt3023	14 - 16	v l tr	B B H H H H H	
RT3024	16 - 18	v l tr	Pale yellow, loose, f.m.g. (minor cg) mod.poor	· · · · · · · · · · · · · · · · · · ·
			sorted sand.	
RT3025	18 - 20	v l tr	Off white very clean 10-20% lumps, loose f.m.g.	<del></del>
			(minor cg) mod. poor sorted sand.	<u>, , , , , , , , , , , , , , , , , , , </u>
			Composite RT3026 O to 20 m	<del>National designations of the control of the contro</del>
* * * * * * * * * * * * * * * * * * * *				
		<u> </u>		
		<u> </u>		

PROJECT: OOLDEA

DRILLHOLE:

0L61

LOCATION: T2

TOTAL DEPTH: 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

COORDINATES: 235276.0mE 6585528.0mN

RIG:

GEMCO H12

LOGGED BY:

I. TEDDER

DATE: 18/11/86

LUGGLD DI.	I. e	IEDDEK	DATE: 18/11/86
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3027	0 - 2	1 tr	Pale brown, carbonate & clay rich (10% calcrete) f.m.g.
			(minor cg) sand
RT3028	2 - 4	1 tr	Pale org/br, carbonate & clay " " " " " " "
RT3029	4 - 6	v 1 tr	Brown clay rich, lumpy f.m.g. (minor cg) med.poor sorted
			sand. 5% calcrete lumps.
RT3030	6 - 8	l tr	Red brown clay rich, loose f.m.g. (minor cg) mod. poor
			sorted sand
RT3031	8 - 10	l tr	n n n n n n
RT3032	10 - 12	1 tr	n n u u u u u
RT3033	12 - 14	1 tr	n n n n n n n n
RT3034	14 - 16	1 tr	Red brown clay rich,loose with lumps " " "
RT3035	16 - 18	tr	Buff white and red brown lumpy f.m.g.(minor cg) sand
RT3036	18 - 20	1 tr	As above but last 1 metre hit v.g. gneiss - Basement
· · · · · · · · · · · · · · · · · · ·			
<u> </u>		<u> </u>	Composite RT3037 0 - 18 m
			H.Spec. of basement collected.

PROJECT: OOLDEA

DRILLHOLE: 0L62

LOCATION: T2

TOTAL DEPTH: 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 234688.0mE 6585688.0mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 18/11/86

			DATE: 10/11/00
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3039	0 - 2	v 1 tr	Pale brn. carbonate & clay rich f.m.g. (minor cg) loose
	e <del>Anna Sangar ya San</del> a a Sana Sana Sanasa		sand 20% lumps
RT3038	2 - 4	1 tr	n a a a a a
		<u>.</u>	sand 40% lumps
RT3040	4 - 6	1 tr	Pale red brown clay rich lumpy f.m.g. (minor cg) sand
			minor calcrete still
RT3041	6 - 8	1 tr	Red brown clay rich lumpy f.m.g. (minor cg) sand.No calcr
RT3042	8 - 10	1 tr	Red " " loose " " " " " "
RT3043	10 - 12	l tr	n a a a a a a a a
RT3044	12 - 14	tr	п и п п и н п п
RT3045	14 - 16	tr	13 H H H H H H H H
RT3046	16 - 18	tr	0 0 10 0 0 0 0 0 0 0
RT3047	18 - 20	tr_	White lumpy - Si cemented? and red brown (loose) f.m.g.
<del>,</del>			(minor cg) sand
			Composite RT3048 0 - 20 m
		<del></del>	Heavy minerals still very fine grained.
			en de la companya del companya della
	· ·		

PROJECT: OOLDEA

LOCATION: T2

BARTON SH53-9

COORDINATES: LOGGED BY:

MAP REFERENCE:

234131.0mE 6585794.0mN I. TEDDER

DRILLHOLE: 0L63

TOTAL DEPTH: 20 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE:

18/11/86

	• •	1400411	DATE: 10/11/00
SAMPLE NO	METREAGE	H.M.C.	- GEOLOGICAL DESCRIPTION
RT3049	0 - 2	l tr	Pale buff/brn carbonate clay rich f.m.g.(minor cg) loose
<del></del>			sand 10% carbonate cemented lumps
RT3050	2 - 4	1 tr	
RT3051	4 - 6	1 tr	Red brn clay rich lump f.m.g. (minor cg) sand, moderatel
			poor sorted
RT3052	6 - 8	l tr	Red brn clay rich loose f.m.g. (minor cg) sand, moderate
<del></del>			poor sorted
RT3053	8 - 10	tr	n n n n n n n n
RT3054	10 - 12	tr	u ii su u u u u u u
RT3055	12 - 14	tr	8 H B H H H H H
RT3056	14 - 16	tr	
RT3057	16 - 18	tr	и и п и в и в п
RT3058	18 - 20	tr	и и и и и и и, и
-			Composite RT3059 0 to 20 m
****			
		· · · · · · · · · · · · · · · · · · ·	
	· · · · · · · · · · · · · · · · · · ·		

PROJECT: OOLDEA

DRILLHOLE: 0L64

LOCATION: T2

TOTAL DEPTH: 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 233588.0mE 6585824.0mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE: 18/11/86

	2.0	DOLIN				Ĺ	JAIC.	18/11/	86				• *
SAMPLE NO	METREAGE	н.м.с.		GE	OLOGIC	CAL DE	SCRIPTI	ION		<del></del>		<del></del>	<del></del>
RT3060	0 - 2	l tr	Pale	e brn	carbo	nate	& clay	rich f.	m.g.	(mino	r cg)	100	se
	: 		and	lumpy	sand	<del> · . · .</del>							
RT3061	2 - 4	1 tr	Red	brown	clay	rich	f.m.g.	(minor	cg)	loose	sand	20	%
			clay	ey lu	mps	<del> </del>	<del> </del>			·	······································		
RT3062	4 - 6	tr	Red	brown	clay	rich	f.m.g.	(minor	cg)	loose	sand	20%	lumps
RT3063	6 - 8	<u>tr</u>	ni	II.	11	11	11	н.	<del>-,-,</del>	n	n	.No	lumps
RT3064	8 - 10	tr	11	n	tt	II	· n	11	····	n,	1t	11	U
RT3065	10 - 12	tr	: 		D .	H	n n		<del></del>	H	н	11	ti.
RT3066	12 - 14	tr	u	<b>1</b> 1	'n		Ů	H	· · · · · · · · · · · · · · · · · · ·	ti	II	II.	u
RT3067	14 - 16	tr	tt		н	ñ.	ţi.	п.	· ·	B	ii .	11	tr
RT3068	16 - 18	tr		ti		11	11	ti .		11	μ.	н	11
RT3069	18 - 20	tr	n .	ti	n	П	II .	n	·		ű.	13	IF
-	···		And	some y	<u>ellow</u>	sand	s in la	ast metr	e (r	no clay	′)		
			<del></del>			<del></del>	·	<del>- , - 1, 1- , 1, , , 1 1 1 1 1 1 1 1 1 1</del>	<del></del>	<del></del>	<del> </del>	<del></del>	· · · · · · · · · · · · · · · · · · ·
<del></del>			Comp	<u>osite</u>	<u>RT307</u>	0 0	to 20 m	n	<del></del>	<del> </del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del> </del>
	<del></del>		<del>- , i </del>	· · · · · · · ·	<del></del>	<del></del>	····	· · · · · · · · · · · · · · · · · · ·		<del></del>			<del> </del>
			<u>Last</u>	6 m c	r so	- alm	ost god	od trace	of	НМ	<del>-;</del>	<del></del>	<del> </del>
			Cree	k/gull	y nex	t to	<u>hole e</u>	exposes	>1	m of	loose	<u> </u>	<del></del>
			calc	<u>rete n</u>	<u>odule</u>	s wit	h sandy	<u>matrix</u>	( <del></del>	·····	·	<del></del>	<del></del>
<u> </u>			<del></del>		<del></del>	• · · · · · · · · · · · · · · · · · · ·	<del></del>	<del> </del>	<del></del>	<del> </del>	<del></del>	<del></del>	
					<del> </del>	<del> :-::::</del>	<del> </del>	<u> </u>	· · · · ·	······································		<del></del>	
			<del>-  -                -</del>	<del></del>	<del> </del>	<del></del> ;			· · · · · · · · · · · · · · · · · · ·	<del></del>	<del> </del>		
			<del></del>	<del></del>	<del></del>		<del></del>	<del></del>	<del></del>		·	<del></del> :	
			<del></del>	<del></del>	<del>- :</del>	<del></del>	<del></del>		<del></del>	<del>:                                    </del>	<del></del>		
<del></del>	<del> </del>	<del></del>	<del> </del>	<del> </del>				<del></del>		<del> </del>			

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON SH53-9

LOGGED BY:

COORDINATES: 233211.0mE 6585312.0mN

I. TEDDER

DRILLHOLE:

0L65

TOTAL DEPTH: 20 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE:

18/11/86

			DATE: 10/11/00
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3071	0 - 2	l tr	Pale brown loose carbonate & clay rich f.m.g. (minor cg)
	i 		sand 5% carbonate cemented lumps
RT3072	2 - 4	<u>l tr</u>	
			sand 20% carbonate cemented lumps
RT3073	4 - 6	l tr	Reddish brown clay rich f.m.g. (minor cg) loose sand
RT3074	6 - 8	l tr	
RT3075	8 - 10	1 tr	u n u n n
			occasional lumps
RT3076	10 - 12	1 tr	n n n n n n n
RT3077	12 - 14	1 tr	n n n n n n n n
RT3078	14 - 16	1 tr	и и и и и и и и
RT3079	16 - 18	1 tr	Yellowish red brown clay rich f.m.g. (minor cg) loose sand
			occasional lumps
RT3080	18 - 20	1 tr	Yellow-orange f.m.g. (minor cg) loose sand - less clay
			occasional lumps
	-		
		- : - : - : - :	Composite RT3081 0 - 20 m

PROJECT:

OOLDEA

LOCATION:

LOGGED BY:

T2

MAP REFERENCE:

BARTON SH53-9

COORDINATES: 232864.0mE 6585101.0mN

I. TEDDER

DRILLHOLE:

0L66 20 m

TOTAL DEPTH:

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE:

18/11/86

SAMPLE NO	METREAGE	н.м.с	- GEOLOGICAL DESCRIPTION
RT3082	0 - 2	1 tr	Pale yellow brown carbonate clay rich f.m.g.(minor cg)
			loose sand.
RT3083	2 - 4	1 tr	
	•		loose and. 20% calcrete nodules
RT3084	4 - 6	tr	Pale brown carbonate & very rich f.m.g. (minor cg) loose
			sand
RT3085	6 - 8	1 tr	Red brown clay rich f.m.g. (minor cg) sand 30% lumps
RT3086	8 - 10	1 tr	th II II II II II
RT3078	10 - 12	l tr	n n n u'u n
			Worn like burrows (tubes) in some lumps.
RT3088	12 - 14	tr	и и в и и и и *
			Few lumps Loose sand.
RT3089	14 - 16	tr	n i n n n n
			Even less lumps
RT3090	16 - 18	tr	Yellow f.m.g. (minor cg) clean loose sand
RT3091	18 - 20	tr	Yellow f.m.g. (minor cg) clean loose sand **
			Composite sample RT3092 O to 20 m
			*Tested couple of coarser grained HM - magnetite
		*	**Tested f.m. HM for marnetite - very little
ovc.			

PROJECT:

OOLDEA

LOCATION: MAP REFERENCE:

T2

BARTON SH53-9

COORDINATES:

232608.0mE 6585045.0mN

DRILLHOLE:

0L67

TOTAL DEPTH: 20 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

LOGGED BY:

DATE:

18/11/86

			bate: 10/11/00
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3093	0 - 2	1 tr	Buff pale brown calcrete nodule and sands (f.m.g.)
RT3094	2 - 4	l tr	
			poor sorted sand
RT3095	4 - 6	1 tr	Yellowish brown hard lumpy f.m.g. (minor cg) poor sorted
	<del></del>		sand
RT3096	6 - 8	v l tr	Brown hard lumpy f.m.q. (minor cg) poor sorted sand
:	· · · · · · · · · · · · · · · · · · ·		Millor clay. Core pieces prove no sorting. Pale mottles on
			some. Tubes on others.
RT3097	8 - 10	neg	и и и и и и и
			Minor clay.
RT3098	10 - 12	neg	u u u u u u
			Less lumpy
RT3099	12 - 14	1 tr	Red brown loose f.m.g. (minor cg) mod. poorly sorted sand
RT3100	14 - 16	1 tr	11 11, H H H H H
RT3101	16 - 18	1 tr	Pale yellow loose f.m.g. (minor cg) mod. poorly sorted sand
RT3102	18 - 20 .	tr	Yellow " " " " " "
	· ·		
			Composite RT3103 O to 20 m
····			
	<u>.                                </u>		

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 232276.0mE 6584965.0mN

LOGGED BY:

I. TEDDER

DRILLHOLE: 0L68

TOTAL DEPTH: 20 METRES

OPERATOR: WALLIS

RIG:

GEMCO H12

DATE: 18/11/86

SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3104	0 - 2	l tr	Pale brn carbonate & clay rich f.m.g. (minor cg) loose s
RT3105	2 - 4	<u>l tr</u>	Light brown " " " " " "
RT3106	· 4 - 6	l tr	Brown " " " " " " " " " " " " " " " " " " "
RT3107	6 - 8	. 1 tr	Red brown clay rich f.m.g. (minor cg) mod. poor sorted
			loose sand. A few lumps of clayey sand.
RT3108	8 10	1 tr	11 II II II II II
RT3109	10 - 12	1 tr	n n n n n
RT3110	12 - 14	1 tr	u n n u n n
			Some cemented pale brown mottled buff poor sorted sand st
RT3111	14 - 16	1 tr	u û u u -n u
			Cemented sst = 30%
RT3112	16 - 18	1 tr	Yellowish red brown f.m.g. (cg) mod. poor sorted loose
			sand. Cemented sst = 40%
RT3113	18 - 20	l tr	Purple brown/buff f.m.g. (minor cg) mod poor sorted
			arenite. Cemented sst = 60% - slow drilling
			Composite RT3114 0 - 20 m
			The last 4 m (possibly even higher) is of hard cemented
			sandstone. Core from the last 2 m (see spec) is mottled,
			has irregular tubular voids filled with sand
			- implying the hard sst is an old megolithic layer that
			has undergone erosion

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 232035.0mE 6584925.0mN

LOGGED BY: I. TEDDER

DRILLHOLE: 0L69

TOTAL DEPTH: 18.5 m

OPERATOR: WALLIS

RIG:

GEMCO H12

DATE:

18/11/86

SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3115	0 - 2	L TR	Buff carbonate and clay rich f.m.g. (minor cg) sand and
			calcrete chips
RT3116	2 - 4	v 1 tr	и и и и и
RT3117	4 - 6	1 tr	Org.brn.cemented lumps of f.m.g. (cg) sand. Mod. poor
			sorted sand. Horizontal 3 mm diameter irregular tubular
	****		structure in one piece.
RT3118	6 - 8	v l tr	Org. brn. cemented lumps " " " " "
RT3119	8 - 10	v 1 tr	0 H H H H H H
RT3120	10 - 12	v 1 tr	r en n n n n n
			Tubular structures at oblique angle to core noted again.
RT3121	12 - 14	v 1 tr	n n n n n n
RT3122	14 - 16	neg	Purple red brn. cemented f.m.g. (cg) poor sorted sst.
RT3123	16 - 18	v 1 tr	White cemented " " " " " "
RT3124	18 -18.5	neg	Mottled white and purple red brn cemented sandstone.
	<del></del>		
<del></del>			Hole stopping at approx. 18.5 m due to worn out bit
			Composite RT3125 O to 18.5 m
		·	A lot of irregular tubular holes at all orientations -
			some with silica lining in chunks of siliceous sst.
· · · · · · · · · · · · · · · · · · ·			
	· · · · · · · · · · · · · · · · · · ·		

PROJECT: OOLDEA

DRILLHOLE: OL70

LOCATION: T2

TOTAL DEPTH: 11 m

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

COORDINATES: 231749.0mE 6584769.0mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE:

18/11/86

			10/11/00
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3126	0 - 2	1 tr	Pale buff brn carbonate & clay f.m.g. (cg) mod. poor
			sorted loose sand
RT3127	2 - 4	1 tr	Pale brn carbonate & clay rich f.m.g. (cg) mod. poor
			sorted loose sand
RT3128	4 - 6	v l tr	Red brown hard cemented f.m.g. (cg) mod. poor sorted
			sandstone.
RT3129	6 - 8	v l tr	Pale brown hard cemented f.m.g. (cg) mod poor sorted sst.
			Cores of massive poor sorted cemented sst.
RT3130	8 - 10	1 tr	Very pale brown hard cemented f.m.g. (cg) mod poor sorted
			sandstone. Core (see spec) of cemented breccia sst-
			megolithic?
RT3131	10 - 11*	NEG	Extremely hard siliceous regolithic? sst - mottled iron
			stained and grey coloured f.m.g. (cg) mod poor sorted.
			Refer specimens.
			Composite RT3123 O to 11 m
· · · · · · · · · · · · · · · · · · ·			
			* Extremely hard sst after ½ hour changed to roller bit.
			Another $\frac{1}{2}$ hour plus to drill 80 cm, so stopped the hole.
DVC.	<del> </del>		

PROJECT: OOLDEA

DRILLHOLE: OL71

LOCATION: T2

TOTAL DEPTH: 5 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 231508.0E 6584503.0mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE.

10/11/06

LOGGED BY:	1. IE	DDER	DATE: 18/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3133	0 - 2	1 tr	Pale brown/buff carbonate & clay rich f.m.g. (cg) loose sar
RT3134	2 - 4	1 tr	Pale brown carbonate & clay f.m.g. (cg) 20% calcrete chips
RT3135	4 - 5	l tr	Purple brown very siliceous sst (regolith)
	•		Hit the extremely hard siliceous regolithic sandst. again,
		·	stopping the hole
			Composite RT3136 O to 5 m
	***************************************		
		<del> </del>	
<u></u>			
	···		
· ·			
		· · · · · · · · · · · · · · · · · · ·	
		<u>l</u>	

PROJECT: OOLDEA

DRILLHOLE:

0L72

LOCATION: T2

TOTAL DEPTH: 8 m

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

COORDINATES: 231191.0mE 6584241.0mN

RIG:

GEMCO H12

LOGGED BY: I TENDER

DATE.

10/11/06

LOGGED BY:	I. TE	DDER	DATE: 18/11/86
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3137	0 - 2	1 tr	Pale brown/buff loose carbonate/clay f.m.g. (cg) sand
RT3138	2 - 4	v l tr	Pale brown carbonate & clay but predom. hard cemented
			ferruginous regolithic sst. start. Recemented breccia commo
RT3139	4 - 6	neg	Mottled brown and grey angular sst. recemented breccia
RT3140	6 - 8	v 1 tr	0 0 11 H H H
•••			Composite RT3141 O to 8 m
			·
,			
			The first of the life of the second of the s

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 230889.0mE 6584266.0mN

OPERATOR:

WALLIS

0L73

DRILLHOLE:

TOTAL DEPTH: 8 m

GEMCO H12

RIG: DATE:

LOGGED BY:			DATE: 19/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3142	0 - 2	l tr	Light brown/buff carbonate clay rich f.m.g. (cg) loose
			sand. Minor calcrete chips.
RT3143	. 2 - 4	neg	Brown lumpy f.m.g. (cg) sand. Partially cemented.
RT3144	4 - 6	_ v 1 tr	Darker brown lumpy f.m.g. (cg) sand >90% cemented
RT3145	6 - 8	v l tr	Brown lumpy f.m.g. (cg) sand >100% cemented sst.
	<u> </u>		Very silicified ferruginous sst - very slow penetration
			rate.
			Composite RT3146 O to 8 m
· · · · · · · · · · · · · · · · · · ·			
	<del></del>		
· · · · · · · · · · · · · · · · · · ·			
		<del></del>	
	***************************************		
		<del></del>	
	<del></del>		

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON AH53-9

COORDINATES: 230658.0mE 6584151.0mN

LOGGED BY: I. TEDDER

DRILLHOLE:

0L74

TOTAL DEPTH: 7.5 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE:

19/11/86

		13/11/00
METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
0 - 2	1 tr	Pale brown/buff carbonate & clay rich f.m.g. (cg) loose sa
		Minor calcrete nodules
2 - 4	l tr	
•		Cemented (Fe and Si?) and calcrete nodules
4 - 6	v 1 tr	Brown cemented (Si?) f.m.g. (cg) poorly sorted sandst.
6-7.5	neg	Purple brown silicifed arenite (silenite) poorly sorted.
		Hole stopped when virtually impenetrable.
		Composite DT2151 O to 7 5 m
		Composite RT3151 0 to 7.5 m
		Last couple of holes, it is noticeable that the hard
		siliceous sst. is patchy, the rig makes progress for
-		5 to 10 cm then hits the hard stuff again - only in
		the upper 1 m of the last 2 m interval.
	,	
	2 - 4	0 - 2   1 tr 2 - 4   1 tr 4 - 6   v 1 tr 6-7.5   neg

PROJECT: OOLDEA

LOGGED BY:

LOCATION:

T2

MAP REFERENCE: BARTON SH53-9

COORDINATES: 230217.0mE 6583955.0mN

I. TEDDER

DRILLHOLE: 0L75

TOTAL DEPTH: 6 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE:

19/11/86

LUGGEU BI:			DATE: 19/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3191	0 - 2	1 tr	Pale brown/buff loose f.m.g. (cg l-2mm) sand, lb rich & cla
RT3192	2 - 4	1 tr	Pale brn loose f.m.g. (cg 1-2mm) sand. Large amount of
	•		calcrete chips.
RT3193	4 - 6	v 1 tr	Mauve, red brn very siliceous arenite breccia. Some silcrete
			chips (breccia) is resilcreted! specimen. Unprospective.
			Composite RT3194 O to 6 m
· · · · · · · · · · · · · · · · · · ·			
		-	At 5 m hit very hard siliceous layer - jasper like silcrete
			cementing siliceous white arenite fragments. After 15 m
		<u> </u>	broke through the $\frac{1}{2}$ 30 cm layer only to hit another very
			siliceous hard layer at 5.6 m.

PROJECT: OOLDEA

LOCATION: T2

MAP REFERENCE: BARTON SH53-9

DRILLHOLE: 0176

TOTAL DEPTH: 6 m OPERATOR:

WALLIS

COORDINATES: 230121.0mE 6583623.0mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE: 19/11/86

LUGGED BY:	i.	TEDDER	DATE: 19/11/86
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3152	0 - 2	v l tr	Pale brown/buff calcrete & clay f.m.g. (cg) sand. Calcrete
	<del></del>		dom. Poorly sorted.
RT3153	2 - 4	v 1 tr	Pale brown calcrete & silcrete sandy chip
RT3154	4 - 6	tr	Brown silcrete, yellow silcrete, poor sorted ferrug.arenite
			Heavy mineral is goethite? or haematite? as well as iron
			filing from the rig.
			Silcrete for last 2 metres of hole.
			Composite RT3155 O to 6 m
	·		
			N.B. There is one carbonaceous limestone pebble lying
			around surface of the drill site. Nearby creek exposes
	<del></del>		some calcrete - sandy calcrete.
<del></del>			Couldn't find any more - so may have been transported -
	<del></del>		decided it is black calcrete - see specimen OL76 packet.
<del></del>	·	····	
<u></u>			

PROJECT:

OOLDEA

DRILLHOLE:

0L77

LOCATION:

ТО

T2

MAP REFERENCE: BARTON SH53-9

TOTAL DEPTH: OPERATOR:

4.5 m WALLIS

COORDINATES:

229834.0mE

6583382.0mN

RIG:

GEMCO H12

LOGGED BY:

I. TEDDER

DATE:

19/11/86

EUGGED DI.			DATE: 19/11/86
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3187	0 - 2	1 tr	Pale brown/buff loose f.m.g. (cg) sand. Carbonate & clay r
RT3188	2 - 4	1 tr	Greyish brn ferruginous m.g. arenite (f.c.g. 1-2mm) Fine
			medium gr. well rounded and etched.
RT3189	4-4.5	.1 tr*	Siliceous arenite - f.m.g. Extremely hard.
· · · · · · · · · · · · · · · · · · ·			
	<del></del>		Composite RT3190 O to 4.5 m
•			
			*Iron filings from drill rods etc. mask the true amount
			of HM
····	·		
		······································	

PROJECT: OOLDEA

DRILLHOLE: 0178

LOCATION: T2

TOTAL DEPTH: 12 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 229548.0mE 6583141.0mN

RIG:

GEMCO H12

LOGGED RY

T TENNER

10/11/06

LOGGED BY:	I. 1	EDDER	DATE: 19/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3156	0 - 2	tr	Buff- pale brown Minor calcrete f.m.g. partially cemented
		ļ	sand dom. Some coarse grained ( 1 mm) sand
RT3157	· 2 - 4	tr	Yellow silicified (amyllite?) silcrete and brown f.m.g. (c
			arenite
RT3158	4 - 6	v 1 tr	
RT3159	6 - 8		Yellow silt. or argillites
RT3160	8 - 10		Yellow silt or argillites
RT3161	10 - 12		Lignite, carbonaceous clay-silt. etc. 90% clays.
		j	
	· · · ·		Composite RT3162 to 6 m
·			
		·	

PROJECT: LOCATION:

MAP REFERENCE:

COORDINATES:

LOGGED BY:

OOLDEA

T2

BARTON SH53-9

229322.0mE 6583020.0mN I. TEDDER

RIG:

TOTAL DEPTH: 20 m

0L79

WALLIS

DRILLHOLE:

OPERATOR:

GEMCO H12

DATE:

19/11/86

coddeb or.			DATE: 19/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3163	0 - 2	tr	Pale brown/buff carbonate & clay rich f.m.g. (cg) sand
		:	Coarse grains are 1-2 mm
RT3164	. 2 - 4	<u>l tr</u>	Brown/or. f.m.g. & cg (1-2mm) sub-angular qtz sand
RT3165	4 - 6		White, buff clays and argillite
RT3166	6 - 8		Talcose mica
RT3167	8 - 10		n u u u
RT3168	10 - 12		" Some grey clays. Very
·			talcose micas.
RT3169	12 - 14		Pale grey clays, micaceous (talcose)
RT3170	14 - 16		и и и и
RT3171	16 - 18		n n n n
RT3172	18 - 20		" Some m.g. sands
			visual.
		<del></del>	
			Composite RT3173 O to 4 m
			Hole drilled to ensure no other layers of prospective
			sands and to check for basement.
		<u> </u>	Hole is next to a small salt lake.

PROJECT:

LOCATION:

OOLDEA

T2

MAP REFERENCE: BARTON SH53-9

COORDINATES:

LOGGED BY:

229000.0mE 6582889.0mN

I. TEDDER

DRILLHOLE:

0L80

TOTAL DEPTH: 6 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE:

19/11/86

COUCLD DY.			DATE: 19/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3174	0 - 2	l tr	Pale brown buff f.m.g. (cg 1-2mm) carbonate & clay rich sa
RT3175	2 - 4	1 tr	Alternate red brown and off white f.m.g. (cg 1-2mm) sand
RT3176	• 4 - 6		Clays - yellow-white as in OL79
	· .		Composite RT3177 O to 4 m
		İ	
		•	
· · · · · · · · · · · · · · · · · · ·			

PROJECT:

OOLDEA

DRILLHOLE:

0L81

LOCATION:

T2

TOTAL DEPTH: 8 m

COORDINATES:

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

228734.0mE 6582839.0mN

RIG:

GEMCO H12

I. TEDDER LOGGED BY:

DATE:

19/11/86

coace or.			DATE: 19/11/86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3178	0 - 2	l tr	Brown (light) f.m.g. (cg l-2mm) subangular loose sand
RT3179	2 - 4	<u>l tr</u>	Orange brown " " " "
RT3180	• 4 - 6	l tr	" " and off white f.m.g. (cq 1-5mm_ some v.c.g.s.
			loose sand
RT3181	6 - 8		Clays - yellowish green and off white. Lignite hit right
			at end of hole.
			Composite RT3182 O to 6 m
			Drilling started on a sand dune ridge.
·			

PROJECT: OOLDEA

DRILLHOLE:

TOTAL DEPTH:

0L82

LOCATION:

T2

MAP REFERENCE: BARTON SH53-9

OPERATOR:

6 m WALLIS

COORDINATES: 228523.0mE 6582854.0mN

LOGGED BY:

RIG:

GEMCO H12

I. TEDDER

DATE:

19/11/86

			DATE: 13/11/00
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3183	0 - 2	l tr	Dark greenish grey m.v.c.g. loose sand
RT3184	2 - 4	v 1 tr	l m of sand as above then 1 m of lignite
RT3185	4 - 6		2 m of lignite
		•	
		******************************	
			Composite RT3186 O to 4 m
<u> </u>		-	
			Started drilling on dried out lake.
			Surface scatterings of c. to v.c.g. qtz.
		·	
			<del>and the second transfer of the second transf</del>
<del></del>		<u> </u>	
		· · · · · · · · · · · · · · · · · · ·	
	·	<del></del>	

#### APPENDIX B

DRILL LOGS - TRAVERSE 7

Drill Holes OL106 - OL112

## Abbreviations used in geological logs:-

H.M.C.

Heavy mineral concentrate

tr.

trace

v.1, 1, g, v.g.tr.

very light, light, good, very good trace.

f.m.g.

fine to medium grained.

c.g.

coarse grained.

PROJECT:

OOLDEA

DRILLHOLE:

OL 106

LOCATION: IFOULD T7

TOTAL DEPTH:

24 m

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

COORDINATES:

237663mE

6568765mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE:

22.11.86

LOGGED BY:	1. 150	DEN	DATE. 22.11.00
SAMPLE NO	METREAGE	н.м.с	. GEOLOGICAL DESCRIPTION
RT3397	0 - 2	tr	Pale brn/buff cb and clay with f.m.g. (c.g.) loose sand
			+10% calcrete.
RT3398	2 - 4	1.tr	As above. +10% calcrete.
RT3399	4 - 6	tr	Light brn clay rich f.m.g. (c.g.) loose sand.
RT3400	6 - 8	1.tr	Clean yellow f.m.g. (c.g.) loose sand
RT3401	8 - 10	1.tr	Pale yellow very clean mod. sorted f.m.g. (c.g.) sand.
			Grains are sub-rounded to rounded and etched.
RT3402	10 - 12	1.tr	As above.
RT3403	12 - 14		Off white cemented f.m.g. (c.g.) sst. Mod poor sorting.
			Minor iron staining & mottling. Many tubular structures.
RT3404	14 - 16	v.l.tr	Yellow f. to (v.f.g.) (m.g very little) well sorted
			partially cemented sst.
RT3405	16 - 18	v.l.tr	Brn f. to (v.f.g.) (m.g very little) loose sand.
RT3406	18 - 20	v.l.tr	Pale mauve purple brn f.g. (v.f.g.) well sorted loose sand.
RT3407	20 - 22	v.l.tr	Mauve " " " " " " " " "
RT3408	22 - 24		Mauve, well sorted f.g. loose sand - some dark ferruginous
			cemented lumps.
	<u> </u>		
	رير بازد استعمارات مساعد داران و و و		Composite RT3409 to 24 m.
ŀ			

PROJECT: OOLDEA

DRILLHOLE:

OL 107

LOCATION: IFOULD T7

TOTAL DEPTH:

18 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES: 237256mE

6568661mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 22.11.86

SAMPLE NO	METREAGE	н.н.с	. GEOLOGICAL DESCRIPTION
RT3410	0 - 2	1.tr	Pale brn/buff cb and clay rich f.m.g. loose sand.
RT3411	2 - 4	tr	Pale mauve and buff f.m.g.partially cemented sand. Tubular
			structures in sst.
RT3412	4 - 6	1.tr	Curry yellow f.m.g. partially cemented sand. i.e. Dom. f.q.
			Fe cemented rock.
RT 3413	6 - 8	tr	Fe cemented rock. Curry yellow and off-white f.g. sands partially cemented.
RT3414	8 - 10	tr	Dark brn slightly coarser f.g. well-sorted loose sand.
			A few c grains.
RT3415	10 - 12	1.tr	Yellow and dark brn sands as above. Yellow-is siliceous
			mottled clay. Must be clay band, clay only.
RT3416	12 -14	tr	Pale yellow clays and argillites - lithified and lightly
		: :	Fe stained.
RT3417	14 - 16	-	Buff white clays and argillites - lithified and lightly
			Fe stained, and f.m.g. sands.
RT3418	16 - 18	<del></del>	Pale yellow clays as above and f.m.g. sands.
			Last 6 m very kaolinised clays, yellow and mauve Fe
			spotted. May be 60% clay, rest clayey sand.
·			
			Composite RT3419 to 12 m
			Composite RT3420 from 14 - 20 m.

PROJECT: OOLDEA

DRILLHOLE: OL 108

LOCATION: IFOULD T7

TOTAL DEPTH: 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES236729mE 6568722mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 22.11.86

LUGGED DI:			
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3421	0 - 2	v.l.tr	Pale brn. cb and clay rich f.m.g. loose sand
RT3422	2 - 4	1.tr	Light brn clay (cb) f.g. (m.g.) loose sand. Rare c.g.
RT3423	4 - 6	1.tr	Brown/buff lithified f.g. sands. One core with HM loam.
RT3424	6 - 8	good tr	Off white f.g. lithified sand, well sorted.
RT3425			Curry yellow f.g. loose sand, well sorted
RT3426	10 - 12	tr	" " and grey - massive f.g. loose sand. Some Fe
			stained chips.
RT3427	12 - 14	good tr	Greyish-mauve-brn f.m.g. (c.g.) loose sand.
RT3428	14 - 16	tr	Buff-yellow-mauve clays with minor qtz veins - I think
			its highly weathered basement - see specimen from last sampl
			interval for comparison.
RT3429	16 - 18	1.tr	Pale grey green clay, amphiboles and c.g. qtz.
RT3430	18 - 20	mani -	Greenish amphibolithic m.c.g. foliated weathered gneiss.
			The HM are very fine grained.
			Composite RT3431 to 16 m
1			
		1	

PROJECT: OOLDEA

DRILLHOLE: OL 109

LOCATION: IFOULD T7

TOTAL DEPTH:

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

COORDINATES: 236206mE 6568542mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE: 22.11.86

LUGGED DI.			
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3432	0 - 2	1.tr	Pale brn/buff cb and clay rich f.q. (m.g.) loose sand.
RT3433	2 - 4	1.tr	Light brn " " " " " " " " " " " " " " " " " " "
			10% calcrete.
RT3434	4 - 6	1.tr	Brn/red brn clay rich, lumpy f.m.g. sand - clayey.
RT3435	6 - 8	v.l.tr	Orange brn. f.g. loose well sorted sand - some cemented lur
RT3436	8 - 10	v.l.tr	Orange " " " " "
RT3437	10 - 12	1.tr	Yellow (curry) f.m.g. well sorted loose sand.
RT3438	12 - 14*	tr	Off white f.g. well sorted generally loose sand mottled
			iron stained chips, some hard cemented chips.
RT3439	14 - 16	1.tr	Off white f.g. well sorted generally loose sand - some
			cemented Fe stained chips.
RT3440	16 - 18	v.1.tr	Brn and white m.g. mod. well sorted loose sand. Some
			cemented core, mod poor sorted with clay.
RT3441	18 - 20	v.l.tr	Off white well sorted loose m.g. sand.
			·
			* 13-14m - hard cemented white sst. which drill rig
			broke through.
			Composite RT3442 to 20 m
1			

PROJECT: OOLDEA

DRILLHOLE:

ՕԼ 110

LOCATION: IFOULD T7

TOTAL DEPTH:

14 m

MAP REFERENCE: BARTON SH53-9

OPERATOR: WALLIS

COORDINATES:

235808mE 6568377mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 22.11.86

LOGGED BY:	1. 1606	EK	DATE: 22.11.00
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3443	0 - 2	1.tr	Pale bn/buff cb and clay rich f.g. sand (loose)
RT3444	2 - 4	tr	As Above (m.g.) " -10% calcrete
RT3445	4 - 6	1.tr	Light brn. cb and clay with f.m.g. sand (loose).
RT3446	6 - 8	v.l.tr	Brn partially cemented f.g. mod. well sorted sand.
RT3447	8 - 10	v.1.tr	Brn loose f.g. well sorted sand.
RT3448	10 - 12	1.tr	Pale brn. off white partially cemented f.g. well sorted sand
RT3449	12 - 14	tr	Off white siliceous cemented f.g. sst. and loose sand.
			Composite RT3450 to 14 m
			Did not spend too long trying to penetrate silica cemented
			layer as short of time on this traverse - better to have
	,		another hole down the track.
			Some core of the silica cemented arenite shows tubular
			structures filled with iron stained f.g. sands and
			opaline silicas cementing the white sst.
		- }	

PROJECT: OOLDEA

DRILLHOLE:

LOCATION: IFOULD T7

TOTAL DEPTH:

OL 111 20 m

MAP REFERENCE: BARTON SH53-9

OPERATOR:

WALLIS

COORDINATES: 235341mE 6568182mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE:

22.11.86

			22.11.86
SAMPLE NO	SAMPLE NO METREAGE H.M.C.		GEOLOGICAL DESCRIPTION
RT3451	0 - 2	tr	Pale brn/buff cb and clay rich f.g. loose sand.
RT3452 2 -		tr	Buff coloured pile, but a large range of green to red
	·		siliceous and ferruginised regolith of f.g. sst (?)
	•		Silicified iron nodules in calcreted sst.
RT3453	4 - 6	1.tr	As for 2-4m - no calcrete - very siliceous in patches.
RT3454	6 - 8	v.l.tr	
17			f.g. coarser f. grained lightly cemented sands.
RT3455 .	8 - 10	tr	Pale grn/grey and some iron stained f.g. well sorted sand.
			Cemented mostly light.
RT3456	10 - 12	tr	As above. Hard in patches.
RT3457	12 - 14	good tr	Pale brn. green grey well sorted f.g. sst Diss HM.
	- ; -		Some disseminated HM in sst.
RT3458	14 - 16	good tr	Mauve, org. pale brn ferrug. f.g. sst.
RT3459	16 - 18	tr	Pale purple, clay with f.g. sst. Clay from basement.
RT3460	18 - 20	_	Greenish grey and white clays, m.g. qtz - weathered
			basement. Some chips look like gneiss - will be couple of
		i	metres yet to true basement.
			•
	····		Composite RT3461 to 18 m
	···		

PROJECT:

OOLDEA

LOCATION: IFOULD T7

DRILLHOLE:

OL 112

MAP REFERENCE: BARTON SH53-9

TOTAL DEPTH: OPERATOR: WALLIS

5.3 m

COORDINATES:

234828mE

6567987mN

RIG:

GEMCO H12

LOGGED BY:

I. TEDDER

DATE:

22,11.86

1			22.11.86
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3462	0 - 2	1.tr	Pale brn/buff cb and clay rich f.m.g. loose sand.
RT3463	2 - 4	1.tr	Light brn cb and clay with (m.g.) " "
RT3464	4 - 5.3	<b>-</b>	Hard cemented layer again 5-6 m in poorly sorted f.m.g. (c
			sandstone. Core with incipient pisolites seen. Drilled
			for 25 minutes over last 1 m or less - progress very slow
			so stopping hole.
			Composite RT3465 to 5.3 m.
	·		
		÷	
···			

#### APPENDIX C

DRILL LOGS - TRAVERSE 3

Drill Holes OL83 - OL102

# Abbreviations used in geological logs:-

H.M.C.

Heavy mineral concentrate

tr.

trace

v.l, l, g, v.g.tr. very light, light, good, very good trace.

f.m.g.

fine to medium grained.

c.g.

coarse grained.

PROJECT:

COORDINATES:

OOLDEA

LOCATION:

IFOULD T3

MAP REFERENCE: FOWLER SH53-13

252030mE

6563014mN

OPERATOR:

DRILLHOLE:

0L83

TOTAL DEPTH:

30 m

WALLIS GEMCO H12

RIG:

LOGGED B'	Y: I. TE	DDER	DATE: 20.11.86
SAMPLE N	10 METREAG	E H.M.C	- GEOLOGICAL DESCRIPTION
RT3195	0 - 2	v.1.tr	v. pale br/buff cb & clay rich f.m.g. (c.g) loose sand
			30% calcrete nodules.
RT3196	. 2 - 4	v.1.tr	Pale brown/buff cb & clay rich f.m.g. (c.g. loose sand
			30% calcrete nudules.
RT3197	4 - 6	1.tr	light brown cb and clay rich f.m.g. (c.g.) loose sand
			10% nodules.
RT3198	6 - 8	v.l.tr	Red brown clay rich bumpy f.m.g. (c.g.) sand. Larger
			grained ( <-1 mm) etched and well rounded.
RT3199	8 - 10	1.tr	Red brown minor clay f.m.g. (c.g.) loose sand some lumps
			(clay rich).
RT3200	10 - 12	v.l.tr.	Red brown clayey f.m.g. (c.g) loose sand.
RT3201	12 - 14	v.l.tr	п и и п и
RT3202	14 - 16	v.l.tr	17 H H H H
RT3203	16 - 18	v.l.tr	Orange/red br f.m.g. (c.g. <2 mm) loose sand.
RT3204	18 - 20	vv.l.tr	" " Toose sand.
RT3205	20 - 22	v.l.tr	Yellow org. " " loose sand.
RT3206	22 - 24	v.l.tr	Yellow " " loose sand.
RT3207	24 - 26	v.l.tr	Pale yellow clean f.m.g. (c.g.) loose sand. Some Fe
<u></u>			stained mottled sst.
RT3208	26 – 28	v.l.tr	Pale yellow & off white partially cemented f.m.g. (c.g.)
			loose sand.
RT3209	28 - 30	v.l.tr	Off white partially cemented f.m.g. (c.g.) loose sand.
			Last 4 m easy to drill so cemented, rest is not too hard.
	í		

**REMARKS:** 

breccia though. HM are very fine-grained and just as in Traverse 2. Composite RT3210 to 30 m.

There are some tubular voids in the sst. No regolithic

Sands are mod. poorly sorted, the cemented pebbles show no sign of sorting.

PROJECT: OOLDEA

LOCATION: IFOULD T3

MAP REFERENCE: FOWLER SH53-13

COORDINATES: 251758mE

6562587mN

LOGGED BY: I. TEDDER

DRILLHOLE:

0L 84

TOTAL DEPTH:

20 m

OPERATOR:

WALLIS

RIG:

GEMCO H12

DATE: 20.11.86

SAMPLE N	0 METREAG	E H.M.C	- GEOLOGICAL DESCRIPTION
RT3211	0 - 2	1.tr	Pale brown/buff cb and clay rich f.m.g. (c.g.) loose sand.
	· · · · · · · · · · · · · · · · · · ·		10% calcrete nodules.
RT3212	.2 - 4	1.tr	Pale brown cb and clay rich f.m.g. (c.g.) loose sand.
		,	30% calcrete nodules.
RT3213	4 - 6	v.1.tr	Pale brown cb clay rich f.m.q. (c.q.) loose sand.
			10% calcrete nodules.
RT3214	6 - 8	v.l.tr	Red brown clay rich bumpy f.m.g. (c.s.) sand.
RT3215	8 - 10	1.tr	Red brown clay rich loose f.m.g. (c.g.) sand.
			20% clay rich lumps.
RT3216	10 - 12	1.tr	Red brown clay rich loose f.m.g. (c.g) sand.
RT3217	12 - 14	v.1.tr	
RT3218	14 - 16	1.tr	и и и и и и и .
RT3219	16 - 18	v.l.tr	n n n n n n
RT3220	18 - 20	v.l.tr	ti 11 tt tf 11 tt 11
			E.O.H.
A-y			Composite RT3221 to 20 m
<u> </u>			00 III

PROJECT: OOLDEA

DRILLHOLE:

OL 85

LOCATION: IFOULD T3

TOTAL DEPTH: 20 m

COORDINATES: 251577mE 6562085mN

MAP REFERENCE: FOWLER SH53-13

OPERATOR: WALLIS

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 20.11.86

						טאונ	•	20.11.0	0		•
SAMPLE NO	METREAGE	н.м.с.		GEOLO(	GICAL	DESCR	IPTION	<del>'' , '</del>	<del>, * - * * ; -</del>	<del></del>	<del>- i</del>
· RT3222	0 - 2	v.l.tr	Pale	brn/buff	ch a	nd cl	ay rich	f.m.g.	_(c.g.)	loose	sand.
				calcrete							
RT3223	. 2 - 4	1.tr		ıbove – 2			nodule	s.		<del>- 1,,</del>	
RT3224	4 - 6	1.tr	Red	brn lumpy	clay	rich	f.m.g.	(c.g.)	poorly	sorted	sand.
RT3225	6 - 8	1.tr	11	11 II	II	16	H	II	II	11	n
RT3226	8 - 10	1.tr	· V II	" loose	H.	H	Iŧ	. 11	11	Н	11
RT3227	10 - 12	v.1.tr	11	п н	н	ti	11	u	n	II	II.
RT3228	12 - 14	1.tr	11	II II	u	Ħ	11	11	ti.	ft	ii
			some	coarse gi	rains	up to	2 mm.				<del></del>
RT3229	14 - 16	v.1.tr	Yello	owish red	mino	r cla	y, f.m.	g: (c.g	J.) pooi	rly sor	ted
		-	sand.								<del> </del>
RT3230	16 - 18	v.l.tr	Yello	wish red	minor	clay	<b>,</b> f.m.g	ı. (c.g.	) poorl	y sorte	ed
			sand.				<del></del>				<del> </del>
RT3231	18 - 20	1.tr	Yello	w f.m.g.			rly sor	ted loo	se sand	. <2 mm	l.
			<del></del>					•		<del></del>	<del>,</del>
			н.м.	continues	to b	e very	/ fine	grained	•		
			<del>:</del>		<del></del>	<u> </u>	<del></del>	· · · · · · · · · · · · · · · · · · ·			
		<del></del>	Compo	site RT32	32 to	20	m.			<del></del>	
	-		<del></del>		<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	. <del>11</del>	· · · · · · · · · · · · · · · · · · ·	
			<del> </del>	<del>: 14**** (</del>	<del></del>	· · · · · ·	<del></del>	<del></del>		<del></del>	
			·	<del>'</del>	· · · · · · · · · · · · · · · · · · ·	<del></del> ;	<del> </del>	<del></del> ,		<del>· · · · ·</del>	
				<del> </del>	<del>:</del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>		
			<del></del>	<del></del>	<del>-</del>	<del></del>	<del></del>	<del>*** (*</del> ,	. <del> </del>		
				<del></del>	<del>"*</del>		<del></del>	<del> </del>	<del>* * *</del> * • • •	······································	
			<del></del>	·							

PROJECT: OOLDEA

LOCATION: IFOULD T3

DRILLHOLE:

OL 86

MAP REFERENCE: FOWLER SH53-13

TOTAL DEPTH: 20 m

COORDINATES: 251425mE 6561628mN

OPERATOR:

WALLIS

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE:

20.11.86

	/						Ů.	ATE:	20.11.8	86		٠
SAMPLE NO	METREAG	E H.M.C.		(	SEOLO	GICA	L DES	CRIPTION		<del>, , , , , , , , , , , , , , , , , , , </del>	<del></del>	<del></del>
RT3223	0 - 2	v.l.tr	Pale	brn/	buff	cb i	and c	lay rich	f.m.g.	(c.g.)	loose	sand.
			10%				·	· · · · · · · · · · · · · · · · · · ·		······································	<del>'</del>	
RT3234	.2 - 4	1.tr	As al	bove	- 30	0% ca	alcre	te.	•			<del> </del>
RT3235	4 - 6	. tr	Red b	orn 1	umpy	clay	/ ric	h f.m.g.	(c.q:)	sand.		<del></del>
RT3236	6 - 8	tr	11	ti .	IJ	11	11	н	ti	II.	· · · · · ·	<del></del>
RT3237	8 - 10	1.tr	tt	" lo	ose	rr	ti	H	·tt	n	- <u></u> -	<del> </del>
RT3238	10 - 12	1.tr	п	#1	II	11	11	H.	li	Ħ	·	<del></del>
RT3239	12 - 14	1.tr	И	16 1	1	Ú).	G	ti .	ti	11	<del> </del>	
RT3240	14 - 16	1.tr	ti	D I		11	11	11	Ħ	,H		<del>7-1</del>
RT3241	16 - 18	v.1.tr	U	n i	ľ	11	ŧ1	- 11	ii.	II.	<del> </del>	
RT3242	18 - 20	1.tr	II	11 1	ı	н	O	ři .	ti,	II.		·
					·····				<u> </u>			<del>-,</del>
			<del></del>	<del></del>	-	<del> </del>	<del></del>	<del></del>	<del></del>		<del></del>	<del></del>
			Cor	nnosi	† o	DT 32/	13 +0	20 m	<del>- · , · , · . · . · . · . · . · . · . · .</del>		<del></del>	<del> </del>
			M M	11122	<u> </u>	1126-	1.0 LU	<u> </u>	<del>~: _: _: _:</del>	<del></del>		<del></del>
				· · · · · · · · · · · · · · · · · · ·		<del> </del>		· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>	<del>· i—</del> —	· · · · · · · · · · · · · · · · · · ·
					<del>` , · ; ,</del>	<del></del>			<del></del>	<del></del> -	<del>**************</del>	<del></del>
					<del></del>		<del>- !</del>	<del></del>		<del> </del>	<del></del>	<del></del>
			<del></del>		<del></del>	*.*			<del></del>	<del></del>	<del></del>	<del>``, -,</del> ` ;
					<del>- ', '-</del> '- <sub>-</sub> -			<del></del>	<del></del>	<del>1 1- 1- 1- 1- 1</del> -	<del></del>	<del> </del>
						<del></del> -		·-······	<del> </del>	<del></del>	<del>','. ',</del> '	<del>,</del>
							<del></del>				<del>- ',</del> ;	<del> </del>
							<del>- 1 1 i - 1 i - 1 i - 1 i</del>	<del></del>		·	<del></del>	<del></del>
									<del> </del>			<del>- 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, </del>
	<u> </u>					<del></del> -				<del> </del>	<del></del>	<del> </del>

PROJECT: OOLDEA

DRILLHOLE: OL 87

MAP REFERENCE: FOWLER SH53-13

LOCATION: IFOULD T3

TOTAL DEPTH: OPERATOR:

