

Open File Envelope

No. 9429

EL 2289

TILCHA

**COMBINED FIRST ANNUAL / FINAL REPORT AT
LICENCE SURRENDER FOR THE PERIOD
18/3/1997 TO 15/1/1998**

Submitted by
Rio Tinto Exploration Pty Ltd
1998

© 30/11/1998

This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia.
PIRSA accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of text or drawings.
This report is subject to copyright. Apart from fair dealing for the purposes of study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced without written permission of the Chief Executive of Primary Industries and Resources South Australia, GPO Box 1671, Adelaide, SA 5001.

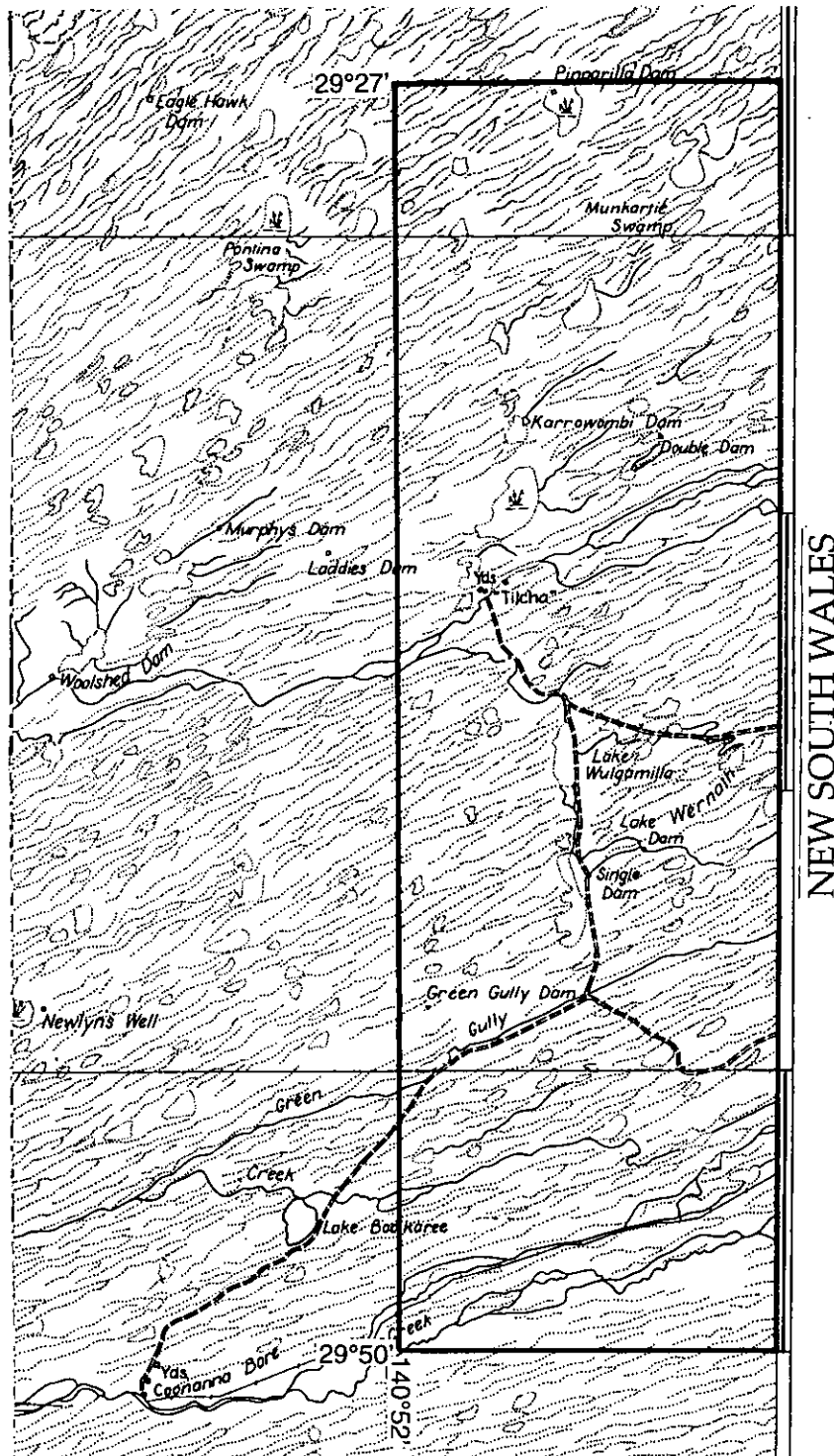
Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000
Facsimile: (08) 8204 1880

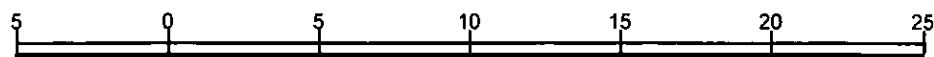


Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1 : 250 000



KILOMETRES

SURRENDERED

RIO TINTO

APPLICANT : **GRA EXPLORATION PTY. LTD.**

DM : **546/96**

AREA : **548** square kilometres (approx.)