30 m WALLIS

COORDINATES: 251184mE

6561186mN

RIG:

GEMCO H12

LOGGED BY: I. TEDDER

DATE:

20.11.86

	<del></del>		
SAMPLE NO	METREAGE	E H.M.C	- GEOLOGICAL DESCRIPTION
RT3244	0 - 2	1.tr	Pale brn/buff cb and clay rich f.m.g. (c.g.) loose sand
			10% calcrete.
RT3245	.2 - 4	1.tr	Brn clay rich (minor cb) f.m.g. (c.g.) sand.
RT3246	4 - 6	1.tr	
RT3247	6 - 8	1.tr	и и и и и
RT3248	8 - 10	1.tr	u u u u u u
RT3249	10 - 12	v.l.tr	1T II II II II II
RT3250	12 - 14	1.tr	и и и и и
RT3251	14 - 16	1.tr	Yellowish red f.m.g. (c.g.) loose sand.
RT3252	16 - 18	1.tr	Yellow f.m.g. (c.g.) loose sand. (Mod. poor sorting).
RT3253	18 - 20		Light yellow f.m.g. (c.g.) loose sand with some cemented
			Fe mottled sst.
RT3254	20 - 22	tr.	White and Fe mottled, partially cemented f.m.g. (c.g.) sand
RT3255	22 - 24	1.tr	n n n n n n n
RT3256	24 - 26	1.tr	Brownish yellow med. grained (c.g.) loose, very poorly
			sorted gritty sand. Seen in small core.
RT3257	26 - 28	tr.	Yellow m.c.g. loose sand. HM are v.f.g.
RT3258	28 - 30	v.1.tr	" " " " generally slightly
		**************************************	coarser than last sample.
			This hole is first over the top of the ridge.
		(	Composite RT3259 to 24 m
			" RT3260 24 to 30 m
<del></del>			
<u> </u>			

PROJECT: OOLDEA

DRILLHOLE:

OPERATOR:

0L 88

LOCATION: IFOULD T3

TOTAL DEPTH:

18 m

COORDINATES: 250942mE

MAP REFERENCE: FOWLER SH53-13 6560809mN

WALLIS

LOGGED BY: I. TEDDER

RIG:

GEMCO H12

DATE:

20.11.86

	SAMPLE	NO METREAG	E H.M.C	GEOLOGICAL DESCRIPTION
·	RT3261	0 - 2	v.1.tr	
			1	Pale brn/buff cb and clay rich f.m.g. (c.g.) loose sand.  10% calcrete.
	RT3262	2 - 4	1.tr	Pale red brn clay rich f.m.g. (c.g.) loose sand.
				10% cemented sand.
	RT3263	4 - 6	1.tr	Red brn partially cemented f.m.g. (c.g.) sand.
				Core with irregular tubes noted.
-	RT3264	6 - 8	1.tr	As above. (less lumpy)
	RT3265	8 - 10	v.l.tr	Red brn partially cemented f.m.g. (c.g.) sand loose.
-	RT3266	10 - 12	tr.	Yellow f.m.g. (c.g.) loose sand. Mod. poor.
-	RT3267	12 - 14	tr.	Off white-yellow f.m.g. (c.g.) loose sand. Mod. poor.
F	RT3268	14 - 16	1.tr.	White and red porcellesite cemented f.m.g. (c.g.) sand.
$\vdash$	<del>vins se ja ja amming staja</del>			Slightly mottled m.g. poorly sorted core with tubular
-	DTOO			structures. Cherty/chalcidonic veins noted in core.
_	RT3269	16-18	-	Med grained slightly foliated gneiss. Basement
	·			in the last/m or so.
<del></del> -				
	<del>',</del>			It is possible that some translucent v. fine grained HM
<u> </u>		·		occurred in last sample, but I thought it was just f.g.
				quartz panning.
····				Composite PT2270 to 16
		•		Composite RT3270 to 16 m.
·				
· · · ·		<del></del>		
<del></del>				
_	<del></del>	<del></del>		

PROJECT: OOLDEA

LOCATION: IFOULD T3

MAP REFERENCE: FOWLER SH53-13

COORDINATES: 250730mE 6560357mN

LOGGED BY: I. TEDDER

DRILLHOLE:

OL 89

TOTAL DEPTH:

20 m

OPERATOR: WALLIS

RIG:

GEMCO H12

DATE:

21.11.86

			21.11.80		
SAMPLE NO	METREAGE	H.M.C	- GEOLOGICAL DESCRIPTION		
RT3271	0 - 2	1.tr	Pale brown/buff f.m.g. (c.g.) cb and clay rich loose sand		
<u> </u>			20% calcrete.		
RT3272	.2 - 4	1.tr	Pale brown f.m.g. (c.g.) and clay rich loose sand.		
	•		10% calcrete.		
RT3273	4 6	v.1.tr	Red brown clay rich f.m.g. (c.g.) loose sand. 20% lumps.		
RT3274	6 - 8	1.tr	и и и и и и и		
RT3275	8 - 10	<u>-</u>			
RT3276	10 - 12	1.tr	Org/brown f.m.g. (c.g.) loose sand.		
RT3277	12 - 14	1.tr	Yellow/brown f.m.g. (c.g.) loose sand.		
RT3278	14 - 16	tr.	Yellow f.m.g. (c.g.) loose sand, couple of lumps.		
RT3279	16 - 18	1.tr	Pale yellow f.m.g. (c.g.) loose sand, some lumps.		
RT3280	18 - 20	1.tr	Off white " " " " "		
	**************************************		Composite RT3281 to 20 m		
		***			

PROJECT: OOLDEA

LOCATION: IFOULD T3

FOWLER SH53-13

DRILLHOLE:

OL 90

TOTAL DEPTH:

20 m

MAP REFERENCE: COORDINATES: 250549mE 6550357mN

OPERATOR:

WALLIS GEMCO H12

RIG:

21.11.86

LOGGED BY: I. TEDDER

DATE:

SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3282	0 - 3	l.tr	Pale brown/buff cb and clay rich f.m.g. )c.g.) loose sand.
			10% calcrete nodules.
RT3283	.3 - 4	1.tr	Pale brown cb and clay with f.m.g. (c.g.) loose sand.
	•		10% calcrete nodules.
RT3284	4 - 6	1.tr	Red brown clay rich f.m.g. (c.g.) loose sand. 1-2 mm
			minor clayey lumps.
RT3285	6 - 8	1.tr	As above (1-2 mm).
RT3286	8 - 10	v.l.tr	Orange/brn f.m.g. (c.g.) loose sand. (1-2 mm)
RT3287	10 - 12	1.tr	Yellow f.m.g. (c.g.) loose sand. (1-2 mm)
RT3288	12 - 14	1.tr	Off white f.m.g. (c.g.) Toose sand, minor lumps.
RT3289	14 - 16 tr.		As above - m.g. dominates.
RT3290	16 - 18	1.tr	White, minor iron partially cemented, mottled f.m.g. sand.
			Bits of core with irregular voids.
RT3291	18 - 20	1.tr	White, cemented partially mottled f.m.g. sand.
			The white sandst. is sorted into beds I think, as core
			spec. show well sorted f.g. and mod. sorted med. grained
			ssts. Not sure if a different unit to the yellow sand -
			but I think it is a different unit as there is very little,
			to no coarse-grained sand in the white lithos.
			The c.g.'s of qtz are well rounded and flattened - ex
			foliated gneiss?
			Composite RT3292 to 20 m.
		<u> </u>	

PROJECT: OOLDEA

LOCATION: IFOULD T3

MAP REFERENCE: FOWLER SH53-13

COORDINATES: 250493mE 6559438mN

LOGGED BY: I. TEDDER

DRILLHOLE: OL 91

TOTAL DEPTH:

14 m

OPERATOR: WALLIS

RIG: GEMCO H12

DATE:

21.11.86

	SAMPLE N	O METREAG	E H.M.	GEOLOGICAL DESCRIPTION
		-		
•	RT3293	0 - 2	1.tr	Pale brn buff cb and clay rich f.m.g. (c.g.) loose sand.
}	<del></del>			1-2 m.
-	RT3294	.2 - 4	v.1.tr	Pale brn cb and clay rich f.m.g. (c.g.) loose sand. Some
-		-	·	clayey lumps, some slightly cemented. 1-2m.
-	RT3295	4 - 6	l.tr	Org. brn clay rich f.m.g. (c.g.) partially cemented sand.
				Poor sorted core.
	RT3296	6 - 8	1.tr	As above.
	RT3297	8 - 10	_	Org.brn clay rich f.m.g. (c.g.) partially cemented sst.
	.			Some tubular structures in core.
	RT3298	10 - 12	1.tr	Drill returned core that appears to show unconformable
L		<del></del>	•	relationship between overlying lightly cemented brn sands
_				and indentifying mottled white/red sand. Tubular structures
_				filled with brn sand. Indicates that they formed and
				lithified to show brn sand to flow in. Also fragment in
i				overlying brn sand indicates environ of underlying white
				sand.
ŗ	RT3299	12 - 14	v.l.tr	Hard cemented f.m.g. (c.g. to v.c.g. grit) sandstone.
				v.c.g. quartz grit - angular - occurs only near bottom of
				hole. Both indicate close to Basement. Core of cemented
				breccia regolith of white sand noted.
·				
	· · · · · · · · · · · · · · · · · · ·			Composite RT3300 to 14 m.
<del>,</del>				
·				

PROJECT: OOLDEA

MAP REFERENCE: FOWLER SH53-13

DRILLHOLE:

OL 92

LOCATION: IFOULD T3

TOTAL DEPTH: 12 m

COORDINATES: 250392mE

6559001mN

OPERATOR: WALLIS

. LOGGED BY: I. TEDDER

RIG: GEMCO H12

DATE: 21.11.86

EUGGED DI.	1. 1.00	)LIX	DAIE: 21.11.86
SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3301	0 - 2	1.tr	Pale brn/buff cb and clay rich f.m.g. (c.g.) loose sand.
<del></del>			10% calcrete.
RT3302	·2 <b>-</b> 4	1.tr	Pale brn cb and clay rich f.m.g. (c.g.) loose sand.
	•		+10% calcrete.
RT3303	4 - 6	1.tr	Light brn, clay rich (clayey lumps) f.m.g. (c.g.) sand.
	· ·		20% clayey lumps.
RT3304	6 - 8	1.tr	Mauve brn very c.g. gritty sand & f.m.g. sand.
RT3305 ·	8 - 10	1.tr	Mauve brn very c.g. gritty sand, minor f.g. sand.
• .			Basement regolith.
RT3306	10 - 12	1.tr	Yellowish green weathered v.c.g. gritty Basement. Only
· · · · · · · · · · · · · · · · · · ·			slightly foliated.
			Composite RT3307 to 6 m.
		<del> </del>	Composite RT3308 to 12 m.
		<u> </u>	
·			
<u> </u>			
	<u> </u>		

PROJECT: OOLDEA

DRILLHOLE:

OL 93

LOCATION: IFOULD T3

TOTAL DEPTH: 10 m

MAP REFERENCE: FOWLER SH53-13

OPERATOR: WALLIS

COORDINATES: 250321mE 6558714mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 21.11.86

			URIE: 21.11.00
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3309	0 - 1	1.tr	Pale brn/buff cb clay rich f.m.g. (c.g.) loose sand.
RT3310	2 - 4	1.tr	As above - >10% calcrete.
RT3311	4 - 6	1.tr	Brn. clay rich f.m.g. (c.g.) loose sand. 10% clayey lumps.
RT3312	6 - 8	. 1.tr	80% clayey lumpy brn. f.m.g. sand.
RT3313	8 - 10	1.tr	As above, but also near 10 m c. to v.c.g. grit. Basement
			gneiss probably within one or two metres.
			Composite RT3314 to 10 m.
	-		
·		•	
· · · · · · · · · · · · · · · · · · ·		·	
		·····	
<del></del>		<u> </u>	
<del></del>			

PROJECT: OOLDEA

DRILLHOLE:

OL 94

LOCATION: IFOULD T3

TOTAL DEPTH:

23 m

COORDINATES: 250321mE 6558398mN

MAP REFERENCE: FOWLER SH53-13

OPERATOR: WALLIS

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE:

21.11.86

SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3315	0 - 2	1.tr	Pale brn/buff cb and clay rich loose sand f.m.g. (c.g.
			+ 10% calcrete.
RT3316	.2 - 4	1.tr	Pale bn. cb and clay rich loose sand f.m.g. (c.g.)
	•	•	<sup>+</sup> 10% calcrete.
RT3317	4 - 6	tr	Brn (light brn) clay rich loose sand. f.m.g. (c.g.)
RT3318	6 - 8	tr	Brn clay rich f.m.g. (c.g.) loose sand.
RT3319	8 - 10	1.tr	As above. 10% clayey lumps.
RT3320 .	10 - 12	tr	Red brn clayey lumps of f.m.g. (c.g.) sand. 30-40% lumps.
RT3321	12 - 14	1.tr	Possibly contaminated sample - calcrete colours it pale
			brn. 80% red-brn clayey lumps of f.m.g. (c.g.) sand.
RT3322	14 - 16	- 1	Mauve and grey clay/argillite soft and malleable.
RT3323	16 - 18	1.tr	As for 14-16 m, but also m.c.g. sands mixed with clay.
RT3324	18 - 20	1.tr	Pinkish mauve clay and sericite rich m.e.g. (fg) sand.
			Weathered basement?
RT3325	20 - 22	1.tr As above. Weathered basement, I think.	
RT3326 2	22 - 23 1.tr		Greenish grey m.c.g. gneissic sand, Basement.
			•
			Possible foliated core at 22m suggests the more m.c.g.
			material is weathered basement.
		· · · · · · · · · · · · · · · · · · ·	
			Composite RT3327 to 14 m
			Composite RT3328 to 22 m

PROJECT: OOLDEA

DRILLHOLE:

OL 95

LOCATION: IFOULD T3

TOTAL DEPTH:

20 m

MAP REFERENCE: FOWLER SH53-13

OPERATOR: WALLIS

COORDINATES: 250290mE 6558127mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE:

21.11.86

			21.11.86
SAMPLE NO	METREAGE	H.M.C	. GEOLOGICAL DESCRIPTION
RT3329	0 - 2	1.tr	Pale brn/buff cb and clay rich f,m.g. (c.g.) loose sand.
			10-15% calcrete nod.
RT3330	.2 - 4	1.tr	As above. 15% ccalcrete nod.
RT3331	4 - 6	1.tr	Light brn clay rich (minor cb) f.m.g. (c.g.) loose sand.
	· · · · · · · · · · · · · · · · · · ·	•	5% calcrete.
RT3332	6 - 8	tr.	Red brn clayey f.m.g. (c.g.) sands. Lumpy.
RT3333	8 - 10	1.tr	As above
RT3334	10 - 12	v.l.tr	As above
RT3335	12 - 14	1.tr	As above ·
RT3336	14 - 16	1.tr	Mauve/purple weathered fractured lithified argillite.
			Not foliated, so not basement?
RT3337	16 - 18	-	Pale mauve weathered fractured mottled argillite.
RT3338	18 - 20	-	Mauve, dark brown " " "
			The lack of foliation in the weathered argillites
			suggest to me that this unit is equivalent to the
		1	weathered s.st higher up the hill.
			Composite RT3327 to 14 m
			Composite RT3328 to 22 m

PROJECT: OOLDEA

DRILLHOLE: OL 96

LOCATION: IFOULD T3

MAP REFERENCE: FOWLER SH53-13

TOTAL DEPTH: OPERATOR: WALLIS

18 m

COORDINATES: 250154mE 6557750mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE:

21.11.86

200020 51.	- 1 . 20	02.1	UAIE: 21.11.00
SAMPLE NO	METREAGE	E H.M.C	- GEOLOGICAL DESCRIPTION
RT3340	0 - 2	tr	Pale brn/buff f.m.g. (c.g.) cb. and clay rich loose sand.
			+ 10% calcrete.
RT3341	.2 - 4	tr	Light brn f.m.g. (c.g.) cb and clay rich loose sand.
			10% calcrete.
RT3342	4 - 6	tr	As above. 10% calcrete.
RT3343	6 - 8	tr	Brn f.m.g. (c.g.), minor cb. (calcrete nodules) loose sand
RT3344	8 - 10	1.tr	As above. + 1-3% calcrete still!!
RT3345	10 - 12	1.tr	Darker brn f.m.g. (c.g.) very rich sands. Some c.g.
			quartz grains with kaolin coating in the pile!?
RT3346	12 - 14	v.l.tr	Red brn very clayey, lumpy f.m.g. (c.g.) sand. Small
		-	HM recovery because of clay??
RT3347	14 - 16	Х	Red brn sandy (f.m.g. (c.g.)) clay. Whole sample is
	<u> </u>		balls of sandy clay.
RT3348	16 - 17	Х	Mauve, purple clay.
RT3349	17 - 18	<u>-</u>	Highly ferruginous, almost gossan like hard rock.
		<del> </del>	90% iron oxide -
<del></del>			
			X Not panned
			Composite RT3350 to 16 m
	<del></del>		

PROJECT: OOLDEA

DRILLHOLE:

OL 97

LOCATION: IFOULD T3

TOTAL DEPTH:

13 m

MAP REFERENCE: 250114mE

6557509mN

OPERATOR:

WALLIS

COORDINATES:

RIG: GEMCO H12

LOGGED BY: I. TEDDER

**DATE:** 21.11.86

LOGGED BY:	1. 1500	LK	21.11.00
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3351	0 - 2	tr	Pale brn/buff cb and clay rich f.m.g. (c.g.) sand.
RT3352	2 - 4	tr	Pale brn cb and clay rich f.m.q. (c.q.) sand.
RT3353	4 - 6	tr	As above. Loose sand.
RT3354	6 - 8	tr	As above. c.g. up to 2 mm.
RT3355	8 - 10	1.tr	Brn cb and clay rich f.m.g. (c.g.) sand (loose) c.g. up to
			2 mm.
RT3356	10 - 12	1.tr	As above.
RT3357	12 - 13		Grey, dark grey arenitic and massive limestone.
			Very slow drilling.
·			
			Composite RT3358 to 12m

OOLDEA PROJECT:

DRILLHOLE: OL 98

LOCATION: IFOULD T3

TOTAL DEPTH:

15 m WALLIS

MAP REFERENCE: FOWLER SH53-13

OPERATOR:

GEMCO H12

COORDINATES: 250038mE 6557237mN

RIG:

LOGGED BY: I. TEDDER

DATE: 21.11.86

LOGGED BI:	1. (200		
SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3359	0 - 2	tr	Pale brn/buff f.m.g. (c.g.) cb and clay rich loose sand.
			10% calcrete.
RT3360	2 - 4	tr	Pale brn cb and clay rich f.m.g. (c.q.) loose sand.
			10% calcrete.
RT3361	4 - 6	tr	Brn cb and clay rich f.m.g. (c.g.) loose sand. 5% calcrete.
RT3362	6 - 8	tr	As above
RT3363	8 - 10	1.tr	As above
RT3364 .	10 - 12	1.tr	As above:
RT3365	12 - 14	1.tr	As above
RT3366	14 - 15	-	Pale grey green hard massive limestone.
·			
			Composite RT3367 to 14 m

PROJECT: OOLDEA

DRILLHOLE: OL 99

LOCATION: IFOULD T3

TOTAL DEPTH:

8.4 m

MAP REFERENCE: FOWLER SH53-13

OPERATOR:

WALLIS

COORDINATES: 249957mE 65556891mN

RIG: GEMCO H12

LOGGED BY:	I. TEDDER	DATE:	21.11.86

SAMPLE NO	METREAGE	н.м.с.	GEOLOGICAL DESCRIPTION
RT3368	0 - 2	tr	Pale brn/buff cb and clay rich f.m.g. (c.g.) loose sand.
RT3369	2 - 4	ı tr	Brn (bright) " " " " " " " "
RT3370	4 - 6	tr	As above.
RT3371	6 - 8	tr	As above - some black limestone chips.
RT3372	8 - 8.4	1.tr	Limestone - small sample.
			Composite RT3373 to 8 m
	-		
·			
	<del> </del>		

PROJECT: OOLDEA

DRILLHOLE: OL 100

080

LOCATION: IFOULD T3

TOTAL DEPTH:

10 m

MAP REFERENCE: FOWLER SH53-13

OPERATOR: WALLIS

COORDINATES: 249866mE 6556559mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 21.11.86

SAMPLE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
RT3374	0 - 2	1.tr	Pale brn/buff cb and clay rich f.m.g. (c.g.) loose sand.  10% calcrete.
RT3375	2 - 4	tr	Brn cb and clay rich f.m.g. (c.g.) loose sand. 10% calcrete
RT3376	4 - 6	1.tr	As above
RT3377	6 - 8	1.tr	As above
RT3378	8 - 10	v.l.tr	First metre as above, second metre - limestone.
			Composite RT3379 to 10 m
	<del></del>		
	<del></del>		

PROJECT: OOLDEA

LOCATION: IFOULD T3

MAP REFERENCE: FOWLER SH53-13

DRILLHOLE:

OL 101

TOTAL DEPTH:

8.5 m

OPERATOR: WALLIS

COORDINATES: 249821mE 6556288mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

DATE: 21.11.86

CAMPIE NO	METREAGE	H.M.C.	GEOLOGICAL DESCRIPTION
SAMPLE NO			
RT3380	0 - 2	tr	Pale brn/buff cb and clay rich f.m.g. (c.g.) loose sand.
			10% calcrete.
RT3381	2 - 4	1.tr	Brn cb and clay rich f.m.g. (c.g.) loose sand. 10% calcrete
RT3382	4 - 6	1.tr	As above
RT3383	6 - 8	tr	As above
RT3384	8 - 8.5	1.tr	As above, plus grey green limestone.
	<del>,</del>		
			Composite RT3385 to 8.5 m
	<u> </u>		Composite 1/13003 to 0.5 in
	<u> </u>		

PROJECT: OOLDEA

DRILLHOLE: OL 102

LOCATION: IFOULD T3

TOTAL DEPTH:

20 m

MAP REFERENCE: FOWLER SH53-13

OPERATOR: WALLIS

COORDINATES: 249710mE 6555926mN

RIG: GEMCO H12

LOGGED BY: I. TEDDER

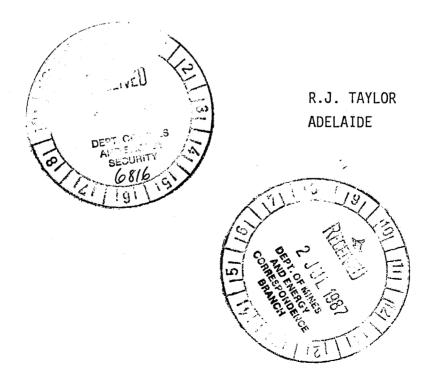
DATE: 21.11.86

SAMPLE NO	METREAGE	H.M.C.	. GEOLOGICAL DESCRIPTION
RT3386	0 - 2	1.tr	Pale brn/buff cb and clay with f.m.g. (c.g.) loose sand.
	<u>.</u>		10% calcrete.
RT3387	2 - 4	1.tr	Pale brn cb and clay with f.m.g. (c.g.) loose sand.
RT3388	4 - 6	1.tr	As above
RT3389	6 - 8	-	99% malleable clay - brown/grey. Some weathered ferruginous
			f.sst.
RT3390	8 - 10	tr	White f.g. well sorted sst. with disseminated HM.
RT3391	10 - 12	1.tr	f.g. sst. then pale grey, mauve mottled claystone.
RT3392	12 - 14	-	White to mauve claystone - partially lithified.
RT3393	14 - 16	v.l.tr	As for 14 but some f.m.g. (mg. dom) sand with clay.
RT3394	16 - 18	-	90% white semi-lithified (as seen in other holes) clay.
RT3395	18 - 20	-	60% clay, minor m.g. sand as for 16 m.
			·
		•	
			Composite RT3396 to 6 m.
	· · · · · · · · · · · · · · · · · · ·		

(CR 5468)

EXPLORATION LICENCE 1353 IFOULD LAKE, SOUTH AUSTRALIA

REPORT FOR THE QUARTER ENDED 19TH MAY 1987



#### CONTENTS

1.	GENERAL	STATEMENT

- 2. TITLE
- FIELD INVESTIGATIONS AND RESULTS
  - 3.1 Laboratory Results
- 4. EXPENDITURE

#### FIGURES

1. EL.1353, Ifould Lake, South Australia Location Map

A4-461B

2. EL.1353, Ifould Lake, South Australia Location of Drill Traverses, Drill Holes, Stream Samples

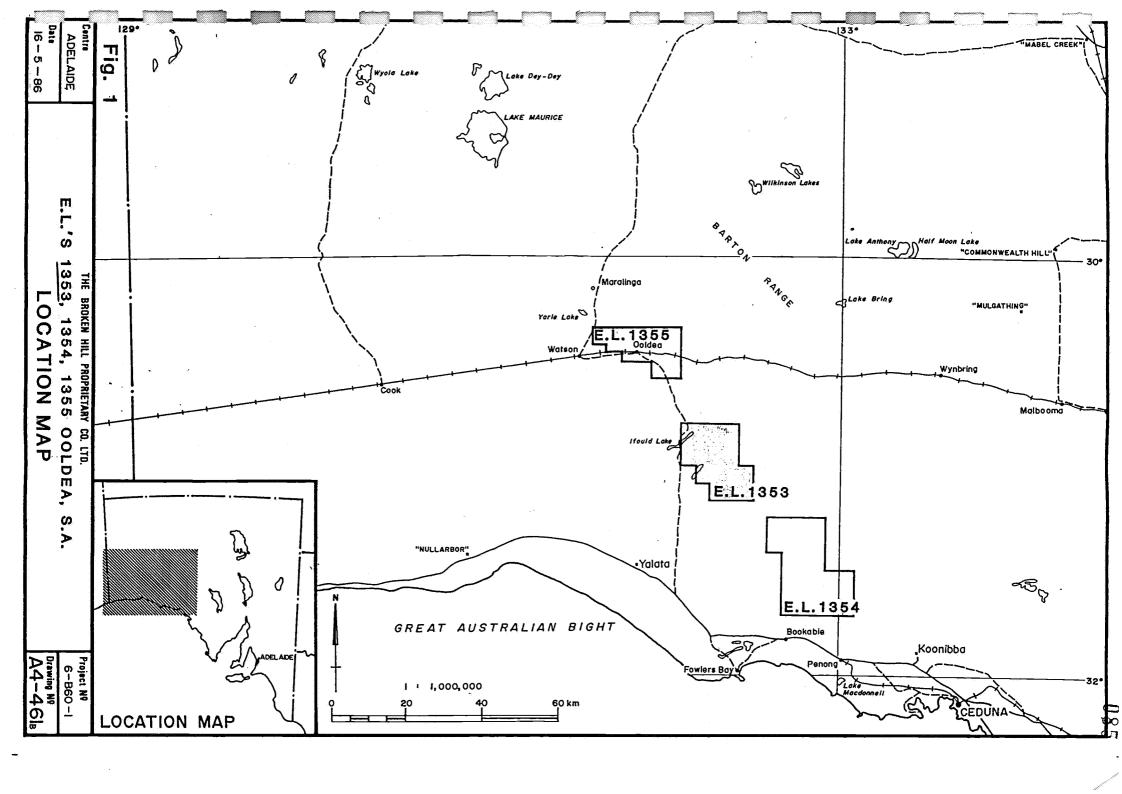
A1-902

#### **TABLES**

- 1. Sample Results Traverse 2
- 2. Sample Results Traverse 7
- 3. Sample Results Traverse 3

#### **APPENDICES**

- A. Observers Data Sheets Traverse 2
- B. Observers Data Sheets Traverse 7
- C Observers Data Sheets Traverse 3



### EXPLORATION LICENCE 1353

#### IFOULD LAKE, SOUTH AUSTRALIA

#### QUARTERLY REPORT FOR THE PERIOD 20.2.87 TO 19.5.87

### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby ELs 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sands preservation may exist.

Reconnaissance geological field work and sampling has been carried out. Drill traverse lines have been delineated, cleared by bulldozer and were drill tested in November 1986. Geological interpretation has been completed and analytical results have now been received.

# 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year. Its location is shown in Figure 1.

# 3. <u>FIELD INVESTIGATIONS AND RESULTS</u>

No field work has been carried out during this quarter.

# 3.1 <u>Laboratory Results</u>

Composite samples were prepared from each drill hole on Traverses 2, 7 and 3 as reported in previous quarterly reports. Four individual two metre intervals were also selected for laboratory analysis from observed higher heavy mineral concentrations noted in the field. These were:-

All these samples were submitted to the BHP Mineral Laboratory in Belmont, Perth where a heavy mineral concentrate was prepared for each sample. These concentrates were then observed for economic heavy minerals, in particular rutile, zircon and ilmenite. Three size ranges were examined -0.4 mm +0.25 mm, -0.25 mm +0.18 mm and -0.18 mm = 0.075 mm, and the percentages of these minerals present were recorded. From this data weight percentages of the minerals present in the samples were determined. The calculations used the following formula:-

Weight % Heavy mineral(s) = 
$$\frac{B}{A}$$
 x 100

where B = Observed weight of mineral(s) in grms
A = Weight of dry original sample in grms

#### Traverse 2

The weight % of all heavy minerals in the composites of Traverse 2 range from a maximum of 1.21% in OL 76 to a minimum of 0.07% in OL 82. The variations of weight % of economic minerals can be summarized as follows:-

,	Maximum Wgt. %	Hole No.	Minimum Wgt. %	Hole No.
Total H.M.'s	1.21	0L 76	0.07	OL 82
R/Z/I1.	0.39	OL 64	0.006	OL 76
Rutile	0.036	OL 64	0.0005	OL 60
Zircon	0.30	OL 64	0.002	<b>0</b> L <b>7</b> 8
Ilmenite	0.11	OL 68	0.006	0L 76

The 16 - 18 m interval (RT 3068) in OL 64 had a combined Rutile/Zircon/Ilmenite weight of 0.26% indicating that approximately two thirds of the composite combined value of 0.39% was contained in the 16 - 18 m interval. This suggests that field observations of anomalous values are quite accurate as this interval was chosen on field panning evidence. The results are recorded in Table 1.

#### Traverse 7

Total heavy mineral values vary between 1.20% and 0.07% along this short traverse of 8 holes. The variations are summarised as follows:-

	Maximum Wgt. %		Minimum Wgt. %	Hole No.	
Total H.M.'s	1.20	OL 111	0.07	OL 106	
R/Z/I1.	0.15	OL 108	0.017	OL 106	
Rutile	0.006	OL 108, 109	0.0009	OL 106	
Zircon	0.074	OL 111	0.002	OL 107 (	14-20m)
Ilmenite	0.093	OL 107	0.01	OL 112	

Specific two-metre intervals were analysed from OL 108 (8-10m) and OL 111 (14-16m). In OL 108 the rutile value of 0.006% which is the highest on the traverse, occurs within the 8-10 m interval. No rutile was found in OL 111. The results are recorded in Table 2.

#### Traverse 3

The composite samples from the 20 holes along this traverse showed generally lower heavy mineral values than the other two traverses. Combined heavy mineral weight percentages varied from 0.52% in 0L 92 to 0.06% in 0L 83. The variations in mineral values are summarised as follows:-

	Maximum Wgt. %	Hole No.	Minimum Wgt. %	Hole No.	
Total H.M.'s	0.52	OL 92	0.06	0L 83	
R/Z/I1.	0.127	OL 101	0.003	0L 94	
Rutile	0.005	OL 89	0.0003	OL 93	
Zircon	0.049	OL 89	0.0003	0L 92	
Ilmenite	0.113	0L 92	0.003	OL 94	

The single two-metre interval analysed, OL 89 (14-16m), did not show any significantly anomalous values. Table 3 shows the result of this traverse.

All the results from these three traverses are summarised in Tables 1, 2 and 3. The individual Data Sheets from which these values have been calculated are to be found in Appendix A (Traverse 2), Appendix B (Traverse 7) and Appendix C (Traverse 3).

### 4. EXPENDITURE

The expenditure for the third quarter of this licence for the three months to the end of May 1987 is summarised as follows:-

	\$
Wages & Salaries	4,721
Field Support	399
Vehicles	333
Office Expenses	178
Laboratory Costs	3,118
Drafting	473
Administration & Overheads	461
	•
4	\$9,683

The total expenditure to date for EL.1353 is \$68,064.

This report is submitted to the Department of Mines and Energy as required by Clause 2 of EL.1353.

TABLE 1	<del>-</del> · · · · · · ·	EL1353 IFOULD	- SAMPLE RESULTS	S, TRAVERSE 2						٠		·	090
Drill Hole Data Trav Hole Depth	Sample No	Received Wt kg	Recovered HMs gm	Wt % Total HMs	Rutile gm	Rutile Wt %	Zircon gm	Zircon Wt %	Ilmenite gm	Ilmenite Wt %	Wt % Ru/Z/I1	Comments	
2 0L56 0-26	RT2982	7.4	25.2	0.11	0.44	0.006	0.66	0.009	7.58	0.102	0.117		
2 0L57 0-20	RT2993	5.4	11.0	0.20	0.076	0.0014	1.14	0.021	2.58	0.047	0.076		
2 0L58 0-20	RT3004	5.5	13.2	0.24	0.077	0.0014	0.385	0.007	4.00	0.072	0.080		
2 0L59 0-20	RT3015	5.3	9.3	0.17	0.195	0.0036	1.285	0.024	2.44	0.046	0.074		
2 0L60 0-20	RT3026	5.6	6.5	0.12	0.027	0.0005	0.13	0.002	1.70	0.030	0.032		
2 0L61 0-20	RT3037	4.8	9.4	0.19	0.189	0.0039	2.20	0.046	1.55	0.032	0.036		
2 0L62 0-20	RT3048	5.3	26.5	0.5	0.44	0.0083	4.4	0.083	3.035	0.057	0.148		
2 0L63 0-20	RT3059	5.4	20.0	0.37	0.74	0.0137	2.96	0.055	4.65	0.086	0.155		
2 OL64 0-20	RT3070	4.5	29.5	0.65	1.65	0.036	13.63	0.30	2.66	0.059	0.39		
2 0L65 0-20	RT3081	5.5	21.5	0.39	0.28	0.0050	1.37	0.024	3.725	0.067	0.096		
2 0L66 0-20	RT3092	5.2	25.6 -	0.49	0.43	0.008	6.41	0.123	4.88	0.094	0.225		
2 0L67 0-20	RT3103	6.0	25.5	0.42	0.28	0.005	4.16	0.069	3.96	0.066	0.140		
2 0L68 0-20	RT3114	5.45	26.0	0.47	0.21	0.004	6.45	0.118	6.04	0.111	0.233		
2 0L69 0-18	RT3125	5.7	23.1	0.40	0.46	0.008	7.61	0.133	4.44	0.078	0.219		
2 0L70 0-11	RT3132	3.65	8.7	0.24	0.046	0.001	1.09	0.030	2.29	0.062	0.093		
2 0L71 0-5	RT3136	2.3	6.3	0.27	0.018	0.0008	0.09	0.0039	0.92	0.04	0.044		
2 0L72 0-8	RT3141	2.3	3.9	0.17	_		0.78	0.034	0.21	0.009	0.043		<del>-</del>
2 0L73 0-8	RT3146	2.25	6.6	0.29	0.021	0.0009	0.063	0.003	0.641	0.028	0.032		
2 OL74 0-7	RT3151	2.3	7.3	0.32	0.03	0.0013	0.17	0.007	1.62	0.070	0.078		
2 0L76 0-6	RT3155	1.9	23.1	1.21					0.12	0.006	0.006	is Laterage and growing the contribution of producting the property of the contribution of the state of the contribution of th	
2 0L78 0-6	RT3162	1.6	10.9	0.68	-	_	0.042	0.002	0.94	0.058	0.060	entre en	
2 0L79 0-4	RT3173	1.9	6.3	0.33	0.021	0.0011	0.133	0.007	2.08	0.109	0.117		
2 0L80 0-4	RT3177	1.6	4.1	0.26			0.28	0.017	0.53	0.033	0.050		1
2 0L81 0-6	RT3182	1.5	4.7	0.31	0.037	0.002	0.05	0.003	1.13	0.075	0.080		`
2 0L82 0-4	RT3186	1.85	1.4	0.07				-	1.11	0.060	0.060		
2 0L77 0-4	RT3190	1.3	7.6	0.58	-		-	-	1.07	0.082	0.082	and the second of the second o	4.
2 0L75 0-6	RT3194	1.8	2.2	0.12	0.015	0.008	0.075	0.004	0.64	0.035	0.039		
2 0L64 16-18	RT3068	5.0	24.7	0.49	1.08	0.02	9.67	0.19	2.33	0.047	0.26		
	-			<u> </u>									
												tika kalanda tahun salah dari kalanda salah	

		<u> </u>			1	1	Dector	D.+41-	Wt % Total	Recovered HMs	Received Wt	Sample No	Drill Hole Data
	Comments	Wt % Ru/Z/Il	Ilmenite Wt %		Zircon Wt %	Zircon gm	Rutile Wt %	Rutile gm	HMs	gm	kĝ	Sumple no	Trav Hole Depth
<del></del>		0-017	0.011	0.79	0.006	0.44	0.0009	0.062	0.07	4.6	6.6	-	7 OL106 0-24
		0.105	0.063	2.25	0.038	1.34	0.0036	0.13	0.29	10.4	3.55	RT3419	7 OL107 O-12
<del> </del>		0.020	0.018	0.28	0.002	0.03	_	_	0.30	4.6	1.55	RT3420	7 OL107 14-20
<del></del>		0.15		3.72	0.051	2.04	0.006	0.25	0.52	20.7	4.0	RT3431	7 OL108 0-16
		0.076		2.34	0.030	1.78	0.006	0.356	0.20	11.8	5.85	RT3442	7 0L109 0-20
	<del> </del>	0.043		0.92	0.019	0.82	0.002	0.08	0.33	13.7	4.15	RT3450	7 OL110 O-14
<del> </del>		0.12	T	2.33	0.074	3.70		<u>-</u> .	1.20	59.9	5.0	RT3461	7 OL111 O-18
<del>*************************************</del>	*	0.057		0.17	0.044	0.76	0.003	0.058	0.23	3.9	1.7	RT3465	
· · · · · · · · · · · · · · · · · · ·		0.05		1.6	0.01	0.40	0.006	0.24	0.27	10.8	4.0		7 OL108 8-10
		0.18		4.92	0.022	0.67		. =	1.18	35.4	3.0	RT3458	7 OL111 14-16
<del>*</del>													
· · · · · · · · · · · · · · · · · · ·												· · · · · · · · · · · · · · · · · · ·	
<del> ''</del>													
·													
·										<del></del>			
<del></del>										<del></del>	<del> </del>		
										<del> </del>			
							-		-		<del></del>		
2									·				
		<u> </u>											
											<del></del>		
	<del> </del>	<del></del>	· · · · · · · · · · · · · · · · · · ·										
**************************************	To the Control of the												
											<del></del>		
		<del></del>								~·~			
										<del></del>			

Drill Hole Data Trav Hole Depth	Sample No	Received Wt	Recovered HMs	Wt % Total HMs	Rutile gm	Rutile Wt %	Zircon gm	Zircon Wt %	Ilmenite gm	Ilmenite Wt %	Wt % Ru/Z/I1	Comments
3 0L83 0-30	RT3210	7.7	4.5	0.06	0.045	0.0006	0.633	0.008	1.37	0.018	0.026	
3 0L84 0-20	RT3221	5.1	4.6	0.09	-	_	0.183	0.003	1.18	0.023	0.026	
3 0L85 0-20	RT3232	5.6	4.2	0.07	0.038	0.0007	0.38	0.006	1.18	0.021	0.027	
3 0L86 0-20	RT3243	5.35	8.4	0.16	0.043	0.0008	0.86	0.016	2.19	0.040	0.056	
3 0L87 0-24	RT3259	6.6	11.9	0.18	0.182	0.002	2.79	0.042	2.19	0.033	0.077	
3 0L87 24-30	RT3260	2.2	1.8	0.08	-	_	0.012	0.0005	0.29	0.013	0.013	
3 OL88 0-18	RT3270	4.8	9.6	0.20	0.068	0.0014	1.42	0.029	2.01	0.041	0.071	
3 0L89 0-20	RT3281	5.0	7.7	0.15	0.27	0.005	2.44	0.049	0.31	0.006	0.06	
3 OL9O 0-20	RT3292	5.9	5.8	0.10	0.024	0.0004	0.28	0.004	1.03	0.017	0.021	
3 OL91 O-14	RT3300	4.2	5.5	0.13	0.062	0.0014	0.499	0.012	1.20	0.028	0.041	
3 0L92 0-6.	RT3307	1.7	2.8 -	0.16	0.040	0.0023	0.132	0.008	0.72	0.042	0.052	
3 0L92 6-12	RT3308	1.9	9.9	0.52	_	_	0.006	0.0003	2.16	0.113	0.119	
3 OL93 O-10	RT3314	2.9	3.8	0.13	0.01	0.0003	0.106	0.004	0.264	0.009	0.013	
3 OL94 O-14	RT3327	3.8	7.0	0.18	0.048	0.001	0.72	0.018	2.39	0.062	0.081	
3 OL94 14-22	RT3328	2.05	2.9	0.14	-	-	-	_	0.073	0.003	0.003	
3 0L95 0-14	RT3339	4.25	8.5	0.20	0.029	0.0007	0.30	0.007	2.56	0.060	0.067	
3 0L96 0-16	RT3350	4.35	10.0	0.23	0.016	0.0003	0.11	0.0025	3.29	0.076	0.078	_
3 0L97 0-12	RT3358	3.3	9.7	0.29	0.133	0.0040	0.79	0.024	2.36	0.071	0.089	
3 OL98 0-14	RT3367	3.65	8.3	0.23	0.024	0.0006	0.026	0.0071	1.70	0.046	0.053	
3 0L99 0-8	RT3373	2.1	4.5	0.21	0.028	0.001	0.28	0.013	0.47	0.022	0.036	
3 OL100 0-10	RT3379	2.6	4.4	0.17	0.030	0.001	0.13	0.005	0.67	0.026	0.032	
3 0L101 0-8	RT3385	2.1	5.9	0.28	0.040	0.002	0.46	0.022	2.17	0.103	0.127	
3 OL102 0-6	RT3396	1.7	3.1	0.18	0.012	0.0007	0.038	0.002	0.61	0.036	0.038	
3 0L89 14-16	RT3278	3.0	9.0	0.3	0.02	0.0006	0.50	0.02		-	0.02	
		<del></del>	<u> </u>						·	··		
							-					

# APPENDIX A

OBSERVERS DATA SHEETS - TRAVERSE 2

OBSERV													<del> </del>
OBSER	۷E	R :_ J. B	Davidso	m·	<u>.</u>	SIZE	RA	NGE C	BSE	ERVED:	-	0 <u>· 4 + o·</u>	<u>)</u>   (
SHEET	N	· ::	<u> </u>	ATE STA	RTE	ED :_	10	4 87	•	DATE F	INIS	SHED : 10	14/87 BED
MATERIA		MON MAG	S ( HANDM	AGNET )			] ¹	TICK OR	вно	W OTHER	3:		
OBSERVE	D	-0.4 +0.25	. ,	, ,			i: 84.					GRAINS BOTTLED	GRAINS FOR PROBING
WEIGHT		٥٠٤ .	1.2	21.6	- 1	1.9	,	24.	4	Pu			
MINERAL	Flag	visi	JAL ESTIMA	TE OF MINI	RAL	%	<del></del>	GRAIN	cou	NT CHEC	K	(SHOW FRACT	ION )
ILMENITE	Ε	40	25	28	1	7		.08, .3	5	4/18	_	7.58 9	<u></u>
MONAZITE	Ε										_	0	
RUTILE	Ε			2			-	-01,	0.	43	_	0.66	<u></u>
ZIRCON	Ε		a	3			-	102	0.	64	_	0.66	p
LEUXOXE	Ē				1					: .	_	· · · · · · · · · · · · · · · · · · ·	
locks		25	25	25	<u> </u>	3	-						
TOURMAU	ve	15	20	90		1	<u> </u>						
NHITES		20	27	25		++	-						
	-				1		-					i.	
	_						-	-					
	ļ. 1				++	++	-						
	-				++	++							
					$\frac{1}{1}$			1	<del> </del>				
<b>)</b>	<u> </u>											<u> </u>	
	-				+								<del> </del>
<u> </u>	-				+							·	
	+						$\dashv$	1.				<u> </u>	-
				1 1 1				<u></u>		- <u></u>		<b></b>	<u> </u>
COMMEN	ITS	‡		<del>- ; -, · ; · ·=·-··</del>		<del></del>	<u> </u>	· · · · · · · · · · · · · · · · · · ·	<del></del>			<del></del>	<del></del>
<u> </u>	· · · · · ·	<del>;</del>	<u>., </u>		-· , <del></del>	<del> </del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>		<del></del>	
		<del> </del>								<del></del>			
							<del></del>	•		<u> </u>			
•	<del></del>												
						-: ::							
				<del></del> -		==							

# BHP MINERALS EXPLORATION

OBSER		<b>'</b>	_	<b>D</b>			0	E	3H	P	MII	NE	RA	LS	E	XP	LC	R	ATIO	ON		٠			D.	T		7	79	2
OBSER	V E	H	5	ענ צי	3'	А 2	0	HI K		: I			ı	1 [	AI	VIC	JN	1 3	SA or	MF	L	E	No	· - <u>/</u>					actor.	<u>ノ、</u>
SHEET	VE	R:	_	<u> </u>	3	77		<del>( \</del>	74 0	<u> </u>	<u>-                                    </u>	T A	 D1	· 	312 5	.E.	н, クー	4N'	GE 	9	7	=H	ve.	D :	- 0	•4	+ (	كـوو مرار	2/3 m	nm 07
MATERIA		_	N			()		HDI	MA	GN	EΤ			1 6	: U									HER:	_	HE	D :_	TE	RED	8/
OBSERVE	D	ŀ	-0. +0.:				-0.2 -0.				-0. +0.	18 075	5			ER:	- 1			<u>-</u>	Ī						LINS	_	GRA	еиі
WEIGHT			0	· [	1		0	4		-	7.6	6			1.1		<i>'</i>		9.	29	w					IN	TLEI BAG	1	FO PRO	R BING
MINERAL	Flag		١	vis	UAI	. E	ST	MA	TE	0	F M	INE	RA	L 9	6			G		. 0	<del></del>	NT	СН	ECK	1	(S	HO V	W S	SIZE	, <u>;</u> , , , , , , , , , , , , , , , , , , ,
ILMENITE	Ε	3	5			3	5			2	0			8	0			•03	5	.14		/5	۲,	88	1		58		·	
MONAZITE	Ε																				7							ĺ	)	
RUTILE	Ε	-	-				- ]				1			•	_											0.1	76	2	gn	
ZIRCON	E					7	R			1	5			-	_											<u> </u>	14		gu gu	
LEVECKENE	E		-	_		7	R			2	0			_	-	_					_			ļ					0	
LOCKS	_	1	5			1	5				4	!		2	0		_			-	1				-			_		<del></del>
TOURMAN HE	-		5	_	$\dashv$	1				T	0			-	_			·	,		-				_	<del></del>	<del></del>		<del></del>	h.n.
WHITES	-	4	5		-	4	0			3	0				-					-	$\dashv$	!			-					
- 					$\dashv$									-				<del></del>		-					-				<del>,</del> , - ,	****
					_	-														-	+	-					<del></del>	+		
																				-			<del></del>		-			-	<del></del>	•
								<u> </u>													1								<del></del>	
•						j																								
																											<del></del>			
	-				_					_			ļ	ļ	ļ 		<u> </u>	ļ							_		<del>:</del>			<del> </del>
	-	_		o	_			7	17	_	_	0	7	-	-	74	7			-	-			-	-	<del></del>		-		· · · · · · · · · · · · · · · · · · ·
		1	0	0	10		0	0	10	1/	0	00	10	<u> </u>	0	Ø	0							1	<u></u>		<del>:</del>		·	· · · · ·
COMMEN	TS	:_				*****	<del></del> -		·		·	<del></del>	·	i		· · · · ·	·		····	<del></del>	·		· · · · · · · ·	<del></del>			· · · · · · · · · · · · · · · · · · ·			·
·	·	<del></del>	- <del></del>	, / <u>/-</u>		····	, ·	·	<del>,-</del> i	· · ·	<del></del>	<del></del>	<del></del>	/ <del></del>				<del></del>	·		<del>,- ••', ••'••</del>					<del>nama ji , ' ,</del>	<del>'n</del>		······································	
<del></del>			<del></del>	·	:	<del>- '. '.</del>		· :-			<del></del>				·	<del>-,:,</del>							<u></u>	· · · · · · · · · · · · · · · · · · ·					<del></del>	
•			•																	مثبوت سود										·
												·																		
							·	<del></del>		*									<del></del>		· · · · ·	 				<del></del>		<del></del>		
														<u></u>																

Forknall. SIZE RANGE OBSERVED: -0.4 + 0.075 mm 64 DATE STARTED : 13-4-87 DATE FINISHED : 13-4-87 NON MAGS ( HANDMAGNET ) NAG, SEP. TICK OR SHOW OTHER: MATERIAL OBSERVED -0.25 -0.18 OTHER: GRAINS BOTTLED IN BAG GRAINE +0.25 +0.075 GRAIN COUNT +0.18 MAG 3+H FOR PROBING -0.18 1.4 0-2 WEIGHT 1.4 ( SHOW SIZE FRACTION ) GRAIN COUNT CHECK MINERAL VISUAL ESTIMATE OF MINERAL % 28.5 % 0.01.42 2.31 126 = ILMENITE Ε 0 MONAZITE RUTILE ZIRCON ROCKS 31.5% 20 20 10 I OURMALINE 20 45 30 30 WHITE EPIDOTE TR SMURILINE TK 7 AMPITIECLE COMMENTS :

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . K 1 3004 . DE

Bariple RT3004. Grain COUNT. (uze -0.18+0.075) 13.4.87.

	<del>,</del>		<del></del>	<del>~</del>	<del>y</del> ,	•	•	···	· · · · · · · · · · · · · · · · · · ·			
Locks	4.	<i>Q</i> .		The					[   			
KOCKS	LIRCON	KUTILE	WHITES	LHMG	DURMALKE	· 				ļ		
141	8	2	18	21	//	=	101					
37	//	2	15	31	10	=	106					
22	9	/	<i>14</i> 23	29	13	=	88					
32, 28	5	3		34	12	=	109					
28	7	3	19	30	16	=	103					
160	40	//	89	145	62		507					
160 31.5%	7.8%	2.1%	17.5%	28.5%	122%							
<b>I</b>												
	ļ											
										-		
											Non-American Control	
1			): - <del></del>									
			y= <del>-</del> -									-
Baco 201				··· <b>-</b>						•	<del></del>	
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·								
1						errent et en et et et en egy et e	· · · · · · · · · · · · · · · · · · ·					
1							<del></del>	<del> </del>	<del></del>			
								•••••••••••••••••••••••••••••••••••••••				
		<del></del>		-	- i		· · · · · · · · · · · · · · · · · · ·		<del></del>	- Agentes - Pr	) / <del></del>	··
										•	· ·	
					<del></del>		<del> </del>					
						<del></del>		· · · · · · · · · · · · · · · · · · ·				
				· <del></del>		<del> </del>			-			
T		I					<del>                                      </del>		· · · · · · · · · · · · · · · · · · ·	<u> </u>		
				<del> </del>		<del></del>						
						<del></del>			·	:		
						**************************************	<del> </del>	· · · · · · · · · · · · · · · · · · ·				
							·					
						<del></del>				received and recei		
									<del> </del>			
1	L	5 g 95 000										
						• ·		ار م معرد ۱۹۰۰	- بينين فهند طومتند			

#### BHP MINERALS EXPLORATION

		_	TA SHE											<u> </u>
													- 0 <u>· 4</u> + 0·	
SHEET	N	o : <u>18</u>	D/	TE	STAR	TED	:_10	4	87	<u> </u>	_ DA	TE FIN	ISHED :	0/4/87
MATERIA	AL	NON MAG	S (HANDMA	GNE	г)			TIC	K OF	8 SH	ow c	THER:	ENT	ERED
OBSERVE	ED	-0.4 +0.25	-0.25 +0.18	+0	).18 ).075		HER:		a	0			GRAINS BOTTLED	GRAINS FOR
WEIGHT		0.3	0.5	(	5.4		[-1		80	3,	٠,		IN BAG	PROBING
MINERAL	Flag	visu	AL ESTIMATE	OF	MINER	AL %	· · · · · · · · · · · · · · · · · · ·					CHECK	( SHOW FRACT	
ILMENITE	Ε		20	ac		96		0	1,	1.28		1.06	244 9	<b>~</b> ~
MONAZITE	E												U	
RUTILE	E	TP.		3	5				19		005		. 195.	gu-
ZIRCON	Ε			ac				.0	105	1.58			1.265	}~~
LED/OXEN	E	4			1								:	
poucs		90	23	13		3		_						<del>[</del>
WHITES	-	45	40	30		1	-							
TOURMAL	NE	35	15	16	,									
STAUROLI	E	< 1°	Te.					<u> </u>						
AMPHIBO!	匞		TR.					ļ 						
												<u> </u>	·	
	-													
														<del>- j. j. j. j. derojej</del>
									(.  -  -		-			Annual Committee
													· -	
														· · · · · · · · · · · · · · · · · · ·
· · · · · · · · · · · · · · · · · · ·														<u> </u>
	<b>∟.</b>				<del></del>	<u></u>	1 1	<b></b> .		لببا				
COMMENT	15	-		<del>-</del>	· · · · · · · · · · · · · · · · · · ·	<del>!</del>			<del>'' 1 1 ,</del>	<del>i </del>		<del></del>	and the second s	<u></u>
			and the second s							<del></del> ,	<del></del>		and the second s	
		· <del></del>	<del></del>		<del> </del>		•		· · · · · · · ·		<del></del>	<del> </del>		
						<del> </del>						<del> </del>		
							<del> </del>	. <del> </del>	· · · · · · · ·					
									· · · · · · · · · · · · · · · · · · ·		<del></del>			
					<u> </u>		<del></del>							

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . 27 3026 OBSERVER : EN SIZE RANGE OBSERVED : - 0-4 + 0-075mm SHEET No : 28 DATE STARTED : 13.4.87 DATE FINISHED : 13.4.87

	MATERIA	L.	NON MAG	S (HANDMA	GNET )		TICK OR SHO	W OTHER:	ENTE	RED
	OBSERVE	D	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:			GRAINS BOTTLED	GRAINS FOR
	WEIGHT		0.03	0.3	1.2.	0.5	2.03 g	<u></u>	IN BAG	PROBING
	MINERAL	Flag	VISU	AL ESTIMATE	OF MINERA	\L %	GRAIN COU	NT CHECK	(SHOW FRACT	SIZE ION )
-	LMENITE	E		20	48	95	106, 157	.47	1.70	8
$\vdash$	AONAZITE	E	-							
F	RUTILE	Ε	TP	< /i	2		0.024	2007	0.027	gu-
7_	ZIRCON	E		5	10		.0003	1015, 12	0.027	gu-
4	ELCEXIEN	2	+			+ -				U
Ŕ	OCKS.		8	15	15	5				
P	1PHILEZ C	-	TR	TR		†				<del></del>
ľ	SURMPLI		60	30	10	-				
4	1417125	,	3 /	30	15					
1	HINES PIXOTE		- :	78	TR	_				
/										
	·									
			1,							
		1							-	
		1								
	**	1								حدث خستسبب د خب بد
-		$\dashv$			t t					
-		$\dashv$	40.4	-						
_			1007	1000)	100/	100/	<u>L. J. J.</u>		<u></u>	
'	COMMENT	S:		<del>e de la composición de la composición</del> de la composición de la composición de la composición de la composición de	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		<del>(</del>	<del> </del>	
	·	· <del></del>	<del></del>		<del> </del>	<del>alia da</del> esta esta esta esta esta esta esta esta	<del></del>	<del>(, , , , , , , , , , , , , , , , , , , </del>	<del></del>	
		<del></del>		<u> </u>		. The second	et general de la companie de la comp	<del></del>		
	<del>, (m)                                   </del>	<del>· · · · · ·</del>	<del> </del>					——————————————————————————————————————		
			<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>		<del>- , , , - ,                           </del>		<del>de la destada de la com</del> encia de la comencia de la co		
			<del></del>		<del></del>		<del></del>	<del></del>		
-	<del>-,,</del>		<u> </u>	<u> </u>	<del>a de la composition de</del>	<del> </del>	<u> </u>			

	ORSEK	VE	:R	S	DA	1	Α	S	HE	<u>:</u>	: 1				H	ΑI	VIU	IV	1 3	SA	M	PL	E.	No		77	<u>3</u> ⊆	237		<del></del>
	OBSER	VE	R	ک:	7.8	$\mathcal{L}$	دىد	بط	හ	Δ	:_			_		SIZ	ZE I	R.A	N	GE	0	BS	ER	VED	) : -	- 0 <u>-</u>	4-	<u>+ 0.</u>	<u>তাহ</u>	m m
	SHEET	N	o :		19	<del></del>	<del></del> -		_ [	ÞΑ	TE	E S	TA	RT	EI	<b>D</b> :		0	14	8	1	·	_ D	ATE	FIN	ISH	ΙED	:18	5/4	87
	MATERIA	\L	ı		MAG				NDM	4.4	GN	EΤ	)	· · · · ·	į			7	ric	ко	R	SH	ow	отн	ER:			ENT	ĘRĖĆ	1
	OBSERVE	D			.4 .25				25 18				075		0 M	مم	ER:	4		6.	G	,				ВС	TT	NS/ LED	F	AINS' OR
	WEIGHT	10		0.4	<del></del>		<del>,</del>	0.4					3		<del>,</del>	0	.2					_0		<del></del>		2	>	AG	PRC	BING
	MINERAL	Fla	L		VISL	JAL	LE	ST	IMA	TE	01	F M	INE	RAI	- 9	6		_	G	RAI	N	CO	UNT	СНЕ	СК	-	SI F	IOW YACT	SIZE	)
	ILMENITE	E	0	0		Ġ	2	5		_	<u>2</u>	0		4	9	8		$\downarrow$	'00	2,0	<u>, (</u>	ŀ	6,	0.19		,	/.	55	gn-	<del></del>
	MONAZITE	┼				1	_	_				-	_	-				4			-	<u></u> -					<del></del>			
	RUTILE	E				-	TR	T	_	_		3			_		-	4			-					(	<u>ン・/</u>	20	gu	
7	ZIRCON	E	<u> </u>			┥	IK			_	3	5	_	+			_	4						:		1	2 7	20	gr-	<del></del>
	LEU(DYEK)	E	2			-	4	4		-		1		-				4			$\perp$								U	
	Roucs	-	೩	0		- -	<u> م</u> لا	<b>&gt;</b>	_		1	S	+	-	_	2		4			-									
	WHITES		4	0		+	3	2	_	-	4	S	_		۷			1									·		·	
İ	TOURMAL	NE	9	0	_	c	<u>ર્</u> ગ	S		_	1	0		-	-			4			-								<del></del>	
ļ	AMPHIBOL	<u>.</u>				1	-  1	1		-	۷	1		-	-			+			+							····		<del> </del>
-						+		+	-	$\dashv$	<del> </del>	-		-	_		_	+		· · · · · · · · · · · · · · · · · · ·	-						<del></del>			,
ŀ	· ·					+		-		$\dashv$		_		$\perp$	-	_	-	+				-				- i				<del></del>
-	· · · · · · · · · · · · · · · · · · ·			+	_	-	-	-		+		_	-	+	-	1		+		<del></del> ;	-									<del></del>
	<del></del>		-	-		+	+	_	-	+				-				+			+					<del></del>	<del></del>	<u> </u>		
				_		+	-	+	-	$\dashv$	-	<del>-  </del>	$\perp$	╬	-			+		<del></del>	<u> </u>									
ŀ	<del></del>	-			+	+	$\dashv$	+	+	+		-	-	-				+			-				<del></del>				<del> </del>	<del>, , . , .</del>
ŀ	<del></del>				-	+	+	-	-	+		+	_	+	+			+			+	-						<del> </del>	<del>- / /</del>	
-	<del></del>					+		+		1	-	-		+	-	+		+			-					······································				
-	<del></del>	_1	<del></del>	<u> </u>			!_		<u>,                                     </u>									L					ارد		<u></u>		<del></del>			· · · · · · · · · · · · · · · · · · ·
	COMMENT	S:	·	<del></del>	······································						<del></del>						<u> </u>				<del>-, -, 1</del>	<del></del>	<u> </u>	<del> </del>	· · · · · ·			<del></del>		<del></del>
ŀ	<del></del>	·-····	<del></del>		- · ·				<del></del>	<del></del>	<del></del>	<u></u>					<u> </u>			<del></del>	<del></del>			<del></del>	<del></del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>
ŀ	<del></del>	·	· · ·		<del>,,,</del>				<del></del>	· .			-,			· · · ·			<del></del>	· <u>·</u> ···			•	<del></del>	<del></del>	<del></del>	<u> </u>	<del></del>		<del></del>
+	<del>- 11 - 11 11 11 11 1</del>	<del></del>			<del></del> .		<u> </u>			<u></u>	<del></del>		<del></del>	<del></del>	<u>-</u>	-	<del>- :- ;</del> ;		· · ·		-	<del>,:</del>	<del></del>			<del> :</del>		· 	<del></del>	
				<del></del>	<del>-,-,</del>				<del>- ,</del>		·		· · · ·							·	<del></del>				<del></del>					<del></del>
r	<del></del>		•						<del></del> -	<u> </u>			<u></u>				· · · · ·		· · · · ·	<del></del>				<u> </u>	<u></u>					
	<del>- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1</del>	<u> </u>			<u> </u>		<del> ·</del>	-					-	-						·		··.	· · · ·							
_						_				-	_							_			-									

OBSERVER: Forknall SIZE RANGE OBSERVED: -0.4 + 0.075 mm SHEET No : 65 DATE STARTED : 13-4-87 DATE FINISHED : 13-4-87 NON MAGS ( HANDMAGNET ) TICK OR SHOW OTHER: MATERIAL NAG. SEP. OTHER: -0.4 -0.25 -0.18 **OBSERVED** GRAINS BOTTLED IN BAG GRAINE +0.25 +0.075 +0.18 MAGS 3+4 FØR PROBING WEIGHT 14.8 1.7 0.5 0.1 (SHOW SIZE FRACTION) MINERAL VISUAL ESTIMATE OF MINERAL % 003,0125, 296, 153 ILMENITE 30 MONAZITE RUTILE ZIRCON 20 LEVICO XENE E KOCKS 10 ICURMITAINE 20 20 10 10 10 WHITES GARNET TR TR TR COMMENTS : \_

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . KT 3054 102

OBSER	۷E	R :	1	AL	<u>/L10</u>	υE						_		SIZ	ZE	R	AN	GÉ	овѕ	ER	VEC	) : -	- o <u>. 4</u>	<u> </u>	075 m	m
SHEET																										
<u> </u>		NON						<del></del>	4	<del></del>								***	<del></del>			IER:	1		ĘRED	r
MATERIA	L		****				_		V4T7			<u>_</u>							•	· .						
OBSERVE	D		.4			-0.					18		30	ŢĦ	ĘR	:							<u> </u>	<u> </u>	T	
		· 	.25	<u> </u>		<del></del>			+						_	: 07≤							ВОТ	TLED	GRA FO PBOE	AÝ.
WEIGHT	-	C	) 1			1	1		ć	ال	5			C	8				la don de esta polan				/	BAG		BING
MINERAL	Flag		VIS	SU/	ÅL E	ST	IM/	ATE	OF	М	INE	RA	L 9	6			G	RAIN	CO	UNT	СН	ECK	. (	SHOW FRAC	SZE PION )	r
ILMENITE	E			7				5	0 -	6	1	0	2.	K	1	5	.0.	12	=	2	-33	gr			T	· · · · · · · · · · · · · · · · · · ·
MONAZITE	E		1							-																··-·································
RUTILE	Ε		4	1			7	1				5	<i>\</i>	80						1	08	8				
ZIRCON	E			i			·	5		1	4				7	1	ļ			9	67.	8				
Leucarpi	ر ا		1	R			1	1			<del>7 - 7</del>	ĭ			,	-				-	1	r		<del></del>		
				O	1	-	<u>ب</u> ر	D			1									ļ	!				<del>                                     </del>	
TOURNALINE			1	5	<b>†</b>			7			<del></del>	9	1	( (	R	5		:	1	ļ	<u> </u>		[ 			
ROCKS		-	+	0	+		1				$\frac{1}{i}$				4						! !			<del></del>		
KYANITE		_			1		_ :			<del> </del>	1				<u>_</u>	/	· 		-		·				<u> </u> :	
EPIOCTE		-	1	<u>R</u>			1			-				· <u>-</u>						-		<u> </u>	ļ			
QUART2		+	i į	<u>5</u>				5				-								<u> </u>						<del></del>
BARITE		-	-	<u> </u>	-			3		s' •					· · · · ·				<u> </u>		• · · · · · · · · · · · · · · · · · · ·	<u></u>		*** • * *******		
STAULOLITE			T	R					-			_				-			-	_		ļ	:			
		+	-		-					-		_		-									ŀ			· , , , , , , , , , , , , , , , , , , ,
			-								· · · · · · · · · · · · · · · · · · ·	_											· 	· ····	<del> </del>	
											-	_			.				ļ	ļ						·
												_											<b></b>	·		·
		4										_					:			ļ			ļ			
																								<del></del>	<u> </u>	
COMMENT	S	;		<del></del>		•	······································						•		·		····	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		·	·	<del></del>		
	<u></u>	( S	dn	~e	Δ_	M	۵/	Ω	Υ	+	to	<b>~</b>		0	للا	(	on	<u>.d</u>						······································		
					•			J			-	<del></del>				-		<del></del> -								
National Control of the Control of t					<del></del>				<del></del>												·			*************		
<del>- (* ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( </del>		······			-	-	····		·····	****			<del> · ·</del>				r	<b>1</b> /a	P	3	& Y	m	odt	م د	רס כ	S.
<del></del>			•	·	i	··.		<del>:</del> -				· ·									<del>_</del>		•	<u> </u>	<del></del>	
		· · · · · · ·										<del>, -i</del> -	•					····	<del></del>		· · · · · · · · · · · · · · · · · · ·	- , · · · · · · · · · · · · · · · · · ·	······································	<del></del>	<del></del>	

## BHP MINERALS EXPLORATION

SHEET	N					TE S			:!							ı		ERED	
MATERIA	L	<u> </u>	Λa.	<u> 2</u>	<b>р</b> .	, and i	, :::-:	ــــــ <del>ــــــــــــــــــــــــــــــ</del>	J 	1101	· OR	<b>э</b> пс	) <b>**</b>	<u> </u>	<u></u>				
OBSERVE	D	-0.4 +0.2		-0. +0.		-0. +0.		ОТ	HER:		1.0	1				GRA	ν€D	GRAI	Ŕ
WEIGHT			2	1	2	23	3.5			ñ	0. 38	4				IN B	AG	PROB	ING
MINERAL	Flag	V	/ISU/	L EST	IMATE	OF M	INER	AL %	<del> </del>	GI	RAIN	cou	ТИС	СНЕ	СК	(SI FI	ACT	SIZE	
ILMENITE	Ε	3		10	.2	10	ر د	35			10	•19.	7	2.6	هوا				
MONAZITE	Ε																· · · · · · · · · · · · · · · · · · ·		
RUTILE	Ε			41		7		65			TR.			1.6	53-				
ZIRCON	Ε	a		5		58	!				TR			3.6	5g-		<u></u>		
LEVWXET	R L			41		41	····	<u> </u>		_					0				·
Rocks		50		40							90					- 			
TovenAu	ŊΕ	30		25	1-	15		ì											
BARITE		3		5	: i : <del>i</del>										!				
CYADITE		10	-	10	; <del>-</del>	10					Te.	·				·			
ANDALUŚI	Œ	11											· ·		·		· · · · · · · · · · · · · · · · · · ·		
STAURDU	Ε	41	:	Te		41	<u></u>	<u> </u>	<del></del> -	1 -			· 		;- ·	e , sec			·····
AMPHIBO	Ē	TR	<u>.</u>								· · · · · · · · ·		<u> </u>	<del></del>		<del></del>			
QUALTZ			_	5			<del></del>		,					·					
CARNET											TR		:						
									:				· •	<u> </u>					
· · · · · · · · · · · · · · · · · · ·							<u>;</u>		-				!	· · · · · · · · · · · · · · · · · · ·					
·							+											<del> </del>	
			<u> </u>															<u>.</u>	
COMMEN	rs	* <u>*</u>	برج	nen	M	og .	- H	lom		ıll	C	On	بط						
· ·					n dar melaya se fereperti yel		·	ſ	Nag	381	+ r	<b>1</b> 00	slt	<del>y</del>	0.0	กร			

OBSERV	/E	R'S	D	Α.	ТΑ	S	HI	ΕE	Τ -		- 1	ΊΤ	۸N	111	JM	IS	AN	<b>IPL</b>	E	No	٠	R-	<u> 30</u>	81.	10
OBSER																									
SHEET	N	o :	21	<b>t</b> _		<del></del>	:	DA	TE	ST.	AR	TEC	) :.		_1	3-1	r-87	7	D.	ATE	FIN	ISHE	D :	13-4-	87
MATERIA	L	MON_			3-( 5E)	•				т У				<u></u>	٦	ICK	OR	зно	w	отн	tER:	].	ENI	ĘRED	
OBSERVE	D		.4 .25			-0. +0.				0.18		1	1 34		- 1							вот	AINS/	F	AINS OB
WEIGHT		٥.	01			٥.	9		9	.0			1.1	_			//· o	/gr			******	] [	BAG	1/	BING
MINERAL	Flag		۷I	su.	AL E	ST	IM/	ATE	OF	MIN	ERA	\L %	<b>a</b>			GI	RAIN	COI	TNL	СН	ECK	( :	SHOW FRAC	SIZE TION	)
ILMENITE	Ε			5			1	5		2	8			9	7	'r	05,	0.135	2.	S2,	107	3.	725 9	n	منبنيت
MONAZITE	Ε																							<u> </u>	
RUTILE	E						1	1			3						009		0.2	7		,	279	gua	
ZIRCON	E							2		1	5			۷	1		0.0		1.33	<u> </u>		1.	279 37	gu-	
Légic Xen é	Ë							1		1	. 1							/		<u> </u>				0	<u>.</u>
Rocks			6	0			2	9			7				2								· · · · · · · · · · · · · · · · · · ·		<del> </del>
TOURNAUNE				5			2	5			2									ļ.		ļ			
WHITES.			3	.0		! !	2	8		4	- 5			۷	1	·  -  -				-		<u> </u>	<del> </del>		. iu
EPIDOTE			1	R			Τ	R			.1		 							ř	ļ		- <del></del>		<u></u>
AMPHIBOLE						(	T	R		7	R		:					<u> </u>		·	ļ			<u> </u>	<del> </del>
GARNETS				:									<u></u>	۷	1					Ĭ.					
								! 				ļ		ا	· 					1					
	:									ì			İ								<u> </u>				
				-	<u> </u>	<u> </u>					į								ļ			<u> </u>			
								Ĺ		· 			ļ.,				ļ 	ļ	ļ	-		<b>.</b>			
							_			-  -	i								_			<b> </b>			
						ļ						ļ <u>-</u>			ļ 			<u> </u>	-			ļ	<del> </del>	<u> </u>	
			1		<u> </u>				Щ			<u> </u>				<u> </u>			<u> </u>	1_		<u> </u>	<del></del>		<u> </u>
COMMEN	TS	:				·			<del></del>	<u></u>		·	<del></del>				······································	<del></del>				<del> </del>	<del></del>	· · · · · · · ·	
<del>, . ,</del>	<del></del>				· · · · ·				<del></del>	· · · ·		<del></del>	<del></del>			<u> </u>	<del></del>		<u>.</u>		· · · · · ·		<del></del>	-	<del></del>
<del></del>		<del></del>	<del></del>	<del></del>	<del></del>			····				<del></del>		<del></del>			<del></del>	·			<u> </u>	<del> </del>	<del></del>	· .·· ,	<del></del>
		<u> </u>			<del></del>		<del></del>				<del></del>	<del></del>			<del></del>		<del></del>	<del>:-</del>					<del>_ ```</del>		
	<del></del>									<u>.</u>	· · · · <u> </u>	<del></del>		<del></del>		<del>_</del> ,,	·				·	<del></del>	<del></del>		<del> </del>
	<del></del>		·							<del></del>	·			*	<u></u>	<del></del> .			<del></del>		<del></del>	<del> </del>		<u> </u>	
	<u> </u>		<del></del>			·		· · · · · · · · · · · · · · · · · · ·	<u></u>	<del></del> .	<del></del> -	<del>,</del>						·		· · · · ·	<del> </del>	. <u></u>	<u> </u>	<del></del>	<del></del>

OBSERV	/E	R'S DA	TA SHE	ET 7	<b>FITANIUI</b>	M SAMPL	E No	2730	92 TO
		R :				ANGE OBS			
SHEET	N	o:2	9 D	ATE STAR	TED: /3	1.4-87	_ DATE FIN	IISHED :	3.4.87
MATERIA	L	NON MAG	S ( HANDM/	KGNET )	(FE)	TICK OR SH	OW OTHER:	ENI	ERED
OBSERVE	D	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER: MAGS 3+4			GRAINS/ BOTTLED	GRAINS FOR
WEIGHT		0.2.	1.0	· 21.2	1.6	24.00	m	IN BAG	PROBING
MINERAL	Flag	visu	AL ESTIMAT	E OF MINER	AL %	GRAIN CO	UNT CHECK	(SHOW) FFACT	SIZE JON)
ILMENITE	E	< 1	20	15	94	'012, 'Z	3,8, 1.50	4.889	<u></u>
MONAZITE	Ε	4	+	+,		,			-
RUTILE	E	+	< 1	2		61 .42		.43	<u></u>
ZIRCON	Ε	/	5	30	-	· 002 , ·05 ,	6.36	6.41	<u></u>
KEUCOXEI	E Viz	TR		2	-				
GARNET			TR	-	/			· · · · · · · · · · · · · · · · · · ·	
Rocks		40	35	16	5			×	
TOURNAL	n	35 !	25	10	-				
LHITES.		24	15	25	-				:
AMPHIBOLD	7	TR	TR						
EPINOTE		+	<u> </u>	-	-				· 
ANYXUS,	TIE.		712	T13				;	
SPINEL		+1		TR					
c									
					1			<u></u>	·
	_								
	_								
		100/	Very	100	racy				
COMMENT	S	:	<del></del>	<u> </u>	<del></del>	<del></del>	<del> </del>	_	· · · · · · · · · · · · · · · · · · ·
ļ			<del> </del>	<u> </u>	<del> </del>	<del> </del>	<del> </del>	<del> </del>	
<del>,</del>		<del></del>	<del>4</del>	<del></del>	<del>i i i i i</del>		<del>,</del>		<del></del>
		· · · · · · · · · · · · · · · · · · ·							
	<u></u>	<del></del>		· · · · · · · · · · · · · · · · · · ·	<u> </u>			<u> </u>	
			<del> </del>				- <del>                                     </del>	<del></del>	
<u> </u>	<del></del>		<del></del>		· <u> </u>				

TITANIUM SAMPLE No. RT-3/03107 OBSERVER'S DATA SHEET PASIZE RANGE OBSERVED : - 0.4 + 0-0/5 mm SHEET No: 67 DATE STARTED: 13-4-87 DATE FINISHED: 13-4-87 ENTERED NON MAGS (HANDMAGNET) TICK OR SHOW OTHER: MATERIAL OBSERVED GRAINS GRAINS MAG 3+4 +0.18 +0.075 FOR PROBING BOTTLED IN BAG 13.77 0.9 WEIGHT 100 ( SHOW SIZE FRACTION ) GRAIN COUNT CHECK VISUAL ESTIMATE OF MINERAL % MINERAL 3.96 ILMENITE E 20 2.74 1.04 MONAZITE Ε RUTILE .009 .274 Ε ZIRCON 3 0 4.11 ALLOXENE E Rocks 3 0 3 0 1.0 LOURMANNE 30 0 TR. WHITE 100% COMMENTS:

BHP MINERALS EXPLORATION OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT.3 //4108 OBSERVER: Josknall SIZE RANGE OBSERVED: - 0.4 + 0.075mm \_\_\_\_ DATE STARTED : 13 -4 -87 DATE FINISHED : 13-4-87 SHEET No : 68 NON MAGS ( HANDMAGNET ) TICK OR SHOW OTHER: MATERIAL MAG. SEP. OTHER: -0.18 -0.4 -0.25 **OBSERVED** GRAINS BOTTLED IN BAG GRAINS +0.075 MAGS 3+4. +0.25 +0.18 FØR PROBING 24.69 21.5 6.2 1.0 WEIGHT ( SHOW SIZE FRACTION ) GRAIN COUNT CHECK MINERAL VISUAL ESTIMATE OF MINERAL % 6046 ILMENITE Ε 0 1.4 43 MONAZITE E RUTILE Ε ZIRCON E TR. 0 AJUCKENE Rocks 24 4 C 20 20 TO C'EMPAINE 30 5 30 15 WHITE GARNET 7 R 77 PIDETE TR 12 MPHIBCLE 7 K

<b>OBSEI</b>	RVE	R'S DAT	A SHEE	T T	TANIUN	SAMPI	LE No	RT 3125.
OBSE	RVE	R : PAUL	NE .		SIZE R	ANGE OBS	SERVED:	- 0.4 + 0. D75mm
SHEE	T N	o :2s	DA	TE STAR	TED:	13-4-87	_ DATE FIN	ISHED : 13-4-87
MATER	IAL	· -	( HANDMAG SEPARATE I			TICK OR SH	OW OTHER:	ENTERED
OBSER	/ED	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:	-0-13		GRAINS GRAINS
WEIGH		0.01	0.8	15.3	1.5	+0.075	17.618	IN BAG PROBING
MINERAL	Flag	VISUA	L ESTIMATE	OF MINERA	L %	GRAIN CO	UNT CHECK	( SHOW SIZE FRACTION )
ILMENITE	E	3	15	20	84	16.3	12- 1.26	
MONAZIT	EE							a
RUTILE	E	TR	41	3		2- 2	.459	·46 gu
ZIRCON	E		2	50	41	55-4	·016	7.61 gm
LEVILTER	E	TR	41	1		1.4		0.15 gu
ROCKS	-	55	29		15	13-4		0
TOURNAL	NE	7	15	5		1. 4		
WHITES.		35	38	10	41	9 8		
AMPHIOOL	E	TR	TR.					
SPINELS			TR					
CARNET	3.	į.			41			
			1					
<u> </u>								
e e e e e e e e e e e e e e e e e e e								
<del>Personal Special Control of the Special Cont</del>								
								: 
·							-	
СОММЕ	NTS	:	· · · · · · · · · · · · · · · · · · ·		<del>a gala ji wa</del> a ka ka jira wala waxay waxay waxay waxay waxay waxay waxay waxay waxay waxay waxay waxay waxay w		e de la companya del companya de la companya de la companya del companya de la co	······································
		· · · · · · · · · · · · · · · · · · ·		<del></del>	<del>ani je salam saninga si je sala</del>		<del>and the straight and the state of the state</del>	
·	<del> </del>		n.			the contraction of the contraction of		and the control of th
	<del></del>					ining <u>lign ying perjemb</u> ah	<del>and desired to the second second to the second second to the second sec</del>	
	<del>,</del>	- <del> </del>		, the initial initial and the second		<del></del>		and the second section of the second section of the
		<u> </u>				and the property of the State o		and a sequence of the sequence
		andro de contrato de contrato de contrato de contrato de contrato de contrato de contrato de contrato de contra		· · · · · · · · · · · · · · · · · · ·			-	

RT 3125 (-0.18+0.075)

ZIRCOM	ILM.	Raw	WHITES,	TOURS	RUTILE	LEVC.	 	·	}	<del>-</del>		. —
38_	10	6	6		1	1		63				
60_	13	7	5	1	2	1		152				
\$000		12_	8		3	]	······································	240				
50 45	16	16	12	<del></del>		2		333		· ·		
38	16	15	10	2	2	1		417				
1 23L	68	56	41	6	9	6						
		ع <u>د</u> ۱3۰۴			T	1-4.	<u> </u>				<del></del>	
<u>55.4</u>	16.3	13.4	9.8	1.4	٦٠٨	1-4		<u> </u>				
<u> </u>												
	,					<u> </u>				<u> </u>		
	· 	• •				ļ,- ·		ļ				
												-
re n		i							ļ ļ			-
			ļ					ļ				<u>.                                    </u>
province .								ļ				-
												-
T					ļ. <u>.</u>						-	•
,									<b></b>		-	
4									<u> </u>			-
1						<u> </u>						_
								<u> </u>				-
								<u> </u>			,	
		1	1									
W												
+	1											فسمت
									1			
	1											
		1										
+		1										+
:	1											
+												
		<u> </u>		1								
<u>'</u>	1										<del></del>	
												•,
			•		**************************************						-	

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3/32

OBSERVER : ENNA SIZE RANGE OBSERVED : - 0.4 + 0.075mm

SHEET No : 30 DATE STARTED : 13.4-87 DATE FINISHED : 13.4.87 ENTERED TICK OR SHOW OTHER: NON MAGS ( HANDMAGNET ) MATERIAL -0.4 -0.25 -0.18 OTHER: OBSERVED GRAINS GRAINS +0.075 +0.25 +0.18 FOR PROBING BOTTLED JN BAG WEIGHT 0.3 0.5 4.1 ( SHOW SIZE COUNT CHECK VISUAL ESTIMATE OF MINERAL % MINERAL 1.23, ·03, 0.91 ILMENITE 30 70 MONAZITE RUTILE ZIRCON 1.02 0.018 ELYDYENA TR PRANT Rocks 15 30 N41TIES PMPHIBOLD < 3 TOURMALNO 10 COMMENTS : \_\_\_\_

BUL WINCLUTO EYLFOUY HOM

OBSERV	Æ	R'S	; C	)A	TΑ	\ S	H	EE	: T		<u></u>	ГΙΤ	ΓAN	VIU	М	SA	MP	LE	N	o . <i>Z</i>	CT.	3	131	<b>1</b> 2	•
OBSERV	ΙE	R :_	$\subseteq$	<i>y</i> _	<u> </u>	To	N	าน	ll	, ·			SIZ	E F	A.S	IGE	ОВ	3 Et	RVE	D :	- 0. A	Z + c	.073	_	
SHEET	N	o :	(	69	•		;	DA	TE	ST	AR	ŤΕ	D:	/3	-4	8	37	. t	DAT	E FIN	NISHE	D ·	13-1		7
MATERIAL		NOI				HA		MA	GNI									_		HER:			TĘRE		<u></u>
OBSERVE	) י	1	0.4		1	-0. +0.				0.1			отне Ж. З	R: 8+4		,			****	·	GR	AINS	GR	AINS	
WEIGHT		ľ	ر).	>		1.	1			1-8	۵		1.	0		4,	5,	+			J.W	BAG	PRO	ØR DBIN	G
MINERAL	Flag		٧I	su.	AL I	EST	IMA	TE	OF	МІ	IER.	AL	%		L	GRAI	N CC	UN.	T CI	HECK	(	SHOW	SIZE	)	7
ILMENITE	Ε	5	-		1	0			1	0		6	0		0	1103	.18			92			gu		$\exists$
MONAZITE	Ε																					<i> </i>	10	<u>~</u>	
RUTILE	Ε									/							<u>.</u>				0	- 101	2 4		
ZIRCON	Ε	4/								5			1 !					-			0	09	2 g~	•	$\exists$
LEUCO XENE										ţ.	ř.			_								<del>-  </del>	1	•	
ROCKS		87			7	5	i		5	3		2	C												
EPIDOTE		12		:	T	R			17	2								-				<del> </del>			
BARITE		Ī	1			5		_	1 0	2		ļ					r :								
KYANITE		1				5			-	5	· • • • •				1		<u>.                                    </u>						:		
TOURMININE		1		· . ·		5			110	<u>)</u>			• • • • • • • • • • • • • • • • • • • •			<u> </u>	·						1		
GARNET		+			T	R !	i	_	1	i 		2	0		1_	<del> </del>	-								7
AMPHIBOLE	_		<u> </u>		T	R:			11	n						<u> </u>	<del></del>							<del></del>	
ANDALISITE		+	_	<u>.</u>	T	₹:			7:6	7			<del></del>			*									
		<del>4- 2  </del>					-	_	_	•				•	_	i	:		1						
<u> </u>	4					_	_	-	1	· 					ļ	· 									
	1		-	ļ		.	_	-	-		-			+	ļ	<del> </del>	<del> </del>		1						
	1		<u> </u>					,			-			<u> </u>	1	ļ	-								
	L	10	0°	6	/	0	o°/	0	10	O[O]	10	/	0	5%											
COMMENTS	<b>3</b> :				<del></del>						<del></del>		<del></del>	<del></del>						·					
						<del></del>	-,-		·			···	<del>,</del>	<del></del>			<del></del>		- /	·	<del></del>			·	
					_:					<del></del>							<del></del> .	-	<u></u>	· · · · · · · · · · · · · · · · · · ·		٠.			
	<del></del>	i	unio ma				*************		<del>,</del>	<del> </del>	<del>`</del>			<del></del>		<del></del>			<del></del>		·				
			· ·		<del></del>			- iiu sura		<del>,</del>		<del>.</del>	-		<del></del> ,	· · · · · · · · · · · · · · · · · · ·			<del></del>	<del></del>	······································		····		
		<del></del> .	<u> </u>	<u> </u>		·—·	<del></del>	·		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	·			<del> ,</del>	<del></del> -		<u> </u>	<del>- 12 p. 1, 12 t.</del>	<del> </del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	
			,	· ; - · ·	<u></u>	<del></del>				·	<del></del>			<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>									
₽ 6-86		<del></del>	<del></del>	<del></del>	· . · . · . ·		<del></del>			<del></del>		<del></del> .		···		· · · - · · · · · · · · · · · · · · · ·	<del></del> .		·	<del></del>		, <del></del>			

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT3/4/, 113 SIZE RANGE OBSERVED : - 0.4 + 0.0/5 mm DATE STARTED : 13-4-87 DATE FINISHED : 13-4-87 SHEET No :\_\_\_ ENTERED NON MAGS ( HANDMAGNET ) MATERIAL . NOT MAKE SEF OTHER: -0.18 -0.4 -0.25 OBSERVED GRAINS BOTTLED GRAINS +0.075 +0.25 +0.18 FOR 3.6 IN BAG 0.6 0.4 WEIGHT 2.6 ( SHOW SIZE FRACTION ) GRAIN COUNT CHECK VISUAL ESTIMATE OF MINERAL % MINERAL 0.02, ILMENITE Е 06 6/3 MONAZITE RUTILE ZIRCON E LEUCKENE E 7K LOCKS 19 40 10 15 TOURMALINE 25 20 WHITE 30 7 COMMENTS : \_

OBSERVE	R'S DA	TA SHEE	T T	TITANIUN	SAMPLE	No	RT 314
OBSERVE	R :	AULINE		SIZE R	ANGE OBSE	RVED: -	0.4 + 0.875 mm
SHEET N	o : <u>26</u>	, DA	TE STAR	TED : 13-	4-87	DATE FIN	ISHED : 14-4-87
MATERIAL	MAG S	SECAL ATED	•	<b>L</b>	TICK OR SHOW		ENTERED
OBSERVED	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:	5.6gn	·	GRAINS GRAINS
WEIGHT	1.1	1.7	2.1	0.7	J.692	-	IN BAG PROBING
MINERAL E	visuz	AL ESTIMATE			GRAIN COUN		(SHOW SIZE FRACTION)
ILMENITE E	41	21	3	80	· Ø/ 017	0.063	·641 gm
MONAZITE E						·So	0
RUTILE E		TR.					-021 gm
ZIRCON E			3				.063
LEU COXENEE			I				·021 gm
Rocks	96	95	83	15			
WHITES	3	4		3			
AMPHIBOLE	41	41	1	41			-
EPIOOTE	TR.			TR			
TOURMALINE	41		41				
GARNETS				-2			
COMMENTS :	<del> </del>	<u> </u>		<u> </u>	غيضا المنظم والمنظم	<del> </del>	
OOM MENTS.	• • • • • • • • • • • • • • • • • • •	<del></del>	<del></del>			<del></del>	<u> </u>
	<del></del>	<del> </del>	<del></del>		<del></del>		
	<u> </u>	· <u>·</u> · · · · · · · · · · · · · · · · · ·		<del></del>	· · · · · · · · · · · · · · · · · · ·		
			<del>,</del>	<del></del>			
	·	<del></del>	<del></del>		· · · · · · · · · · · · · · · · · · ·		
<del></del>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		· · · · · · · · · · · · · · · · · · ·	<del> </del>		<del></del>	
		<del></del>	<del></del>	<del> </del>	<del></del>	<del></del>	

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT3/5/

OBSERVE	ΞF	₹:		Ē	<u>&gt;</u>	<u>&gt;</u>	1ŕ	?_							S	ΙZ	E R	ΑN	GE	01	BS	ÉR	۷E	D:	_	0 <u>. O</u>	<u>+</u> 0:	075	Zu'u
SHEET N	Ιo	:_	<del></del>	3	3_/	/	<del>44.24.44.4</del>	<del></del>	D	ΑT	Ε	ST	AF	RTE	ΞD	12	<u> 13 -</u>	4	ع- د	- 7	7	_ b	ΑT	ΕF	INI	SHE	ے: د	4.1	4.8
MATERIAL	~								→ M /	<del></del>	_						3									i		EREC	
OBSERVED			-0. -0.				-0 +0	. 1	В		+(	0.10	75		эт †	HE 13.	+4.		/	,			-			GRA BOTA	INE LED	GR	IAINS OR OBING
WEIGHT			0	8			Ō	9			_	3 -1	0		<u> </u>	・フ	i		6	<u>u</u>	9	_	•		_				
MINERAL E		<del></del>	<u>'</u>	VIS	UA	L	ES:	TIM	AT	EC	)F	MIN	VER	AL	%	_		G	RAI	N C	ζοι —	JNT	CH	IEC	`	(SI	RAC.	SIZE	<u>,</u>
ILMENITE E		/	٥			Ż	2	1_	1	17	ي ا	3 -		4	5	<u>d</u>			8,		135	٠, ٠	39	1.0	2	1.6	<u>2 g</u>	<del>_</del>	
MONAZITE E		+	-				+			<u> </u>	_				$\perp$	_	2					,					V		
RUTILE E		۷	/			7	1	}_		2	- 1				_											0.0	3 9		
ZIRCON E		7	R				2				4	5			_				0.0	2/8		0	./5			0.1	7 9	···	
KEUCOXENE		1				7	R			7	K	>			I						7						0		
Rocks		z	6			Ź	2			6	. (	2		3	ے ا	5						-				-1	<del></del>		
GARNET		_	-			L.	_		-	_	+				1	$\perp$			1	1							<del></del>	ļ: 	
WHITES	ļ		8				8	-		1	ح /	5		_	4	<u>,</u>				-							· · · · · · ·		
PHPHIBOLE			/				2			L	2	2		<u> </u>	$\pm$	<u> </u>							-			· · · · · · · · · · · · · · · · · · ·			
TOURMANNE	l		5				3				5	-		_	+														
			-																										
																						:							
																ŀ													
	L											-																	
	L	16	مرک			ſć	20	Ź		1	2	2/2		1	<del>م</del> ر	<b>)</b>	/									·			
COMMENTS	:		/,				/	<b>.</b>	-			10				lø													
																				,									
																			<del></del>		<del></del>			<del></del>					
																						<del></del>							
																					7		<u> </u>						
																													·
																			<del></del>										<del></del>
₽ 6-86																													

OBSERV	VΕ	R'S DA	TA SHEE	<b>:T</b> 7	<b>FITANIUN</b>	SAMPL	E No≰	<u> 273155</u>	
OBSER	VE	B. 5 . 8	Davidson		SIZE R	ANGE OBS	ERVED: -	0.4+0.	075 <sub>mm</sub>
SHEET	N	o : <u> </u>	) DA	TE STAR	TED :13	14/87.	DATE FIN	ISHED : <u>l</u> :	3/4/87
MATERIA		NON MAG	2 ( DAMOMA	GNET )		TICK OR SHO	W OTHER:	ENT	RED'
OBSERVE	D	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	Mag384	18.90		GRAINS BOTTLED IN BAG	GRAINS FOR
WEIGHT		2.8	4.3	49	6.9	4	·		L
MINERAL	Flag	VISU	AL ESTIMATE	OF MINER	AL %	GRAIN COL	INT CHECK	(SHOW) FRACZ	SIZE 10N)
ILMENITE	E	TR.	TR	<		0.049	0.069	. 118	gu-
MONAZITE	Ε								U
RUTILE	Ε		TR.	TR.					
ZIRCON	Ε		TR.	c				<del></del>	İ
LEUCOKEN	E								
Roces.		99	9.3	88	99				
WHITES		<	TR.	< 1					
EPIDOTE	ĺ		5	10					
Tovemau				< 1			! ! !		
						Î	t .		
					1				
						· value · pris			
COMMENT	rs	:							
		<u>, a a a a a a a a a a a a a a a a a a a</u>	<u>,</u>		<del></del>				
;		+p-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	·····		<del>energy is the first state of the continue</del>	<del></del>	<del></del>		<u></u>
		and the state of t	<del> </del>	<del> </del>	<del></del>	·			<del></del>
manada a sa ing ing ing ing ing ing ing ing ing ing		·	waka anno i shini wa ilaya da da bara da da da da da da da da da da da da da	<del></del>	<del> </del>	<del> </del>	<del></del>		<u> </u>
· <u></u>	· · · · · · · · ·	<del>- 4</del>		<del> </del>				· · · · · · · · · · · · · · · · · · ·	
			*****	<del> </del>	<u> </u>	<del></del>			<del> </del>
ľ									

OBSER	VΕ	R :	50	بنبط	dso	<u> </u>		SI	ZE R	ANG	GE (	овѕ	ER	VEC	): -	0.4	+ 0.1	<u>075</u> mm
SHEET	N	o :	ĉ	λ/	D	ATE S	TAR	TED	:_13	4	81_		_ <b>D</b> .	ATE	FIN	ISHED	:_13	34/87 ERED
MATERIA		NON	MAG	э ( нл	MDMA	GNET	)			TIC	< OR	SH	ow	ОТН	IER:		ENT	₹R É Ø
OBSERVE	D	-0. +0.	.4	+0	.25 .18	-0. +0.	18 075	l l	1ER:		6	C/				GRAI BOTT	NS/	GRAINS FOR PROBING
WEIGHT		3.0	0	2	.0	4.	2_		0	<del></del>	10.	89	~	•		<u> </u>		
MINERAL	Flag		VISU	AL ES	TAMIT	E OF M	INER	AL %	<del></del>	GI	RAIN	COL	TNU	СН	ECK			SIZE
ILMENITE	Ε	١		၂၁		5		65		0	. ०३६	-04	, 0	21	.65	019	4	gu-
MONAZITE	Ε					<b>.</b>	:			ļ							· · · · · · · · · · · · · · · · · · ·	0
RUTILE	Ε	TR		TR		TR									ļ		•	
ZIRCON	Ε			-1		1					į				:	0.4	242	2 900
LEUXOXE	NE E							ļ		ļ		: 					····	0
Pock		98		88		86		30									<del></del>	
WHITE		41	1	5	<u>.</u> ` !	3	:	S										
JOURNAU	NE	د ا	ļ.	a		3		[ے									.···	
AMPHIBOL	E			3		12				ļ					<u> </u>			
***************************************	i					-				ļ		-						
			·			<u> </u>				-					<u> </u>		. <del></del>	
			•												1			
			i		,		:			ļ						<del></del>		<u> </u>
). 			:						-									
						<del>                                     </del>		1							<u></u>			
						-		-		<del> </del>			İ		-			<u> </u>
										<u> </u>							<del>;</del>	
										<u></u>						<u>.</u>		<u> </u>
COMMENT	rs	:	<del></del>	<del></del>	_ <del> </del>	<del></del>		<u> </u>	<del> </del>	· · · · · · · · ·		·		·		<del> </del>	<del></del>	
· · · · · · · · · · · · · · · · · · ·		. * . <del>* . * .</del>	<del></del> ;	· <u> </u>	<del></del>	··········	<del></del>	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	·	<del></del>		<del></del>	<u> </u>	· . · · . <u>.</u>	<u></u>	<del></del>	
		<del> </del>	<del></del>	<u></u>	<del></del>		· · · · · · · · · · · · · · · · · · ·		<del> </del>	· · ·	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>	<del></del>		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	<del></del>
		<del> </del>		<del></del>	<del></del>	<del>:</del> —			<del>: : . '+/+/</del>		<del></del> -			<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
	<del></del>	<del></del> `` : · · <del></del> _		· <del></del>	<del></del>	<del>:</del>	· · · · · ·	<del> </del>	<del>* : • •</del>	<del></del>	·	-		<del> : -</del>	<del></del>	<u></u>	<del>:. '</del> '-	· · · · · · · · · · · · · · · · · · ·
	<del></del>	<del> </del>	. <del></del>	<del></del>		<del>,</del>	···	<del></del>		: <u>_</u>		<del></del>	<del> ,</del>	<del>,</del> :	<del></del>	<del>,</del>	<u></u>	<del></del>
		<del> </del>		<u> </u>	<del></del>		<del></del>	·	<del></del>			<del>, .</del>	<del></del>	- · <u></u>			<del>-:</del>	<del></del>
						<del></del>												

OBSER			_			•	ВН	IP I	MIN	ER.	AL:	SE	ХP	LC	RA	TIO	N	_		i A	0	. 21		10
OBSER	/E	R'S	D.	AI	A ) φ	S⊦ ∕	iet B	=				Al	<b>VIU</b>	JN	1 5	SAN	/PL	E.	No	•		<u>~ / </u>	15	
OBSER	۷E	R :_	7	رگز در مو	<u> </u>	ors	n	al	<u>L</u>			SIZ	ZE,	R/	AN(	GE (	DBS	ER	VEC	) : -	- o <u>- 4</u>	<u>.</u> + 0.4	<u>075</u> m	m
SHEET	N	o :	/				D/	A T E	S7	AR	TE	D:	<u> </u>	4	- /	7 -	8/	_ <b>D</b>	ATE	FIN	ISHE			-87
MATERIA	Ĺ,	NON	MA	\GS	( )	HANI MAG	DMA S	GN EP.	EŦ)	· · · · · · · · · · · · · · · · · · ·					rici	OR	SHO	w —	ОТН	IER:		ENT	ĘRED	
OBSERVE	Ď		.4 .25			0.25 0.1			-0.1 +0.0			тні 6 3			<u> </u> 						GRA	AINS	GRA	IN8
WEIGHT		٥	٠٤		τ	·8			2.1			1.0	7		_	5.6	)g-	_	;		ĮŅ'	JED BAG	PBOB	ING
MINERAL	Flag		VIS	SUA	L E	STIM	ATE	E OF	MII	VER.	AL	%			GI	RAIN	COI	ТИС	СНІ	ЕСК	( S	HOW	SIZE	
ILMENITE	Ε	TR				5		2	5		8	0			0.	o 4	0.5	25,	1.5	2		.08	T	
MONAZITE	Ε																						0	
RUTILE	E				71	2		<	1							Ø	02	-1			Ó	021.	gu	
ZIRCON	Ε	+				<u>'                                    </u>			5						٠٥	08	4	125	_		ó	133	gui gui	
LEVCOXENE	Ē	+			7 1	2		7	R														U	
Rocks		89			50	2		2	0		1	0												
TOURMMINE		1				3		2	0		ļ								· ·					
WHITE	-	10			40		ļ	2	5		4										· 			
EPIDOTE	_	TR			77	2		7	R	-	_											<del> </del>		<del></del>
AMPHIBOLE	4	7R			_/	<u>'</u>			4	$\perp$	_						.,							·
PRHETS	_	+			+	_		7	e .		1	0	-	4					· ·			·		· · · · · · · · · · · · · · · · · · ·
						-	-			1	<u> </u>		-	_					. <del></del> .					
	_	<u> </u>		_	_	-			_	-			_							:		<del></del>		
	-			_	-		-			+-			_	-		ŀ	·		<u> </u>					
<u> </u>				_						+-			+	$\dashv$	-		<del></del> .				· · · · · · · · · · · · · · · · · · ·	•	: 	
	-			+		+-	<del>                                     </del>			1			+	-					<del></del>					
	$\dashv$	10	0	<del>-</del>	10	100	7	1		01/2		~	ام	7					-		·			
	L		U	10	/ K	10	10	/ (	U	10	/	U	U						<del> </del>		- to the state of			
COMMENT	S:	· <del></del>	<del></del>	• • •		÷ :	······································	····		-	<del></del>	<del></del>		<del></del>		·	<del>:</del>	<del>-,</del>		<u> </u>		<del>, - : '</del>	<del></del>	
<del>- 1. 4 1.</del>	<del></del> -	<del>- ; - ; - ; - ;</del>				<del></del>	<del></del>			<del>- :</del>		·		<u>.</u>	•		· · · · · · · · · · · · · · · · · · ·	<del></del>		<del> </del>	<del></del>	<del></del>	<del></del>	
<del> </del>					<del></del>	<del></del>		<u></u>		<del></del>	<del></del>	<u> </u>		<u></u>	<del></del>	<del></del>	<del></del>	·	-,	<del></del>	. <del> </del>		<del></del>	
•:			<u> </u>	<u> </u>		<del>:</del>	<del></del>		····	<del></del>		· . · ·				<del></del>	<del></del>	<del></del>	<del></del>					
		· · · · · ·	·	<del></del>		<del></del>	<u> </u>	<del></del>				<del></del>				<del>- ; ,</del>	<del></del>		· · · · · ·	<del></del>	·			
<del></del>		·····			····	<del></del>	<del></del>	<del></del>	<u></u>														·	
<del></del>			<del></del>		-:	<del></del>		<u> </u>				<del></del>				· · ·								

OBSER	νE	Rʻ	'S	D	Α7	ГΑ	. S	H	вн ЕЕ	P ET	MI —	N E	:R/ - 7	ALS TIT	³ Е	EXF NI	٦٧ ال	OR M	ATIO SAN	N NPL	_E	No		27.	3	1	77	
OBSER	۷E	R	:	<u>(</u>	<u>&gt;-</u>	ر 	To	29.	n	61.1	ll.	' 	_		SI	ZE	R	AN	GE (	овя	ER	ΫEΙ	<b>)</b> : -	- 0 <u></u>	4.	0-4	<i>075</i> m	m
SHEET	N	o :		1	12	<u>,                                     </u>		·	DA	ÌΤΙ	Ξ 9	ŝT/	ÁR	TE	D	: <u>/</u>	4-	4	- ~ {	37	_ b	ÄTE	FIN	ISHI	ED:	14	1-4	-87
MATERIA	L	N	ON	M	AGS	3 (	HA	ND アル	M A 1AG	an , s	ET EP.	` }	··			<del></del>	]	TIC	к оғ	R SH	ow	оті	HER:		F	NTE	RED	
OBSERVE	D		-0 +0		;	1	-0. +0	-		1	-0. +0.			C	)TH	ER	:		_					GF BO	AIN	s⁄ ED	GRA FO PROB	INS
WEIGHT	-		0	٠১			0	<u>.</u> ح			2.	જ							3.	83	ļ.			19	ВА	G	PROB	ING
MINERAL	Flag	Γ		VI	SU/	AL E	EST	ГІМ	ATE	ΞΟ	FN	AIN	ER	AL '	%			G	RAIN	Co	UNT	СН	ECK	(	SHO	W A C T	SIZE	
ILMENITE	E	7	R				5			1	0								25	•	28			0.	5	3 a		
MONAZITE	E																							r r		Û		
RUTILE	E					7.	R																		0			
ZIRCON	E					1	K			1	0													0	28	gn	<u>~</u>	
LEUCOXENE	E										ļ.,															U	;	
Rocks		6	5			4	5			3	5			ļ		ļ		<u></u>					:		· • • • • • • • • • • • • • • • • • • •			
TOURMALINE			5			1	0				5				ļ				<u> </u>		ļ <u>.</u>					<del></del>		
WHITES		2	0			2	0		. ,	2	0			ļ							_		ļ. 		· <del>• • • • • • • •</del>		···	
GARNETS		1	0			1	0			/	0			ļ					ļ <u>.</u>									
PYRITE		7	R			7	R			7	R			ļ				<u> </u>			_							
AMPHIBOLE		I	R			1	0			1.	0			ļ	ļ		:	_									· :	
FPIDOTE		7	R	ļ.		7	R			7	R		ļ	-				<u> </u>									<del></del>	
 				ļ			<u> </u>							ļ	-				ļ.				ļ					<del></del>
,										ļ					<u> </u>	ļ	:	_			_		ļ					
	ļ. L			·	 		-				ļ			_		ļ	-				<u> </u>							
	-						ļ. 	ļ 		<u> </u>		<u> </u>		_	-						<u> </u>	<u></u>						
					5			0	-	] 				<u> </u>	ļ			_	-		ļ	-						
		/	0	O	70	1	0	Ŏ	0	/	0	ő	6		<u> </u>						<u> </u>						<del></del>	
COMMENT	rs	:_			<del></del>	<del>!</del> -			<del></del>	<del></del>						<del></del>	<del></del>	· · · · ·	<del></del>	<u></u>	<del></del>		<u> </u>	·			<del></del>	
				· · · · · ·	<del></del>		·			•			<del></del>			<del></del>	<del></del>	<del></del>	<u></u>	interiorio de la constanta de				<del></del>	<u> </u>			
					. <del></del> -	÷	<del></del>	- : -				<del></del>		<del></del>	<del></del> -	<del></del>	<u></u>		<del></del>			<del></del>	<del></del>		<del></del> -		<del></del>	
•			· · ·		- <del>1 </del>	· · · <del>-</del> · ·	-	·	<del>- :-</del>	<del>:</del>			<u> </u>	· · ·		<del></del>			· <del>· · · ·</del>		· · · · · · · · · · · · · · · · · · ·	<del></del>	·	<del>-</del>	<del></del>			
<del></del>	<u> </u>							<del></del>	· .:-	<del></del>	· · · · ·	···	<del></del>	· · · · · ·	<del></del>		<del></del> -				· ,		· · · · · ·	<del></del>	<u></u>	<del></del>	<del></del>	<u></u>
	<del></del>				<u> </u>	<del></del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	···				<del>- : : :</del>			<del></del>			<del></del>	<del></del>		<u> </u>				<del></del>	
<u> </u>	<del></del>				<u> </u>	-;			<del>,</del>		<del></del>	<del></del>			<del></del>	<del></del> -	<del></del>		<u> </u>	<del></del> .		<del></del>	<u> </u>	<u> </u>	<del></del>		<u> </u>	<del></del>
.P.c. 96				<u> </u>																								

OBSERVE	R'S DA	ATA SHEE	ET T	TITANIUN	M SAMPLE No	RT 3182
OBSERVE	R:	PAULINE.		SIZE R	ANGE OBSERVED :	-0.4 +0.075mm
					4-4-87 DATE FIN	
MATERIAL	NON MA	MAC SEPAR	GNET-)		TICK OR SHOW OTHER:	TATEDED
OBSERVED	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:		GRAINS GRAINS
WEIGHT	<u></u>	1./	1.3		2.8 gm -	GRAINS GRAINS FOR IN BAG PROBING
MINERAL B	VIS	UAL ESTIMATE	OF MINERA	\L %	GRAIN COUNT CHECK	( SHOW SIZE FRACTION )
ILMENITE E	10	0 40	50		04 0.44 .65	
MONAZITE E						
RUTILE E	TA	R 1	2		.011 -026	·037 am.
ZIRCON E			3		.011 -039	.037 gm.
LEULOXENEE		_				Ü
Rocks	64	7 28	19			
TOURNAUNE	3					
WHITES	20		20			
AMPHIBOCE	1	1 2	3			
EPIDOTE.	2	2				
						<del>/</del>
						**************************************
COMMENTS :	<del></del>	en en en en en en en en en en en en en e	·	<del>141-,</del>	· · · · · · · · · · · · · · · · · · ·	
	<del></del>	<del></del>	<del>,</del>	<del></del>		
<u> </u>	<del></del>	<del> </del>	<del> </del>	<del></del>		
	<del></del>	<del>lander de la verta de la comp</del> etation de la competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della competation della com	<del></del>	<del>::</del>		
	· · · · · · · · · · · · · · · · · · ·	<del></del>	<u></u>	<del></del>	<del></del>	
		·		· · · · · · · · · · · · · · · · · · ·		
P 6: 86				<del></del>		

OBSER	\/E	כוב	<b>'</b> C		. A '	Τ.		si.	BH	IP	M	NE	R	AL:	S E	ΞXF	PL	OR	ATIC	N	. –		L.	DT.	- 31	12	1
ODGER	VE	<b>-</b> H	<b>3</b>			1 /	1	o⊓	<b> </b>     ,		- 11	-	-	111	A	NI	U	VI	SAI	MPI	LE	No		L/.			;
OBSER	VE	ER	:_2	9	· 7:	<u>~</u> ?	<u>or</u>	A	n	u	C		<del></del> .		SI	ZE	R	AN	IGE	OBS	SEF	RVE	O : ·	- 0 <u>• 4</u>	<u>Z</u> + 0:	<u>075</u> mm	ń
SHEET		lo Ta	-			, 	· · · · · · · · · · · · · · · · · · ·		D	AT	E S	STA	AR	TE	D =	: <i></i>									D <u>///</u>	<i>-4-8,</i> ered	7
MATERIA	L.		NON	M	AG:	<del>5 (</del>	111 NO:	T /	MAL	· 5	EP.	,			_ 		]	TIC	K O	3 84	IOW	ОТІ	HER:				
OBSERVE	D			).4 .25		1	-0. +0					.18 .07		C	ŀΤΗ	IER	:							GR	L_AIN8	GRAIN	rs .
WEIGHT			0	٠2	•		0	6.			1.	0	- ;		····				1.8	s gn	1			BOT	BAG	GRAIN FØR PROBII	NG
MINERAL	Flag			VI	su	AL I	EST	ГΙМ	ATE	≣ 0	F٨	AINE	ER#	AL 1	%			G	RAIN	- 1/-		СН	ECK	( :	SHOW	SIZE	<del></del>
ILMENITE	Ε	3	5			4	b			4	0								0.0	7.	0	24	·a			<del>                                     </del>	<u></u>
MONAZITE	AONAZITE E TRONE T															<del></del>											
RUTILE	RUTILE E - TR TR -																<del></del>										
ZIRCON	ZIRCON E TR TR TR —																										
LEUCOXENE	ZIRCON E TR TR TR																<del>-,</del>										
Rocks	ZIRCON E TR TR TR TR																										
WHITE	ENCOXENE E  ROCKS 30 30 40																										
TOURMMINE			5				5				5																
STAUROLITE		7	R			<	1			7	R																
								}																		· · · · · · · · · · · · · · · · · · ·	
											-																
	_	_																									
			-																								
	1																										
	$\downarrow$									_																	
		_	_	_		1																				-	
	1	1			_	_																					
		1 0	0	0	6	/ (	00	2/	0	/ (	0	8/1	0														
COMMENTS	3:				<del></del>									·	<u> </u>	<del></del>	<del></del>		· · · · · ·								
	·	· · · ·											<u></u>	<del></del>	<u> </u>		·				<u> </u>						
·	<del></del>				<del></del>	<del></del>				<del></del>		<del></del>						· · · · ·	<del></del>	·							
<del></del>	·· ·	<del></del> -	<del></del>		· · · · · ·	•	· · · · · ·						<u></u>			<del></del>		. ,	·			·				<u> </u>	
• <del>*                                    </del>				<del></del> -						·.·		·				<del></del>			<del></del>	· · · · · ·		· · · · ·				<del></del>	
<del>-</del>	<del></del>			<u>.</u>	<del></del>		<u></u>			<u> </u>	· · · · · ·		<u> </u>		<del></del> -	<del></del> -				<del></del>			<u>-</u>	·		<u> </u>	
	<del>-</del>	<u></u>	····				· · · ·	· , ; -	<del></del>	· · · · ·		<u> </u>			<u></u> .			<del></del>	··								_
P 6⋅ 86	<del></del>						<del></del>													·	<u> </u>	<del></del>				<del></del>	

OBSERV																							
OBSERV	/EI	R:		之	ノ :->	Jo	2.9	Kn	Al	U	? 		_	;	SIZ	Έ	RA	N	GE, (	SBC	ŝΕ	RV	/ED
SHEET	No	<b>:</b> :		2	4			<u>.</u>	DΑ	TE	s	ΤA	R	ſΕΙ	<b>)</b> :	_/;	4-	4	-8	<u> </u>	<u> </u>	DA	TE.
MATERIA	L	NC	N	МА	GS	(	HA MA	ND G :	MA SE	BN ₽.	ET	)					1	ГІСІ	< OF	≀ SH	10	w (	отн:
OBSERVE	D		-0. +0.				-0. +0.				-0. +0.	18 075	5		THE				,				
WEIGHT	<del></del>		1:	l			1.0	>			4.	2			٥٠،			(	0.6	29	1		
MINERAL	Flag			VIS	UA	L E	ST	IM/	ATE	0	FM	INE	RA	L 9	6			G	RAIN	ı cc	) ÚI	NT	CHE
ILMENITE	Ε		1				1			1	0			7	0		:		'o#	ļ.,	b	/	•47
MONAZITE	Е																						
RUTILE	E		14 14 14 m																		$\perp$		
ZIRCON	Ε							:												<u> </u>			
LECCOXENE	E										Ē									<u> </u>	1		
ROCKS		9	8			9	4			1	9										$\perp$		
WHITES			1				5			1	0			2	0						_		
EPIDOTE		7	R			7	R			7	R_		<u></u>			:				<u> </u>	_		
AMPHIBULE		-	_			7	R				1									ļ			:
AMPHIBULE GARNETS		_	<u>_</u>		:	7	R	ļ 1		7	R			1	0		·			ļ			
-										ļ 			-								1		
																ļ					_		
							-													<u> </u>	$\downarrow$		· 
							ļ							ļ.,						<u> </u>	$\downarrow$		<del></del>
<u> </u>	_									ļ .		<u> </u>		ļ						<del> </del>	_		
:						_				_	ļ			ļ	<u> </u>			_	1	<u> </u>	_		
	<u> </u>	_				ļ	ļ	ļ	_							_		ļ		-	-		1
		1	0	0	6	1	0	ő	10	1	0	$\mathscr{O}$	6	1	0	d	6					1	
COMMEN	TS	:	<del></del> -					· · · · · ·				<del></del>	<u>.</u>		<del></del>				·	<u> </u>	. ·	<del></del>	
		<del></del>			<del></del>	·		·	<del></del> -						·					<del></del>	<del></del>	<del></del> -	
			· . · .	<del></del> .	<u> </u>														<del></del>	<del></del>	<u></u>		<del></del>
		<u></u>		·				<del></del>	,		·								<u> </u>			<del></del>	<del></del>
-						<del></del>				· · ·								<del></del>	<del></del>	<del></del>			·
·		·	<u> </u>	·	<u> </u>		·•						<del></del>			<del></del>				- 1945 - 1945	<del>.</del>		<del>- , -</del>
								<u> </u>				<u>.</u>	<u> </u>	<u>,</u>	·		·	<del></del>		·	· :	_	
															4								٠. پيشت

BHP MINERALS EXPLORATION OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No. R1.3194OBSERVER: Forknall SIZE RANGE OBSERVED: -0.4 + 0.075 mm SHEET No : 75 DATE STARTED : 14 -4 -87 DATE FINISHED : 14 -4 -87 NON MAGS ( HANDMAGNET ) TICK OR SHOW OTHER: MATERIAL NOT MAG. SEP. -0.4 -0.25 OBSERVED -0.18 OTHER: GRAINS BOTTLED IN BAG +0.25 +0.18 +0.075 GRAINS Grain 2.6g FOR WEIGHT 1.5 PROBING 0.3 0.8 ( SHOW SIZE FRACTION ) MINERAL VISUAL ESTIMATE OF MINERAL % GRAIN COUNT CHECK ILMENITE | E 20 20 MONAZITE E 1.5 % RUTILE ZIRCON 3.8 % ELLOXENE E 7R TR ROCKS 10 20 GARNETS 8 30 5 TOURMENTE 3.0 1.1% EPIDOTE COMMENTS :

Sample NORT3194-Grain COUNT- (SIZE-0.18+0.075) 14.4.87.

# APPENDIX B

OBSERVERS DATA SHEETS - TRAVERSE 7

OBS	SER1	/E	R'	S	D	Αī	ГΑ	S	Н	E	ΞT	_		· T	ΊŢ	A	NII	UN	1 3	SAN	ЛPI	_E	No	• —	RT	340	29	•	<u>-</u> -
ОВ	SER	VE	R:		7	Au	لام	E	•							SI	ZΕ	R	A N	GE	овя	SER	VE	); -	- 0 <u>- 4</u>	<del></del> (	o <u>. 0</u>	7 <u>5</u> m	ım
	EET																												
МА	TERIA	L					+ ( AC_	•*										]	ГІС	к оғ	₹ ЅН	ow	ОТН	HER:		EN	ΤĘ	RED	
овѕ	ERVE	D	•	-0. +0.	.4 .25	i		-0. +0.	.25 .18	}		-0. +0.	18 .07	5	0	TH	ER	:		0	_	ŀ			GR	AINS	7	GRA	IN8
WE	EIGHT		,	Ö٠	<b>a</b> -			٥.	4			2	.9							3.	5,	fu.			IN	TILEI BAG		PROE	BING
MINE	RAL	Flag			VIS	SUA	AL E	SI	IM.	ΑTΕ	<b>.</b> 0	FN	INI	ERA	L 9	%								ECK	(	SHOA	Ø 5	SIZE	
ILMEI	NITE	Ε				3			l	5			2	5						. 006	-ok		724		0.	79	an		
MONA	ZITE	Ε																									0		
RUTI	RUTILE E																												
ZIRC	ZIRCON E 1 1 15 COOY 0.435 gm																												
LEUCC	ZIRCON E 1 1 15 COULT OUZS JULI																												
Rock	ROCKS 55 43 22															·													
TOURM	1ALINE	,				7				5	_		i –	0								ļ				<del></del>			
WHI	呧.				2	5			2	5			2	S									l <sub>1</sub>		·		_		
EPID	OTE		_		7	R			7	R	_		1	R								<u> </u>		:		<del> </del>			·
	· · · · · · · · · · · · · · · · · · ·	_									-					,			 			-						····	
		-									_						:		<del></del>			ļ				<del></del>	-	<del></del>	
	·	-									-								•								_	<del></del>	
			_	_		********		_														ļ					-	·	
	·		_	_				_			<del>}</del>									<u> </u>		<u> </u>			<u> </u>		-	**********	· · · · · · · · · · · · · · · · · · ·
		-	_	_																							-	<del></del>	<del></del> :
		$\dashv$		-	-					· 							:	_		 						<del></del>	-	<del>/</del>	-
		$\dashv$												_							· <del></del>	-			, ,»	<del></del>			
<u> </u>						İ									1				<del></del>		-	<u> </u>				<del>~~</del>	1,	<del> </del>	<del>,</del>
COM	MENT	S:				· · · ·				····	<del>,</del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>	·	<del></del>	<u>-</u>	<del></del>	<del>,</del>	····	<del></del>	<del></del>	<del>, - ; - ; - ;</del>	<del></del>		- <del>1 </del>			<del>-,</del>
	• <del>:</del>		<del>-, ,,,,,,</del>	<del></del>		<del></del>				<del></del>		-,-,-			·	·		·				<del></del>			· · · · · · · · · · · · · · · · · · ·				<del></del>
	· · · · · · · · · · · · · · · · · · ·		<del></del>		<del></del> -		<del></del>		<del></del>							:	. ·	<u> </u>	<del></del>		<del>:</del>		<del>- , : - , -</del>	<del></del>	<del></del>	<del> </del>		<del></del>	<del></del>
<u> </u>	<del> </del>					<del>,</del>	<del></del>		<u> </u>	<del></del>	<u> </u>	<del></del> -		<del></del>		<del></del>				· .	·		<del>,,</del>		<del></del>			<del></del>	<del></del>
		<del></del>	<u></u>		··		<del>,</del>		-		<del> ,</del>								· · · ·				<del></del>	<del></del> -		<del> </del>			
	<del></del>	<del></del>	<u>, .</u>	<del></del> :		<del></del>						<u> </u>			· · ·	<u> </u>	<del></del> ,-	:		<del></del>	<del>-,,-</del>		<del></del>	· · · · ·	<del></del>	<del>· · · · ·</del>			
		··		·	<del></del>	<del></del>			<del></del>			<del></del>	<del>'</del>			<del></del>	<u></u>	<del>,</del>		· · · ·			<del>,</del>		<del></del>	<del></del>		<del></del>	

OBSER	۷E	R	S	D,	Ą٦	ΓΑ	S	Н	E	ΞT	_		- 7	IT	ΆΙ	VII	UN	1 3	AR	<b>MPL</b>	E.	No		<u> </u>	<u>I</u>	4	<i>19.</i>
OBSER	VĖ	R	.(	بر	$\frac{1}{2}$	To	i N	En	al.	6	<u> </u>		+		SI	ZE	R	ΑN	GE	овѕ	ER	VEC	) ; -	- 0 <u>./</u>	<u>Z</u> .	o <u>.</u>	175 mm
SHEET	N	o :		9	5			_	D#	ΑŤΙ	Ė \$	ST	٩R	TE	D:	2	3 -	- 4	8	7	_ b	ATE	FIN	ISHE	ĒD:	23	3-4-8/
MATERIA		1 -	ON				HA	NB	MA		ET												IER:	7	E	NTE	RED
OBSERVE	D		-0. +0.				-0. +0		3			.18		1	TH GS 3							$\alpha$	_	GR	AIN	s/	GRAINS FOR PROBING
WEIGHT			0.	3	•		١.	. 2.			6	.7		İ	1.3			-	0.13	8	'	7.5	) gn	I IN	BA	G	PROBING
MINERAL	Flag			VIS	UA	L	EST	ГІМ	ΑT	ЕΟ	F١	ΛIN	ER/	AL	%			G	RAIN			ГСН	ECK	(	SHO	XV CT	SIZE JON )
ILMENITE	E		5			7	0			2	0			6	0			1	5.5	07		1015	1.34	2	·2	5	a
MONAZITE	E																										0
RUTILE	ZIRCON E TR 1 20 22.070 1.34 gm																										
ZIRCON	(EUCOXENE I <sup>2</sup>																										
LEUCOXENE	EUCOXENE IZ															0											
Rocks	ROCKS 87 69 40 40 43.5%																										
IOURMAZINE	(EUCOXENE I <sup>2</sup>																										
AMPHIBOLE			1			7	R			7	R	,													h		
WHITES		_	5			1	0			1	3			<u> </u>				1	1,30	70							·
STURILITE	-	_				7	R			7	R	_					:				:					- 1,000	
<u> </u>											ļ	ļ						-		<del></del>				<del></del>			
		-															,							· · · · -		:-	
_					_					-																	<u> </u>
													-								ļ				هجيشيم وشيبش		
				1						-	i								<del></del>								<del></del>
					_		:			_							<del></del>				ļ			<del></del>	<del></del>		<del></del>
		/	0	ő i	7	1	0	0	7	1	0	ő	70	1	0	C	7								<del></del>		
COMMENT				<u>- I.</u>			لت	<u> </u>	,-	<u>.                                    </u>	Щ.	1	نتن	<u></u>	<u> </u>	<u>~ 1</u>	, U	Ļ		I	<u> </u>	<u> </u>	l	L		J.	
COMMENT	<b>3</b>	-		<del>,</del>	****			<del>y</del>						<del></del>				+		· · · · · · · · · · · · · · · · · · ·		<del></del>	<del></del>	1 <del>-4-1</del>	<u> </u>		
				•	-;		<del></del>	<del>, ·</del>				<del></del>						<del></del>	<del></del>	<del>************</del>		<del></del>		<del></del>			<del></del>
	·				<del></del>			<del></del>					,		<del></del>	<del></del>	·		<del></del>				<del></del>				<del>- w. h   -   -   -   -   -   -   -   -   - </del>
				<del></del>		<del></del>								<del></del>	·		<u> </u>	, , , ,	,			<del> </del>		<del></del>	<del></del>	<del>, , , , , , , , , , , , , , , , , , , </del>	<u></u>
				· · ·			<del></del>	<u></u>		<del></del>		<del></del>	<u> </u>		<del></del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>	-,		<del></del>	······································	<del></del>	<del></del>	
					<del>,                                      </del>			<del>- '                                   </del>							•			<del></del>	** · · · · · · · · · · · · · · · · · ·		···			<del>ninaji ji</del> e			
				-		· · · · ·																					

SXCOMPRO 11 101. 07 11. WILLEN COUNT. SIZE (-0.18+0.075) 23.4.87.

OBSER'	VE	R'S	<b>S C</b>	Α	T	۹ :	SH	ΙΕΙ	ET	٠ _	<u>. – .</u>	- 7	ГΙ٦	ГΑ	NI	UI	M	SA	MP	LE	No	•	RT	3420	>
OBSER	۷E	R:_	3	PAU	として	NE	•			-				SI	ΙZΕ	R	A١	IGE	ОВ	SEF	IVE	D :	- <u>ه. ل</u>	<u>t</u> + 0:	075 <sub>mm</sub>
																									.3-4-87.
MATERIA		N/OH	N M	AG MA	s d	(-117 S	ANG GPF	MEA	101 1TE	ET , G.	)		7							<del></del>		IER:	_		ĘRED
OBSERVE	D	+1	0.4 0.2	5		+0	.25	s B		-0 +0			C	)TH	IER	1:		0	0		*		GR	AINS	GRAINS
WEIGHT		٤	) • 4			1.	5.	•		].	9							3.	8gr	4				BAG	GRAINS FOR PROBING
MINERAL	Flag		VI	su	ΑL	ES	TIM	АТ	ΕO	FN	AIN	ER/	۸L,	%			(	SRAII	V C.O	דאט	СН	ECK	( :	SHOW FRACT	SIZÉ
ILMENITE	Ε			5				5			1	0						107		1.	1			289	<del></del>
MONAZITE	E																							7	
RUTILE	Ε																						_		
ZIRCON	ON E 41 41 41																0.1	03 g	···						
LEUCCXENS	XENIS E																								
ROCKS	CKS 90 92 87																								
WHITES .	EUCCXENSE 90 92 87																								
TOURNALINE			T	1			۷	1			2	1					_								
		-			ļ.,	-								_			_								
			<u> </u>		-									-							i i				-
	$\dashv$		ļ:			-														ļ	·				
	-		ļ		_													ļ		ļ					
	_		-		İ													-							
	-				_																		l .		
	-				<u> </u>																		:		
	-					·						_	-					<u> </u>		-					
	+											-		_							,		<del></del>		
<u> </u>	L											_													<del>vinoronia, e proprio de la comunici</del>
COMMENT	s:	•		<del></del>	<del></del>	<u> </u>	· · ·			<del></del>	;		·			· · -		<del></del> .		<del></del>	<del><u></u> .</del>		<del></del>	<del>- ','' ' - ' - ' - '</del>	<del></del>
· · · · · · · · · · · · · · · · · · ·		<del></del>	<del></del>	·	·			<del></del>		<del></del>	<u></u>					·		<del></del>		·:			<del></del>	<del></del>	<del>. :</del>
	<del></del>	<del></del>	<del></del>		· -	<del></del> -	<u></u> .	<del></del>		<del></del>	· . · _		<u> </u>		<del></del>	:	<del>., .</del>	<del></del>	·	<del></del>	<del>-</del>	<del></del>	<del></del>	<del> </del>	<del></del>
<del></del>		<del></del>	···-	<u> </u>	-	<del></del>	<del></del>			<del></del>	<del></del>	<del>.</del>	<u> </u>	<del></del>		<del></del>	-	<del></del>	<del></del>	<u>-</u>	<u> </u>	<del></del>	·	<del></del>	<del>e la completation de la complet</del>
<del></del>	<del></del>	<del></del>	<del>,</del>		<del></del> ,	<del></del> .			<u> </u>		<del></del>		·		<u></u>	·,·	<del></del>	<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>	<del> </del>	<del></del>	<del></del> -,
<del> </del>		<del></del>	<del></del>		·	<u> </u>		<del>,</del>		<u> </u>			<u></u> ,	<u></u>	<u></u> :	<del>-, -</del>	<del>,</del>	<del>-,</del>	<del></del>			<del></del> .	<del></del>	<del></del>	<del>-, ,, , , , , </del>
<del></del>	····	<del>:</del>		· · ·				<del></del>	<del></del>	<u> </u>	<del></del> -	<u> </u>		<del></del> -	<del></del> -	_	<u> </u>	·	· · · · · · · · · · · · · · · · · · ·	<del></del> -	<del></del>	·	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>
₽ 6-86					· · ·						<u></u>			—		<del></del>			· · · .						<del></del>

OBSERVE	R'S DA	TA SHEE	T T	TANIUN	SAMPL	E No 7	273425	
OBSERVE	<u> B                                   </u>	migen		SIZE R	ANGE OBS	ERVED: -	0.4 + 0.	07 <b>S</b> mm
						DATE FIN	ISHED :_16	11/87
MATERIAL	NON MAG	s (HANDMA	GNET )		TICK OR SHO	OW OTHER:	ENTI	ĘR E'D
OBSERVED	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:	04		GRAINS BOTTLED	GRAINS FOR
WEIGHT	0.01	0.7	8.1		-0.4 Mag 384		JN BAG	PROBING
MINERAL SEL	visu	AL ESTIMATE	OF MINERA	L %	GRAIN COI	JNT CHECK	(SHOW) FRACT	SIZE ION )
ILMENITE E		7	20 1.6		20		1.6g	
MONAZITE E								
RUTILE E	3		3		TR.		0.24	gn
ZIRCON E	3	a	S		TR		0.40	gu-
LEIXOXE	TR.	Te		; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;				i <i>0</i> 
Rocks	69	50	50		80			
TOWEMALINE	10	25	15				e e communicación de la company	
STAUROUTE	5	. a			TR.	· · · · · · · · · · · · · · · · · · ·		
KYANITE		10	3	*				·
BARITE	3	2	2		: 			
EPIDOTE		TR	<u> </u>			÷		. پېښت
QUARTZ								
			1					
								<u> </u>
COMMENTS	:		بشناه بمعاشد بسادي وسنستم وسنست	- Tage - 14 - The state of the State - 14 - 14 - 14 - 14 - 14 - 14 - 14 - 1	and the engine about the production of a section of a second conjugate.		<del></del>	والمستخر والمارات الراب والمستخر والمستحدات
		<u></u>				·	· · · · · · · · · · · · · · · · · · ·	mental in the same
	<del>e adomination (1917), the pri</del>			alle taribet and the second and the second and the second and the second and the second and the second and the			<u> </u>	
	<del></del>	— — — —				<del>al place de la completación de la completación de la completación de la completación de la completación de la</del>		<del> </del>
	<del></del>	·	and the state of t	. 1. 1				t, in the strength of the strength of
<del></del>	·					· · · · · · · · · · · · · · · · · · ·		
		<del></del>						
		•						

OBSER	VΕ	R'S	DA <sup>-</sup>	TA S	SHE	ET		7	ГΙΤ	۸N	IIUN	<b>1</b> S	SAN	ИPL	E N	ر. ol	R	7 34	31	· · · · · · · · · · · · · · · · · · ·
OBSER	VE	R :	E)		9	÷				SIZ	E R	AN	ЭE	овѕ	ERV	'ED:	- (	0.4 + 0	075	m m
SHEET	N	o :	/-	<u> </u>	D	ATE	E S	TAR	TE	D :_	16		<u> </u>	87	_ DA	TE F	NIS	SHED :		
MATERIA	L	NON	MAGS	3 (н/	ANDM	AGN	ET	)		SH,	<b></b> 多·	TIC	к оғ	3 SH	ow c	OTHER		ENT	ĘREC	
OBSERVE	D	-0. +0.		1	.25 ).18	L .	-0.1 +0.0	18 075	1	THE ンケ	R: HAC	\$					-	GRAINS/ BOTTLED	F	AINS OR
WEIGHT			4	1	.4		12	.9		1.5	>		-					IN BAG	1	BING
MINERAL	Flag		VISU	L ES	TIMAT	ΕO	FM	INER	AL S	%	<u> </u>	G	RAIN	CO	UNT	CHECK		(SHOW FFAC	SIZE TION	)
ILMENITE	E	10	نان	//c	) •1Ú	1/	7	2 19	9	8	1.35					; ;		372.	h.	
MONAZITE	Ε			-			-											- ' (		
RUTILE	Ε	41		4/			2			: 						í		0.25	<b>5</b> 1.	
ZIRCON	Ε	ه /	164	3	101	1/	5	1.93	7	R								2.04	11	
SECTOXIS	Ē		: 10	TR	ļ	1	/		_	-	•								q	
Rocks		70		5 8	?	4	Ś		1	ن	•									
TOURMAL	Wi:	4	. 1	2.0			ح.		_	 - J										
KJANITIE	ľ	5		<u>ح</u> ا			5		_	1										
BARITE		/		_2			/		_	1										
15/2/2011	,	+				-	<u>~</u>	·	ļ	<b>-</b>										
SUND. HILG	l .	•		<u>-</u>	· ·				7.	73			-	<b>.</b> .		-				
							· ·			<u>,                                    </u>										
			1		·	ľ					·		ļ !-			į		** · <del>****</del> *** ·**		
			! 								- <del></del>			•						
										!	<u>.</u> '							د د در میشد.		. <u>-</u> -
								i		:  -  -	i							······································		· · · · · · · · · · · · · · · · · · ·
						1														
		100		1020		/ 5	ا د ت			(										· · · · · · · · · · · · · · · · · · ·
COMMEN	TS	:		· · · · · · · · · · · · · · · · · · ·				•			and a second									معلودات والمعودات والمحادث
	<u></u>				·															
			-						·			<del></del>		<u> </u>		o'r ang and again				
·		<del>, </del>							····	<del>,</del>					***	. <u></u>	·	surgest at the second	<del> </del>	<del></del>
			<del></del>			<del></del>				·	······································			·. · · · · ·	<del>-, .,</del>					
				<del></del>			- <del></del>													
·····			<u> </u>									<u></u>		·	<del>/</del>			· · · · · · · · · · · · · · · · · · ·		

OBSER	VΕ	R'S	S D	Α.	ΤA	S	e HE	EE	P M			RA T	LS IT	S E	XI	PL( UN	A S	ATIO SAM	n 1PL	.E	No	. <u>K</u>	T	341	42	
OBSER	VE	R :,		1	$\geq$	To	12	j. 14	al	1				SIZ	ZΕ	R	AN	GE C	)BS	ER	VE	) ; -	- 0 <u>- 4</u>	<u>/</u> _+ o <u>∢</u>	075m	m
SHEET	Ň	o :_	6	79	)		[	ÖΑ	ΤE	S	TA	RT	ΕI	D:	2	9-	-4	4 - 8	77	_ D	ATE	FIN	ISHE	D 29	7-4	-87
MATERIA		NO	N M	AGS	s (	HA	NDI 86 S	ALM (	GNE	T	)					]	TIC	K OR	SH	o w	ОТН	IER:		ENT	ERED	:
OBSERVE	D	1	0.4		1	-0. +0.					18 075			тн 3 <i>3</i>				_					GR. BOT	AINS TLED	GRA FQ	IN.S
WEIGHT		<u> </u>	0.3	>		0.	9		5	} • •	9.			<u> </u>	1		ļ. 	//·	2	gu				TLED BAG		1
MINERAL	Flag		VI	su	AL E	EST	IMA	TE	OF	М	INE	RA	L 9	6			G	RAIN	co	UNT	СН	ECK	Ü	BAC.	SIZE	
ILMENITE	E	2	0		1	5			/	5			7	5				0.06		1.3	\$ 2		2.	34.	n.	
MONAZITE	E																								0	
RUTILE	TUTILE E - 4 1 4 0.356 mm.  SIRCON E TR 1 20 1.78 mm.																									
ZIRCON	FILL OF F + 61 1 20 1.78 gm																									
LEUGOIENE	EIRCON E TR 1 20 1.78 gm																									
Rocks	EVECTOR E TR 1 20 1.78 gm. EVECTOR E = - <1 1 1																									
GARNET	EVICITENTE E - 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																									
TOURMAKINE		20	2		2	0			3	0				:	:											
KYANITE AMPHIBUE		20			2	0			/	0																
AMPHBOLE		ď	2			1			77	2																
QUARTZ			,			1			ő	2																
ANDALISITE		7 K	,		7	R			72	2				٠						l 						
FPIDOTE		_			7	R		-	7 1	2																
			<u> </u>	ļ.,																						
																					<u></u>		! !	· ·		
																:										
			_	ļ																						
		10	0	10	/	0	0%	,	1	0 0	0 1	6	/	0	8,	6				٠	<b>.</b>					
COMMENT	S													<u> </u>				, , , , <del>, , , , , , , , , , , , , , , </del>						i ,		
														<del>,</del> ,	<del></del>		<u>برد ب</u>	tijo taliali mati								
	.,									·							٠.	<del> </del>		· · · · · ·		<del>, , , , , , , , , , , , , , , , , , , </del>			····	
······································		,,,, <del>,,</del> ,,,,	·	<del>- ( </del>			. 12 1				<del></del>							<del></del>							·	·
			<del></del>	····	· .		·					·	·		·					·					<u></u>	
<del></del>		·,···; ····			<del></del>	.,,								<del>-,.</del>	······································			<u></u>	<del></del>		·	-w-la-'		· ·		·
<del>Marian de la composition de la composition de la composition de la composition de la composition de la composit</del>	<del></del> ,				<del></del>	··········			· · · · · · · · · · · · · · · · · · ·		····				<u> </u>		<del>i </del>	<del></del>			<del></del>	<del>-11</del>	<del></del>			<del></del>
₽ 6-86		. <u> </u>	· · · · · ·	<del></del>			· · · · · · · · · · · · · · · · · · ·			· · · ·	·		<u>;</u> -										<del> </del>	<del></del>	<del></del>	

OBSERV	ΙE	R'	S	D	A.	ŢΑ	. 8	SH	EE	ΞΤ			7	ΊΤ	Άl	NII	UN	1 5	SAN	/PL	Ε	No	/	273	4	30.
OBSER\	VE	R	(	- 2	7.	) 	F	n	K	u	ll		<u></u> .		SI	ZE	R	AN	GE (	овѕ	ER	VED	: -	0.#+	٥ <u>٠८</u>	0 <u>75</u> mm
SHEET	N	o :		10	12	<u></u>		<del></del>	D A	AT1	E S	ST.	۱R	ΤE	D:	2	9	- 4	¥ ~ ,	87	_ D.	ATE	FIN	ISHED :	30	) -4-87
MATERIA	-	T			AGS	3 (	HA.	NB	-MA		ET	)							<del></del>	· · · · · · · · · · · · · · · · · · ·			ER:	ı E	X	ERED
OBSERVE	D		-0 +0	.4 .25	5		-0 +0				-0. +0.		5	L		ER 5.3			10	0				GRAIN BOTTLE	ED	GRAINS FØR PROBING
WEIGHT		_	C	) · [			1.	<u>S</u>	· . · .		8 ·	1			1.	<u>2  .                                  </u>			10.	18	<u></u>			IN BA		<u> </u>
MINERAL	Flag	L	<del></del>	VI	SU	AL I	EST	TIM	ATE	E 0	FM	AINE	ERA	L S	% 	ř.	Γ.	G	RAIN	<del></del>	· •		CK			SIZE JON )
ILMENITE	Ε	2	0		ļ	1	0		_	1	0				ļ	ļ.,			.02		1.51			0.9	89	u.
MONAZITE	Ε						<u> </u>																	÷		
RUTILE	Ε	_	_			I	R				1													00	8	gu
ZIRCON	Ε		1				1			1	0								.0	5		-81		0.82	! 5	gu
LEUCOKENE	EULORINE E + TR 1  POCKS 14 10 10  WHITES 60 69 62														0											
ROCKS	EVILENANE E + TR 1  POCKS 14 10 10  WHITES 60 69 62																									
WHITES	EULENANE E + TR 1  COCKS 1 4 1 0 1 0  WHITES 60 69 62  MPHIBOLE 5 1 1																									
AMPHIBOLE	EVENTALE E + TR 1  BOCKS 14 10 10  WHITES 60 69 62  MPHIBOLE 5 1 1																									
TOURMAIN	POCKS 14 10 10 10 10 10 11 11 11 11 11 11 11 11																									
																										·
: -									v																	
																			, , , , , ,			I				
											ı															-
									;																	
																									·····	
																						·				
		1	0	Ő	70	1	0	ő	70	1	0	0	70									-			***************************************	
COMMENT	· ·							<u> </u>	<del></del>	•		·												· <del></del>		<del></del>
·		•				********	<del></del>							,									<del>: -: -</del>	<del></del>		·
: :	<del></del>												····		······································					٠				<del> </del>		and the second s
						· · · · · ·			· · · · ·			<del>-1</del>	od medicin	A	lando en			****		·.···			<u> </u>		·	
***************************************	<del></del>			i		<del></del>	•••••	<del></del>	<del></del>			<del>-`</del>		············		<del></del>		<del></del>	<del>11.1</del>		<del>-11</del>	<del></del>	<del> </del>			
:			-			!				· ·													/ ;-			en ja talan terretakan eteksi t
<del></del>		············	·				<del>,</del>		-	<del>:</del>	<del></del>			<del>- '- ' - '</del>	··					<del></del>				<del></del>		<del>et, et e</del> e e e e e e e e e e e e e e e e e
								<del></del>									<del></del>				<del></del>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>				
.P 6-86																										

		<del></del>	0 :		<del>~</del>					TEC	) :	ــلـــــــــــــــــــــــــــــــــــ	<del>- '</del>		DATE		ISHED : 1	6/
	MATERIA	L			Sox		7					T			, W O I	nen.		
	OBSERVE	D	+0.2		-0. +0.			-0.1 +0.0		01	HER:		0.5	ľ			GRAINS BOTILED	GRAINS FOR PROBING
	WEIGHT			)J	0.	5		3 <i>i</i> ·	8			m	0. c	84 +			IN BAG	
	MINERAL	Flag	V	ISUA	L EST	IMATE	E OF	MI	NERA	L %		G	RAIN	con	NT CH	ECK	(SHOW FRACT	SIZE
	ILMENITE	Ε			10	0.05		5	4.7				20	6.1	4.	929		
	MONAZITE	Ε														0		
	RUTILE	Ε			41													
	ZIRCON	Ε	a			ļ		a	0.1	7		ļ	TR.		0.	675		
	LEUCOXENE	[E.			-	; f.		1.				ļ	ļ					
-	Rocks		30		49		5	5				_	80		··········			
	TOURMAU	عد			<u>20</u>	·	1 1	5	·									
	BARITE		30		. d.			3			!	-						
-	AMPHIBO	تَد	1.	_			-		·			ļ			·			
-	PUARTZ	-	30		31					· · · · · ·	<u> </u>							······································
ļ	KYANTE		·		10.			<u> </u>	·		<del></del>	-						
	Silimen	Ωŧ	<del>-  -  -</del>		5			7	·		-		TR.		· · · · · · · · · · · · · · · · · · ·			<del></del>
-	CAHNITE				· · · · · ·		1	۷.		-								
1		_			*			1	<del>,</del>						•			) <u> </u>
-		4		$\perp \perp$			_				1				<del></del>			
-	<del></del>	-		- -				-	;						1			
-		$\dashv$							+	: 								
L		_								$\bot$					1			<del></del>
	COMMENT	S	<del></del>			· · · · · · · · · · · · · · · · · · ·	<del></del>	<u></u>			· · . ·	·····	· · · · · · · · · · · · · · · · · · ·	diana 1		· · · · · · · · · · · · · · · · · · ·		<del></del>
-	*	0	lman	<u>_t</u>	Dog	H	on	<u>\</u>	al		S	<u>6</u> .	·	· · · · · · ·	<del></del>		· · · · · · · · · · · · · · · · · · ·	
-	<del></del>	···	<del></del> , ;- ;- ;-	<del>,</del> .		ب 			·		<del> </del>				ingender, de met manne		/= to a contract of	
$\mid$	<del>*************************************</del>		· · · · · · · · · · · · · · · · · · ·	<del></del>		<del></del>			<del> </del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>				<del>anni na admini a tripitoji je di</del>
-	· · · · · · · · · · · · · · · · · · ·	·	<del></del>		<del></del>	<del> </del>			<del> ', '</del>		<del></del>		<del> ;</del>	<del></del>			<del></del>	<del></del>
											~		_			. Ħ	0.01	

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No. 23461

OBSER	٧E	R :	NA	<del> </del>	SIZE RA	NGE OBS	ERVED: -	0.4 + 0.0	27.5mm					
SHEET	N	o :		•			DATE FIN	SHED: <u>/</u>	6-1-87					
MATERIA	L	NON MAGS	G (HANDMA	GNET )	TES 1	TICK OR SHO	W OTHER:	ENTE	RED					
		-0.4	0.05	0.40	Toruso.			·						
OBSERVE	D	+0.25	-0.25 +0.18	-0.18 +0.075	OTHER:	:		GRAINS	GRAINS FØR					
WEIGHT		24	58	30.8	1.3			IN BAG	PROBING					
MINERAL	Flag	VISU	AL ESTIMATE	OF MINERA	\L %	GRAIN COL	INT CHECK	(SHØW	SIZE ION )					
ILMENITE	Ε	/	1	7216	90117		2-339	~						
MONAZITE	E													
RUTILE	Ε		7/3	41	F									
ZIRCON	E	7 R	7 R	12	<i>د</i> ا		3709~							
~ colin	20 c/es 9 4 9 8 7 2 1 5													
Rocks	10 c/cs 94 98 72 10													
ZACON	10015 9 9 9 72 10													
EPINGE	20 c/cs 9 4 98 72 10													
0013191341	تيرار	7/2	ナペ	5	41									
BARITIE		7 121	<i>L</i> /	.3	ا د	c Ī								
CLIDATE			7.2	72										
KYPNITI	_	1 1	_	1										
AHPHIBOL	م	-	_	<b>+</b>	TR				····					
,					*									
	_													
, 	_						· · · · · · · · · · · · · · · · · · ·							
-	_													
<u> </u>		100/	rec)	190/	100/									
COMMENT	S	<del></del>	<del></del>	- Andrew Company	• 	<del>and a region of the speciments of the state of the speciments of </del>								
				<del>-,</del> ,-,	· · ·	<del></del>	<del></del>	the state of the s	<del></del>					
		ti <del>ning og formung i fina</del>					omen of the second of the seco	*						
			<del> </del>		· · · · · · · · · · · · · · · · · · ·				<del></del>					
		to the feet of the second second second second second second second second second second second second second			······································			and the state of t						
		· · · · · · · · · · · · · · · · · · ·				anna communicación de contrato a reconocidade com com-	, , , , , , , , , , , , , , , , , , ,		Marian Marian Andrews					
·			alayaha da sayada ya da da da da da da da da da da da da da	de ferrance and province of the state of the					·· •					
	<u></u>	· · · · · · · · · · · · · · · · · · ·												

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3465 OBSERVER: SIZE RANGE OBSERVED: -0.4 + 0.275 mm SHEET No: 100. DATE STARTED: 29-4-87 DATE FINISHED 29-4-87 NON MAGS ( HANDMAGNET ) TICK OR SHOW OTHER: NOT MAG. SEP. -0.4 OBSERVED -0.25-0.18 OTHER: GRAINS GRAINS
BOTTLED FOR
IN BAG PROBING +0.25 +0.18 +0.075 WEIGHT 0.2 0.3 2.9 ( SHOW SIZE FRACTION ) GRAIN COUNT CHECK MINERAL VISUAL ESTIMATE OF MINERAL % 0.14 1004 ILMENITE lΕ •०३ MONAZITE E ·002 725 0.76 a RUTILE ZIRCON 03 EVICKETE E 30 2 30 10

COMMENTS:

# APPENDIX C

OBSERVERS DATA SHEETS - TRAVERSE 3

(	OBSERV	۷E	R	'S	D,	ΓA	ГА	. 5	B HE	HI EE	P T	MII	NE	RA T	LS	E Al	XF NII	PLC UN	or <i>i</i>	ATIC	N MPI	-E	No	K	ET.	32	2/0	13 0	8
	OBSER	VE	R	<u>.</u>	<b></b> <b>7</b> .	ر <u>خ</u>	7	Z	K	120	rl	L.	,			SIZ	ZE	R	AN	GE	овя	ER	VEC	·	- 0 <u>. 4</u>	Z +	ہے۔	75 n	nm
	SHEET	N	о:		7	6	- · )		_ [	ΟA	TE	E S	TA	\R	ſΕI	<b>D</b> :	13	4 -	-4	-8	$Z_{-}$	_ D	ATE	FIN	ISHE	D :	14	<u>4</u>	-87
	MATERIA		T					HA	NDI OT,	44	GN	ET-	)											ER:	7			RED	
	OBSERVE	D		-0 +0.			1		25 . 18			-0. +0.		5	0	TH	ER	:						<del></del>	GR	AINS	<b>3</b>	GR/	INS 2
	WEIGHT			D	٠(			0.	3			4.	2					•	(	4.	bg	4-			<b> </b>	BAG	ì	PRO	
	MINERAL	Flag			VIS	UA	LE	ESI	IMA	TE	0	FM	INE	RA	L 9	6	·		G	RAIN	ı co	ואט	ГСНІ	ЕСК				SIZÉ 10 N	)
l	MONAZITE E  RUTILE E - (/ / / / ) .003 .042 .045 gm  ZIRCON E - / / /5 .63 .63 .633 gm																												
	MONAZITE E  RUTILE E -																												
9	MONAZITE E  RUTILE E - 2/1 / 1 003 042 045 gm  ZIRCON E - 1 15 103 063 063 063 063 gm																												
	MONAZITE E  RUTILE E - (1 1 1 003 042 045 gm  ZIRCON E - 1 15 107 3 63 63 633 gm  LEUCONERE E - 7R																												
	LAKOXENE E T - TR.  ROCKS 49 30 28																												
	LEUEXENE E T TR																												
	EPIDOTE		7	R			T	R,			7	R						ļ. 											
	WHITE		2	0			3	0			2	0							ļ. 										
	JARNET			1			<	1			۷.	1					<u> </u>											· · · · · · · · · · · · · · · · · · ·	
	·																												
																											,	<del> </del>	
	<del></del>		·		,																						_	<del>,</del>	
																						_						·	
-	······																									·		<del></del>	
								-															ļ					<del></del>	
-			<u> </u>	<u> </u>		_																							
			1	0	ő	0	/	0	0	6	/	0	ő	6							ļ			أحببا		<del></del>			
	COMMENT	s	:				<del></del>	••••• <del>•</del> •				· · · · · · ·						<del></del>			<del>.,</del>		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<del></del>		
	· •		<del></del>		<del></del>	·	,	<del></del>		-,	,					· 		<del>,</del>	<del>,</del>									<del> </del>	
					<del></del>				<del></del>	<u></u>		<u></u>		<del> </del>		<del></del>	خينسم						·		<del></del>				
-	<del></del>		<del>,</del>	· · · · -																	<del> </del>			<del> ,</del> .					
-	•		·····	•				<u>.</u>			·								<del> ,</del> '-	<del>- , ,</del>					<del>''-</del>		<u> </u>	·	<del> </del>
-	<del></del>			<del></del>		- :			<del></del>			<del></del>			····			<u></u>	<del></del> -				· · · · · · · · · · · · · · · · · · ·		<del></del> -			<del></del>	
-	<del></del>		<del></del> -		<del></del>								· · · · · ·					<u> </u>					<del></del>						<del></del>
L	° 6 · 86								<u></u>				<del></del>								· · · · · · ·		<u></u>		<del></del>			<del></del>	<u></u>

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT. 3221. OBSERVER: Forknall SIZE RANGE OBSERVED: -0.4 + 0.075mm SHEET No : 77 DATE STARTED : 14-4-87 DATE FINISHED : 14-4-87 ENTERED TICK OR SHOW OTHER: NON MAGS ( HANDMAGNET ) MATERIAL NOT MAG. -0.4 OTHER: -0.25 -0.18 OBSERVED GRAINS GRAINS +0.25 +0.18 +0.075 BOTTLED FOR IN BAG PROBING 3.6 0.04 0.3 WEIGHT ( SHOW SIZE FRACTION ) MINERAL VISUAL ESTIMATE OF MINERAL % GRAIN COUNT CHECK ILMENITE MONAZITE RUTILE ZIRCON Ε 00\$ 0.18 ELLOXENE E Rock TOURMMUNE 20 30 30 WHITE GARNET 72 TR COMMENTS : \_

		ВНР	MINERA	LS EXPLO	RATION			140
OBSERVE	R'S DAT	TA SHEE	Т Т	TANIUM	SAMPLE	No .K	7.323	2.
OBSERVE	R: ( )	Forkm	ell_	SIZE RA	NGE OBSER 4-87 D	VED: -	- 0 <u>· 4</u> + 0· 0	075 <sub>mm</sub>
SHEET N	0:_78	DAT	TE START	red : <u>/5</u> -	4-87 b	ATE FIN	ISHED :/5	-4-87
MATERIAL		S ( HANDMAG NOT MAG : 2			TICK OR SHOW		T ENTE	RED
OBSERVED -0.4 +0.25		-0.25 +0.18	-0.18 +0.075	OTHER:			GRAINS BOTTLED	GRAINS
WEIGHT	0.2.	0.3 3.8			4.3 gm		IN BAG PROBING	
MINERAL E	VISUA	L ESTIMATE	OF MINERA	L %	GRAIN COUNT	CHECK	(SHOW) FRACT	SYZE ION )
ILMENITE E	41	15 3	30		.045	114	1.185 g	·
MONAZITE E							0	
RUTILE E		+   <	( /				.038 a	٠
ZIRCON E	TR	< 1   .	10				·38 g	
LEVLOXENE E							0	
Roces	93	70 2	24				•	
TOURMALINE	41	5	5					
WHITE	5	10 2	29					
AMPHIBOLE		TR	1					
								tor Complete Co.
	1006	10061	00%					
COMMENTS :	:	<del></del>	<del></del>	<del> </del>	· · · · · · · · · · · · · · · · · · ·			····
· · · · · · · · · · · · · · · · · · ·	<del></del>	<del> </del>	<del>-</del>	<del></del>				
	• · · · · · · · · · · · · · · · · · · ·	<del></del>	<del>- 1</del>	<del></del>	<del></del>	· . · . · · · · · · · · · · · · · · · ·	<u></u>	
	<del>-</del>	· · · · · · · · · · · · · · · · · · ·		<del></del>	<del>- 1211 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -</del>	·		
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	<del> </del>	<del></del>	· · · · · · · · · · · · · · · · · · ·	·····	<del> </del>	<u> </u>
		<del></del>	<del></del>		· · · · · · · · · · · · · · · · · · ·	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
				<del>* * * * * * * * * * * * * * * * * * * </del>	<del></del>	·		<del></del>
₽ 6-86	<del></del>	<del> </del>	<del>-                                    </del>		<del></del>	<u>,</u>		<del></del>

OBSERV	Έ	R'	S	D	Ą.	T.A	١,	Ş۲	ŀΕ	Εī	- -		_ •	TI	ГΑ	N	IUI	М	SA	MP	LE	No	. <u>/</u>	01.32	43.
OBSERV	Έ	R :	<u></u>	<u></u>	<u>ノ</u>	$\overline{\mathcal{L}}$	To	r	4	ıcí	ll	<u> </u>		-	S	ΙZΕ	ER	AN	GE	ОВ	SE	RVE	D:	- 0 <u>· 4</u> + 0·	075
SHEET	No	<b>)</b> :	<u> </u>	<i>Z</i>	9	,			D	ΑT	E	ST	ΑF	RTE	D	:_/	15	-4	۷	87	, 1	DAT	E FIN	NSHED : /	5-14-8
MATERIAL	ı			МА																			HER:	→ EMT	ERED
OBSERVED				.4 .25		1		.25				.18	75			1ER	i: #_			1				GRAINS	GRAINS
WEIGHT			0.	1.			0	٠.5			4.	3				٠2			6.	lgn				1	1
MINERAL	E .			VIS	UA	L I	ES.	TIM	ΑT	EC	)F A	MIN	ER.	AL.	%		<del>- , · · · ·</del>	G	RAI	N CC	UN	т сн	ECK	(SHOW FRACT	SIZE
	+	1	0	_		3	0			2	5	1		8	0	1		01	,	.15	1.	075,	196	2.199	m
MONAZITE	AZITE E																								
RUTILE E		<u> </u>	_			-				K	1	ļ. 	_	_										0.043	grun
ZIRCON E	ON E - 20 0.86 gm															9000									
LECCONENE E		+	-			7	R		ļ	7	R	_				<u></u>				<u> </u>					0
Rocks		7	8			5	3			2	5	_		2	0	!					<u> </u>				
TOURMALINE	1	þ	2				2.			<u> </u>	5					<u> </u>	ļ			ļ					
WHITE	Ŀ	/ (	2	-	_	/	5			2	5			ļ						ļ		ļ			l
	1	-	_	1		_				_															
	$\bot$		_		4			·				:							·						·
	1	+	+		4																				
	-				1		_																		
	╀	+	+		_	_																			
	L	+	+	-	+	+							_	_			_				:				<del> </del>
<u> </u>	<u> </u>	-		_	+	-							_	_					<del></del>					-	<del>and the second of the second </del>
	$\vdash$	<u> </u>	-	-	+	-	_		-				-		-	_	_		<del></del>						
	<del> </del>			27	+			D	-	_			7				<del>,</del>					-			
				5/6	' /		$o_{\parallel}$	00/	Ó	1	0	0	10		01	0	0								
COMMENTS	: _	<u></u>				<u> </u>	<del></del> .		<u> </u>		<u></u>			<del></del>		<del></del>	···		<u> </u>	<del></del>	<del></del>	:		<del>- 1-11-212-21-22</del> -	
•		<del></del>	<u>.                                    </u>	<u></u> :		<del></del>	· .	<u>-</u>			<del> ,</del>	- ,	<del></del> .	<del></del>		<del></del>	·		<del></del>		<del></del>	<del></del> :	<del></del>	· · · · · · · · · · · · · · · · · · ·	
<del></del>		<del></del>	<del></del>		<del></del>			<del></del>		<del>.</del>			<del> ;</del>	<del></del>			<del>.</del>								
•.		<del></del>	<del>,,</del>				<del></del> .		<u> </u>		<del></del>		<del></del>	<del></del>		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<del></del> -		<del></del>		<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·	
<u> </u>	<del></del>		<u> </u>	<u> </u>	<del></del>			<del></del>	<u> </u>		<u></u>	<del>-, -</del> -		<del></del>	· .	·		<del></del>	·	<del></del>	_	<del></del>	<del></del>	<del></del>	
<u>.                                  </u>		<del></del>			<del></del>	·		·			<del></del>	-		<del></del>	<del></del>	<del></del>		<u> </u>	<del></del>	· · · · · · · · · · · · · · · · · · ·		<del></del>	<del></del> -	<del>.</del>	<u> </u>
<del>*************************************</del>			<del></del>		·		<u> </u>			<u> </u>	·		<u></u>		<u> </u>		<del></del>	<del>` , ``</del>		<del></del>	·	<del></del>	<del></del>		: i

OBSER	VE	Rʻ	'S	D	A.	TΑ		SH	E	ΞΤ		<del></del>	- 7	ГΙΤ	ГА	NI	UN	ИЗ	SAN	ИРL	_E	No		27	. 3°	25	<del>9</del> .
OBSER	VE	R	<u>.</u>	S	ノ	Jo	n	Es	ra	l					SI	ZE	R	AN	GE (	овѕ	SER	VE	) ; -	0.4	<u> </u>	075	
SHEET	N	o :		8	<u>()</u>	· 	<del></del>	_	D/	ΑT	E S	ST.	AR	TE	D	:_/.	5	- 4	4-8	87	_ D	ATE	FIN	ISHE	D : <u>/</u>	5-4	-87
MATERIA	L	N	ОИ	M	AGS			4 N D			IE T	)		<del></del>			]	TIC	к оғ	я вн	ow	ОТІ	IER:		ENT	ĘRED	
OBSERVE	D		-0 +0	.4 .25		1		.25			-0. +0	.07	5	M	IAG.	IER 3+	4		,					GR. BOT	AINS TLED BAG	GRA F£	I INS IR
WEIGHT			0	٠a	•		Ċ	۶.6	·			3 · 8			0	٤.	سست		10.	1gr	<u> </u>			1			
MINERAL	Flag		<del></del>	VI	SUZ	AL I	ES.	TIM.	ΑTI	E 0	FA	AINI	ERA	۱L, ۱	% <del></del>		<del>, -</del>	G	RAIN	СО	UNT	СН	ECK	( S	HOW	SIZE	<b>)</b>
ILMENITE	E	<u>j</u>	0	<u> </u>		1	0		_	2	0	-	_	7	0	_	_	.05	·0£		1.7/2		35	2	199	n.	
MONAZITE	onality to the second of the s																										
RUTILE	RCON E TR 25 30 15 264 2.79 gm															<del></del>											
ZIRCON	FULOXENE T /K &																										
LEULOXENE	WOXENE T /K /															· ·											
	OCKS 75 30 10 30															·											
TOURMALINE			5			_	5	<u> </u>			5					ļ 				<u> </u>							· · · · · · · · · · · · · · · · · · ·
WHITES		/	0			3	0			3	1											·	:	· · · · · · · · · · · · · · · · · · ·	<del></del>		
]							<u> </u>																				<del></del>
			_							_														·			<del></del>
										ļ									: · · · · · · · · · · · · · · · · · · ·		i-					<u>.                                  </u>	
										<u> </u>			,	<u> </u>						:	-	• • • • • • • • • • • • • • • • • • • •					i
																						<del>. , <u></u></del>		<del> </del>	<del></del>	<del></del>	<del></del>
																				· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			·		
	$\dashv$																		· . · · · · · · ·			····		· <u>·</u> ······	•	<del> </del>	<del> </del>
1-	$\dashv$						-	-					$\dashv$				$\dashv$			··				<del></del> -			
	$\dashv$	/	0	09	7,	/	0	°O	7	1	$\wedge$	<u>_</u>	7,	/	0	0								<del></del>			
				<u> </u>	10		V	<u> </u>	טי	1	U	<u> </u>	-1	<u>·                                     </u>	<u>~</u>	<u></u>	0		<u> </u>								
COMMENT	S :	·	<del></del>	<del>- : - :</del>							s			<del></del>	<u></u>			<del></del>	<del></del>	<del></del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	:	<del> </del>		
	<del>, - 1</del>	<del></del>				•					· - · ·			<u></u>					<del></del>	<del>-,-,- <u></u></del> -		<del></del> 1		<del></del>	<del>, / /</del>	· · · · · · · · · · · · · · · · · · ·	
	<del>:</del>				<del></del>	<del></del> .	<del>,</del>									<del></del> ,-	<del></del>	· · · · ·	· · · · · · · · ·	<del> ;</del>		· · · .	<del> </del>			<del></del>	
•	<del></del> ;				<del></del>	3 <u>44', 1</u>		<del></del>			-	<del></del> .							<del> ; ;</del>	<del> </del>		<del></del>	· <u> </u>	<del></del>		<del></del>	<del></del>
			•		<u> </u>				· · · · · · ·	<del>- 1</del>						<u></u>		·		<del>,</del>				· · · · · ·	<del> </del>		
₽ 6:86																						····					<del></del>

OBSERV	/E	R	'S	D	Α.	TΑ	\ S	H	вн ЕЕ	IP ET	MI -	NE	R.	AL:	s ГA	EΧ	PL	OF M	RAT S	TIC AN	N MP	LE	ΞN	lo.	. /	R	T.	30	26		
OBSER	VE	R	: (	y	)	Zc	o N	hn	nl	U					S	IZE	ΞF	RA:	١G	E	ОВ	SE	RV	ED	: -	- 0 <u>-</u>	4	+ 0.	075		
SHEET	N	0 :	·	8	3/				D A	λTI	Ξ 5	ST,	AR	ŀΤΕ	Đ	:_/	15	-,	4	-8	7	_	DA	TE	FIN	ISH	IED	/	5- <sub>4</sub>	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	27
MATERIA		N	ON	M	٩GS	3 (	HΑ	ND SE	MA	GN	ET	)			Ē		J								ER:		Γ	ENT	ĘREI	)	<i>-</i>
OBSERVE	Ď		-0	.4		Π	-0.	.25 .18			-0. +0.	18		C	 )TH	HEF	<b></b> -									G	RAI	NS	GR	AINS	<u>-</u>
WEIGHT			D.	.1	· _ ·		0	٠5			0	.ر							1	2	و سا	*					N B	1ED AG	GR F PRO	OR OBIN	G
MINERAL	Flag		<del></del>	VIS	SUA	iL I	EST	'IM <i>A</i>	\TE	0	FΝ	IINI	ER	AL	%			Ţ	GR.	AIN	C	ÜN	T (	CHE	СК		SH FA	A C	SIZE	<u> </u>	
ILMENITE	ZITE E																														
MONAZITE	AONAZITE E Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z																														
RUTILE	TUTILE E - 7R.																														
ZIRCON	IRCON E - 7K 2 0 0/2 gm																														
	IRCON E TR 2 0012 gm																														
ROCKS		7				Η—	3	_		3	8			_	_	1	<u> </u>					-						·			
TOURMALNE			2				2		_		5			_	_		_	<u>.</u>	_				-								
WHITE		<u>/</u>	0				5	_		2	5			<u> </u>	<u> </u>	-	ļ	-										<del></del>		<del></del>	
		-						_	_						<u> </u>	_	_	-								· · · · · ·	<del></del> -			<u> </u>	
	4								_							_	-					ļ	-				<del>,</del>				
	-				$\dashv$			-	_							-	_	<u> </u>	1				-				···				
					_	_		+	_							<u> </u>	_	ļ	<u> </u>		<del></del>	ļ	-		_				,		_
	$\dashv$		.				_	$\dashv$			+				<u> </u>			ļ	-			<u> </u>	-						<u> </u>		
	-	_			_			_	-	-	_	_		ļ	ļ. 	<u> </u>		_				-	-			<del></del>				<del>,</del>	_
	-				_			_									_	<u> </u>	-		<del></del>	ļ		_					<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		_
	+		_	_	$\dashv$			+	$\dashv$			_			ļ ——	_	_	_	-	_					_	<u> </u>	<del></del>	<u></u>		<del></del>	
	+	7		ő	7	,		0/0	,	7	_	0	7		·		_		-	_		<u> </u>	-							<del></del>	_
	L	/	$O_{\parallel}$	Οļ	0	<u>/  </u>	0	210	21	/	0	D	10		أحجت			L_	<u> </u>		····	<u> </u>				<del></del>					
COMMENTS	s :	<del>- ; .</del>	·		<u></u>	<del>'</del>	<del> ,</del>		<del></del>		<del>,;</del>			<del></del>		<u></u>	<u> </u>	<del>, ,</del>		<del>, , , , , , , , , , , , , , , , , , , </del>	·				<u> </u>		<del></del>	· · · · ·	<del> </del>		
<u> </u>			<del></del>	· · ·		<del></del>	<del></del>			نديد		<del></del>				<del></del>		··	<u>.                                    </u>		<u></u>	<del></del>	<u></u>	<del></del>	·-,-		·-				!
<u> </u>		<del></del>	<del>-</del>	· · · · ·		<del></del>	<del></del>		<del>:</del>				<u>-</u>	<del></del> -			<del>-, ; ; -</del>				<u></u>	<del>:-</del>		<u> </u>			<del></del>	<del></del>	· · · · · ·		-
· · · · · · · · · · · · · · · · · · ·		<del></del>		<del></del>		·	-	<del></del>	<del>, - : - :</del>			<del></del>	<u>···</u>	<del></del>	<del></del>	<del></del>	·		<del></del>	<del>,: .</del>	<del></del>		<del></del>	<del></del>	<del></del>	: <u>-</u> -		<del></del>	<u></u>	<del></del>	_
	<del></del>	· · · ·							<u> </u>			. <u>.                                   </u>				<del></del>		<u></u>		-,-;		<del></del> -		· · · · · ·		<del></del>	<del></del>		<del> ·</del>		<u>-</u>
<del></del>	-		·		· · ·	<del></del>				<del></del> .		-	·			<del>-                                    </del>	<del></del>	<del></del>	<u> </u>				<del></del>	<del></del>	· · · ·						
	<u> </u>	·	<del> · . · .</del>		<del></del>	· <u>···</u>	· · · · ·				<del></del>	<u>-</u>			<del></del>	<u>.                                    </u>		<del></del>												<del></del>	_
.P 6⋅66	<u></u>	-		<del></del>		<del></del>		<del></del>			•		<del></del>					<del></del>	<del></del>									<del></del>			-

O	BSER'	VE	R	's	D	A.	T <i>P</i>	١ :	SH	ΙΕΙ	ΕΤ			- 7	TIT	ГΑ	NI	U	М	SA	MF	٦Ľ	E.	No	/	<i>R1</i>	<u> </u>	3:	270	<b>)</b> .
	OBSER	VE	R	:_(		بهر	) 0	To	) 2.K	11	ul	1				SI	ZE	R	ΑN	IGE	OE	38	ER	VE	) ; ·	- 0.	4	+ 0.0	075.	- n m
	SHEET	N	0	:	8	2	<u>ي</u>		_`	D	ΑT	E	ST.	AR	ìΤΕ	ΞD	15	<u> </u>	4	-8	7		_ D	ATE	FIN	ISH	ÉD	15	-4	-87
1	MATERIA		N	ON	М	AG	s (	- 14/	ANE (AG	<del>)M</del> /	₩	<del>IE 1</del>	- )			Γ		]	TIC	K C	)R S	н	o w	ОТН	HER:		ſ	ENT	ĘRED	]
	DBSERVE	D			.4 .25				.25				.18 .07			PG.	IER	+4		Ω						G F B O	L RAII	N8	GRA FØ	I IINS SR
	WEIGHT			٥.	<u>a</u>			6	6٠			6	.8			C	9.6	•		8,	20	m	-			J	В	ED AG	PAO	BING
М	INERAL	Flag			VI	su.	AL	ES'	TIM	ΑT	E O	F	MIN	ER	AL	%			G	RAI	N C	Οl	JNT	СН	ECK	(	SH	OW ACT	SIZE	
IL	MENITE	Ε	2	5			2	0			2	0			8	0				ok.	-1:	2	1.	36,	.48	6	2.1	0/4		
M	DNAZITE	NAZITE E																												
RI	JTILE	Ε		$\vdash$			<	/				1															J. C	88	gu	
ZI	RCON	Ε	Ŀ	L			1	0		L	2	0			L					-0	6		1.3	6			4	2	gran	
4	UCIXENE	CON E - 10 20 -06 1.36 1.42 gm																												
K	Pocks	_	4	5			3	4			3	0		L	2	0	L													
100	RMALINE		_	5			_	5						_	L				L	<u> </u>										
W	417ES		2	5			3	0		_	2	9	_	_	L	_														
_											_		_		L	<u> </u>			_											
-							_				_				L	L					-	_								
-							_				-				_	ļ 					-	4								
									_						_					ļ	-	4				-				
<u> </u>							_								L	_					-	_	_					-		
-							_														╁	1							<del></del>	
-		-			_						-					_	$\square$				-	$\downarrow$	$\dashv$							
-					$\dashv$	_		-		_		_						-			_	+	$\dashv$							
-		$\dashv$		0	0	7			o	7	,		٥	7			O,	7			-	+					<del></del>			
								U	U	0	/	0	0	0		$\mathcal{C}'$	U	0			1									
C	OMMENT	S	:									<del></del>						****												
-		·							<del></del> .																					<del></del>
<u> </u>																	<del></del>												<del></del>	
<del>                                     </del>							<del></del>									-				·	· · · · · · · · · · · · · · · · · · ·			<del></del>		<u>.</u>		<del></del>		<del></del>
<del> </del>															<del></del> -							_							<u></u>	
									···· · · ·																					-
<del> </del>	·																													

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3278.

OBSER	۷E	R: 9.	Forkn	all	SIZE R	ANGE OBS	ERVED : -	0.4 + 0.6	2 <u>75</u> mm						
SHEET	N	o : <u>~~</u>	) DA	TE STAR	TED : <u>/∂</u>	-1-87	DATE FIN	ISHED : 16	-/-8/. ERED						
MATERIA	L	NON MAG	S (HANDMA MAG, SA			TICK OR SHO	OW OTHER:								
OBSERVE	D	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:	002	·	GRAINS BOTTLED	GRAINS FOR						
WEIGHT		0.01	01	25		- · 4. Mix63+14.		IN BAG	PROBING						
MINERAL	Flag	visu	AL ESTIMATE	OF MINER	AL %	GRAIN COL	INT CHECK	(SHOW FRACT	SIZE ION )						
ILMENITE	Ε														
MONAZITE	Ε								to a de la companya d						
RUTILE	Ε		アス	2 0.	0>-	7R	0.02		<del>landon de la companya de la comp</del>						
ZIRCON	CON E ( 1 TR 2 C .50 TR .50 CXENE E TR 2 -														
LEUCOXENE	COXENE E TR 2														
Leiks	COXENE E TR 2 - 2 - 25 CCKS 80 4C 30 25														
KYANITE	CCKS 80 40 30 25 VANITE 20 35 20 TX														
EPIDCTE		7E'	17	1		-									
MAGILLEM		尺	5	10		75									
TO RMALINE		TR	20	1 0											
GUART.	·	TK	TR	5		太									
CHIRART			元	元		厌	ř								
ANDALI'SITA	-		7R	1 R		77									
	1	100%	100%	100%		100%									
COMMENT	s :	Map	3+4-4	ije 0.07.	5 nun to	duit.	·	· · · · · · · · · · · · · · · · · · ·							
		<i>O</i> -,		<b>,</b>	garantar and an angle and any and any and any	and the second section of the section of the section of	and the same of the same of the same of the same of the same of the same of the same of the same of the same of		almania de proposito de la compansión de la compansión de la compansión de la compansión de la compansión de l						
					#. * * *		and an experience of the contract of the contr	and the second second second second second second second second second second second second second second seco							
				and the second second second second	The second section and the second section and the second section and the second		<del></del>		<del></del>						
			······································	· · · · · · · · · · · · · · · · · · ·											
<del></del>	<del> </del>	<u> </u>	<del></del>					· · · · · · · · · · · · · · · · · · ·							
		<del>a de la la composición de la </del>		<del></del>				· · · · · · · · · · · · · · · · · · ·							

<b>OBSERV</b>	/E	R'S DAT	A SHEE	т т	TANIUM	SAMPL	E NoR	T3281	
OBSER	۷E	R: PAU	LINE .		SIZE RA	NGE OBS	ERVED: -	0.4 + 0.0	)75 <sub>mm</sub>
SHEET	N	o: <u>35</u>	DA	TE STAR	TED :	15-1-87 .	DATE FIN	الله: ISHED	1.87
MATERIA	-	NON MAGS	( HANDMA MAG SEPAR	GNET )	<del></del>	<del></del>	OW OTHER:	ENTE	RED
OBSERVE	D	-0. <u>4</u> +0.25	-0.25 +0.18	-0.18 +0.075	OTHER: M3+4 -4-0.075	-0·18		GRAINS BOTTLED	GRAINS FOR PROBING
WEIGHT		0.04	0.3	3.9	0.4	Nn.		IN BAG	
MINERAL	Flag	VISUA	L ESTIMATE	OF MINER	AL %	GRAIN CO	UNT CHECK	( SHOW FRACT	ION )
ILMENITE	Ε	3	5			85			
MONAZITE	E	6		./95	112		• 312		
RUTILE	E	TR	j	7		6.2	1279~		
ZIRCON	Ε	10	3,0	.1 60	2.34 41	49.6	244		
LEULOKENE	E	TR	1	2	, t j	3.5			
ROCKS		7 5	38	1 3	69	19.7			
TUCKMALINA		10	1 5	10	41	7 7			ļ
BARITE		2	5	2		2 C			-
410000000		TR		41	21				
AMPHIXLE		16	1	4				<u> </u>	
KYANITE		1		1		2.5			
GUARTA	ļ	8			41				
	_								
	<u> </u>								
	-			<u> </u>		-			
	ļ								-
	ļ_							<u> </u>	
	<u></u>							1	<u> </u>
COMMEN	тѕ	•	<del></del>		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<del> </del>		<del>4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1</del>
				9			<del> </del>	<del> </del>	<del></del>
			<del>- : - : : : - : - : - : - : - : - : - :</del>	<u> </u>					
		<del>- ; : : : : : : : : : : : : : : : : :</del>	<del></del>				<del>,</del>	<del></del>	<del> </del>
· · · · · · ·	<del></del>	<u> </u>		· · · · · · · · · · · · · · · · · · ·					<del></del>
			<del>,</del>			<u> </u>		<u> </u>	<del> </del>
	<del></del>	<del> </del>			<del>,                                      </del>	<del> </del>			

OBSER	VE	R:	<u>(</u>	٠	To	K	w				SI	ZE	R	ANG	GE (	овя	SER	VEI	o : -	- o <u>- 4</u>	, <u>_</u> + 0 <u>-</u>	075	- 1 m
SHEET	N	o :_	8	3		1	DA.	re :	STA	RTE	ΞD	: <u>/</u>	5-	-4	-8	7	_ b	ATE	E FIN	ISHEI	نے: د	5-4	87
MATERIA		1	N-M	\as	<del>(   </del>	ANDI	vi A C	NET	)								<del></del>		HER:	-		ERED	I
OBSERVE	en:		n/			AR.			.18	1	OTE	IER	<del></del>				T	<del></del>			<u> </u>		
	ب.		0.25								n	3+4			_				,	GRA BOT	INS	GRA FO PROE	INS
WEIGHT			0.03		(	<u>ح. د</u>		3	٠2		b	6	· · ·	~	<u>3. o</u>	39	<u></u>					· .	_
MINERAL	Flag		VIS		<del>- 1</del>	TIMA	TE	OF N	AINE	RAL	%	1		GF	RAIN	င်ဗ	UNT	СН	ECK			SIZE	)
ILMENITE	Ε	4 (	2	c	2 5		2	2 5			0				0.0	2	0.0	5.5	42	/.	039	nu_	
MONAZITE	-				4		_			_							ļ						
RUTILE	Ε	<b> </b>	2		1		4	1		-   -					.00	2	.0	RZ		0.0	24	gu	<del></del>
ZIRCON	Ε	10		٥	2 C		2	0			-				101	3	.0	4	८८	0.	28	gu gu	·,·
LEVLOXENE	Ε	1		- 1	12			TR			-									<del> : :</del>		0	
Rocks		40			4/		$\dashv$	21		3	0					·					·		
TOURMANNE		5	-		5		+	0		-	1			_		<del></del>							· · · · ·
QUIRTZ		2	+		2		+	5					$\dashv$							·			
KYANITE AMPHIBOLE	-	1	<u> </u>		1			25		-	-		_	_						· · · · · · · · · · · · · · · · · · ·			
1			_	- -	+-		+	1			<u> </u>						ļ. :	<del></del>		<del></del>			
EPIDOTE	1			+	R		+	K		-			-							<del>- ; à - ;</del>			
	7						-			-			$\dashv$					<u>-</u>		·		<del></del>	
	1						1			-				+		····		<del></del>	-			<u> </u>	
							+						1										
										-			1							· · · · · · · · · · · · · · · · · · ·		<del></del>	!
	7												$\dagger$					·					
		1 C	Ó	70 /	0	000	1	0	0%	1	0	0/	70			<del></del>		·		<del></del> ,		<del>- 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, </del>	
COMMENT	s:			<del>- ,1</del>									<del></del>			<u>-</u>		<del></del>		i			
					-		<del></del>	······································			<del></del>	<del></del>	<del></del>		<del>- 1   1 - 1 - 1   1</del>		<del></del>				<del></del>		
			<del></del>					<u>.</u> .							· · · · · ·					- /			!
																					····		
	<del></del>																						<del></del> -
<del></del>	<del></del>	<u> </u>	<del></del>	_,	<del></del>	<del></del>		·	<del></del> .	<u> </u>	<del></del>	<del></del> .			· ·	<del></del>		· ·				<del> </del>	i
<del>- 1-24</del>	· · · · · ·	· · · · · · · · · · · · · · · · · · ·	<del> </del>			<del></del>	<u> </u>	·	<del></del>	<u> </u>	-		<del>,,</del>	<u></u>	<del>: -,</del>							<del></del>	
<u> </u>			<u> </u>																			<u></u>	

	OBSER	VΕ	R	S	AC	T	A S	H	E	ET	وشند		<b>-</b> T	IT	ΙA	NII	JN	1	SA	MF	٦Ľ	E	No	•	RT	- <u>3</u> :	<u>\$∞</u>	<u> </u>	
	OBSER	۷E	R	;	PA	<b>UL</b>	المار	٤.	·					;	SIZ	ZΕ	R	AN	GE	OE	38	ER	VE	o: -	- 0 <u>•</u>	4.	· 0.1	<u>075</u> n	n m
	SHEET																												
	MATERIA	L	_	ж ис М	14	-	SEPA	RA	TE	<u>D.</u>							]	TIC	ко	R S	зно	» c	ОТІ	HER:			ENT	ĘRED	]
	OBSERVE	Ď		-0.4 +0.2										1	ТНI <b>1</b> 3					_	-		•		G	RAIN	IS/	GRA FC PRO	INS I
	WEIGHT			+0.2 <i>0</i> ·2			0	.ي			3√	3			0:	8			4	٠5	n	_			1			^	
	MINERAL	Flag		٧	ısu	AL	ES	TIM	ATE	0	FM	IN	ERA	L 9	6			G	RAI	N C	οι	JNT	СН	ECK	(	SH(	ACT	SIZE	)
	ILMENITE	Ε			2			1	5			1	5			9	8	- 01	4,	0	3,	.40	<u>.</u>	78		1.20	) g		
	MONAZITE	Ε															,						/				U		
	RUTILE	Ε			ļ:			1	1			:	2						-00	2	,	.0	6		C	). 06	2	gu	
•	ZIRCON	E		<u> </u>	_ 1				2			/	5		.	7	1		. 00	ų (		.4	35		C	). 490	7	gu gu	
	LEUCCXENE	E			1			1	1				2										 		0	- 06	6	) g	,
	ROCKS			2	0			1	5				5			-	1			<u> </u>								0	
	WHITES			6	5	1	-	6	٥			<u>5</u>	8			4	1								<u> </u>			<u> </u>	
	TOURNAUN	111		1	0				3				2										:			<u> </u>		· · · · · · · · · · · · · · · · · · ·	
	AMPHIBOLE				3				5				1					:										,	
	EPIDOTE			7	R		:					1	R												l. 				
	GARNETS				ļ	1								_	-	4	1	·										· ·	
					ļ	_										_													
							-											<u> </u>		<u> </u>					<u></u>	<del></del>			
					4		ļ								_														
							<u> </u>							_												<del>سين بني تسام</del>			
-					_	_										-	$\downarrow$	سبست	:										,iiii
-		_	·			_	_																						
-											ا بـبــــ														<del></del>				
	COMMENT	S	:						· <del>· · ,</del>			·										····	· · · · · ·						
-	·								<u> </u>		· ·								·	·	<del>,</del>					· · · ·			
ļ	<del></del>	·													<u>.</u>				·	_ · <u>-</u> .				·	-/				<del></del>
L							· · · · · · ·							<del></del>		<u> </u>			<del>,</del>			<del>,</del>					·.·.		<del></del>
-	•	·	· · · · ·		<del></del>				<del></del>				<del></del>		<del></del>	_								· · · · -				· · · · · · · · · · · · · · · · · · ·	<del></del>
	<del></del>																	·	·				· ·	· <del> </del>		<u> </u>	<del></del>	<del></del>	
-	<del></del>			<del></del>			·			-														<del></del>		<del>-</del>	<del></del>	<del></del>	<del></del> -
	P 6-86			<del></del>	·	<u> </u>	·	<del></del>								·				·			·	<del></del>	<del> </del>	<del></del>		<del></del>	<del>-, , , , , , , , , , , , , , , , , , , </del>

OBSER'	VE	R	'S	DA	۱T	Α	S	HE	E	Γ ·		- 7	ΓΙΤ	Α	NII	J١	1	SAI	MPI	LE	No	•	KI	330	<u>গ</u>	<u></u>	·
OBSER																											•
SHEET	N	0 :	· 	ć	<del>5</del> 74		<del></del>	_ D	АТ	E	ST	AR	TE	D :	:	15	10	<u>+  8</u>	7	_ D	ATE	FIN	IISHE	ΞD :_	إطا	4/1	<u>``</u>
MATERIA	\L	1						NDM EP		NE	т)		<del></del>			<u> </u>	TIC	к ог	SH	ow	ОТІ	IER:		EN	TEF	RED	
OBSERVE	ED.			4 25	- 1			25 .18			0.1				IER:	:		0.18	<b></b>				GR	AINS		GRAI FO	
WEIGHT			0.0	04		شجن	0	٠4		1	٠2		<u>L</u>	包			l .	0.0			1.60	f gu	IN	BAG		PROB	
MINERAL	Flag	L	, 1 ' 1	VISI	JAL	- E	ST	TAMI	E (	OF	МІМ	VER/	AL 9	% —	<del></del>	<del></del>	G	RAIN	CO			ECK	(	SHOV	V S	IZE ON )	
ILMENITE	E		5		_	4	5		l	45	5		_					43.1	6	118	-54		0	).72		gu	
MONAZITE	ONAZITEE																										
RUTILE	IRCON E 3 10 2.0 0.040 gm															~											
ZIRCON	IRCON E 3 10 2.0 0.040 gm																										
LEUCOXE	EUCOXOXE IR. TR.																										
ROCKS	EUCOXONE IR. TR.																										
WHITES			0			1			,	2 5	5			<u>.</u>				24:2									
AMPHIBO	ب		۵		_	1	0			5	5	_						2.9	l				·	· · · · · · · · · · · · · · · · · · ·			
Tovemai	ŭΞ		a		-	_ !	5		_	6	2							4.1									
GARNET.		Tr	۷.		1				-		-																
0					-	_			-	ļ.,						_											
									_	<u> </u>		-					·				· ·	:					<u></u>
					_		_		_					_		_			· · · · · · · · · · · · · · · · · · ·								
				_	_	_	_		<u> </u>	-	<u> </u>	-							:					<del></del>		· · · · · · · · · · · · · · · · · · ·	
	_				_	-	_		-	_	-	1				_			:		<del></del>			·			
					_	-	1		_	<u> </u>	_			_	_	_			<del></del>					<del></del>		<del></del>	·
	_			_	-	1	-		<u> </u>	_	_					_					-				-		
																							<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	<del>,</del>		<del></del>	
COMMENT	S :	:	•		<u>To</u>	17	Àι		No	<u>Y</u>	_F	OR	_ç	RF	ZILE		·	4:	8	<u></u>	· · · · · ·		<del></del>		<u> </u>		<del></del>
	<del></del>		<del></del>	<del></del>	<u> </u>			<del>-,. · · · - · .</del>				<del></del>		• 			· · · · ·			:	<del></del>	<del></del>	<del></del> :	<del></del>		<u> </u>	· .
				· · · · · ·			<u> </u>	<del></del>			<u></u>			<del></del>		<del></del>	·		<del></del>	<del></del> ,	<del></del>		·	·····		<del></del>	<del></del>
<del></del>				<del></del>	<del></del>	- :		<del></del>				<del></del>		<del></del>				<del> </del>		<del></del>					<del></del>	<del></del>	
	<del></del>	<del></del>	··-·		<del></del>		·						<del></del>		<del></del>	<del></del>	·			·	<del></del>	· · · · · · · · · · · · · · · · · · ·		<del></del>			<del></del>
	·	<u> </u>		<del></del>	<u></u>	· ·		<del></del>				<u> </u>		<del></del>	· · · · ·		·	· · ·	<del></del>	· · · · · ·	<u>.</u>	· · · · · · · ·	······································	<del></del>		<del></del>	<u> </u>
<del></del>	<del></del>	· <del> · .</del>	<del></del>	<u> </u>	·		<del></del>		··			·	<u> </u>	<u> </u>	<del></del>	<del></del>	.= : -	<del></del>	<u> </u>				·	<del></del>	<del></del>	<del></del>	

		*	蹇)									Ton	1
		Da	idson	<b>)</b>	RT	3307	- (	J.18 + c	0.075		15/4/8	<u> </u>	
									T	T	31,418	<del>/</del>	<del></del>
/	BLMEN	RUTILE	ZIRCON	Rock	WHITES	macor	AMPH.						
	36	2	8	8	19	3	4		80		<del> </del>		+-
r -	72	5	20	15 33	40	8	9		169				-
	112	6	30	33 39	40 67 89	10	12	-	270 361 438				
- []-	191	9	46 54	47	106	13 13	18		1,28	1017	<u> </u>	<u> </u>	
									430	10.1			+
-	43.6	2-0	12.3	10.7	24.5	2.9	4:1	ļ					
grown.									<u> </u>	<u> </u>		<u> </u>	-
			,										
			<u>:                                      </u>			<del> </del>		<u> </u>					
	<del>- : :  </del>						<del></del>			-			
													+
_													
							<del></del>					: 	-
1													
						***************************************	<del></del>						ļ
-													
							· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					-
												<del>and the open designation of the second of t</del>	
1							· · · · · · · · · · · · · · · · · · ·						
-  -								· · · · · · · · · · · · · · · · · · ·				<u>-</u>	
_													
_													
<del></del>													
<u>-</u>													
		жж	. 1	l.	i		<u> </u>				. <u> </u>		Ì

						E	зн	P	ΛIN	IEF	RAL	S	EX	PL	OF	RAT	ΓΙΟ	N			L	7	22	1	51
OBSERVE	R	'S	DA	TA	٤	SHE	ΞΕ	T		-	TI	TA	N	IUI	M	S	٨N	/PI	_E	No	·A	. /	23	118	<u>.</u>
OBSERVE	R	: 👱	<i>Y</i> .	S	ks	K.	111	al.	_			S	IZE	E R	1A	1G	E (	OBS	SER	VEI	o : ·	- 0 <u>-4</u>	<u>_</u> + 0:	073	_m m
SHEET N	0:		8,	#		[	DA	TE	S	TA	RT	ΞD	:	16	-/	#	-8	7	_ b	ATE	FIN	ISHE	D :_	6 ->	4-01
MATERIAL	N	ON	MAG			NDI 4G				) 				]	TIO	CK	OR	зн	ow T	ОТІ	HER:		ENI	ERE	
OBSERVED	ļ. 	-0. +0.:		i		.25 .18			0.1		i i		HEF SJ	7 : 3+4		,	/	39				GR/ BOT	AIN8' TLED BAG	GF	RAINS ØR
WEIGHT	_	0 · :	<u> </u>		0	.1			<u> </u>	6		5	4			···	<del></del>			-	<del></del>				OBING
MINERAL E		\ 1 1	/ISU	AL	EST	IMA	TE	OF	МІ	NEI	RAL	%		<del></del>	Ľ	GR	AIN	CO	TNU	CH	ECK	( §	HOW	SIZ	E )
ILMENITE E	NAZITE E																								
MONAZITE E	ONAZITE E DO TRONTO DE LA CONTRACTION DEL CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRA																								
RUTILE E	ONAZITE E O O O O O O O O O O O O O O O O O O																								
ZIRCON E	UTILE E															•									
LEUCOXENE E	RCON E - 1 1 1 006 a																								
Rocks	5	9		6	9			4	4		6														
WHITES		1			1			2	5																
AMPHIBOLE	4	0		3	0			30	)																
									ŀ																· · · · · · · · · · · · · · · · · · ·
																									<del></del>
						1																· · · · · · · · · · · · · · · · · · ·			
																				:			· · · · · · · · · · · · · · · · · · ·		
																		·					÷	 	<del> </del>
					-		1																<del></del>		<del>, ; ,</del> -
										+			1									·	<del> </del>	:	
	/	00	570	1	0	ő Va	,	16		97	1	0	5	7						<del></del>					<del> </del>
COMMENTS :			<del>- 1</del>	4				• 12	1,4		-11	<u> </u>		TC.	<b>-</b>	<u> </u>					<del>  </del>	-	<del> </del>		
COMMENTS :	_		<del>,</del>	· ;		<del></del>	<del></del>	<del></del> /	· ,		<del></del> -	<del>, -,</del> -	<del></del> ,					·	-			- :			
	·	<del></del>	<del>' ' ;</del>		<del></del>	<del></del>	<del></del>	<del></del>					ě.		-			· · · · ·	·	<del></del>	<del></del>	<del> </del>	<del></del> -	<del></del>	<del></del>
	<del></del>							· · · · ·			<u> </u>	<del></del>				- ; -		, <u>-</u> -		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	<del></del>		<del></del>	
<del>- 1</del>		<del></del>	<del></del>	· · · · · ·						<del>,·</del>	····-	· • • ·	<del></del>	<del></del>		<del></del>	· ·	<del></del>	· · · · · · · · · · · · · · · · · · ·	<u></u>	:	<del></del>	<del></del>	<del></del>	<del></del>
<del>ženinija ja ja ja ja ja ja ja ja ja ja ja ja j</del>	· · ·	<u> </u>	· · ·		<del></del>					• • •	·	<del>-,</del>		<del></del>		-,. <del></del> -	<u></u>		· · ·		<del></del>				<del>- ; ·</del> ,
		· - ·	<del>-,</del>				···	· · ·		<del></del> -	<del></del>	•		<u> </u>	,			<del></del>			<del></del>	· · · · · · ·			<del></del>

₽ 6.86

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT. 33/4 OBSERVER: Forknell SIZE RANGE OBSERVED: -0.4 + 0.075mm SHEET NO : 85 DATE STARTED : 16-4-87 DATE FINISHED : 16-4-8, NON MAGS ( HANDMAGNET ) NOT MAG SEP. TICK OR SHOW OTHER: MATERIAL -0.4 **OBSERVED** -0.25 -0.18 OTHER: GRAINS GRAINS +0.25 +0.18 +0.075 1.8gr BOTTLED FOR **PROBING** 1.0 IN BAG WEIGHT 0.6 0.2. ( SHOW SIZE VISUAL ESTIMATE OF MINERAL % MINERAL GRAIN COUNT CHECK FRACTION ) ILMENITE 0.264 gm MONAZITE E RUTILE 0.01 900. ZIRCON 10 0.106 LEUCOXENEE LOCKS 9/ 0 WHITE 20 AMPH1BOLE PARNET TR TOURMOUNE 100% 100% 100% COMMENTS : \_\_\_

OBSER'	VE	R	'S C	A	TΑ	S	HE	Εī	Γ –		٠ ٦	Ή	Ά	NII	JN	1 3	SAI	MP	LE	No	2	T3	<u> 3</u> a	<u> </u>	<del></del>	
OBSER	۷E	R	ت:	$\mathcal{B}.$	مر	٠.	150	∞_	_ ;,_		_		SI	ZE	R	٩N	GE	ов	SER	VE	) : ·	- o <u>-</u>	4	<u>+ 0•(</u>	275 mn	n
SHEET	N	o :		25		<del></del>	_ D	ΑT	E	STA	AR'	ΓΕ	D:		ط	4	8-	1	_ b	ATE	FIN	IISH	, ED	علـ:	الدالا	7
MATERIA	L		MAG	Sŧ	<u>32.</u>				NET	`)						rici	K O	R SH	ow	ОТН	IER:			ENTI	RED	
OBSERVE	D		-0.4 +0.2							.18 .07	_			ER			/	÷				G BC	RAII	NS ED	GRAIN FOR PROBI	√s
WEIGHT		<u> </u>	0.1			0	·2		2	4			Ž.	<u>30</u> 3	,		5	00	<b>/</b>			1	_			NG
MINERAL	Flag		٧١	SU	AL E	EST	IMAT	re (	OF I	MINE	RA	L '	*			G				СН		(	SH FR	OW ACT	SIZE 10N)	
ILMENITE	E	Q	4			1						8	5				•02	4,-	902	.608	1.955	0	2, 3	90	~~	<del></del>
MONAZITE	MENITE E 24 1 17 85 .024, -602, -602 1955 2.39 gm.  UTILE E TR 41 2 .048 gm.																									
RUTILE	O48 grand TR. 41 30 0.72 grand																									
ZIRCON	EDCOXENE TR   1   2   0.72 gr																									
LEUCOXEN	EUCOXENE TR.   21   30   0.72 gr.																									
ROCK	EDCOXENE TR. 41 30 0.72 gr EDCOXENE TR 1 0.72 gr 2004 gr																									
STAUROLI	TE	۷	. [	:																						
TOURMAL	Ŋ	1.,						4	1			1	2													
AMPHI BO	E	೩	0		4	5		â	0				3													
WHITES		a	5		4	5			5			1	R.													
GARNET		 											S													
									ļ								***									
									-						$\perp$										·	
						-	_	_	ļ		_											<del></del>				
	_		_				_				_						·					·				
	$\downarrow$					-	_	_			_	_			_							<del></del>	<del></del>			
	_	_					-	_			_	_					·								<del></del>	·
								<u></u>			$\perp$	أيب		,												<del></del>
COMMENT	S:		· . · ·	<del></del>	·		<del>:</del>		·	<del></del>				··			- <u></u>	<del></del> -	·	·	<del></del> _				<del> </del>	
•	<u> </u>	<del></del>		•	<del></del>	<u></u>	<del></del>			-	<del></del> -	······		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<u></u>	<del> ·</del>	<del>- ,</del>	<u> </u>	÷	·		·····	<del></del>	<del></del> .
<del></del>	•		<u>.</u>	•	<del></del> .			••••		<del></del>			<del></del>		· <u></u> -	, <u>, , , , , , , , , , , , , , , , , , </u>		·····			<del></del>	·	<del></del>	<del></del> -	<del></del>	<del></del> -
· 	· · · · · ·	<u> </u>	<del>- : - : -</del>		·	· · · · ·						. <u>.                                   </u>			·			······································	<del></del>	·	<del></del>	·				<del></del>
	<del></del>		<del></del>			·	<u>-</u>					·		<del></del> ,	<u>.                                    </u>		·	<del>,</del>	·			<del></del>		<del></del> .		
<del></del>	<del></del>		<del>,</del>	<del>,</del>	<del></del>		·—···	<u></u>		<del></del>				<del></del>	·		<del></del>	<del></del>	<del>- · · · · · · · · · · · · · · · · · · ·</del>	<u></u>		<del></del>		<del></del>	<del></del>	
<del></del>		· · ·	<del></del>		<del>:</del>		· . · .					-		·				<del></del>	. <u> </u>	·	<del></del>	· · · -	<del></del>	<del></del>	<del></del>	<del></del>

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No. RT. 3328.

OBSERVER: 9. Forknall SIZE RANGE OBSERVED: -0.4 + 0.075 mm SHEET No : 87 DATE STARTED : 16-4-87 DATE FINISHED : 16-4-87 TICK OR SHOW OTHER: NON MAGE ( HANDMAGNET ) NOT MAG SEP. MATERIAL -0.4 -0.25 OTHER: OBSERVED -0.18 GRAINS +0.25 +0.18 +0.075 BOTTLED IN BAG FOR PROBING WEIGHT 1.0 0.3. 1.0 ( SHOW SIZE FRACTION ) MINERAL VISUAL ESTIMATE OF MINERAL % ILMENITE MONAZITE RUTILE Е ZIRCON Е TR LEUCOXENE E 98 Rocks WHITE GARNET COMMENTS : \_\_\_

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3339

OBSER SHEET	VΕ	R	:		<del>上</del>	)_	Fo.	0 28	j m	a	ll	,	_	,	SI	ZE	R	ΑN	GE	овя	SER	VE	) : ·	- 0 <u>• /</u>	4.	o <u>·(</u>	75 n	n m
SHEET	N	o :			8 <u>8</u>	<i>-</i>		<del></del>	DA	٩Ť١	E S	STA	٩R	TE	D	:_/	16	-4	-8	37	_ b	ATE	FIN	ISH	ED:	16	,-4.	-87
MATERIA		1						_		SP.			·										IER:		E	NTE	RED	
OBSERVE	D		-0 +0	•		ı	-0 +0		3		-0. +0	18 .07	5	MA	ТН <i>G. Э</i>	ER 3-1	: #_		0.1	8		<u> </u>	<u></u>	GF BO	AIN	S/ D	GRA FO PBOI	INS
WEIGHT			0	<u>.</u> ک			C	3	) 		2	٠٩			3.2	2		+	0.0	75.	1	6.6	gm	!N	BAC	3	PRO	BING
MINERAL	Flag			VI	su	AL I	ES.	TIM	ATI	E 0	FN	IINE	ER/	\L	%		T	G	RAIN	1, CO	UNT	CH	ECK	(	SHO FRA	CT	SIZE JON )	)
ILMENITE	E	<u> </u>	1			1	0			1	0			7	0			1	012	0%		.03		2	.5(	0 9	<u> </u>	
MONAZITE	Ε			ļ																		2.5	6			- 1		
RUTILE	Ε	_	_			_	$\perp$			<	1								1.3	070				0	02	9	gu gu	
ZIRCON	Ε	7	R				5			1	0								8.2	0%		•01 •29		Ø.	30	7	an	
ROCKS		3	9			3	4			4	0			3	0			4	ſ	10%					····		0	
WHITES		3	0			2	5			2								1	2	%					<u> </u>			
GARNET		7	R			7	R			_	_			7	R				-									
AMPHIBOLE		3	0			2	5			1	0							ļ	7:	2%				-				<del>* , *</del>
TOURMMINE		77	2	,			1				5									%		<del></del>		-	· ; · · · · · · · ·		<del></del>	
																								:				·
		:																							- :			- 1 1 1 1 1 1 1 1
																									· <u> </u>			<del></del>
					,						:													·	-1			<del></del>
																										_		
					:																						<del></del>	· , · , · , · , · , · , · ;
					-																	·			···········		<del></del>	***********
																						,			<del>' ,' - bis '  -</del>	1	<del></del>	
		1	0	00	70	j	0	в	70	1	0	8	7	/	0	Ő	6								<del></del>		<del></del>	<del> </del>
COMMENT	s ·					-					لنسنا		<del></del>	انستسا		البنيد				<del> </del>	·			<del></del>		L	<del></del>	<u> </u>
	О.	·					· · · ·					<del></del>							<del>- ; . · .</del>	·	······································	<u>. ·</u>	· <del>·</del>				<del> </del>	
<del> </del>					·		<del></del>	•••										<del>- ,- '</del>									<del></del>	<del></del> -
<del></del>	<del></del>		-									· · · · ·		<del></del> -		· · · · ·		···	<u> </u>	<del></del> .: :=:		·						<del></del>
*	<del></del>	<del></del>	•	<del></del>	<u> </u>		<del></del> .		<del></del>	<del></del>	<u> </u>		<u></u>				<del></del> -		<del> ·</del>			<u> </u>		<del>: :</del>			· · · · · · · · ·	- <del>;</del>
							<del></del>	<del></del>								· · · ·	<del></del> -		<del></del>	<del>: ,</del>	·			<del> '- '</del>				<del>, '-'</del>
<del></del>	<del>:</del> -	· ·									<u> </u>	<del></del> -	<del>,</del>	<del></del>			<del></del> -	<del></del>				<del>- :</del>	<u> </u>		:			<del></del>
								<del>- ' ', -</del>	<del></del> -	- <u></u>		<del></del>	<u> </u>			<u></u>				<del></del>	<del></del>		_ <del></del>					
₽ 6-86								<del></del>				-																•

													the state of the s
			<u> Las</u>	nple N	RT333	39. Gr	sin Coun	t (-0.18	+0.075)	16.4-87	<u></u>	156	
	66	LIRCON 6	RUTILE	TOURM 6	Amphibse T	WHITE 21	IL/MG.						
4	45 12 52	9 16 7	2 1 2	10 4 8	10 5 11	29 20 31	19   9   15	=	111 124 97 126				
	205 44·7%	38	1:3%	28	33 7.2%	101 22	10.29		458				
1-								<del>** - ****</del> **					

0	BSER	۷E	R	'S	D	۲А	ΓΑ	S	H	EE	T			T	IT	Al	NIL	JM	S	1A	ИРI	_E	No	•	87	33.	50
																										•	<u>075</u> mm
	SHEET	N	0	:	<u>.</u>	<u>ع</u>	<u>3</u>	ř	_	DA	ŤΙ	E S	TA	R	ſΕ	D:		6		٠. يح	<del>S</del> 7	<u>,</u> b	ATE	E FIN	ISHI	ED :	6487
	MATERIA		т —						HDH										<del></del>			<del></del>		HER:	7	ENT	ERED
	OBSERVE	D		+0	.4 .25		ı		.25 .18		ı	-0. +0.	18 075	5			ER:				O:				ВО	RAINS'	GRAINS FOR
	WEIGHT			0	١.	•		0	·S			1.	6			3 •	0			<u>)</u> ,	2	-	_		13	BAG	PROBING
М	INERAL	Flag			VIS	SUA	L E	EST	IMA	ATE	0	FΜ	IINE	RA	L 9	6			GF	RAIN	်ငဝိ	UNT	СН	ECK	(	SHOW FRAC	SIZE TION )
ır	MENITE	E		3			/	5			2	5			9	4				'00' -07	8	2.	2			3.29	
М	ONAZITE	E	-								-				_												10
R	UTILE	E					7	R			<	/				_										016	9-
z	IRCON	E		5			1	5							_	1				.00	5,	07	5.	030		110	g
1	COXIE	E		_			7	R			٧	1_			_						,		,			•	0
G	PARNIET	_	2	R			7	R	•	- din .		-			۷	/							ļ				
R	xks_		4	0			2	5			1	0				5										· . :	
A	чрнівоц	-	3	5			ઉ	0				5				1	-							ļ			
	417185		7	5			/	4		_	5	5	_	_		_		1									
	URMAKI	vs.		2		_		(				5			-	-		4	_			-			; 		
						_				_				_				_			<u></u>						·
	<del></del>													_		_		1						,			
			<u></u> -				-		$\dashv$	-				4	_			_ _		· · · · · · · · · · · · · · · · · · ·							1.
1	·								_	$\dashv$			_	$\perp$	$\dashv$			-	_			-					
	· · · · · · · · · · · · · · · · · · ·									_				+		_		_		·						· ·-··	
	<del>,,,,,</del>						-	-		_				$\frac{1}{1}$	_	_	+	_							 <del> </del>		
	· · · · · · · · · · · · · · · · · · ·				,			_	_		-		_	-	_  	_	_	-	-		,					<u></u>	
-				00	/		1	<u>ه د</u>	7		<b>∕</b> ⟨	5 CJ			<b>∕</b> Ł	<u>, d</u>	بَا						": 				
C	OMMENT	S	: _			<del></del>		· · ·	<del></del> .				<del>,,-</del> -	<del></del>	·				·			<u> </u>	<del></del>	·- ;		······································	<del></del>
	•	<del></del>		<del></del>		<del>,,</del>				-		<u> </u>	<del></del>			<del></del>		<del></del>		·	<u></u>		<del> :</del>	·		<u> </u>	
-	<del></del>	· · · ·		· · · · · ·		· · · · · ·	. <u></u>	<del></del>	<del></del>	· · ·		· · ·		· · · · · ·				<del></del>	<del></del>	<del>- : ,</del>	<del></del>	<u> </u>	<del>*                                    </del>	<del></del>	<del></del>	<del> </del>	
-	<del>rindra mai di di di di di di di</del>			<del></del>	<u></u>	h		<del>,</del>	<del></del>		<del></del>			<del></del>	<del>-, ·</del>				·		···	man han han					
-	<del></del>	<del></del>		· ·			<del></del>	· · · · · ·			<u></u>	· · · ·	<del></del>					· <u>· · · · · · · · · · · · · · · · · · </u>		<del></del>	<u></u>		<del></del>	<del></del>	<u> </u>	<u>,</u>	<del></del>
<u> </u>	<del></del>		<del></del>	<del>-:</del> -	<del></del>	<u>.                                  </u>	<del>, , , ,</del>		<del></del>				<del></del>			<del></del>		·	···	<del></del>	· <del>-</del>	<del></del>		<del></del>	<del></del>		
			····	<del></del> -	• • •	<del></del> -						<del>: .</del>			· · ·	<u> </u>		<del></del>	<del></del>		<del></del> -	<u> </u>	· · · · · ·		<del></del>		
P 6.	86																										

	OBSER	VE	ER	'S [	)A	TA	S	HE	E٦			TI	TA	NI	UN	1 :	SA	MP	LE	No	· K	273358	مر <u>د</u>
	OBSER	l V E	ER	<u>.</u>	D	مر	<u>ض</u>	Box	<u> </u>		·		SI	ZE	R	AN	GE	ОВ	SEF	RVE	D: -	- 0.4 + 0.	075 mm
	SHEET	N	o	•	26	2		_ D,	ΑT	E S	TΑ	RTI	ΞD	<u>ا</u> :	6	4	8	7	_ t	ATE	E FIN	ISHED :(	14/87
	MATERIA			MAC	IAGS	s (	HAN						Ĺ							<del></del>	HER:	T FNT	ĘRED .
	OBSERVE	D		-0.4 +0.2		-	-0.2 +0.1	5 18		-0. +0.	18 075	- I.	0тн Лод				_					GRAINS	GRAINS
	WEIGHT			0.3	>		0:3	3 •		2	6		2	.6	1		5.	89	<del> </del>	_		IN BAG	GRAINS FOR PROBING
	MINERAL	Flag		VI	SUA	AL I	ESTI	MATI	E C	FM	INEF	RAL	%			G	RAII	v co	דאט	СН	ECK	(SHOW)	SIZE
	ILMENITE	E		3			5		1	0		é	30				.00	\$	2.0	6		2.36	
	MONAZITE	E		   -	ļ	<u> </u>										·							0
	RUTILE	E	-		-		}-			5							-1	3 3				0-133	g-
	ZIRCON	E	1	e_	-		3	-	3	0		_					· 0	9				0.789	a-
	LEUCOXEN	Ē	<		ļ. -	2	. (					_	-		_		·		_			.026	9~
1	AMPHIBO	1 1			+	5		_	ನಿ	7		-	17		_		- <del></del>					<del></del>	0
ı	Rock		2	0	+		8		Ц	0		44	0		$\dashv$								į.
ı	CARNET										-	-	3		_			<u> </u>					<u> </u>
ł	TOURMALI			2			3		<u> </u>	2		-		4	$\dashv$		<del></del>						
ı	WHITES			5		2				5		<del> </del>		+	$\dashv$								<del> </del>
ŀ	GIDOTE		1	<u> </u>		4	1		<	<b>\</b>		<u> </u>			$\dashv$	$\dashv$	<del></del>					<del>: - : : </del>	
-		-					-					-			$\dashv$					· ·			
ŀ		7								<u> </u> 	-	-			$\dashv$								<del></del>
		7								-  -		+			-								·
		¬}-								i		<del> </del>			$\dashv$	1		·				-	· · · · · · · · · · · · · · · · · · ·
										į.		1			1								
_										İ					1								<del></del>
	COMMENT	s :					<u> </u>																<del>yin ayaa gabaadaa ahaa ahaa ahaa ahaa ahaa ahaa ah</del>
_			<del></del>	<del></del> -	·		<del></del>	<u> </u>	<del></del>	<del></del>				· · · ·		· · · · · ·							
_	<del> </del>			<del></del>	<del></del>		<del></del>	····			<u> </u>	_ :	*	· · · · · ·	· .	·		··-		·			
	<del></del>	<del></del> .	<del></del>	<del></del>	<del></del>	·	<del></del>			· · · ·	·	· .		·	<del></del> ;_	<del></del>	<u> </u>		<del></del> -	<u> </u>	<del></del>		
_	<u></u>	<del> ;-</del>	<u> </u>	<del></del>	<del></del>	:	<del></del>	<del></del>		<del></del>	<del></del>	<del></del>	<del></del>	·	<u>.</u>	<del>-</del>	· · · · · ·	<del></del>	<del></del>	<u> </u>	<del></del>	<del></del>	<u> </u>
_	<del></del>		<del></del>	<del></del>	<del></del>	<u> </u>			<del></del>	· <u></u>			<del></del>	<del></del>	<del></del>	<del></del>	<del></del> -	<del></del>			<del></del>	···	<del>- 10 (0 (1) (1)</del>
-		<del></del>		<del></del>	<del></del>	<del></del>	<del></del>	<del>-</del> -::	<del>;</del>	<del></del>	· · · ·		<del></del> .	<del></del> .	. ,	<del>.</del>	<del></del>	·	··········	<u>-</u>			
P	6.86	<del>,</del>																					

OBSERV	Æ	R'S	۵	ΓA	A	Ş	HE.	 E1			Т	ΙΤ	1A	۱IL	JN	1 8	SAN	1PL	Ε	No		?T.336	7.	
OBSERV	/E	R :	S.	<u>ノ</u>	-/6	ro	na	l	<u>C</u>		_	•	SIZ	Έ	RA	M	SE C	овѕ	ER	VED	) : -	0.4 + 0.	<u>075</u> mm	ı
SHEET	N	o :_	_9	13			_ D	ΑТ	E S	STA	\R	ΓΕΙ	D:	2:	3 -	4	-8	7	_ b.	ATE	FIN	ISHED : Z	3-4	-8%
MATERIAI		ном			(	HAI		A G	NET					Ī							IER:	r ENT	ERED	
OBSERVE	o	1	0.4		1	-0.2 +0.			_	.18 .07	_	l		ER:	[		/ (	<u> </u>				GRAINS BOTTLED	GRAIN FOR PROBI	80
WEIGHT		O	•			0.0	4		1.	2		•	2.5	5.			4.	2-g	-س			IN BAG		
MINERAL	Flag		VIS	SUA	LE	ST	IMAT	Έ(	OF N	MINE	ERA	L 9	%			GI	RAIN	COL	JNT	СН	ECK	(SHOW) FRACT	SIZE )	
ILMENITE	Е	5				5			15			6	0				.005	.07	118	le	<b>\</b>	1.70.	m	
MONAZITE	Е															ı	:							
RUTILE	Ε				7	R			2			1					-					0.024	g	
ZIRCON	Ε	7R				5		2	, O			-					102		.5	4		0.024	gun	
LEVLOXENE	Ε	TR	,		7	R			1			_	-									0.012	g	
ROCKS		10	)		2	0		/	15			1	0	:									0	
TOURMALINE		10			1	0		1	0			_	-							: 				
AMPHIBOLE		45	•		4	0		2	2			1	5								,			
GARNET		TR			7	R		7	R			1	5											
WHITES		30	<b>)</b>	)	2	0		1	5	1		<u>ل</u>	-											
ş .																		:						
													,											
					j															· · · · · · · · · · · · · · · · · · ·				
																						<u> </u>		
																			:					
										:										,.				
		10	0	0	/	0	870	/	0	6	70	1	0	O	7							<u></u>		
COMMENT	s	:																						
																		**						
															-1-1-1-1									
			·																		· · · · · · · · · · · · · · · · · · ·			
			-			,																		
D.C. Of																						·		
₽ 6-86																								

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT. 3373. OBSERVER: SIZE RANGE OBSERVED: -0.4 + 0.6/5 mm SHEET No: 94 DATE STARTED: 23-4-87 DATE FINISHED: 23-4-87NON MAGS ( HANDMAGNET ) TICK OR SHOW OTHER: MATERIAL NOT MAG. SEP. -0.4 OBSERVED -0.25 OTHER: -0.18 GRAINS GRAINS
BOTTLED FOR
IN BAG PROBING +0.25 +0.18 +0.075 FØR PBOBING WEIGHT 0.6 0.5 2.8 ( SHOW SIZE FRACTION ) MINERAL VISUAL ESTIMATE OF MINERAL % COUNT CHECK 20. 2501 .42 ILMENITE MONAZITE RUTILE ZIRCON 006 .28 FULDXENE E ROCKS TOURMAUNE TARKET 30 AMPHIBOLE WHITES. COMMENTS : \_\_\_\_

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3379

OBSERVER : EDNA SIZE RANGE OBSERVED : -0.4 + 0.075mm

SHEET No : 34 DATE STARTED : 16 4 87 DATE FINISHED : 16 4 87

MATERIA	L	NON	MAG	s (=	HANE	A M	GNE	т)		Ę	100		TICK	OR	SH				EN	TERED	<u>.</u>
OBSERVE	D	-0 +0	.4 .25	I	-0.25 +0.18		-	0.18 0.07		от	HER	≀:		1-	1				GRAINS BOTTLE	FØR	18
WEIGHT		0.	3		0.9		0	·5·						1.	7gn			·	HN BAG	FOR PROBII	NG
MINERAL	Flag		visu	AL E	STIM	ATE	OF	MINI	ERA	L %			GR	AIN	CO	ТИŲ	CHE	СК	(SHOV	SIZE	
ILMENITE	Е	45		3	8		40	>					113	>	.34		0.2	-	0.679		
MONAZITE	Ε				-		7	8			i.				1				110		
RUTILE	Ε	2		2	1		2						,0	06	O	09	0.	15	0.03	0 gu	
ZIRCON	E	2		Į	3		2	2					F	206	e	027	•	,	0.03	0	
LEUCOXIEN	IE	+		2	1		۷ ,	,												1	
Rocks		7,			8			8													
AMPHIBOL	Œ	3 1		4	0		17	7													
2041768		3.			3			7													
GARNET		/ 0			7		2	?													
TOURMAN	n	/			1			3											: 		
		-																			
:		<u> </u>																			
	_																			(	
																			·		
	$\downarrow$	ļ. ————————————————————————————————————																	·		!
	_										<u> </u>					-			·		······································
		100	Ż I	10	4/		/o	هزي										<u>.</u>			:
COMMENT	s:	· <del></del>	· · · · · · · · · · · · · · · · · · ·				<del></del>	-	·		<del>-</del>						· · · · · · · · · · · · · · · · · · ·				: <del></del>
•		· · · · · · · · · · · · · · · · · · ·	<del></del>			<del></del>		· · · · · ·			<del></del>				<u></u>		· ·			<del></del>	
<del></del>	·	····	<del> </del>		· . · .		<u> </u>	· ·	<del> </del>	·		<del></del>	· · · · · · · · · · · · · · · · · · ·				·	<del></del>			
<del></del>		· · · · · · · · · · · · · · · · · · ·	<del></del>		:	·	<del></del>		<del></del>	<del>-,</del>		<u> </u>	· / <u>- · · · · · · · · · · · · · · · · · · </u>		<del> </del>			<del></del> -	<u>, , , , , , , , , , , , , , , , , , , </u>		<del></del> ;
· · · · · · · · · · · · · · · · · · ·	·	·			<del></del>				·			<del></del>	<del></del>	<u> </u>	· . · ·		·: : ·	<u> </u>		<u> </u>	<del></del>
<del></del>	<del></del>	<del></del>			<del>``</del>	<del></del>	<del></del>	<del></del>	<del></del>	·	<del></del>	· <del>-</del> ·	<del>- · ,</del>	<del></del>	<del> </del>	··	· · ·	<del></del>		<del></del>	
<del></del>		<del>:</del>	-: :	·		· · · · ·		·	· · · ·	<del></del>	<del></del> -		·		<del></del>	<del></del> -	<del></del>	<u> </u>	<del></del>		

OBSERV	VE	R'S	DA	TA	SH	IEE	ET -		- 1	IT	1A	VIU	M	1 5	A	MPL	E	No	.R	T33	85	· · · · · · · · · · · · · · · · · · ·	
OBSER	VE	R:_	J.	$\mathcal{D}_{\overline{c}}$	بر من	zek	χ	<del></del>	<u>.</u>		SIZ	Œ I	R A	N	ЗE	овя	ER	VE	) : ·	- 0.4	_+ 0.1	075 <sub>mm</sub>	
SHEET	N	o :	_3c	>	<del></del>	DA	TE	ST	AR'	TE	D:		<u> </u>	<u> </u>	3/+	<u>1</u>	_ b	ATE	FIN	ISHE!	ھے: ہ	348	1
MATERIA	\L	Mon		_``		AMC	GNE	т)					T	ICI	( OF	₹ ЅН	ow	ОТІ	IER:		ENT	ERED'	
OBSERVE	D	1	.4 .25		0.25		ı	0.18 0.07	5	0	THE	≣R: 37∫			1	n)				GRA	INS	GRAIN FØR PROBIN	5
WEIGHT		0.	3 ·		0.4	•		· <i>8</i>			2. <u>0</u>	5	7	(	4.	8 9	<del>-</del>			1			IG
MINERAL	Flag		visu	AL E	STIM	ATE	OF	MIN	ERA	L 9	6			G	RAIN	co			ECK	(S	HOW HACT	SIZE	
ILMENITE	E							3		9	a				• 0	\$4	2	·n(		2	17	nu-	
MONAZITE	Ε							<u> </u>								ļ.,	ļ				· <i>l</i>		
RUTILE	Ε	TR			1		6	١							10	04			6	0	040	gu	
ZIRCON	E	1			2		೩ಽ	3							•00	, `	008	, 0	.45	δ	46	g- g-:	
LELYOXE	111	TR		T	2	<u> </u>	0	١				_	_		· :			03	_	#		0	
CARDET		2			<u>a</u>	-		ļ.			5						-			<del></del>			<del>,,,,,,,,,</del>
Raks		3		1 1	5		15	-			3		1					:			·.··		<del></del>
AMPHIBO	Ε	83		17	5		25				-	-  -	1		·	l.		<u> </u>				·	<u> </u>
WHITES		10	1	1	2		ಖ	)					-			}	l.					<del></del>	
TownAU	Œ				3			1					$\downarrow$		<u>-</u>								<del></del>
EPICOTE		Te	-	111	2,		1	+						_						· · · · · · · · · · · · · · · · · · ·			
					ľ			-		1			1		<u></u>					<del> </del>			
				+			-	-				+	+			,							···
										-			+		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · ·		( <u>.</u>	· 		<del></del>	
e de la final de l					<del></del> -			-			-	+	+	-	······································	 		<del></del>	: 			فيا المعارفية والمالية العالم	<del></del>
							-				+		╁		-					<del>- ,</del>	:	——————————————————————————————————————	
	1	-		$\prod$									+		······································								<del></del>
			,	11.		1-1		J.,	,_	!	<u> </u>	ـــ لــِـــ											
COMMENT	8 ;	<del>:::</del> -	· · · · · · · · · · · · · · · · · · ·		<del></del>		<del></del> ;	<del></del> -	<del></del>						<del>: · · · ·</del>	<del></del>		<del></del>	<del></del>	<u> </u>		<u> </u>	<del></del> .
<del> </del>		<del>'</del>	<del></del>		· · · · · ·	<del></del> .			:	<u> </u>	<del>-</del>			<del>-,, -</del>		<del></del>				· · · · · · · · · · · · · · · · · · ·	<del> : · · · · · ·</del>	<del></del>	<del></del>
	<u> </u>	<del>14 1 14 1</del> 1, 1, 1,	····	<del></del>		<del></del> .	· · · · ·	<del>`, , .</del>	<del></del>	<u> </u>		··· <u>·</u> ,		· · - ·		<del></del>		<del></del>	<del></del>			<del></del>	
		· · · · · · · · · · · · · · · · · · ·							<del>- · · - · ; - ·</del>							<del></del>	<del>-:</del>			<del></del>		<del></del>	
																	,						

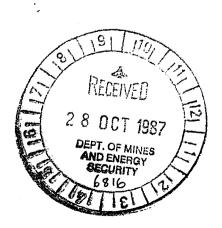
OBSERVE	ΞΙ	R':	SI	D A	<b>\T</b>	Α	S	H	E	ΞΤ	-		- '	TI	ГΑ	N	U	V	SA	MPL	E	No	6	T?	<u>33</u> 9	<u>ط1</u>	·	<del> </del>
OBSERVE	ΕF	₹:	7	<u>5. (</u>	$\mathcal{E}$	$\mathcal{A}$	پ	d	Sc	$\infty$					SI	ZE	: R	ΑN	IGE	овя	ER	VEC	): -	- 0 <u>- L</u>	<del></del>	• 0 <u>•</u> 0	<u> 275 </u>	ı m
SHEET N	<b>1</b> c	) :_	<u>.</u>	31		<del></del>			D	ÁΤ	E	ST	ΑF	RTE	ΞD	:	23	1/2	4/8	37	_ Þ	ATE	FIN	ISHI	ED	:كنة	3/4/	87.
MATERIAL	- (	NO	л ис ТО	MAG	38	(	HA	ND	M	\G!	IE1	)					]	TIC	K C	R SH	ow	ОТН	IER:		E	NTE	ŧΗΕ'D'	
OBSERVED			-0.4 -0.2								-0 +0			(	отн	łEF	₹ :			7		,		GF BO	L RAIN TTL	IS/	GRA FO	INS
WEIGHT			0 :	3 .			D.	8			0	ح).	>						(-	12				IN.	BA	G	PROI	BING
MINERAL EL	•		V	'ISI	JAI	L E	ST	ГІМ	ΑT	E C	F	MIN	ER	ΑĹ	%			7	SRA	IN CO	UNT	СНІ	ECK				SIZE	)
ILMENITE E		30	5		Ī	3	5			1	0							Γ.	9	.58		1.24		0.				
MONAZITE E										Γ						"			1						<u> </u>	0		
RUTILE E	1					1	e				2													0	01	2	<u> </u>	
ZIRCON E						ے					5								,	008	<b></b>	-03		0	03	8	g	- :
LEXAMENE						1	R																			·	1	·
1.	ł	a	ŀ	-	4		0				5	-	<u> </u>		_	-		_	-	-						-		<del>-, ,</del>
AMPHIBOLE		3 5	5		-	3	5			1	3	-	-	-	-	-		_										
WHITES	1		2		_	_	בן			a	0		-	_	_	-	ļ	_										
EPIDOTE	$\downarrow$	TR	٤.	1	-	T	2			_		_	_	-	_		-	_					:		··			
CARNET	1	1	_		$\perp$	_	S					-	-		_		-		ļ	-	ļ				<del></del>			<del></del>
TOORMALINE	1	_	3		1	ॏ॒	7				5	-	-	ļ. -	-			_						· 	<del></del>			<del></del>
	1				-	1	_	· ·						-		-	-	_	-						•			<del></del>
	-		-		_	_	_			_		ļ				ļ		_	ļ. -					!	<del></del>		<del></del>	
	1	_	-	-	4	_			<u> </u>	ļ 	<del> </del>			_	<u> </u>	ļ	<u> </u>		ļ									<del> </del>
	-				-	4	_				_		-	-	<u> </u>	ļ	_		-					·	<u></u>		<del></del>	
	L	+		-	-	-						ļ		-	<del> </del>		ļ	ļ	ļ					<del></del>	<del></del>			
	┞	_		-	-	+							-	-	ļ		<u> </u>	_		<del> </del>								
	L		<u>.</u>							L			<u> </u>			ļ 								-				
COMMENTS	:				<del></del>				<del></del> ,.		·	<del></del>				<del></del>			<del>, , , , ,</del>	····	· · · · · ·	<del></del>	<del></del>		<del></del>		<del>,</del>	<del> </del>
			<u></u>	· · ·		<u></u>		<del></del>		<u>.</u>	-,		<u> </u>		<del></del>			<del></del>		· · · · · · · · · · · · · · · · · · ·	· · · · · ·	<del></del>	· · · · · · · · · · · · · ·				<del></del>	
<u></u>	<del></del> -					<del></del>				<del></del>	<u></u>			<del></del>		<u></u> ,			<del></del>	<del></del>	<del></del>	<del></del>	<u> </u>	· · · · · ·			<del></del>	
		···		· -		<del></del>			<u> </u>			<del>- :</del>	<del></del>		· · ·		···.		- · . · ·			<del></del>		· , · · · ·	<u></u>	<del></del>		· · · · · · · · ·
		·		<u></u> -		<del></del>	· · · · · ·		<del></del>						<del></del>						<del>,</del>	· · · · · · · · · · · · · · · · · · ·		<del>,</del> .	<del></del>	<del>,</del>		
	÷		<u>.</u>		····					<del></del>					· · · · ·				<u> </u>	<del>:</del>	<del></del>			<u> </u>	<del></del>	. ·	<del></del>	
			<del></del>	··					· · · · · ·						· · · · ·	<del></del>				·	-;		· · · · · · · · · · · · · · · · · · ·			· . · ;	<del></del>	<del></del>
₽ 6-86		·		<del>,</del>			<del></del>											<u></u> .	<u> </u>								<del></del>	

(CR 5554)

EXPLORATION LICENCE 1353
IFOULD LAKE, SOUTH AUSTRALIA

REPORT FOR THE QUARTER ENDED 19TH AUGUST 1987

R.J. TAYLOR ADELAIDE



## CONTENTS

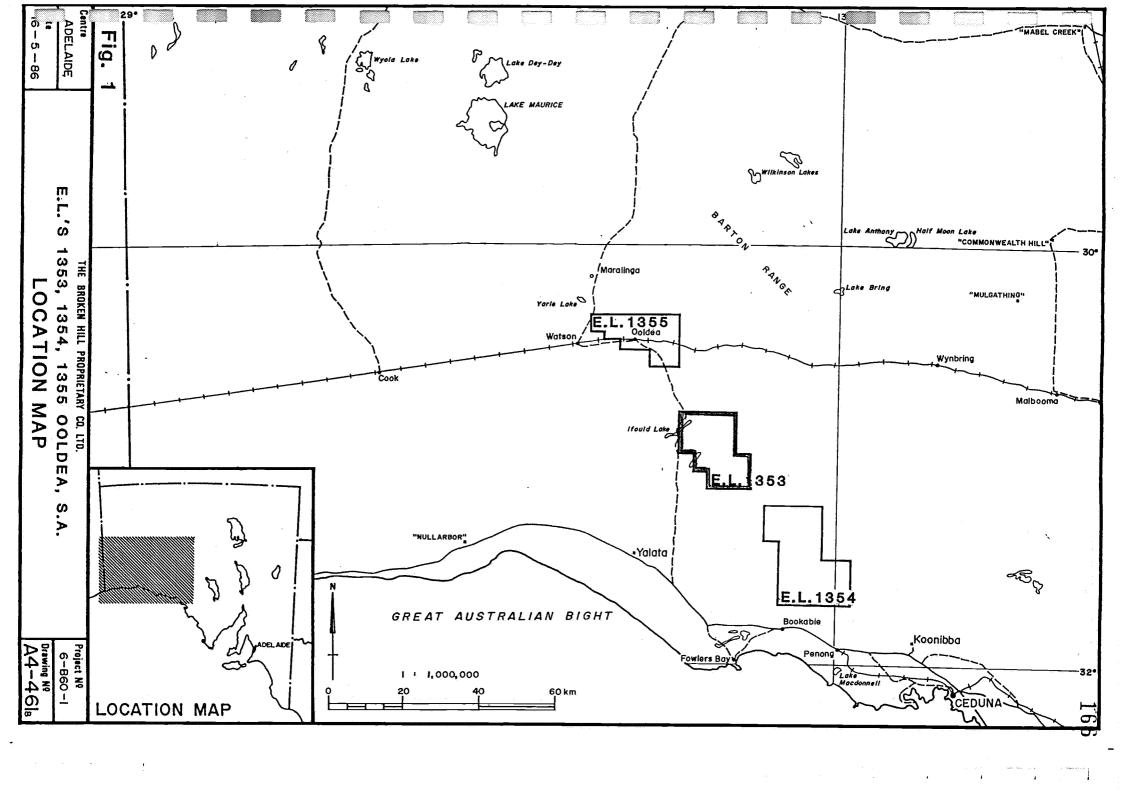
7	OFNEDAL	ヘエルエビいにいて
ī	LENEDA	IN I EMENII
1 ·	GLNLAAL	STATEMENT

- 2. TITLE
- 3. FIELD INVESTIGATIONS
- 4. EXPENDITURE

## **FIGURES**

1. EL1353, Ifould Lake, South Australia Location Map

A4-461B



#### EXPLORATION LICENCE 1353

### IFOULD LAKE, SOUTH AUSTRALIA

### QUARTERLY REPORT FOR THE PERIOD 20.5.87 TO 19.8.87

### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby ELs 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sands preservation may exist.

Reconnaissance geological field work and sampling has been carried out. Drill traverse lines have been delineated, cleared by bulldozer and were drill tested in November 1986. Geological interpretation has been completed and analytical results have now been received. No field work has been undertaken during this quarter.

### 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year and has now been renewed for a second year. Its location is shown on Figure 1.

### 3. FIELD INVESTIGATIONS

No field work has been carried out during this quarter.

The results of follow-up drilling in the nearly EL.1355 Ooldea are awaited in order to assess the full potential of this licence. When these results are available the next phase of exploration will be planned.

## 4. <u>EXPENDITURE</u>

The expenditure for the fourth quarter of EL.1353 for the three months to the end of August 1987 is summarised as follows:

Wages and salaries	3575
Field support	48
Vehicles	259
Tenement renewal fees	2446
Laboratory costs	550
Administration and overheads	344
	\$7222

The total expenditure to date for EL.1353 is \$75,286.

This report is submitted to the Department of Mines and Energy as required by Clause 2 of EL.1353.

(CR 5708) EXPLORATION LICENCE 1353 IFOULD LAKE, SOUTH AUSTRALIA

REPORT FOR THE QUARTER ENDED 19TH NOVEMBER 1987

R.J. TAYLOR Adelaide



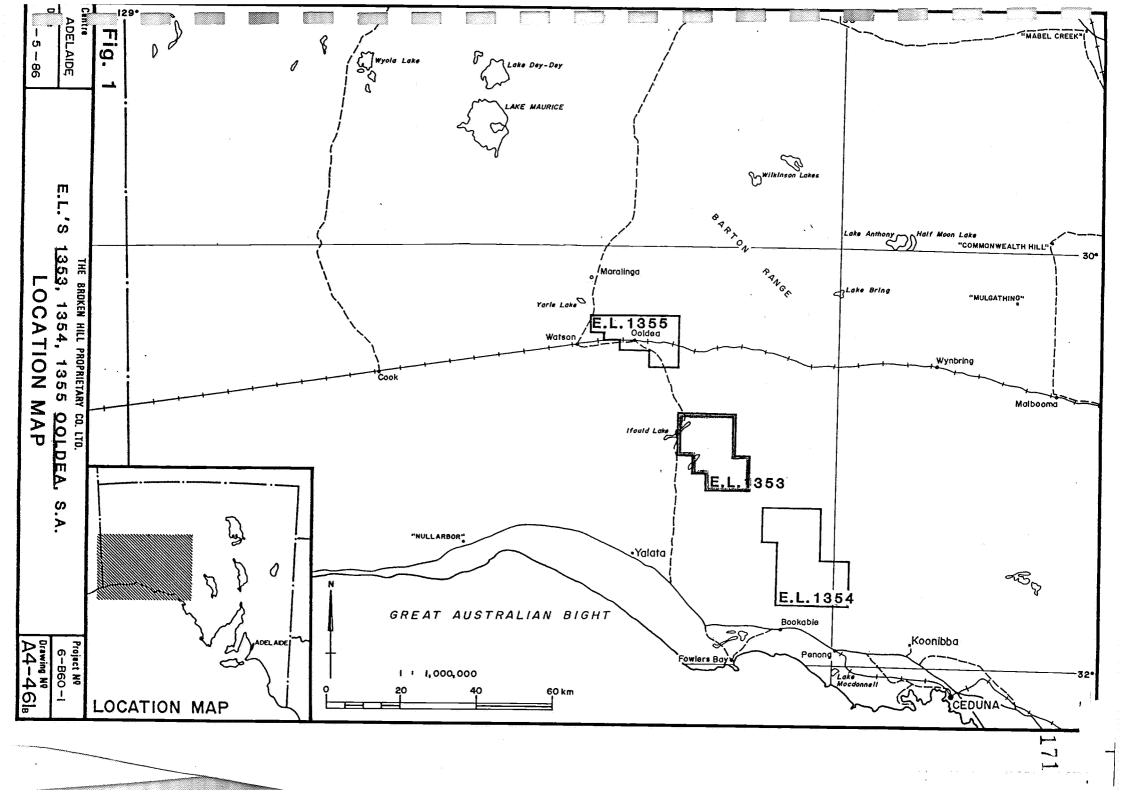
### CONTENTS

- 1. GENERAL STATEMENT
- 2. TITLE
- 3. FIELD INVESTIGATIONS
- 4. EXPENDITURE

## **FIGURES**

1. EL.1353, Ifould Lake, South Australia Location Map

A4-461B



#### EXPLORATION LICENCE 1353

### IFOULD LAKE, SOUTH AUSTRALIA

### QUARTERLY REPORT FOR THE PERIOD 20.8.87 TO 19.11.87

### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby ELs 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sands preservation may exist.

Reconnaissance geological field work and sampling has been carried out. Drill traverse lines have been delineated, cleared by bulldozer and were drill tested in November 1986. Geological interpretation has been completed and analytical results have now been received. No field work has been undertaken during this guarter.

### 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year and has now been renewed for a second year. Its location is shown on Figure 1.

### 3. FIELD INVESTIGATIONS

No field work has been carried out during this quarter. The results of follow-up drilling in the nearby EL.1355 Ooldea have been received. These results are now being studied and the next phase of exploration in this licence is being considered.

## 4. <u>EXPENDITURE</u>

The expenditure for the fifth quarter of EL.1353 for the 3 months to the end of November 1987 is summarised as follows:-

Wages and salaries	400
Equipment costs	90
Administration and overheads	24
	\$ 514

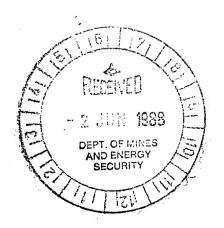
The total expenditure to date for EL.1353 is \$75,800.

This report is submitted to the Department of Mines and Energy as required by Clause 2 of EL.1353.

CR 5884

EXPLORATION LICENCE 1353
IFOULD LAKE, SOUTH AUSTRALIA

QUARTERLY REPORT FOR THE PERIOD ENDING 19TH FEBRUARY 1988.



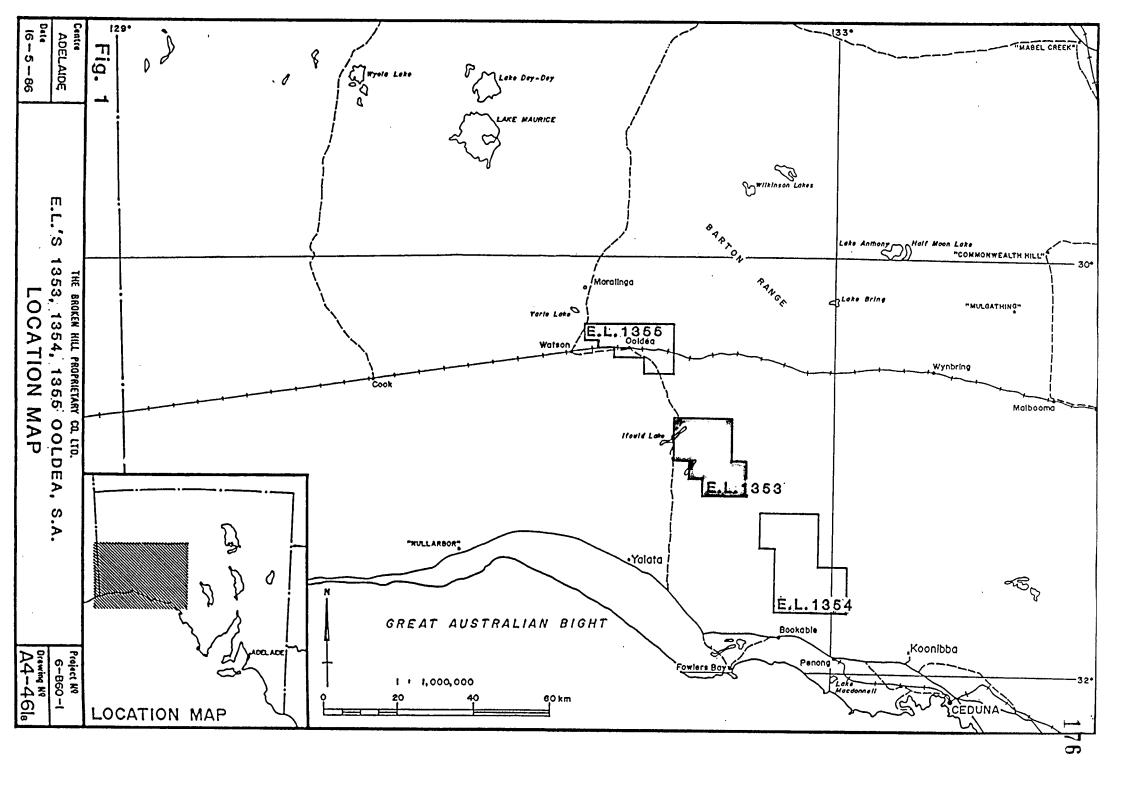
## <u>CONTENTS</u>

I. ULITENAL STATEMEN	1.	GENERAL	STATEMENT
----------------------	----	---------	-----------

- 2. TITLE
- 3. FIELD INVESTIGATIONS
- 4. EXPENDITURE

## **FIGURES**

1. EL.1353, Ifould Lake, South Australia
Location Map A4-461B



#### EXPLORATION LICENCE 1353

#### IFOULD LAKE, SOUTH AUSTRALIA

#### QUARTERLY REPORT FOR THE PERIOD ENDING

#### 19TH FEBRUARY, 1988.

#### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby EL's 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sand preservation may exist.

#### 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year and has now been renewed for a second year. Its location is shown on Figure 1.

#### 3. FIELD INVESTIGATIONS

No field work has been carried out during this quarter. Laboratory analyses of heavy mineral concentrates especially in relation to their zircon content are currently in progress at the BHP Belmont Laboratory in Perth. Depending on the outcome of this work a decision will be made as to whether further work can be justified.

## 4. <u>EXPENDITURE</u>

The expenditure for the sixth quarter of EL.1353 for the three months to the end of February is summarized as follows:-

Wages and Salaries	\$ 2209
Field Support	22
Geochemistry	112
Freight costs	263
Administration & Overheads	130
	\$ 2736

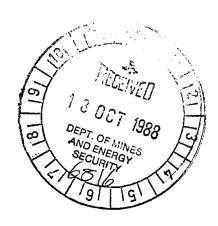
The total expenditure to date for EL.1353 is \$78,536.

CR 6260

EXPLORATION LICENCE 1353 IFOULD LAKE, SOUTH AUSTRALIA

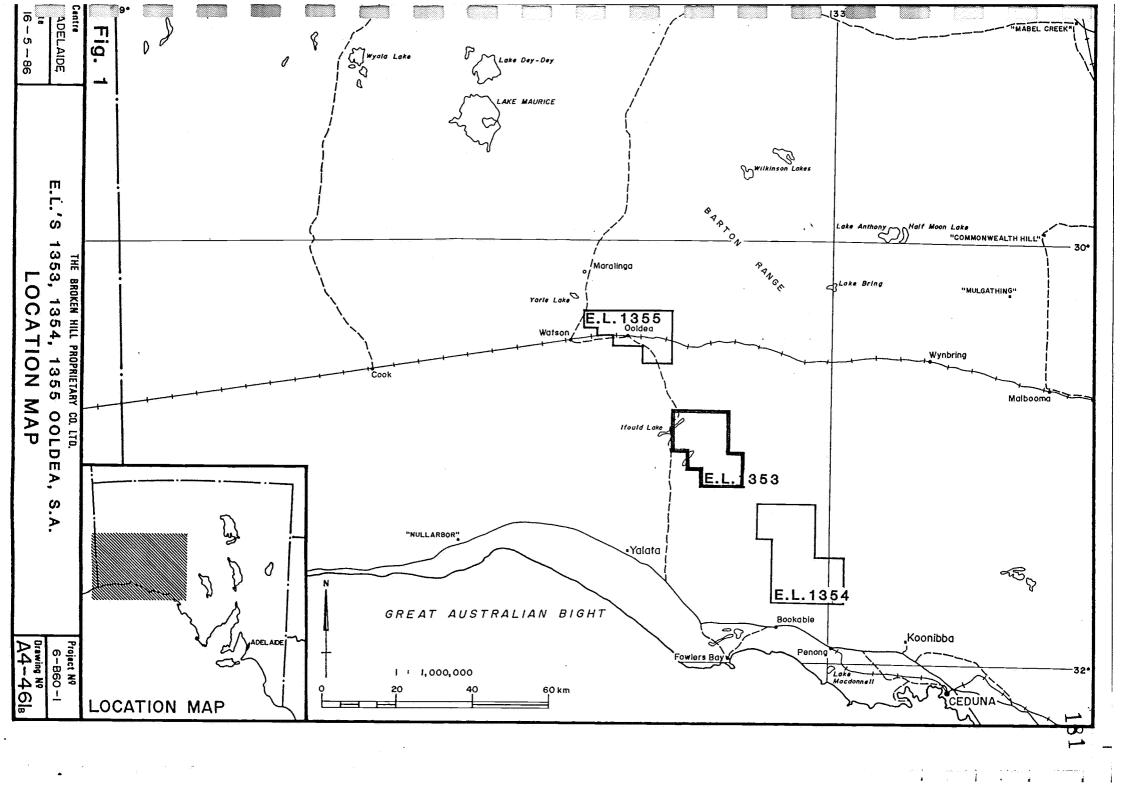
QUARTERLY REPORT FOR THE PERIOD ENDING 19TH MAY 1988.

K. GREY ADELAIDE.



# CONTENTS

1.	GENERAL STATEMENT	
2.	TITLE	
3.	FIELD INVESTIGATIONS	
4.	EXPENDITURE	
	FIGURES	
1.	E.L.1353 IFOULD LAKE, S.A. LOCATION MAP	A4-461B



#### **EXPLORATION LICENCE 1353**

#### IFOULD LAKE, SOUTH AUSTRALIA

## QUARTERLY REPORT FOR THE PERIOD ENDING

#### 19TH MAY, 1988.

#### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby EL's 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sand preservation may exist.

## 2. <u>TITLE</u>

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year and has been renewed for a second year. Its location is shown on Figure 1.

## 3. <u>FIELD INVESTIGATIONS</u>

No field work has been carried out during this quarter.

Laboratory analyses of heavy mineral concentrates, especially in relation to their zircon content are still in progress at the BHP Belmont Laboratory in Perth. Depending on the outcome of this work a decision will be made as to whether further work can be justified.

#### 4. EXPENDITURE

The Expenditure for the seventh quarter of EL.1353 for the three months to the end of May 1988 is summarized as follows:-

Wages and Salaries	\$ 1959
Drafting	80
Equipment	40
Surveys and Maps	17
Vehicles	27
Administration and Overheads	318
Tatal	¢ 0441
, Total	\$ 2441

The total expenditure to date for EL.1353 is \$80,977.

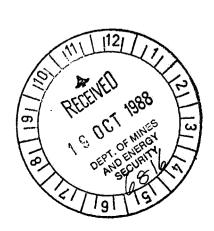
The report is submitted to the Department of Mines and Energy as required by Clause 2 of EL.1353.

CR 6261

EXPLORATION LICENCE 1353 IFOULD LAKE, SOUTH AUSTRALIA

RELINQUISHMENT AND QUARTERLY REPORT FOR THE PERIOD ENDING 19TH AUGUST 1988.

K. GREY ADELAIDE.



#### CONTENTS

- 1. GENERAL STATEMENT
- 2. TITLE
- 3. FIELD INVESTIGATIONS AND RESULTS
  - 3.1 Conclusions
- 4. EXPENDITURE

#### **TABLES**

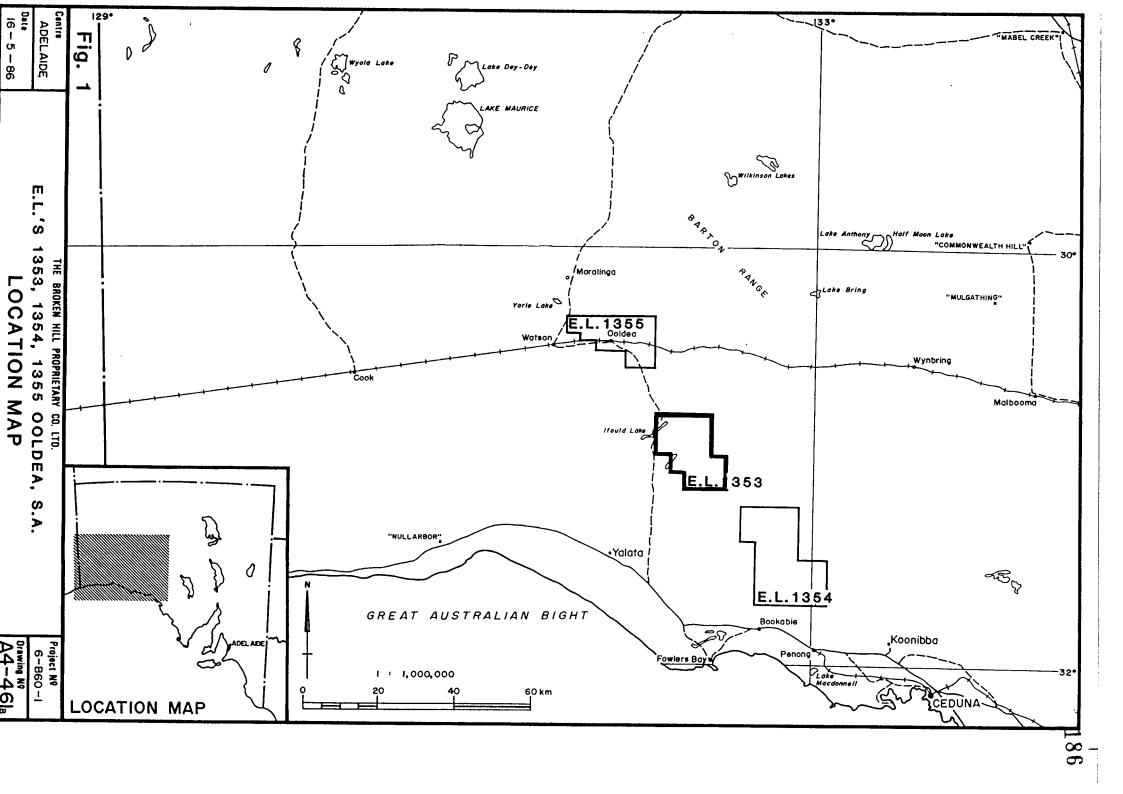
1. EL.1353 IFOULD LAKE
SELECTED SIGNIFICANT SAMPLE ANALYSES:
TRAVERSE TWO

#### **APPENDICES**

A. OBSERVERS DATA SHEETS: TRAVERSE TWO

#### FIGURES

- 1. EL.1353 IFOULD LAKE, SOUTH AUSTRALIA, A4-461B LOCATION MAP
- 2. WEIGHT PERCENT TOTAL HEAVY MINERALS FOR SAMPLES SUBMITTED ON TRAVERSE TWO (HOLES OL66-OL69)
- 3. EL.1353 IFOULD LAKE, GEOLOGICAL SECTION, TRAVERSE TWO, ANALYSES % HEAVY MINERALS A3-345



#### EXPLORATION LICENCE 1353

#### IFOULD LAKE, SOUTH AUSTRALIA

## RELINQUISHMENT AND QUARTERLY REPORT FOR THE

#### PERIOD ENDING 19TH AUGUST, 1988.

#### 1. GENERAL STATEMENT

Exploration Licence 1353 was taken up to test the potential for heavy mineral sands in the Ooldea Ridge. It forms part of a regional exploration programme including nearby EL's 1354 and 1355. A literature search and geological assessment of the Tertiary sediments of the Ooldea Ridge showed that the environment for beach sand preservation may exist.

#### 2. TITLE

Exploration Licence 1353 of 1,220 square kilometres was granted to BHP Minerals Limited on 20th August, 1986 for one year and has been renewed for a second year.

The Department of Mines and Energy were advised in a letter dated 5th August 1988 that this licence would not be renewed at the end of its current term.

Its location is shown on Figure 1.

#### 3. FIELD INVESTIGATIONS AND RESULTS

No field work was carried out during this quarter.

Anomalous zircon values were reported in composites for holes OL64 and OL68 on traverse two. Further samples were submitted to Belmont Laboratory to ascertain the extent of this anomaly.

Results for % Heavy Minerals and Observer sheets for these samples are shown in Figure 2 and Appendix A respectively. The total % HM have been plotted onto a portion of the traverse cross-section in Figure 3.

#### 3.1 Conclusions

While a minor zircon and ilmenite anomaly exists along the base of unit 2 (see Figure 3) between 0L66 and 0L69 no further work is considered worthwhile. The almost total lack of rutile, sub-economic quantities of zircon and ilmenite (see Table 1) depth to mineralisation and fine grain size of heavy minerals (mainly in the 0.18 to 0.075 mm size fraction) are the main reasons for this judgement.

TABLE 1. <u>EL.1353 IFOULD LAKE</u>

<u>SELECTED SIGNIFICANT SAMPLE ANALYSES : TRAVERSE TWO</u>

HOLE	DEPTH			% ILMENITE			
0L68	16-18m	RT3068	0.02	0.05	0.19	0.26	0.99
0L69	14-16m	RT3123	0.01	0.06	0.11	0.18	1.01

<sup>\*</sup> NOTE: Total HM% includes all > 2.96 SG minerals and includes Barite, Tourmaline, Kyanite, Quartz and rocks.

- All results ≥0.90% total HM chosen.

## 4. <u>EXPENDITURE</u>

The expenditure for the final quarter of this licence for the three months to the end of August 1988 is summarised as follows:-

Wagés and Salaries	\$ 693
Other: includes field support	267
Laboratory costs	1980
Administration & Overheads	441
	<del></del>
Total	\$3381

Total expenditure for EL.1353 over the two year term is: \$84,358.

This report is submitted to the Department of Mines and Energy as required by Clause 2 of EL.1353.

# APPENDIX A

OBSERVERS DATA SHEETS : TRAVERSE TWO

				INCO EXILEDI	17.11014		
OBSERVER'S	DATA	SHEET	<del></del>	TITANIUM	SAMPLE No	.RT	3082191
	X					•	

OBSERVER : ENAME SIZE RANGE OBSERVED : - 0.44 + 0.075mm SHEET No : 13 DATE STARTED : 6.7.88 DATE FINISHED : 6.7.88 ENTERED NON MAGS ( HANDMAGNET ) TICK OR SHOW OTHER: MATERIAL MAG SEPARATED. -0.4OBSERVED -0.25 -0.18 OTHER: +0.25 +0.18 +0.075 GRAINS M.3+4 GRAINS BOTTLED FOR WEIGHT 1.4 0.2 IN BAG PROBING 4.8 2.2 ( SHOW SIZE FRACTION ) MINERAL VISUAL ESTIMATE OF MINERAL % GRAIN COUNT CHECK ILMENITE | E MONAZITE E RUTILE ZIRCON LEUCOXENE E S d STHERS COMMENTS: OTHERS: TOURHAMME · ROCKS · QUARTZ · KYANITIE · PHPHIBOLIE

OBSER!	/E	R'S	D	A	ГΑ	S	HEE	ΞT			T	IT/	41	IIU	V	1 :	SAI	ИP	LE	N	o		RT 308	3
																							0.4+0	
SHEET	N	o :_		6		<del></del>	_ D/	<b>ATE</b>	E S	TΑ	RT	ED	):-		6	- 7	-88	<del></del> .	[	DAT	TE F	IN	ISHED :	
MATERIA	L	NOI				•	IDM/			)						TIC	ск о	R S	ноч	w 0	THE	R:	ENT	ERED
OBSERVE	D	+(	0.4 0.23	5		-0.2 +0.	25 18		-0.1 +0.0	8 075	5	01	HE										GRAINS BOTTLED	GRAINS FOR
WEIGHT		0	-05	)·	l	٥.	6		4	1	k	1	<u>/- S</u>										IN BAG	PROBING
MINERAL	Flag		VI	SUA	L E	STI	MATI	E 01	F MI	NE	RAI	_ %				G	RAIN	1 00	NU.	тс	HEC		( SHOW FRAC	SIZE TION )
ILMENITE	-		1		1.		2				7			6/2						Ī				
MONAZITE	Ε		1						r															
RUTILE	Ε		T	R			41			·	2											1	<del> </del>	
ZIRCON	Ε									(	4					<del></del>								
LEUCOXENE	Ε						1			-+-	3				1							1		
OTHERS		1	10	Ó			97			81	4	1	(	4	5					ĺ			, , , , , , , , , , , , , , , , , , ,	
O THERS															1					i		1	<del>adada an</del>	
						-														ľ				
				·																:		1		
·																				1		1	es faugus a film of the same o	
																			1					
																								1
																-			:	į				
																				; !				
COMMENT	S						-																	
				k	بعم	rk	حمدا	25	tou	ria	امال	<u> </u>	·a U	art.										
					Ų								ı		)									
							-																	
· · · · · · · · · · · · · · · · · · ·						,																		
		· · · · · · · · · · · · · · · · · · ·																	-					,
															•									

MATERIA	L	NON MA	GS (HANDA	AGNET)		TICK OR SI	ном	отн	ER:	ENT	ĘRED
OBSERVE	··-	-0.4 +0.25	+0.18	+0.075	OTHER: パ・3イム					GRAINS BOTTLED	GRAIN
WEIGHT MINERAL	10	0.05	· · · · · · · · · · · · · · · · · · ·	6.5 TE OF MINERA		CD A IV. O C	<u> </u>	<del></del>		IN BAG	PROBI
ILMENITE	E		3			GRAIN CO	TAU	CHE	СК	FRACT	
MONAZITE	Ε	< /	TR	1/19	80						
RUTILE	Ε		21	2							<del>,</del>
ZIRCON	Ε	IR	2	7							
LEUCOXENE	E		2	2							
THERS		100	93	179	20				_		<del></del>
											<u> </u>
	-										<del></del>
- <del></del>	7								-		<del>,</del>
	_										
	-										
	1								-		<del> </del>
	$\dashv$										<del>-                                    </del>
<u> </u>	$\perp$								-		<del></del>
	1								-	<u> </u>	
COMMENT	s :	STHER	S. Tow	CHALINE.	0/100==	. 61000	,,,,,,				<del></del>
-,;,-,-,							1 1 3		<u> </u>	V 3	<del></del>
<del>** ****                              </del>		<del></del>		<del> </del>	· · · · · · · · · · · · · · · · · · ·						
<del></del>	·		<del> </del>	<del></del>	<del> </del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<u> </u>		<del> </del>	·

OBSERV	VΕ	R'S	D	A	ГΑ	S	HE	ΕT	•		· T	IT.	۸N	IIU	M	1 3	SAI	MP	LE	No		RT:	308	5 194
OBSER	۷E	R :_		P	) AUL	بمار	E		<del></del>		_	:	SIZ	Εŧ	RA	N	GE	ов	SEF	RVE	D:	- 0 <u>. (</u>	<u>t +</u> o	.075 <sub>mm</sub>
SHEET	N	o :_	· · · · · · · · · · · · · · · · · · ·	18			_ D	ΑT	E S	STA	R	TEC	) :_		6		7-8	8	c	AT	E FIN	IISHE	D :	6-7-88
MATERIA	L	NOt				•.	ATG		ET	)				<u></u>		TIC	K O	RS	ноч	<b>v</b> 01	THER		ENT	TERED
OBSERVE	D .	+(	0.25	5		+0.	25 18		-0. +0	07	5		ΓΗE	ų.								ľ	AINS	GRAINS
WEIGHT		0	-03	}		0-	7			0 -0	2	: 1	1.5	<del></del>		· · · · · ·							BAG	
MINERAL	Flag		VI	su/	L E	ST	MAT	ΕO	FN	IINE	RA	L %	,			G	RAI	1 CO	ראט	ГСН	IECK	(	SHOW FRAC	SIZE TION )
ILMENITE	Ε			2			4	1			7		1	6	2									
MONAZITE	Ε		. L				į			<u>ا</u>														
RUTILE	Ε		1	R	-		1				2													
ZIRCON	Ε						-			2	6		-	TR	?									
LEUCOXENE	Ε		4	1			3				4													
OTHERS			9	8			9 1			6			l	40	2									,
								-		-	-				1			-		<u> </u>	-			
:			-									_	_		1				ļ	-				
					_	_	_	_		_	_			_	1		· · · · ·		<u> </u>					
			į.			-					_				1				ļ.,	<u> </u>			<del></del>	
															1	_			ļ					
			<u> </u>				-			_	_						· · · · · · · ·					-  -  -	<del></del>	
		-															<u> </u>							
	1																·					r <del>1 -                                   </del>		:
											1													
COMMENT	s:	سديب												-						. —				
	<del>,</del>	Ď	the	rs :	Laur	ma	ise,	ره	chs	a	راود پس	1-7	+ k	Ya	<u>. ار م</u>	<u> بو</u>	•							
										, (				U										
	<u>,</u>	<del> </del>		····																				
		<u> </u>																						
	, .																							
			· · · · · · · · · · · · · · · · · · ·	•			·																	
I																								

OBSER	VE	ER'	SI	DΑ	TA	١ ٤	SH	ΙΕΙ	ΕT			- 7	ГП	٦A	NI	U	У И	SA	M	PL	E.	No	o	ŕ	77	_3	<u>08</u>	19
OBSER																												
SHEET	N	lo:			8	·		D.	ΑT	E :	STA	٩R	TE	D	:	<u> </u>	7	٠ 8	28		_ D	AT	E FI	NIS	HEI	o : <u>∵</u>	<u>フ・フ</u>	·88
MATERIA	۸Ĺ	1	9N N						\G1	4ET	۲)			T		<u> </u>	TIG	CK (	OR	зн	ow	01	THEF			EN.	TERE	
OBSERVE	D	ŀ	-0.4 +0.2	ļ		-0 +0	.25				.18 .07		ſ	) <b>Т</b> Н											GRA	INS		RAINS
WEIGHT			0%	2		<u>ن</u> ک	8			9-	8			0	• 5	<b>-</b>								'		BAG		OBING
MINERAL	Flag		٧	ISU.	AL	ES1	ГΙМ	ΑTI	E O	FA	AINE	RA	L '	*		-	G	RAI	N C	οι	TNL	Cŀ	IECK	1			SIZI	
ILMENITE	Ε	<	1		×.	2				4			6	0											· · · · · · · · · · · · · · · · · · ·		T	<del></del>
MONAZITE	Ε	7	$\mathcal{R}_{I}$		7	R	}		7	R																	1	<del></del>
RUTILE	Ε	7	R		7	R				1														1		<del></del>		· · · · · · · · · · · · · · · · · · ·
ZIRCON	Ε					2			/	8														<u> </u>	<del></del>		1	<del></del>
LEUCOXENE	Ε				_	1				3					-									$\top$	<del></del>			<del> </del>
OTHERS		9	9		9	6	•		7	14			4	0												<del></del>	-	<u> </u>
					/				-	1			,,									· · · · · · · · · · · · · · · · · · ·	<del> </del>		·	<del>,,,,,</del>		<del></del>
								:												1		<del></del>		1	·		ļ	
								-												1		-						······································
											1								<del> </del>	+		<del></del>			<del></del>	<del></del>		
												1	1	1						-				<u> </u>		<del>,</del>		<del>`,.'</del>
								İ			İ	1		$\top$				···	1									<del>*************************************</del>
												1	1	$\dashv$				-		1					<del></del>			
					i						i	T		-				·		+	+					-		<del>-,</del>
	1									1	İ	1	-	$\dagger$		_											<u></u>  -	·-···
	1					-	1	1	1		$\top$	+			1	1				-	+			<u> </u>	-		<del></del>	
					Ť	_		7				$\dagger$		+	$\dagger$			<u>i</u>		+	+						· · · · · · · · · · · · · · · · · · ·	<del></del>
	1	$\top$	<i>z</i>			$\top$		7	+	$\dashv$		$\dagger$	+			$\dagger$	+	<del></del>	<u> </u>	+								
COMMENT			استان		——— — •		L		<u>ا</u> ۔							_ <u>_</u>	1		<u> </u>				ان سین س	L	<del></del>	1		
COMMENT	<b>ə</b> :	<u> </u>	HE	AL.S	•		00,	<u>~^</u>	147	Y.	1/2-	PC	1 <sub>P</sub> 1	27	2 :	· /c	Y F	N/7	12	· <i>K</i>	00	KC,	<del>,</del>			<del></del>	تطيح البريار وها سيانه	tang dengan berapada yang da
<del></del>	<del>-,</del>		<del></del>	<del></del>					·	<del>, ,</del> ,	<u> </u>			·	<del> :</del> -		<del></del>	<u> </u>	<del></del>	<del>, ·,</del> ;	<del>-</del>	<del></del>	<del></del>		<del></del>	•	<del>***,*.**.**</del>	
<del>·····································</del>	<del></del>	<del></del> -	· · · · · · · · · · · · · · · · · · ·				-,	<del></del>	<del></del>		<del></del>	<del></del> -	. <del></del> ;	<del></del>		·	<del>-,</del>			<del></del>	<del></del>		· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>		<del></del>	
·	<u> </u>	<del></del>	<del>,</del>						<del></del>	·····	<del></del>							<del></del>	<u></u>			<del></del>	<del>.:</del> -	· · · · · ·		•	<del></del>	
	:	<u></u>		<u>- , ,</u> -	··		<del></del>		··-		<u>. ·                                     </u>	·			<u> </u>			<del>- 31 - 1</del>	<del></del>	·	<del></del> -		<u> </u>	<del>-,:</del>	<del></del>		<u> </u>	
	<u> </u>	<del>-, , -</del>	<del>,</del>		<del></del> -	K K	<u>,</u>	·	· · · · ·	;		-				<u></u>	<del>-,</del> ;		<u></u>			<del></del> <u></u>		·		<del></del>	<del></del>	
	<del></del>	· · · · · ·	<del></del>	· · · · · · · · · · · · · · · · · · ·				<del></del>	<del></del>		<u> </u>					<del></del>	<del></del> -	<del></del>	<u></u>	<u></u>		<del></del> -	<del>- \</del>			<del>-,</del>		

OBSERVE	ER'S D	ATA SHE		TITANIUN	M SAMPLE No . 🖄	27 3387
	•				ANGE OBSERVED:	
SHEET N	lo :	19 D/	TE STAR	TED: 7	7-88. DATE FIN	ISHED : 7.7.88
MATERIAL	NON MA	AGS (HANDMA SEP	GNET)		TICK OR SHOW OTHER:	ENTERED
OBSERVED	-0.4 +0.25		-0.18 +0.075	OTHER: 14.3+4		GRAINS GRAINS BOTTLED FOR
WEIGHT		3 0-8	8.6	0-6		IN BAG PROBING
MINERAL	VIS	SUAL ESTIMATE	OF MINER	AL %	GRAIN COUNT CHECK	( SHOW SIZE FRACTION )
ILMENITE E	TR		10	70		
MONAZITE		TR	4 /			
RUTILE E		1	2			
ZIRCON E	<b>i</b>	2	20			
LEUCOXENE E	TR	2	3			
OTHERS	100	94	65	30		
777						
COMMENTS	:CTHER	S: PUARTZ	ROCKS	TOURMAN	1128	
<del> </del>	<del></del>		•	<del>,                                    </del>	<del></del>	
<u> </u>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	<del>- 1, - pt - d - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1</del>	<del></del>	<del>***                                  </del>	<del></del>	
<del></del>	<del></del> :	<del>nan</del> manan kaluaran	<del> </del>	. <del>To but it has your leads</del>		
	<del>.</del>		<del></del>	<del> </del>	<del></del>	
	<del> </del>	· · · · · · · · · · · · · · · · · · ·	<del> </del>	<del>-, -, -, -, -, -, -, -, -, -, -, -, -, -</del>		
		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>		

OBSER																							
SHEET	No	) :_		19		· · · · ·	DA	TE	ST.	AR	TED	1	·	<u>7-</u>	7-8	8	_ b	ATE	FIN	ISHED		7-7-8	38
MATERIA	L	NO						GNE						TIC	ко	R SI	HOW	ОТ	HER:	أ أ	N I I	ERED	
OBSERVE		<del></del>						<del>2D</del> (			OT	HEI		T	<del></del>		Τ				·	,	
OBSERVE		+(	0.25	5	+(	0.18	3	+(	0.07	5	н	J+4	-				ŀ ŀ			GRAIN BOTTL		ľ	R
WEIGHT		0	1			.0		/	5.è	)·	/	-0							السيداد وغد	IN BA		PROB	11
INERAL	Flag		VI	SUA	LES	TIM	ATE	OF	MIN	ERA	L %			G	RAIN	CO	UNT	СН	ECK	(SHC FRA		SIZE ION )	
LMENITE	Ε			2	*.		4		1	2		-	15										
ONAZITE	E								1	1								:					
RUTILE	Ε		1	R			2			4													
ZIRCON	Ε								3	0		17	R							}		:	
EUCOXENE	É		1	1			3			5										<del> </del>			_
)THERS			9	8		9	0		4	9		2	5							8			•
					1									<del>-</del>						<del>, , , , , , , , , , , , , , , , , , , </del>		<del>- 1, 4</del>	
	1							-															-
						1									<u> </u>								
			<del>,  </del>						-		_	-											
	1		-					ŀ				-										water of the	_
	7					:						Ť	-										
	$\dashv$					1			1													<u>-</u>	
	1							-	<del> </del>			+								·			
	$\dashv$		-						+-			-	-		· · · · · ·			; <u></u>					
· · · · · · · · · · · · · · · · · · ·	$\dashv$		-			-						-						<del></del>		•			
	+					ļ	$\dashv$					+			· · · · · · · · · · · · · · · · · · ·								
	+											<u>.  -</u>  :	$\square$					· · · · · · · · · · · · · · · · · · ·					
<u> </u>	L		ļ., ,			.[]						1						<del>}</del>					
OMMENT	s:				<del> </del>		-ii-,	<del>,</del>		<del> </del>		<del>,, ÷</del>				<u> </u>	<del></del>	<del></del>				<u></u>	
. · · · · · <del>* - · · · · ;</del>	<del></del> .	U	the	หร	mu	ks,	qu	adz		ky	ا نمه	<u>ر</u>	+	tour	بطنم	<u></u>	·	<del></del>	_:	· · · · · · · · · · · · · · · · · · ·		<del></del>	_
	· · · · ·		<del></del>																· · · · · · · · · · · · · · · · · · ·	·	·		
<del>dajada yala sajadaja daja mend</del>	····		***************************************	· · · · · · · · · · · · · · · · · · ·	<del></del>					i-		<u> </u>	-			<del> </del>	· · · · · · · · · · · · · · · · · · ·	<del></del>		<del> </del>	<del></del>		
<del></del>		<del> </del>		· · · · ·		- <del></del>			<del></del>	· <del></del>	· · , · · · ·	<del></del>	· , · , · , · , · .		<del></del>		<del></del>	<del></del>			· · · ·	<del></del>	_
	<del></del>	· · · · · · · ·	<u> </u>													<u> </u>				·		موسئين شرائر	

**BHP MINERALS EXPLORATION** OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3089 OBSERVER : PAULINE SIZE RANGE OBSERVED : - 0. 4 + 0.075 mm SHEET No : 20 DATE STARTED : 7-7-88 DATE FINISHED : 7-7-88 ENTERED TICK OR SHOW OTHER: NON MAGS ( HANDMAGNET-) MAG SEPARATED . OTHER: -0.4 -0.25 -0.18 OBSERVED GRAINS GRAINS +0.25 +0.18 +0.075 13+4. BOTTLED FOR IN BAG PROBING WEIGHT 0.8 20.1 0-9 0.05 ( SHOW SIZE MINERAL VISUAL ESTIMATE OF MINERAL % GRAIN COUNT CHECK FRACTION ) ILMENITE | E 80 MONAZITE E RUTILE TR ZIRCON E 20 TR LEUCOXENE E 9 OTHERS COMMENTS : \_\_ Others townsline, kyanite, rocks +quartz.

ا الازرمية المطالبينية ال	OBSERVE	R'S DAT	BHI TA SHEE	P MINERA	LS EXPLO	RATION  A SAMPI	F No.	RT 30	199						
Na page and de canada							ERVED : -								
							DATE FIN	-							
	MATERIAL	MON MAGS	SEP	GNET-)		TICK OR SH	OW OTHER:	ENT	ERED						
	OBSERVED	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER:			GRAINS BOTTLED	GRAINS FOR						
	WEIGHT	0.02	/-0	22.4	0.8			IN BAG	PROBING						
Personal	MINERAL E		AL ESTIMATE	OF MINERA	L %	GRAIN COL	JNT CHECK	( SHOW FRACT							
	ILMENITE E	TR	3	/	80										
	MONAZITE E		TR	2				· · · · · · · · · · · · · · · · · · ·							
	RUTILE E TR / 4  ZIRCON E / 50														
	ZIRCON F														
Marine.	LEUCOXENE E 7 R 3 5														
	LEUCOXENE E TR 3 5														
									<del></del>						
(,															
									-						
									Marine Company						
{															
	COMMENTS	: OTHIER	S: Tou	1R/117K1N	uz. Roc	ks · Kyl	2017/6								
			<del>,</del>	·	<del></del>	4			بسند فسيجيب بيند						
					<del>and angert high dig algorithm (some some some some some some some some </del>	را ده میداد به خواه و خواه به دارد این این این این این این این این این این	and and a specific and a specific and a specific and a specific and a specific and a specific and a specific a								
	i	<del>yandahili da basa basa basa</del>	<del>virai i in la cier</del> i, de la contaceptaco	<del></del>	<del></del>	<del>aran da maranta da da da da da da da da da da da da da</del>	<del>ana anto a tarta de la terra</del> nte de la terrante dela terrante del terrante de la terrante de la terrante de la terrante de la terrante de la terrante de la terrante de la terrante del terrante de la terrante de la terrante de la terrante del terrante del terrante de la terrante del terrante del terrante del terrante del terrante del terrante de la terrante del terra	<del>, , , , , , , , , , , , , , , , , , , </del>	· · · · · · · · · · · · · · · · · · ·						
		<del>na administrativa de la Colonia de la Colonia de la</del>	and the second s	and the state of the state of the state of the state of the state of the state of the state of the state of the		distribution of the second second second second second second second second second second second second second	- Company of the second								
	<del></del>		· · · · · · · · · · · · · · · · · · ·												

200

t <sub>ne</sub>	OBSER'	VE	R	SI	AC	T	<b>A</b> :	SH	E	ΞT		جسه -	TI	TA	NI	UN	M	SA	MP	LE	No	<b>.</b>	RT	3 8	100	<del></del>	
	OBSER	VE	R:			Pa	VLI	ME		<del>, ·</del>				s	IZE	R	۸N	IGE	ОВ	SE	RVE	D:	- 0 <u>-</u>	4	± 0• <u>∙</u>	<u> 275 m</u> n	n
	SHEET	N	o :		2	١.			D A	A T E	E S	TAF	<b>?</b> T	ED	:		<u>8</u> –	7-8	8	(	TAC	E FIN	изн	ED	-	8-7-8	38
<i>)</i>	MATERIA	L	NC.							GN		)			<del></del>	]	Ti	CK (	OR S	ноч	W 01	THER		[	ENT	ĘRED	
7	OBSERVE	D		-0.4 -0.2										ОТ! М;	1ER 3+4			· · · · ·						RAIN TTL		GRAIN	
	WEIGHT			0.0	7		0	.7			23	ġ		(	D-7	7							1	N BA		PROBI	
	MINERAL	Flag		٧	ısu	AL	ES	TIM	ATE	OF	МІ	NER	AL	%			G	RAI	N C	OUN	T CH	IECK	(			SIZE	-
	ILMENITE				-				7			1 0			8	0											
	MONAZITE											4	1														
700	RUTILE         E         1         4         1         4         1         2         1         4         1         2         1         1         4         1         4																										
	ZIRCON E 3 3 0 4 1 LEUCOXENE E 4 1 5 5 5																										
	LEUCOXENE	E			-1				5			5	<u> </u>														
	OTHERS			- (	7/8			8	4			5/1	-	-	2	0	<u></u>		1								
	<del></del>				-	+						- <u>-</u> -	-	+						-				<del></del>		<del></del>	<del></del>
						$\dagger$	<u> </u>	i			-		$\dagger$	$\dagger$						-				<del></del>		<del></del> -	<u> </u>
	<del></del>					1	-						1				<del></del>	-		<del> </del>	<u> </u>			·		<del></del>	
ŀ					$\dagger$	-								1												<del></del>	<del></del>
	<u>.</u> .													+						-			· .	,			<del></del>
														1											+	<del></del>	
																	<del></del>				!			<del></del>	+		
																							····	***************************************		<del>'',', '-</del>	
																							ye — ar ni sanar	****		<del></del>	
	<u> </u>				-																						
	COMMENT	s :		<del></del>				·	-		<del></del>		<del></del>				<u>- ;                                     </u>	<del>-</del>	·		· · ·						
-	ta da da da da da da da da da da da da da		0	ithe	<u>rs_</u>	tou	nal	بهتد		cles	+ !	s Na	إنه	<u>ن</u>	<del></del>	-, <del>-</del> · ·	<del></del>	·	<del></del>		<del></del>	, ,				<del></del>	_
+			<del></del>		<u>.                                    </u>	<del></del>	<del>,</del>	·		<del></del>	·	· · · · · ·	,	<del>-,</del>	<del></del>		···-	·	<del>-: -: -</del> -	·· .	<del></del>	<del> </del>	·····	<del></del>	:	<del></del>	
-	<del></del>		<del></del>		· · · · · ·	<del></del>		<u> </u>	<del></del> -	<del></del>	<del></del>	<del></del> .	<u>_</u>		<del>: -: -</del> :		<del></del>	<del></del>			<del></del>	<del></del> .	<del></del>	<del>- ,;-</del>	· · · · · ·	- 11 - 11 3 7	
-	· · · · · · · · · · · · · · · · · · ·		<del></del>		<del></del> -				<del></del>		<del>.</del>	<del></del>					<del></del>		· · ·	·	<del></del>	<del></del>	·	<del></del>	·	<del></del>	$\dashv$
H	· <del></del>			•	·							<del></del>	<del></del>	<u> </u>	<del></del>	-		····	<del></del> -		···	· · · · · · · · · · · · · · · · · · ·	· • • • • •		<u> </u>	<u></u>	$\dashv$
ľ				<del></del>				<del></del>			··········		<del></del>				<del></del>	<del></del>	<u>-</u> -		<del></del>	<del></del>	÷	<del>- ,· .</del>	- <del></del>	<del></del>	-
	6.66																	<del></del>									

OBSER'	VE	R'S	C	)A	ΤA	. 5													MP				R			20
OBSER	۷E	R:_		P	AUL	<u>۱۸۷</u>	仨			<del></del>	حنبت	<del></del>		SI.	ZΕ	R	ΑN	GE	ОВ	SEF	RVE	D : •	- o <u>. </u>	<u>t_</u> + o	<u>• 075</u> m	ı·m
SHEET	N	o :_		2	<u> </u>	<del></del>	_	DA	(TÉ	S	ΤÁ	R	ΓE	D:	· 	{{}^{2}}	8 -	7-8	38	_ t	DAT	E FIN	ISHE	D :_	8-7-	88
MATERIA		HON	I M	AG:	3 (	HA	ND	MA	GNI	ET :												HER:	_		TERED	7
					$\overline{}$				PATE		<del></del>		<del></del>				T		<del></del>			<del></del>				
OBSERVE	D		0.4							-0.1 +0.0		5	0	TH	ER	:							4.	AINS TLED		
WEIGHT		O	۱۰			0.	٠ <u>5</u>			3.	0													BAG		
MINERAL	Flag		۷I	su/						М			L 9	6			G	RAI	N C	ראטכ	т сн	IECK	( S	HOW	SIZE	
ILMENITE	Ε			3	<u> </u>			7			/ <	5												<del>, i </del>	1	
MONAZITE	Ε	E TR II																<del>· · · · · · · · · · · · · · · · · · · </del>								
RUTILE	UTILE E TR 21 3																<del></del>									
ZIRCON	IRCON E 1 1 1 5																									
LEUCOXENE	ZIRCON E I I I S															<del></del>										
OTHERS.	EUCOXENE E TK 2 5																									
							1				7	7	1							1				<u> </u>		<del>- 1</del>
							1				<del> </del>	1	1	1			<del></del>			+						
							1	1			$\dagger$	+	1	1	-	$\exists$				<del> </del>						·
											+	+	1	+	$\dashv$	-		_		-			·	-		
							-	$\top$	+		+	1			+	7		•		+-			<del></del>	<del></del>		
						$\top$	$\dashv$				+	1	+	+		1									<u></u>	<del></del>
	$\top$					-	+	+	+	+	+	$\dagger$	+	+	+	$\dashv$							<del></del> ,	<del></del> .		
	7					+		$\dashv$	+		+	$\dagger$	+	+	+	1							<del></del>	<del></del>		
	1					1	-	+	+		$\frac{1}{1}$	+	-	+		+							<del></del>			<del></del>
	1					+	+	+		-	+	+	+	+	+	+		··								
	1				+	+	+	+	-	+	+	+		+	+	+		<del></del>		<u>                                     </u>			<del>- 1</del>	<u> </u>		
	$\dagger$			+	+	+	+	1	+		+	+	+	1	+	$\dashv$		·\					<del></del>	<del>v. t. d</del>		· , · · ·
<u></u>									L_									<del></del>		لــــا					<u> </u>	<del></del>
COMMENT	S:									<del></del>		<del></del>				<del></del>	<del></del>	···	<del></del>	<del></del>	·····	<del></del>		<del>_</del>	<del> </del>	<u> </u>
	<del></del>	<u> </u>	her	-5 -	tou	יכבע	ملند	ید		ocks	<u> </u>	حا	E Y	نصد	Je.	<del></del>		<del>-</del> ,	· · · ·	<del>_</del> ,	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
<del></del>		<del></del>		<del></del>	<u>,, </u>	<del></del>	<del></del>	<u></u>	<del></del>								·			<del></del>	<del></del>		<del>:</del>	<del> </del>	· · · · · · · · · · · · · · · · · · ·	<del></del>
<del></del>			<del></del>	<u> </u>	<del></del>		<u> </u>	<del></del>	<del></del>				<del></del>	<del></del>			<del>-:</del> -	<del></del>		<del></del> -	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del>,</del>
<del> </del>	· · · · ·	<del></del>		<u> </u>	<del></del>	<del></del>	<del></del>			<del></del> -		<del></del>	<del></del>	<del> ·</del>	· · · · · · · · ·			<del></del>			<del></del>	<del>: -</del>	· <del></del> ,	<del></del>		
<del></del>	·	•		<del></del>	<u></u>	•				<u> </u>					<u> </u>						·			<del></del>		
		<del></del>	<del></del>	<u> </u>			<del></del>		<del></del>	<del></del>	<u> </u>	<del></del>		<del></del>		<del></del> -	· · · · · ·	<del></del>			<del></del>			<del></del>	<del> </del>	

201

#### BHP MINERALS EXPLORATION

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No .R7309:00

OBSER	VE	R :	Z		VA	7		<del></del>		<u></u>		;	SIZ	Έ	R	AN	GE	овя	SER	VE	): ·	- 0 <u>- 4</u> i	_+ 0•	<u>075</u> mm
SHEET	N	o :_		2	Z_		_ [	À.	TE S	ST/	R	ΓΕΙ	<b>D</b> :	_8	3	٠ 7	٠.8	· 7_	_ D	ATE	E FIN	ISHE	<u>ع</u> : د	-7-88
MATERIA	L		N N			•			NET	-)					]	TIC	ко	R SI	10 W	ОТ	HER:		ENT	ERED
OBSERVE	D	-	-0.4			-o.	25		-0 +0	.18	5	0	THE	R:			<u></u>	<u> </u>			<del></del>	GRA BOT1		GRAINS FOR
WEIGHT		C	0.	2		٥.	4		0.	8												1	BAG	PROBING
MINERAL	Flag								OF N			L 9	6			G	RAIN	1 CO	UNT	СН	ECK		HOW RACT	SIZE
ILMENITE	Ε		3		7.	7			16															
MONAZITE	Ε	_			7				1															
RUTILE	Ε	7,			7	R			>															
ZIRCON	Ε					2			1 2															
LEUCOXENE	Ε																							
OTHERS	ENE E 7 2 2 1 3																							
																								: 
																	·····							
				-																				
																								<del> </del>
					<u> </u>																			······································
				_	<u> </u>																			
			_					_ _									<u> </u>				,			<u> </u>
				<u> </u>					ياب.															
COMMENT	s:	07	HEA	<u> የ</u> ያ		10U	Inal	.INE	, Ro	ck S	<u> </u>	مري	4et	2_	+	KYA	<u>~17₹</u>	<del>.</del>			·		-	
<del></del>	÷		<del></del> .			· · · ·			<del></del>									<del></del> ·	<del>- ,</del>		•	<del></del>	<del> </del>	
			والمساويين	-i					ing ni siunnu	******	Andre de pe		<del>- 1</del>						·	<del> </del>		<u> </u>	·	
 	. in			·····	<del> </del>	<del>, , , , , , , , , , , , , , , , , , , </del>	·	<del> </del>	<del></del>	***************************************						<del> ; ,</del>	· ·			· • • • • • • • • • • • • • • • • • • •	ini da aranga			<u> </u>
<del>nada mingan dinada mangana</del>	******		, - vima-t-i-i-i-	<del></del>	<del></del>	•.	<del> </del>	· , · ;		<del> </del>			- ,	· · · · · · · · · · · · · · · · · · ·	····		· · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·		<del></del>	<del></del>	
				<del></del>				<del></del> .		<del></del>	<del></del>	<u> </u>	<u> </u>	•	· · · <u>-</u>	<u> </u>	· · · <u>· · · · · · · · · · · · · · · · </u>				<del></del>	·	<del></del>	
	ن <u>ې</u> ند خې د		<del>\ \ \ : : -</del>	<del></del>	<del></del>		<del></del>	<del></del>			<del></del>		· · · · ·	<del>-</del>	<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·			*	<u></u>	<del></del>	<u></u>	<u></u>

(	DBSER	۷E	R'	S	D	Α	ГΑ	. 5	3H	E	ET	أحبت		- 7	ΊŢ	1A	VII	ÜN	1	SA	MP	LE	No	·	RT:	<u> 509</u>	203 S
	OBSER	VΕ	R	:	-	(	Pau	IJ	NE	<del></del>	·	<del></del>			;	SIZ	ZE	R	ΑN	GE	ОВ	SEF	RVE	D:	- 0 <u>· 4</u>	<u>+ 0•</u>	<u>075</u> mm
	SHEET	N	o :		ô	13			<del></del>	D A	\TE	E S	STA	٩R	TE	<b>)</b> :.		8	-7	-88	·	t	AT	E FIN	IISHED		<del>8-7-8</del> 8
	MATERIA	L.	N			AGS MAQ							<del>}</del>					]	TIC	ск с	RS	ном	v 01	HER		ENT	ERED
	OBSERVE	D				5									1	THE				:					GRAI BOTTI	-	GRAINS
	WEIGHT		1	0	·O	3		0	-4			3.	8			0.	4							·	IN B		PROBING
	MINERAL	Flag			۷I	SUA	\L E	ES1	ГІМ.	ATE	0	FM	INE	ERA	L %	,			G	RAII	v cc	ראט	r ch	IECK			SIZE ION )
	ILMENITE				1	R	<u>.</u>			5			1	0			8	S									
	RUTILE E ZIRCON E																										
	ZIRCON E 2 40 TR.																										
	71BCON 5															·											
	ZIRCON E 2 40 TR.  LEUCOXENE E TR 2 3															-											
	40 18																										
					-																						
											ŀ																
													İ														
				_																	:						
																			İ								<del>nite de la constantia de la constantia de la constantia de la constantia de la constantia de la constantia de</del>
				-																					<del></del>		e e
	COMMENT	s :										,,															
						اءم	રડ	to	v	alio		¥	b	iA Or	rife	. 4- 0	<b>3</b> .18	<del>.</del>	, .	<u> </u>	•	<del></del>	<del></del> .	···········		<del></del>	
							1					<del></del>	ا	Ū			1	-	_د		<del>- ,</del>	, , ,	<del></del>		·		
																		<del></del>			· · · · · · · · · · · · · · · · · · ·		<del>- : -</del>	<del></del>	<del></del>	·	· · · · · · · · · · · · · · · · · · ·
										<del></del>		<del></del>							<del></del>			<del>```</del>			<del></del>	<del>- ·</del>	
																			····		<del></del>	<u>· </u>	<del></del>		<u> </u>	<del></del>	
	<del></del>	•				<u> </u>			<del></del>		<del></del>										<del>:</del>	<del></del>	<del></del>		<u> </u>	<del>, i i.</del> ,	
	<del></del>	<del></del>		· · ·			<del>' +</del>											•		<del></del>		<del></del>		<u></u>	<del></del>		

SHEET	N	0 :			2.5	3_			D	AT	E	3T.	AR	TE	D	: &	٠.	_7		8	<u></u>	D	ATI	E FII	4ISI	HEC			
MATERIA	L	1	ON 607								<del>IE</del> T	)					]	TI	CK	OR	зн	o w	ОТ	HER			EN	TERE	<u>,</u>
OBSERVE	D	ľ	-0 +0			ŀ		.25 .18			-0. +0			(	TΗ	IER	:									RA	INS LED	GF	
WEIGHT		3	)·c	S	•		٥.	3			4	Ö														IN B		PRO	OB
MINERAL	Flag			VIS	UA	L E	ESI	ГІМ.	ΑTI	ΕO	FN	IIN	ER,	AL	%			(	RA	N C	Ou	NT	СН	ECK	1			SIZE	
ILMENITE	Ε		1			11	2			1	5																		
HONAZITE	Ε					7	1	₹		4	1															<del>,</del>			
RUTILE	Ε					4	1				2	,			i i												<del></del>		<del></del>
ZIRCON	ε	7	R				8	-		2	1																		<del></del>
EUCOXENE	Ε						2				2												·		-	-	········		
THERS		9	9			7	ξ			5																			<u></u>
					_											ļ							<del></del>				<del>,</del>		
						_			:														<u> </u>			<del>,</del>			
																	:		<u> </u>										
				_													-												
																											·		
				-					_					ı															
	1										-								:										
· · · · · · · · · · · · · · · · · · ·	1										-											_							-,
												i										-							
																													-
																													<del></del>
																									<del></del>			l	
OMMENT	s:	07	m	ER.	S	•	70	50	RM	IA,	<./	112	· ·	<i>Ro.</i>	~ <i>k</i> -			<u>//</u>	N	713		,			····	-	· · · · · · · · · · · · · · · · · · ·	*************	
			•													<b>-</b>	7	<i>/</i>						<del>-                                    </del>	· · · · ·		********		
		•			٠														<del></del>		<del></del>				<del></del>	<del></del>		<u> </u>	
· · · · · · · · · · · · · · · · · · ·							-								÷,-		<del>-</del> ,				:-			· <del></del>	<del></del>		<del></del>	<del> </del>	
		<del></del>			-				<del></del>					<del></del>	<u> </u>	<del></del> ,			<del></del>			·	<del></del>	<del>- , , -</del>			<del></del>		

	OBSERV	/E	R'	S	D	Α	ΓΑ	. 8	SH	EE	ΞΤ			· T	IT.	A۱	VII	J٨	A :	SAN	ЛРL	E.	No	•	RT 30	$\frac{205}{2}$
																									- 0 <u>. 4</u> + 0 <u>.</u>	
	SHEET	N	o :	·		24	• 	<del></del>	·	D A	\TE	E S	ST.	R'	ΓEΓ	<b>)</b> :		ક	3	7-88	:	_ D	ATE	E FIN	IISHED :	
	MATERIA	L	N	ON	M	AGS		-		MA			-)					]	TIC	K OI	R SH	юw	ОТ	HER:	ENT	ERED
	OBSERVE	D	1			5									1	M3					÷			¥	GRAINS BOTTLED	GRAINS FOR
	WEIGHT			0	-0	8		D	•7			7	·İ			1-0	2								IN BAG	PROBING
	MINERAL	Flag		نې	VI	SUA	۸L	ES	TIM.	ATE	0	FM	IINE	ERA	L %				G	RAIN	СО	UNT	СН	ECK	(SHOW FRACT	
	ILMENITE		<u> </u>			1				7.			1	0			7	S								
	MONAZITE	E																								
	RUTILE E TR. 21 3 ZIRCON E TR. 4. 30 TR.																									
	ZIRCON E TR 4. 30 TR.																									
	LEUCOXENE E TR 3 4																									
					ļ 						<u></u>					_									nis — , — — — — — — — — — — — — — — — — —	
				_				1	 									_					: 			
	ř								<u> </u>																	
																-										
														_		_					-					
				ļ				L					:												<del></del>	
									ļ																	<u></u>
																				-						
																	ŀ									
	COMMENT	ร																								
				0+1	ecs.	_}	סעכ	mal	نامد		ock	LS,	h	yan	بالح	_+	qυ	ar	},.				<i>:</i>		<del> </del>	<u>. :</u>
				•	<del>,</del>								<u>.</u>	u	<del></del>				<u> </u>		<u> </u>		·	•	and the second s	
					<del></del>	<del></del>	سبب			<del> </del>	· · · · · · · ·							<del>-</del>				· · · · · · · · · · · · · · · · · · ·	-	·	<u>,</u>	
	<del>a kanada sa ang kang aga ata</del> .	<del></del>			<del></del> -		•	<u></u> -	<del></del>	<del></del>		<del></del>	<del></del>					<del></del>			***************************************			· · · · · · · · · · · · · · · · · · ·		
	<del></del>			·	<del></del>	<del>,</del>	·		<del></del>	·	<del></del>			<del></del>	-,	<del>,</del>	مارد شدهت		<del>,, </del>			····				
		<del></del>				•								<u> </u>	<del></del>		<u></u>									
1																										

OBSERVE	R'S DAT	TA SHEE	T T	TANIUN	ע SAMPLE No∠	RT 3098206									
OBSERVE	R : <i>/Ξ</i>	NA	<del></del>	SIZE R	ANGE OBSERVED :	- 0 <u>-4</u> + 0 <u>-075</u> mm									
SHEET N	o:	4 DA	TE STAR	TED : //-	7.88 DATE FIN	IISHED : 11.7.88									
MATERIAL		AMONAH )			TICK OR SHOW OTHER:										
OBSERVED	-0.4 +0.25	-0.25 +0.18	-0.18 +0.075	OTHER: か・3+4.		GRAINS GRAINS BOTTLED FOR									
WEIGHT	0.03	1.0	15-1	1.2.		IN BAG PROBING									
MINERAL E	VISU	AL ESTIMATE	OF MINERA	\L %	GRAIN COUNT CHECK	( SHOW SIZE FRACTION )									
ILMENITE E	< 1	15	15	90											
MONAZITE E	ZITE E TR TR < 1														
RUTILE E	E E 7R 3														
ZIRCON E	TILE E 7 R 3  RCON E 7 R 4 3 5														
LEUCOXENE E	RCON E 7 R 4 3 5  JCOXENE E 1 3														
OTHERS	COXENE E 1/2 3 5														
			PF												
:															
COMMENTS	OTHER.	S: TOUR	ARNNIZ:	KYANITA	· Rocks										
and a state of patenting to the form for an angular and	- <u> </u>	garding dispersion of the state	inanta da interior de la contracta de la contr	harismostopakonden kontranyok	and the state of t	estados de la composição de la composição de la composição de la composição de la composição de la composição									
		<u> </u>				المعاولة والمواقع والمعاولة والمعاولة والمواقع والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة وا المعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة والمعاولة و									
		- planted of the Administration													
<del></del>	<del> </del>		· · · · · · · · · · · · · · · · · · ·	<del>era versi versi de la composa</del>											
	engana di Specia da Salar da Salar da Salar da Salar da Salar da Salar da Salar da Salar da Salar da Salar da S		·		The section of the se										
<del></del>	en inner pier de le la compensation de la compensation de la compensation de la compensation de la compensation	<del></del>													

OBSER	VΕ	R'S	D	ΑT	ΓΑ	SI											SA		LE	N	ο	RT	300	2 99.	07
OBSER																									
SHEET	N	o :_		2 <i>5</i>			_ DA	AT E	s	TA	R	TEI	o :		1	1-7	'-8	8	1	TAC	E FIN	ISHEI	D :	11-7-	28
MATERIA	il.	NON	M	AGS	( )	HAN	IDMA	GN	ET	)		<del>*****</del>			]	TIC	ck c	OR S	но	w o	THER		ENT	ERED	7
		- 			1	<del></del>	SEPA	~			<u> </u>	r				T.			<del></del>						
OBSERVE	D						!5 1 8					ŧ	THE <u>M31</u>									1	INS	GRA!	
WEIGHT		C	·0[	3.	1	.0		1	8.8	2		1	-0	,							transfer to the total	IN I	BAG	PROE	ING
MINERAL	FIRG		VI	SUA	LE	STI	MATE	E OF	F M	INE	RA	L 9	6			G	RAI	N C	NUC	ТС	HECK			SIZE	
ILMENITE	Ε			3			10			,	2	,		8	0										
MONAZITE	RUTILE E TR 1 3 2 TR.																								
RUTILE	RUTILE E TR 1 3																								
ZIRCON	ZIRCON E																								
LEUCOXENE	ZIRCON E														· · · ·										
OTHERS	ZIRCON E LI 3 25 TR.																								
- 1119113				-		i				1					Ť			<del>                                      </del>						:	
										İ								-				<del> </del>	<del></del>		
			-			<u></u>				1			-												
										7								<del> </del>	1	1			<del></del>		
									-	+	7			1					+			· · · · · · · · · · · · · · · · · · ·			
					1					1	1		1	$\dashv$					+-	+		<del>,</del>	<del> </del>	:	<del>,,</del>
		_									+			_					<u> </u>	<del> </del> -		<del></del>			
<u> </u>										+			1					1	+			<u> </u>		<del>,</del>	<u></u>
						-			_	<u> </u>	+				1				+						
						-			_	+	+	1			1			-	<del> </del>	1			, <del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		
<u> </u>											$\dashv$	+		-	7			·	<del></del>			·			ښېدخېښه
<del></del>	1				_		+				1				1		<del></del>	-	1	ļ		······································		<u> </u>	<del></del>
	I		<u> </u>				البيا				_1	طب							1	.J		<del></del>		<u> </u>	
COMMENT	rs :					····	<del></del>		t				· · ·	<u></u>	<del></del>			<del></del>	· · · · ·				<del></del>		
f <del>ar east orthography of a symbolis</del>		<u> U4</u>	her		touc	ma\	ine,	rocl	ks,	k <sub>t</sub>	עסיי	ite		0	u a	æ	3						<del>-: -: -: '\-</del>	<del></del>	
	· · · · · ·			· · · · · ·								······································		<del></del>	·	÷	·					<u> </u>	<del></del>	<del></del>	
<del></del>		· · · · · · · · · · · · · · · · · · ·	<del></del>	<u>.</u>		<del></del>	<del></del>	<del></del>			·	<del></del>			<u> </u>		<u></u>	<del>,·-,</del>	·	_==-	<del></del>	<del></del>	<del></del>	<del></del>	
·		<del></del>	<u> </u>	· · · · · · ·	· · · · · ·		<u></u>	·		i	<u> </u>		<u> </u>		<del></del> -		- in - in - in - in - in - in - in - in	<del></del>	<del>i. 4</del>	****	<del> </del>	<del></del>	<del></del>		
<del>and the district part of the second of the </del>		· <del>/ , · , ·</del>	<del></del>	<del> </del>	<del></del>								les,			<del></del>		<del> </del>			A		<del>-,</del>		
<del></del>	<u>-</u>	<del></del>		•	<del></del>	<del></del>	<del>- 1 /- , '-</del>			<del></del>	<u> </u>	<del></del>	-						<del></del>	<del></del>		<del>.,.,</del>	<del></del>		

OBSER1	/E	R'S	D	A <sup>-</sup>	ΓΑ	SI	HEE	ΞT	<u></u>		TI	T	AN	IIL	JN	1 5	1A6	MPI	_E	No	•	<u> </u>	310	00
OBSER																								
SHEET	N	o :	2	6			. DA	\TE	S1	AF	₹T	ED	):-	<del></del>		1-7	-88	}	_ b	ATE	FIN	ISHE		
MATERIA	L						DMA 4.CAT					[			]	TIC	ко	R SI	10 W	/ ОТ	HER:		ENT	ĘRED
OBSERVE	D	+0		5		-0.2 -0.1	5 8	1	0.1				ΉE >+4										INS TLED	GRAINS
WEIGHT	0	0.	01	<u>.</u>	<u></u>	1.3	3	:	21-7	<u> </u>			1-1							<del></del>			BAG	PROBING
MINERAL	Fla		VI	SUA	LE	STI	MATE	OF	MIN	IER	AL	%		· 1		GI	RAIN	CO	UNT	СН	ECK		HOW RACT	SIZE ION )
ILMENITE			-	1		_	10		1	<u> </u>	1	_	-	8	5		· ·							,
MONAZITE				ļ					- -		1	-		-					ļ					· · · · · · · · · · · · · · · · · · ·
ZIRCON	Ε	7																						
	E																							
LEGCOXENE	_	E 12 3 4																						
OTHERS.	COXENE E TR 3 4																							
																<del></del>								
										+	+	+	+		-							<del></del>		
<del>,</del>	_									-	-		+							- :				<del></del>
									+	-	-		+		1			-						energy after a finite of the second
	1										<del> </del>									<del></del>		<del>'</del>		
	1										T	+		+	1		· · · · · · · ·					·		
	1				1					İ					1	-								,
												T			1									<del>energy days of a light for agreen</del>
																								<del>arine animali su inama ya esa ina ayan</del>
COMMENT	s :															·····								
		04	Crs		tour	نلمت	nly.	rock	<u>5+</u>	- 1	<u>in</u> a	n.\	k ·				<del></del>	<del></del>		<del></del>	-	·	· · · · · · · · · · · · · · · · · · ·	<del> </del>
			. <del></del>	·	<del></del>	·			<u>-</u>		·				<del></del>	·····			<del>-,</del>	·	•	······································	<del>*******</del>	<del></del>
·	·	•			i	·				<del></del>							<del></del>		<del></del>	<u></u>			<del> </del>	in the state of th
<del></del>			<del></del>	<del>,</del>	<del>-,-,-,</del>	<del></del>			·			·			·	· · · · · · · · · · · · · · · · · · ·							······	
· · · · · · · · · · · · · · · · · · ·		· · · · ·			<u> </u>		<del></del>	<u> </u>	<del></del>	· 		<u>.                                      </u>				÷	<del>-,</del>		<del></del>			<del></del>	<del></del>	<del></del>
<del></del>	··	<del></del>						·	· · ·			<u> </u>	<u> </u>			<del></del> -	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del> .	<del></del>		<del></del>	<u></u>	

				-		. 10012	В	HP	MI	NE	RAI	LS	E	XPI	_C	RA	ATIO	NC						209
OBSER'	VE	R	SI	AC	TA	S	HE	ET	<u> </u>		TI	T	۸۱	IIU	N	1 5	SA	MP	LE	No		RT	3/	0/
																						-		075mm
SHEET	N	o :		25	<u> </u>		_ D	AT	E 8	STA	RT	Εſ	<b>)</b> : .	//	<u> </u>	フ	- 8	8	[	ATI	E FIN	IISHE		1.7.88
MATERIA	\L					•	MOM	AGN	IE T	<del>}</del>				<u> </u>		TIC	K O	R SI	ноч	у ОТ	HER		ENI	ERED
OBSERVE	D		-0.4 +0.2				25 18			18 .075			THE										INS TLED	GRAINS FOR
WEIGHT			0.0	94		1.			26	3.			<b>/</b> -c	2									BAG	PROBING
MINERAL	Flag		٧	ารบ	ALI	EST	MAT	ΈO	FM	IINE	RAL	. %	•			G	RAII	и ° С С	UN.	гсн	ECK			SIZE
ILMENITE	ILMENITE   E   2   1/5   1/8   8   5																							
MONAZITE E  RUTILE E  ZIRCON E																								
RUTILE E 4 1 3 2 7 2 7																								
RUTILE E 4 1 3																								
LEUCOXENE	ZIRCON E 7 27  LEUCOXENE E < 1 2 4																							
CZUE O O	ZIRCON E 7 27																							
OT WILLS		7			1	8		17	0		1		_ر		1									
										i		†			1		<del></del>			ř ř ř				
								1					-	1	1					!				· · · · · · · · · · · · · · · · · · ·
												$\dagger$			1								<u></u>	·
<del></del>												+	-		1	-	<del></del>			<u>                                     </u>		<del> </del>		
											+	$\dagger$	İ	-	1					<u> </u>			<del></del>	· · · · · · · · · · · · · · · · · · ·
											-	+		+	1			<u> </u>   					,	· · · · · · · · · · · · · · · · · · ·
										1		+			+				ļ					
										+		+			$\dagger$	-	<u></u>			r		· · · · · · · · · · · · · · · · · · ·		<del> </del>
				-							-	+		-	+		<del>- 1,2 ,</del>	<u> </u>				<del></del>		
	$\dashv$			-							+	+			$\dagger$	$\dashv$								
	1			+		-		$\vdash$	$\dashv$		+				$\dagger$							·		
<u> </u>					<u> </u>			Li						٠.,	Ŀ		<del></del>	<u> </u>	<u> </u>			<del></del>	<u>l</u>	<del> </del>
COMMENT	S :	00	141	ERS	٤:_	7	500	ومهر	gh.	~~	2./	4	14	~	ZZ,		Roc	24.C		<del></del>			<del></del>	· · · · · · · · · · · · · · · · · · ·
	<del></del>				<del></del>	<del></del>		·		<del>, i</del>			···.=	<del>, . ,</del>		<u>.,</u>	<u></u>	<del></del>		<del></del>	· · · · · · · · · · · · · · · · · · ·	<u></u>	·	<del></del>
<u> </u>	<del></del>		· · · · · ·			<del></del>	<del></del>	<del></del>		<u> </u>	<del></del>	·.		<del>:</del> -			<del></del>	<del></del>		··				
		· · · · · ·	<del></del>	<del></del>		· · · · ·			<del>_</del>			<del>-</del>		· · · · ·	<del>,</del>	<del></del>	·	<del></del>			<del></del>	······································	<del></del>	
: 	<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>		<del></del> .		<del></del>	· · · · ·	<del>:</del>	·							<del></del>	<u> </u>			<del></del>	<del></del>	
<del> </del>		<u></u>	·	<del>-,</del>	<u>.</u>			<del>,</del>		<del></del>	<u> </u>	<del></del>		· · · · · ·					·			·		

210

	OBSER	VΕ	R	'S	D	A <sup>-</sup>	TA	. 5	SH	EE	T			TI	TA	N	IUI	М	S	41	ΛPI	_E	No	o	<del></del> .	RT	310	)2 ·	410
oly .	OBSER	VE	R	:		P	Αυι	بمار	E	<del></del>		· · · · · ·		_	s	IZE	ER	A۱	1GE	Ξ (	овя	SEF	ΙVΕ	D:	<b>- 0</b>	.4	<u>.</u> + 0•	<u>075</u>	.mm
	SHEET																												
	MATERIA	L	N _	ON						MA LAT	GNE	<del>T-</del> )					]	TI	ск	01	R SI	10%	/ 01	HER			ENT	ĘREC	7
	OBSERVE	D			.4 .25						+	0.1 0.0		- 1	ОТ! <i>И</i> З				- ( + c		18 75				- 1	GRAI			⊒ AINS OR
	WEIGHT			Ö	1			1	.0		0	23.	ò			9. (					•					IN B			BING
rin.	MINERAL	Fiag	1	1	VIS	SU/	AL I	EST	IM,	ATE	OF	MIN	NEF	RAL	. %	. 1	<del></del>	(	GRA	IN	СО	UNT	CH	IECK				SIZE	
	ILMENITE		L	_		5	Ĺ		ſ	0			/.	5		8	S		1	4.	S					·			
	MONAZITE E																												
	ZIRCON E 3 5 3 5 4 3 3 7.4																												
<u>0</u>	ZIRCON E 3 5 35 4 37.4																												
	ZIRCON E 3 5 35 4 8 1 27.4 LEUCOXENE E 1 3 4 5.9																												
	OTHERS				9				8								5				4.								
	COMMENT	S :			O+	her			CMW	Line			25		\$ 7°	2:1	e .												
		<del></del>	·	· · · · ·		•	<del></del>			·			<u> </u>	<del></del>	<del></del>			-	<del></del>	<u> </u>	<del>, -, ,</del>	<del></del>	<del></del>	<del></del>	<u> </u>	······································			

# RT 3102 (-0.18+0.075)

18-20u

	Ilmenite	Nonzite	Bubile	2:	T,		<del></del>		· · · · · · · · · · · · · · · · · · ·	······		211
1	5	1	1	16		Others	1					
2	5		1	14	2	16	40					
	6		4	13	2		39		<del></del>			
4	3		1	15	2	13	38	·	<del></del>			
	5		3	15	2	15	36 38					
6	7		3	15	2	13	1			-	<del></del>	
12	6			. /2	3	15	40 37					
8	6			13		15	35					
9	5		2	12	3	12	34					
10	6		2	14.	3.	10	35.	<del>-  </del>				
Tota	54		18	139	22	139	372		_			
21							312		<del>-  </del>	<del></del>		
70.	14.5		4.8	37.4	5.9	37.4				<del>-  </del>		<del></del>
(												-
L .					×.							
		<del></del>										
					<del></del>		<u> </u>					
	<del></del>				·							
							·	-				
Restord"					<del></del>		<del></del>	_				
			<del></del>		·			-				
					<del></del>		· · · · · · · · · · · · · · · · · · ·					
				<del></del>						<del>-  </del>		
		· · · · · · · · · · · · · · · · · · ·					<del></del>	<del></del>				
							<u> </u>				<u> </u>	
							<del></del>	-		<u> </u>	<u> </u>	
						<del></del>	<del></del>			-		
							<del>-</del>		<del>                                     </del>	<del></del>	-	<del> </del>
Nagina .							·	<del> </del>		-	1	
							<del></del>	<del> </del>				
							·				<del> </del>	
-						<del>-                                      </del>	<del></del>	<del>                                     </del>				<del> </del>
l i							<del></del>			<del> </del>	<u> </u>	
								<del> </del>	1	<del> </del>		
1									-			
A1300°											<del> </del>	-
-[ - -												
+									<del> </del>		<u> </u>	
1 +-												
								· · · · · · · · · · · · · · · · · · ·				

Hould Lake T2 OL 69 0-20

# BHP MINERALS EXPLORATION

OBSERVER'S DATA SHEET --- TITANIUM SAMPLE No . RT 3 115 247/88

OBSERVER : EDNA									SIZE RANGE OBSERVED : - 0.675mm  RTED : 11.7-88 DATE FINISHED :11.7.88												
SHEET	Ň	o :	2	7_		DA	TE	ST	AR	TE	D:		//-	7	-8	8	_ b	ATE	FIN		
MATERIA	L	NON MAGS (-HANDMAGNET)									TICK OR SHOW OTHER:									EKED	
OBSERVED WEIGHT		-0.4		-0.25 +0.18						OTHER: M·3 +4				-					GRAINS BOTTLED	GRAINS FOR	
				0.9			2-9.		1:3						IN BAG	PROBING					
MINERAL	Flag	V	/ISU	AL ESTIMATE			OF MINER			AL %				G	RAIN	СО	UNT	СН	ECK	(SHOW FRACT	
ILMENITE	Ε	3		/	2		/	5		6	0										
MONAZITE	Ε	TR		7	R			1.											-		
RUTILE	Ε			2	1			4													
ZIRCON	Ε	2			7 -			7													
LEUCOXENE	Ε			4	1			3												Western Control of the Control	
STHERS		95		8	1.		6	B		4	O										
										_										)	
		:																			
															·						
												·									
										<u> </u>											
																				: 	
									<u> </u>	<u> </u>											
COMMENT	rs	: 67	HER	: ی	To	LE	MA	KIN	115	·/‹	<i>Y</i> 15	2N	17	ν <u>Σ·</u>	RO	ck		·		· · · · · · · · · · · · · · · · · · ·	
					<del></del>			-		·						<del></del>			<del></del>		
								<del></del>	<u> </u>						· · · · · · ·	·		·			<del></del>
			<u> </u>	·	<u></u>		· · · · · · · · · · · · · · · · · · ·								<u> </u>		-: -	<u> </u>			<del> </del>
			·								<u> </u>										<del></del>
		<u> </u>		· · · · · · · · · · · · · · · · · · ·						<del></del>			· · ·		···········	<del></del>		<u> </u>	·····	<del> </del>	·
			· · · • ·		<del></del>								·.		····			· · · · ·		······································	<del></del>

OBSERV	/E	R'	S	D	A٦	ГΑ	S	H	EE	ET			T	ΊT	ΑI	VII	UN	1 5	SAN	ИPL	E	No	نيساء (	27	3	//	6	<del> </del>
OBSER	۷E	R:				<u>ک</u> ے	1	9	·				_	;	SIZ	ZE	R	AN	GE (	овѕ	ER	VE	o : ·	- 0 <u>- /</u>	<u></u>	0.0	<u> </u>	m
SHEET	N	o :		ک	3/7	٥	<del></del>	_	ĎΑ	TE	E S	TA	\R	ΓEΙ	D :	<u> 13</u>	. 7	۶٠ ۶	P8		_ D	ATE	E FIN	ISHI				8.
MATERIA	L	N								an	ET	<del>)</del>					]	TIC	ко	R SH	юw	ОТ	HER:		E	NTI	ĘRED	Ī
OBSERVE			-0.	.4			-0.	25			-0. +0.			0	TH	ER	:								IAIN TTLE		GRA FO	
WEIGHT			0	٠ (			0.	6			2.	2												IN	ВА	3	PROE	ING
MINERAL	Flag		-	VIS	SU A	AL E	EST	IM/	ATE	0	FΜ	INE	RA	L 9	6			G	RAIN	co	UNT	СН	ECK				SIZE ION )	
ILMENITE	Ε	,	0			2	0			2	0																	
MONAZITE	Ε																											
RUTILE	Ε					<	1				3.																	
ZIRCON	Ε	7	R				3			2	5																	
LEUCOXENE						1	R			N	1														· ·		-	
THERS		g	0			7	_7	•		5	2												,				· · · · · · · · · · · · · · · · · · ·	
																									<del></del>		<del></del>	
										,																		· · · · · · · · · · · · · · · · · · ·
															-								1		· i. • · i		<del></del>	
							•																					
											Ì																· · · · · · · · · · · · · · · · · · ·	
																				-  - 								
									-			_			_	_				· ·				,	·	_		
								_			_			_													<del>-</del>	
	_				_			_		-		_		_	_	_								<del></del>	·			· · · · · · · · · · · · · · · · · · ·
																									· · · · · · · · · · · · · · · · · · ·			
COMMENT	s	:	3/	40	R	ے		70	50,	R	(A)	40	115	·	3 <i>F</i>	k.	77	<u> </u>	Roc	275	-	· · · • . · · · ·		·		<del></del>	<del>-:</del>	
, , , , , , , , , , , , , , , , , , ,			<del></del>		. :	<del>, .,</del>	<del></del>		<del></del> ;	<del></del>	<del>,</del>	ii	i	<del></del>	<del></del>			<del>~*++-</del> +	·	<del></del>	<del></del>		•	<del>4.4 1.4.</del>	***************************************	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	<del></del>	
}	····	. <del>I. 100' -</del> .				<del></del>				<del></del>	· · · · · · · · · · · · · · · · · · ·										<del>, , , , , , , , , , , , , , , , , , , </del>	<del>,</del>		······································		<del></del>	<del></del>	
·		· · · · ·	<del></del>		·	<del></del>	<u> </u>				+	<del></del>	<del></del>				<u></u>	<del></del>		. :	<del></del>	<del></del>	unia de la contraction de la c	<del></del>		<del></del>	<del> </del>	
		<del></del>		<del></del>	نعلساه		<del> </del>	<del></del>	<del></del>				<del></del>		<del></del>	<u></u>			<del> </del>	i.v ji versile	<del></del>			<del> </del>			<u></u>	
	<del></del>			<del>-,</del>	<u></u>													<del>, 2 - 1 , 1</del>	<del> </del>	<del>. i - wi- ww</del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>		·		<del>. i., i i i</del>	
	<del></del>			<del></del>		<del></del>		<del>,</del>			<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	·	<del></del>	<del></del>							t- <del>-</del> -,		<del></del>	
\$ 6.86			<del></del> -									<del></del>											<del></del>					

	BHP MINERALS EXPLORATION  OBSERVER'S DATA SHEET TITANIUM SAMPLE No . RT 3117.																							
	OBSER																							
	SHEET	N	o :	34	۲.		{	) A	ΤE	ST.	AR	TE	D:	:	13	-7	-88		_ b	ATE	FIN	ISHE		13-7-88
	MATERIA	L		MAG No-		•							Ē		]	TIC	K O	RS	ном	ОТ	HER:		ENT	TERED
	OBSERVE	D		.25				- 1	+(			0	ТН	ER	:								AINS TLED	GRAINS FOR
	WEIGHT		C	) - {		0	·S		3	-4							··· <del>!;===</del>					<u> </u>	BAG	PROBING
\$0.50°	MINERAL	Flag		visu	AL	EST	IMA	TE	OF	MIN	ERA	\L 9	<b>6</b>	r -	<del></del>	G	RAII	1,00	דאטכ ד	CHI	ECK			SIZE TION )
	ILMENITE	E		3	<u> </u>		10	2		2	0								ļ				<del></del>	
<b>(</b>	MONAZITE	E			_			_		+	-			ļ ——		<u> </u>			<del>.  </del>			, 		
	RUTILE	E			_	e:	4	1			4				•				-				<del> </del>	
	ZIRCON	_E			<u> </u>		4			3	0							-					<del></del>	
arizona.	OTHERS	=	•	97	-	-	9			4	2												<del></del>	
	- OTHERS			1 /					_													<u> </u>	<del></del>	
poor.		1			ļ		_							-					ļ .					
		$\dashv$			1			-	-						_								<del></del>	
L.		1						$\dashv$	-	<u> </u>			-	ı										
		1		.																				
		1						-															<del> </del>	
		_																		:		······································		
	<u></u>																<del>                                      </del>					<del></del>	<del></del>	
	COMMENT	s :	40, 1, 100	<del></del>			Angere de j		· · · · · · · · · · · · · · · · · · ·				<del></del>	<del>-:</del>	······	, <del></del>	<del> </del>	<u> </u>	<del></del>		<del></del>		<del> </del>	
	<del></del>	<del>- '. '.</del>	Oth	ers i	och	<u>.</u>	qua	c <del>ł</del> 3	<u>, h</u>	Nav	<u>·}e.</u>	+	<del>-1</del>	9461	<u>-                                    </u>	'nę_	<u> </u>			·	<del></del>	<del></del>	<del></del>	<u> </u>
					<del></del>	<del></del>	<del>,</del>		<del></del>	<del>, , , , , ,</del>			·		<del></del>		<del></del>			<del>, , , , , , , , , , , , , , , , , , , </del>	<del></del>		<del> </del>	<del></del>
																				•				
																			**;**				<del></del>	

	OBSER	/E	R'	S	D	A	ΓΑ	. 5	SH	E	ΞΤ	·	ندنت	- 7	T	Α	NI	U۱	Λ	S	41	1PI	_E	N	o		R	TZ	118	<u>41</u>
18	OBSER	۷E	R:			T	2 <u>a.</u>	اساد	<i>∿6</i>	;						SI	ΖE	Ŕ	4 N	1GI	Ξ (	)BS	SEF	N V E	D:	- 1	o <u>• 4</u>	<u>+</u> 0:	. 075	mm
ij.	SHEET	N	o :			<u>3</u> S				D/	XT:	E S	STA	٩R	TE	D :	·		1,	3	7-8	8	_ t	AT	E FI	NIS	SHE			
	MATERIA	L	NO			*		•		M/			)					]	TI	CK	OF	R 81	10 4	<i>,</i> 0	THER			ENT	FRED	
000000000000000000000000000000000000000	OBSERVE	D		+0.	25	; 		+0	. 1 8	3	_	-0. +0	.07	5		rzn	ER -4										GRA BOT	LED	F	AINS OR
	WEIGHT			) • (	34			0	.4			5.	3			0	6										<del></del>	BAG	1	BING
3	MINERAL	-			VIS	su/	AL.	ES	TIM	ATI	E 0	FK	INI	ER/	L 9	%	· ·		Ľ	GRA	IN	СО	UNT	ГС	HECK				SIZE TION	
	ILMENITE					3			1	0	-		1	5			8	0					L					******		
	MONAZITE	E			ļ L				:					:																
00000	RUTILE	Ε			T	R								3								· .			ċ					
	ZIRCON	Ε								2	_		4	0			1	R												
,	LEUCOXENE	Ε					-		-	2				2					_				<u> </u>							
	OTHERS. 97 85 40 20																													
# -																														
	<del> </del>								-			ļ							-								<del></del>			
Myster (S)											-															1			<u> </u>	
								-																		T	<del></del>	<del>- \$</del>		
	:																									1		· · · - · ·		
alocal lacustic				İ																										
á																														,
																									<u> </u>		· · · · · ·			
	COMMENT	s				· · · · · · · · · · · · · · · · · · ·			<del></del>		<del></del>											استاست			+-,				<del></del>	· · · · · · · · · · · · · · · · · · ·
	and the state of t	<del></del>	<del>د بسني د ب</del>	<b>D</b> ł	her	<u> </u>	quo	4	<del>5,</del> -	by	<del>)an</del>	ite	<del></del>	lour	ma	line	<u>, +</u>	· ro	<u>ck</u>	<u> </u>		<u></u>	·	<del></del>	<del></del>	·. · .	<u> </u>	· · · · · · · · · · · · · · · · · · ·	····	w <del>; </del>
, para					<del></del>	· · ·	<del></del>	<del></del>	-		<del></del>			<del>, -                                   </del>		·	·										- <del></del>			
																											-			
																					·····									
	 	<u> </u>	· · · · · ·	<u> </u>	<u></u>	<del></del>	-	<del>;</del>	<u>-</u>		<u></u>		<del></del>	·	<u> · · · · </u>	<del></del>		<del></del>		<del></del>		· <del></del>	<del></del>		<del>e de la com</del> Galecto de la composition		<del></del>	<del></del>	<del> </del>	

OBSERV	/E	R'	s I	D A	۲γ	A	S	Н	EE	ΞΤ	-in-	···	- 7	T	ΆΙ	NII	UN	1	SA	М	PL	E	No		R	<u>.T 3</u>	119.	410
OBSER'	۷E	R :			Pe	AUC.	ı Ni	E.,					<del></del>		SI	ZE	RA	ΑN	GE	0	вѕ	ER	VE	<b>)</b> : •	- o <u>. (</u>	<u>+</u>	.07 <u>s</u>	_m m
SHEET	N	o :_		3.	7_			_	D A	XT E	Ξ S	ST/	٩R	ΤE	D:	:		13	-7-	88	• •	_ D	ATE	EFIN	ISHE			
MATERIA	L	NO	N A				•		MA			)					]	TIC	СК. (	OR	зн	ow	ОТ	HER:		EN.	TERE	D
OBSERVE	D	l:	-0.4 -0.2								+0.	.07	5		TH ng										ВО	AINS	F	RAINS FOR
WEIGHT		L	0.(	2			C	.8			9.	4			1.	0				·					1	BAG		OBING
MINERAL	Flag		٧	/ISI	UA	LE	ST	IM	A TE	0	FN	IINE	ERA	\L	*	<del>,</del>	أسننع	9	GRAI	IN	CO	UNT	СН	ECK		SHOW FRAC		
ILMENITE	Ε				3			١	2			1	5			9	0			,								<i>:</i>
MONAZITE	Ε																									-, -, -		
RUTILE	Ε												3								•							
ZIRCON	Ε					1		1	5			5	5			1	R	<u></u>			<u> </u>							
LEUCOXENE	Ε					<del>,</del>			1				2	<del> </del>														
OTHERS			(	7 -	7			7	1			2	5			1	0									, , , ,		
1, 51.0				.1-   .7									Ĭ													<del>- 11 / 1</del>		
									-																	<u> </u>		<u> </u>
																						<del></del>						
				T	1																					<del></del>		<del></del>
<u>, , , , , , , , , , , , , , , , , , , </u>																										<del> </del>		Andrew State of State
					1						-									+						7-1		
· · · · · · · · · · · · · · · · · · ·					1															+						<del></del>		
							i	· · · · · ·											<u>;</u>						<u> </u>	<del></del>		
					1																							· · · · · · · · · ·
<u></u>				+	1														<del> </del>			<u> </u>		:				
• • • • • • • • • • • • • • • • • • •					1											:				+			-			***************************************	+	·
	$\dashv$			+	$\dashv$	_													1	-		·			,			
	1						لنس		لبينا		لببا						1									<del></del>	<u></u>	<del></del>
COMMENT	'S				-,						<del></del>	<del> </del>	ı		······································		,		<del></del>					<del></del>	<del></del>			
			Uti	ners	0	<del>J</del> ua	-+-	<del>}</del> /	Rigi	لنص	re,		ock	<u>5 +</u>	<del></del>	טעכ	malı	inc_	•					•	<del></del>		<del></del>	
		· · · · ·		<del></del>	·····	· ;	· in	<del>/ 1</del>	<del></del>			<del></del>		,	<del></del>	<del>-,,-</del>	·								<del> </del>	<del></del>		<del> </del>
<u> </u>				·			<del></del>	·					<del></del>				<del></del>				<del></del>		<del></del>	<del></del>	_ ·· . <u></u>	<del></del>	<del></del>	
	<del></del>		*	<del></del>		- <del></del>		<del></del>				<u>.</u>	<del></del>	<del></del>		<del></del>			<del></del>		<del>maio de conte</del>	<del></del>	<del></del>				<del> </del>	<u></u>
·		<del></del>			<del>i</del>	<del></del>		·	<del></del>					<del>- 14 - 1</del>	<del></del>	·	:					<del></del>				<u></u>		
<u></u>	<u> </u>		<del></del> .	<del></del>	•					· - · · ·		-	<u> </u>		<del></del>						<del>,</del>			<del></del>	<del></del>	<del></del>	<del></del>	
₽ 6- 56								-																	<del></del>			<del></del> -

21

OBSERVER'S	DATA	SHEET	 MILINATIT	SAMPLE NO	RT 3190
ODOCITACIO	DAIA		TITALION	OVIMI FF 140	• /

OBSER	۷E	R :.		E	<u>&gt;</u>	N	2	· · · · · ·	÷	,	<del>,</del>	<del></del>		SI	ZE	R	ΑN	GE	OE	S	ER	VE	D:	- 0	. 4	<u>.</u> + 0	· <u>07</u>	Smm	
SHEET	N	o :_		36	<u>′</u>	<u>,.</u>		DΑ	TE	E S	T	\R	ΤE	D :	<u> </u>	<u>3·</u>	7	88	<u></u>		D.	ATE	E FII	NISI	HE				<u>s</u>
MATERIA	L		N M عص			-		MA	GN	€ī	)					]	TIC	ck (	ÖR S	зно	o w	οт	HER			EN	TERE		
OBSERVE	D		0.4 0.2		1.		25 18			-0. +0.			1	тн '- 3						ŀ						INS		RAIN: FOR	s
WEIGHT		. (	٥٠٥	1		0	7			13	·7	•		1.0	)							·				BAG		OBIN	1G
MINERAL	Flag		٧١	su	AL I	EST	IMA	TE	0	F M	INE	ER#	\L '	%	,	, · · ·	G	RAI	N C	οu	NT	СН	ECK				V SIZ		
MONAZITE		2	<u> </u>	-	2	0			2	0			9	6	}_									-	<del></del>			<b>i</b> .	· · ·
RUTILE	Ε		-			0			<u></u>	2	•					<u> </u>			<del> </del>	-			-			<del>,</del>			
ZIRCON	Ε	7/		-	1	2				3		!							-			<del></del>	-	1		<del>, (144 - 144 - 14</del>	<del>-  </del>		
LEUCOXENE	Ε	7/	<u>१</u>			2			0	0																· · · · · · · · · · · · · · · · · · ·		<del></del>	<u></u>
OTHERS		8	0		6	6			1	6	,		٤	0															
				-												-	-		-	+				-				<u></u>	
																	-			+				-				·. · . · · · ·	
								_														· · · · ·						· · · · · · ·	
	_						-	_									-			$\downarrow$			-	-	<u> </u>	· · · · · ·	1	<del></del>	,
	$\dashv$	-								+										+		<del>- ; ·</del>		-				<del> </del>	
<u> </u>	-							1												+		· · · · · ·						· · · · · · · · · · · · · · · · · · ·	
							+													+				1					<del></del>
																									· · · ·				
																			-									<del></del>	<del></del>
COMMENT	s :	0	HE	RS	3:	10	UR	74	'A,	417	~/	٠. ح	R	<u> </u>	٨.	<u>s -</u>	K	YA	DV T	15		··-			· · · · ·	<del></del>		<del> </del>	
	<del>- : : .</del>		<del>' , a'</del>	<del></del>			<del></del>	<del></del> .	·	<u> </u>			<del></del>		· · · ·				<del>-,, -,</del>		<del></del>	- <del></del>	·	·:	<del></del>	·	· · · · · ·	<del></del>	,
		<del></del>	<u> </u>	<u> </u>	<del></del>		<del></del>					<u> </u>	<u> </u>							<del>,-</del>	<del></del>	<del></del>	<del> : ·</del>			· <del>, , .</del>	<del></del>	· <del></del>	<u>.</u>
	·	<del></del>	· v · · ·		•		<del>. · ·</del>	<del>-</del>		·				<del></del>	<del>:</del>	<del></del>	· <del></del> ·-	<del></del>				-			<del></del>		<del> </del>		
	<del></del>	<del></del> .				<del></del>	·			<del></del>													<del></del>						
				•																			·						

																						- 0 <u>. 4 +</u> 0 <u>.</u> IISHED :	
MATERIA			N M		3 (	HA	ND	MA	GNE												HER	T FNT	ĘRED
OBSERVE	D	ľ	0.4		1		25 .18		-	0.1			от <i>п</i>	Н <b>Е</b> Р			<del></del>	<del> </del>		· · · · · · · · · ·	· · · · · · · · ·	GRAINS BOTTLED	GRAINS
WEIGHT		C	)-0(	3		0	5		1	2 3	3		Ć	)· 6	3							IN BAG	PROBIN
INERAL	Flag		۷I	SU	AL I	EST	IM/	\TE	OF	МІ	NE	RA	L %			G	RAII	N CC	ואט	СН	ECK	( SHOW FRACT	
LMENITE	Ε			$\prod$	1		/	5			2	0		8	, 5							<del></del>	
AONAZITE	Ε																						
RUTILE	Ε		1	R				1				3											
ZIRCON	Ε		1	R				2			2			1	R								
EUCOXENE	Ε		1	K				3			_	4											
THERS.			9	19			7	9		l	+	7		1	5				,				-
			1								-	_			_								
	_		-	-	ļ														ļ.				
	_											1											·
											1	_											
	_	_	-	-				<u> </u>			_	_	_	-	ļ								
	_		-									_							ļ				
			-					_		_		-	-		ļ		: . <u></u>			·			
·	_	-	-		·		_		_	_	1	_							-				** <u> </u>
	_	_	-								-	_					<del></del> ,						
:	_		-					_	_		-			-									· · · · · · · · · · · · · · · · · · ·
	-							-			1	$\downarrow$							ļ				
																							····
COMMENT	s:	·					<del></del>	<del></del>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	<del>1-,</del>	<del></del>		<del>, i. i.,</del>	<u></u>	<del></del>			·	<del></del>	<del></del>		····	
·	<del></del> ;	_0	the	<u>a_</u>	م الم	ct,	<del>,                                    </del>	igo	لانما	<u>.                                    </u>	40	um	ضله	<u>.</u>	+1	ock	<u>r-</u>	<del></del>	<del></del>	<del></del>	•	<u> </u>	<del></del> _
				<del></del>	•		<u>.</u>		<del></del>			• * *			· · · ·	-			·		··		<del></del>
·····	·		<del>,,,,,</del> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<del>, , , , , , , , , , , , , , , , , , , </del>	<del></del>	<del>-,</del>		<del>/ + -</del> .		·. ··· .	<del></del>			<u></u>	<del></del>	<del>,</del>	·	<del></del>	•		<del></del>		
<del>- 1. 22 : 12-1.</del>		·•.··	<del></del>									<u></u>			<del>-, -</del> -			<u> </u>		,		<del></del>	<del></del>

OBSER	VE	R'S	D	Α	ГΑ	S	HE	E	T -			TI	ГА	N	UN	Л	SA	MP	LE	No	·	RT3	21
																						- 0 <u>. 4</u> + 0.	
SHEET	N	o :	3	9	•		_ D	A	TE	ST	ΑF	RTE	ED	:	1	4-	- 7-88	3	t	TAC	E FIN	NISHED :	14-7-88
MATERIA		NON	MA	4GS	(	HAI		LAG	NE												HER	- ENT	ERED
OESERVE	D	-0 +0							+0			- 1	OTH M3									GRAINS BOTTLED	GRAINS FOR
WEIGHT		0.0	0(			0.	9		2	9.	9		1.	_			···					IN BAG	PROBING
MINERAL	Flag		VIS	SUA	LE	STI	MA.	TE	OF	MIN	ER	AL	%			G	BRAII	4, CO	้นทา	ГСН	IECK	(SHOW FRACT	SIZE
ILMENITE	Ε			3			20	2		2	. C	)		5	0								
MONAZITE	Ε		<u> </u> 																				
RUTILE	Ε										3												
ZIRCON	Ε		1	R			2 (		-	5	0												
LEUCOXENE	Ε																						
OTHERS			9	7		į	5 8	3		2	6			5	0					!			
1 .																							
																		-		:			
																				; f			
																						·	
																			ļ				
								T							7								
en erien erien erien erien erien erien erien erien erien erien erien erien erien erien erien erien erien erien Er			İ	•												<del></del>							
	$\dashv$		1	7			-	T															<del></del>
	$\dashv$			$\top$	+	$\dagger$		+	-						$\dashv$								
	1		+	+		+	1	$\dagger$	1				7		$\dashv$			· •					- · · · · · · · · · · · · · · · · · · ·
L	L		l_				Д	1	<u>ـــــــــــ</u>					11	- [					<del>. :</del>		<del> </del>	
COMMENT	s:										·		<del></del>				· · · · · · · · · · · · · · ·	<del></del>	<del></del>	<del></del> .	<del>,</del>	<del></del>	
	····	U	1thi	₾	.COL	ks,	-teu	aci	+12	+_	+00	ecca	ايمو				<del></del>	<del></del>		<del></del>	<del></del>	<del></del>	
	<del></del>	·	· ; ,	<del></del>		,	<del></del>				<del></del>		· ·		<del>,</del>	<del></del>	·	<del></del>	•		··	<del></del>	
<del> </del>						· · · · · ·			i.				<del>,,_</del>		· <del></del>			<u> </u>	<del>- 5-1</del>	-:	<del> </del>	<del>and the state of </del>	
**************************************	<del></del>	<del></del>	<del></del>		<del></del>		<del>- ,- `-</del>	··		<del></del>		·	•				· · · · · · ·				<del> ·</del>	<del></del>	
		<del>-,:=::::::</del>	<u> </u>	•	:	:	<del></del>		· · · · · · · · · · · · · · · · · · ·			<u></u>						×.		<del></del>		<u>- 1, </u>	
<del></del>	<del></del>		···						<del></del>		<del></del>				<del></del>			-				· · · · · · · · · · · · · · · · · · ·	<del></del>

OBSER'	VE	R'S	<b>D</b>	Α	TA	<b>S</b>												SA		LE	N	o	K-	T 310	ζ3 <u></u>	220
OBSER	VE	R :_		7	Αυι	12	٤	. · <u></u>			<del>.</del> .	<del></del>		SI	ZE	R	ΑN	GE	ОВ	SEF	RVE	D:	- o <u>•</u> _	<u>4</u> + 0:	075 n	m
SHEET	N	o :_	<u>.                                    </u>	4		<del></del>		DA	¥ΤΙ	E S	STA	٩R	TE	D	:	1	4-7	'-88		t	TAC	E FIN	IISHE	ĒD :	14-7-8	<u>. 8</u> 2
MATERIA	\L	NON	V М.		s ( pa	•					)			Ī		J	TIC	K C	RS	ноч	v 0	THER		ENT	ERED	7
OBSERVE	D									-0. +0.			1	НТ( сη										AINS TTLED	GRA	
WEIGHT		O	-00	6		t	)-S			12	9			0	.4	_							IN	BAG	PRO	BING
MINERAL	Flag		۷I	su.	AL I	EST	IM.	ATE	E 0	FM	IINE	ERA	L.	%	<del>,</del>		G	RAII	V CC	UN.	т сі	IECK	(	SHOW Frac	SIZE	ı
ILMENITE							1	2	Ŀ		1	5			5	0							ut	<u> </u>		
MONAZITE	Ε																						2	. 20 g		
RUTILE	Ε						_	(			•	2												- 8		<del>* . =</del>
ZIRCON	Ε							2			3	0			T	2								<del></del>		<del></del>
LEUCOXENE	Ε		1	R				3				2														
OTHERS			9	9			8	3			5				5	0										
																							<del></del>	······································		
											j				-											
				-																			- 1- 1 · · · · · · · · · · · · · · ·			<del> </del>
																		<del></del>						······································		
																					-		:			<del> , ,</del>
																							······································			arrante de la la la la la la la la la la la la la
																		····								
						1																	***************************************			
							1					1					-						<del></del>		<del></del>	
										1					1			****	<del></del>				<del>-</del>			
							1	1								1			·				- · · · · · · · · · · · · · · · · · · ·			
										$\top$		1				1							· · · · · · · · · · · · · · · · · · ·		<del></del>	<del></del>
COMMENT	s:				,					· · · · · ·				<del></del>		<b>!</b> -			· · · · ·			··············	<del></del>	· · · · · · · · · · · · · · · · · · ·		
<del></del>	<del></del>	Ot	hers	<u>_b</u>	مديا	te,	r	<u>ocks</u>	,	tou	coe	dia	<u>c</u>	¥	la	ya.	مله	<u></u>	<del></del>	·	<u></u>		<del></del>	<del>- , 1/-, 1 , 1 / / / .</del>	<del>3a i.a. ia</del>	·
<del></del>	<del></del>	<del></del>	·	<del></del>	<del></del>				M.	<del></del>	<u> </u>					<del>,</del>		<del></del>	<del></del>	<del></del>	<del></del>		<del> </del>		<del>- ,,; -</del>	
	<del>- :</del>	· · · · · · · · · · · · · · · · · · ·					· · · ·	· · ·		<del> ,</del>					<del></del>	<del>.</del>			<del></del>	<del></del>		<del></del>	<del>- ::</del>	<del></del>	<del> </del>	
<del></del>		<del></del>	<u> </u>	<del></del>		- · ·	<u> </u>	·			<del>:</del>	<del></del>	· · · ·			<del></del>	<del>`,</del>	· · · · · · ·	<del></del>	<del></del>		·	· · · · · · · · · · · · · · · · · · ·	- <del></del>	<del></del>	
<del></del>			<del>,</del>		<del></del>	<del></del>	<del></del>		<del>,</del>										<del></del>	····		<del></del>	<del></del>	<del></del>		
	<del></del>		<del></del>	-									<del></del>			<del></del>	<del></del> .	<u></u>	<del></del>			·			<del> </del>	

₽ 6-86

OBSERV	/E	R'S	D	А٦	ГА	S	Н	EE	T		<del></del>	T	IT	A	NII	UN	1	SA	MP	LE		10	• —	<del></del>	RT	312	4. 6	221
OBSER'	۷E	R:_		PA	ULIA	ue_				<del>,</del>		_		SI	ZΕ	R	ΑN	GE	ОВ	SE	RV	'EC	· ):	- o <u>·</u>	4	± 0•	<u>075</u> m	m
SHEET	N	o :	l	t3	<del></del>		_	DA	TE	S	TA	\R	TE	D:			14-	7-8	8		DA	TE	FIN	lish	IED	:!	5-7-8	8
MATERIA	L	иои			ر_ ح_ح	•					•)			L		]	TIC	K C	R S	но	W (	ОТІ	HER:		ſ	ENT	ĘRED	
OBSERVE	D	-0. +0.			-				-				l	TH CM		:									RAII DTTL		GRA FO	
WEIGHT		0.0	06	) )		0-	2			4	.6		ŀ										_ :		N BA			ING
MINERAL	Flag		VIS	SUA	L E	STI	MA	\TE	OF	М	INE	RA	L S	<b>%</b>			G	RAI	N C	אטכ	IT (	СНІ	ECK				SIZE	
ILMENITE	Ε			3			/	5			1	5			6	0												
MONAZITE	Ε									Ī																		
RUTILE	Ε						4				•	2													·			
ZIRCON	Ε						1	0			5	0			1	R									<del></del>			
LEUCOXENE	Ε		_	1				1				2																
OTHERS			9	7		-	7	4			3				4	Q												
																											~ <del> </del>	
																					-					<u></u>	<del></del>	
							Ī															,				**	·	
																											· · · · · · · · · · · · · · · · · · ·	
														'														
					İ						Ì																i-,i	
	1											1				_						.,			<del></del>			
*******************************											-																<del></del>	
																	<del></del>				1	~			<del></del>			
COMMENT	s ·	<u></u>	<del></del> 1		<del>ان خم.</del>			-								<del>-</del>		****	•		-			<del></del>	<del></del>			
		Othe						che	4	סטרי	201	ine	<del> </del>	٠	ku.	an A	٠.				<del>/</del> -		<del>, - 1 1- 1- 1</del> -		<del></del>	<del></del>		
	<del>` ;</del> -	- 111			-1 <u>-1-1</u>	<del>*</del> T	<u>, v</u>	<u>.</u>	3		<u></u> 1	•••			Ü		····			·· <del>·····</del>	···••	<del></del>	-		<del>. • • • • • • •</del>		<del> </del>	
<del>allem konado de la la 1900 de la glorophes den el palem de</del>				البهالة			<del></del>		***************************************	<del>,</del>		-	-				<del></del>		- de de combine		ليودوه لي	<del>,</del>	<del>, , /</del>	<u></u>		<del></del>		
	<del></del>					<del></del>		<u> </u>	<del></del>					<del></del>	<del></del>				*****	<del></del>	•						*	
<del> </del>		<del></del>	<del></del>										, <del>-'',</del>				<del>,</del>			<del></del>				<del></del>	<del>(1621, 1,</del>		<del>,</del>	
	<del></del>						•	<del>.</del>	<del>- (- 1</del>						****	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		<del>', , , , , , , , , , , , , , , , , , , </del>			····					·		
				<del></del>														<del>;</del>				<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		· . · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
P 6-86																												

Weight Percent Heavy Mineral - 008

Lab Number	Field No.	Received. Weight	Weight H.M.	Weight Percent Heavy Min.
RT 3082	RT 3082	3.100	10.30	0.33
RT 3083	RT 3083	3.400	7.80	0.23
RT 3084	RT 3084	3.200	12,40	C.39
RT 3085	RT 3085	3.500	14.60	0.42
RT 3086	RT 3086	3.600	12.90	0.36
RT 3087	RT 3087	3.300	11.10	0.34
RT 3088	RT 3088	3.200	19.60	9.61
RT 3089	RT 3089	3.900	24.80	0.64
RT 3090	RT 3090:	3.600	26.10	0.73.
RT 3091	RT 3091	3.700	27.90	<b>0.7</b> 5
RT 3053	RT 3093	3.200	4.50	0.14
RT 3094	RT 3094	2.800	4.00	0.14
RT 3095	RT 3095	3.400 '	5,40	G.17
RT 3096	RT 3096	2.200	4.90	0.22
RT 3097	RT 3097	3.200	9.60	0.30
RT 3098	RT 3098	3,500	19.00	<b>6.54</b>
RT 3099	RT 3099	3.500	22.90	0.65
RT 3180	RT 3100	3,590	26.00	0.74
हा ३१७१	RT 3181	3.700	31.50	6.65
RT 3102	RT 3102	3,300	25.10	0.76
RT 3104	RT 3104	2.300	4.90	. อ.วา
RT 3105	RT 3105	2.200	4.80	8.22
RT 3106	RT 3106	2.200	7.50	0,34
RT 3107	RT 3107	2.300	8.60	9.37
RT 3108	RT 3108	2.200	10.70	0.49
RT 3109	RT 3109	2.200	14.40	<b>0.6</b> 5
RT 3110	RT 3110	2.300	15.00	0.65
RT 3111	RT 3111	2.400	14.00	<b>C.</b> 55
RT 3112	RT 3112	2.4CO	23.80	0.99
RT 3113	RT 3113	2.200	4.90	6.22
RT 3115	RT 3115	2.900	6.80	0.23
RT 3116 .	RT 3116	3.100	3.60	0.12
RT 3117	RT 3117	2.700	4.60	0.17
RT 3118	RT 3118	3.000	7.40	0.25
RT 3119	RT 3119	2.900	12.50	0.43
RT 3120	RT 3120	3.100	17.70	0.57
RT 3121	RT 3121	2.900	15.20	8.52
RT 3122	RT 3122	3.400	34.50	× 1.01
RT 3123	RT 3123	3.700	15.50	6.42
RT 3124	RT 3124	1.000	5.80	0.55

40 records selected.

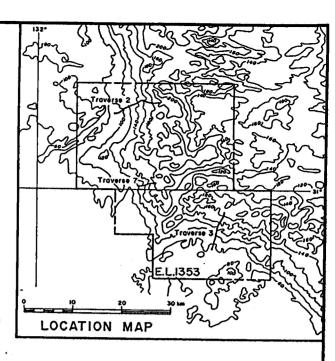
Figure 2. Weight percent total heavy minerals for samples submitted on traverse two (holes OL66-OL69).



0.42 Percentage heavy mineral 0.61 fraction ( 2.96 S.G.)

CO-20:0-65 Composite sample, depth from/to and %H.M.

# TRAVERSE 2 (central portion)



E.L. 1353 IFOULD LAKE, S.A.
GEOLOGICAL SECTION: TRAVERSE 2

**ANALYSES % HEAVY MINERALS** 

Date: Oct. 1988

Project Nº:

Centre: Adelaide

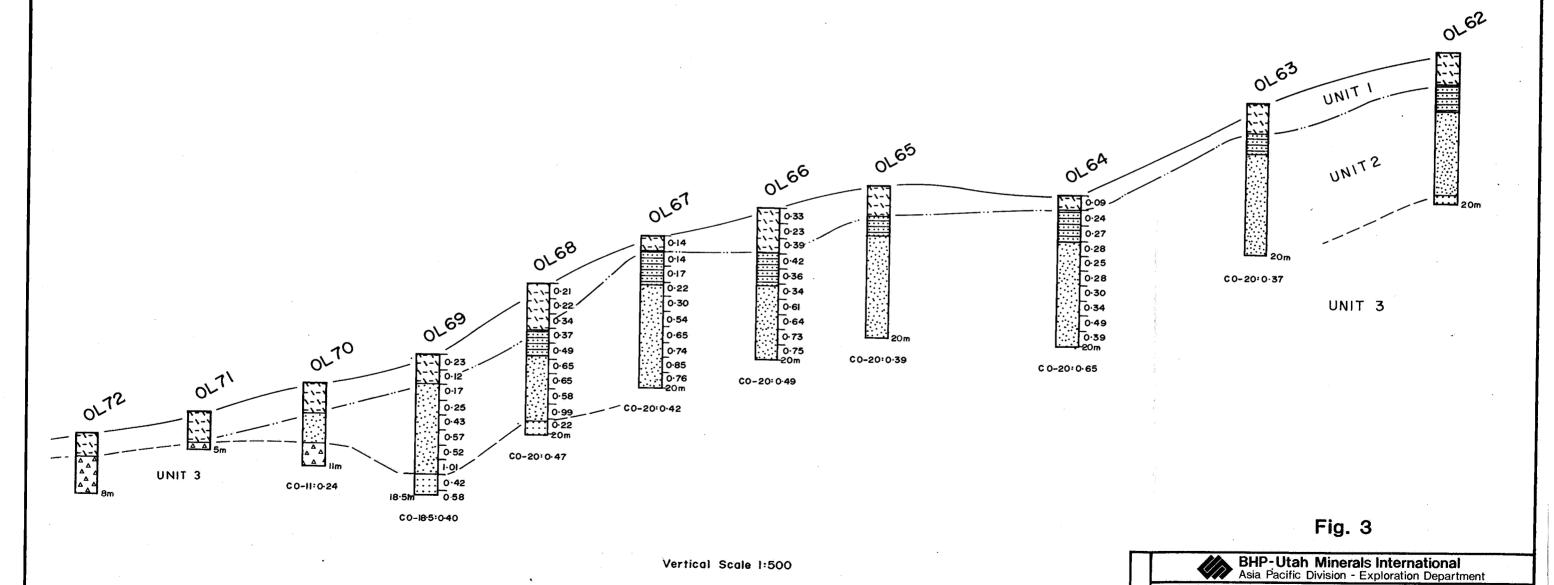
A3 - 345

Drawing Nº:

Prepared: K. Grey

Drawn: A.E. Young

Checked:



Horizontal Scale 1:10 000

600

800m

# SAMPLES HELD AT SADME, GLENBIDE, CORE LIBRARY

#### EL1353 IFOULD LAKE

Traverse	<u>Hole No</u>	$\frac{\texttt{Depth}}{\underline{\mathtt{m}}}$	Sample Numbers	Sample Bottles	Samples not Submitted
2	0L61	20	RT3027-3036	10	
2	0L69	18.5	RT3115-3124	10	
7	0L106	24	RT3397-3408	10	
7.	0L108	20	RT3421-3430	9	RT3425
3	0L83	30	RT3195-3209	14	RT3207
3	0L96	18	RT3340-3349	10	•
3	0L97	13	RT3351-3357	7	
3	0L98	15	RT3359-3366	8	
3	0L99	8.5	RT3368-3372	5	
3	0L100	10	RT3374-3378	5	
3	0L101	8.5	RT3380-3384	5	
3	0L102	20	RT3386-3395	10	

#### EL1354 CHUNDIE

Traverse	<u>Hole No</u>	$\frac{\texttt{Depth}}{\underline{\mathtt{m}}}$	Sample Numbers	Sample Bottles	Samples not Submitted
4	0L113	30	RT3466-3480	15	
5	0L138	30	RT3736-3750	15	
5	0L141	30	RT3767-3781	15	
5	0L147	40	RT3830-3849	19	RT3845
5	0L155	40	RT3923-3924	20	

#### EL1355 00LDEA

Traverse	Hole No	Depth m	Sample Numbers	Sample Bottles	Samples not Submitted
]	0L6	20	RT2491-2500	10	RT2764, RT2758
]	0L18	33	RT2779-2795	17	
]	0L33	24	RT2753-2764	10	
6	0L39	24	RT2798-2809	11	RT2803
6	0L41	26	RT2822-2834	13	

Small sections of core have been included for the following hole intervals:

0L33	12-14 m	RT2759
0L33	14-16 m	RT2760
0L41	22-24 m	RT2833
0L69	18-20 m	RT3124
0L108	18-20 m	RT3430
0L138	26-28 m	RT3749
0L147	18-20 m	RT3839
0L147		RT3838
0L155	22-24 m	RT3934
0L155	30-32 m	RT3938

OL147 16-18 m RT3838
OL155 22-24 m RT3934
OL155 30-32 m RT3938

The reverse circulation rig used only produced a core intermistently when the sands were lithified. Therefore the core produced was very sporadic and most of the material returned was in the form of rock chips and sedimentary particles.

ADELAIDE 19.5.87