1:250 000 PLANS : **CALLABONNA**

LOCALITY : **TILCHA AREA - Approximately 270 km east of Marree**

DATE GRANTED : **18 March 1997** DATE EXPIRED : **17 March 1998**

EL No : 2289

ENVELOPE 9429

TENEMENT: EL 2289, Tilcha

TENEMENT HOLDER: Rio Tinto Exploration Pty Ltd

CONTENTS

				PIRSA NO.	
REPORT:	McInnes, D.J., 1998. EL 2289 – Tilcha. First annual and relinquishment report for the period ending 30 March 1998 (Rio Tinto Exploration report no. 23940).			9429 R 1	
				Pgs 3-12	
PLAN		Scale	Company plan no.		
	Ground magnetic traverse 12000n.	1:50 000	SAb1256	9429-1	A2

END OF CONTENTS

RIO TINTO

Minerals and metals for the world



2 Kilroe Street
Milton Qld 4064
PO Box 1641
Milton Qld 4064
Australia

Telephone +61 7 3871 1588
Facsimile +61 7 3871 1297

Rio Tinto Exploration Pty. Limited
A.C.N. 000 057 125
A member of the Rio Tinto Group



EL 2289 - Tilcha
First Annual and Relinquishment Report
for the Period Ending 30 March 1998

D. J. McInnes
September 1998

Report No. 23940

This report and its contents are confidential. All rights to the report and its contents (including, without limitation, rights to confidential information and copyright in all works (including photographs, diagrams, charts, maps and graphs) comprised in the report) remain the property of Rio Tinto Exploration Pty. Limited. No part of this report nor of the information contained in it may be disclosed to any person without the consent of Rio Tinto Exploration Pty. Limited. No part of this report nor of the information contained in it may be reproduced (including by being stored in any form), transmitted, published or used for any purpose without the prior consent of Rio Tinto Exploration Pty. Limited.



RIO TINTO EXPLORATION PTY. LIMITED


EL 2289 – Tilcha
First Annual and Relinquishment Report
for the Period Ending 30 March 1998

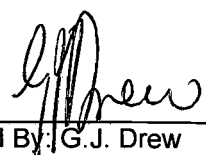
D. J. McInnes
September 1998

Distribution: Department of Mines & Energy, South Australia ✓
Rio Tinto Exploration Library, Brisbane
Rio Tinto Exploration Library, Perth

Date: September 1998

Report No.: 23940


Submitted By: D. McInnes
Senior Geophysicist


Accepted By: G.J. Drew
Chief Geologist
Eastern District

This report and its contents are confidential. All rights to the report and its contents (including, without limitation, rights to confidential information and copyright in all works (including photographs, diagrams, charts, maps and graphs) comprised in the report) remain the property of Rio Tinto Exploration Pty. Limited. No part of this report nor of the information contained in it may be disclosed to any person without the consent of Rio Tinto Exploration Pty. Limited. No part of this report nor of the information contained in it may be reproduced (including by being stored in any form), transmitted, published or used for any purpose without the prior consent of Rio Tinto Exploration Pty. Limited.

ABSTRACT

Exploration License 2289 Tilcha, was acquired in March 1997. The tenement is situated approximately 230 km north of Broken Hill on the North eastern flank of the Curnamona Nucleus. The initiative for the title application was to investigate the potential for Skarn/K-silicate porphyry style Cu-Au and Broken Hill Pb-Zn style mineralisation associated with the linear magnetic anomalies.

Initial modelling of profiles extracted from the gridded BMR regional airborne magnetic data gave a depth to magnetic sources of 1.5 to 2 kilometres. There was however some uncertainty about the relevant height of the data collection and the effects of modelling gridded data.

Two ground magnetic traverses were collected across the Tilcha EL 2289 in October 1997. Modelling of these lines showed that the depth to the magnetic sources was in the 1 to 2.5 km range. Depth to the magnetic sources generally decreased from east to west and from north to south.

Due to the deep depths modelled for the magnetic sources it is recommended that no further work be undertaken on the Tilcha exploration license.

Table of Contents

Abstract	i
List of Tables	iii
List of Plans	iii
1. Conclusions and Recommendations.....	1
2. Introduction	1
3. Review of Previous Work	1
4. Exploration Completed in 12 Months Ending March 1998	1
5. Rehabilitation	2
6. Expenditure	2
7. References	2
8. Location.....	2
9. Keywords	2
10. DPO Register	2

LIST OF TABLES

Number	Contents
1	EL 2289 – Tilcha Expenditure for the Period Ending 30 March 1998

LIST OF PLANS

Number	Contents	Scale
SAa 6664	EL 2289 – Tilcha Location Plan	1:250 000
SAb 1255	EL 2289 – Tilcha Location Plan Ground Magnetic Traverses Roads	1:200 000
SAb 1256	EL 2289 – Tilcha Ground Magnetic Traverse 12000n	1: 50 000

1. CONCLUSIONS AND RECOMMENDATIONS

Modelling of the ground magnetic data collected over the linear magnetic anomalies in the Tilcha EL 2289 predicted that the depth to the top of the magnetic sources is approximately 1 to 2.5 kilometres. The results of this modelling suggest that no further work be carried out on the Tilcha exploration license and hence it is recommended that the EL be relinquished.

2. INTRODUCTION

Exploration Licence 2289, Tilcha was acquired to test linear magnetic anomalies, identified in the regional 1968 BMR magnetic data, as potential skarn/ K-silicate Porphhyry style Cu-Au and Broken Hill style Pb-Zn mineralisation. The location of the Exploration Licence is shown on Plan SAa 6664

Exploration Licence 2289, is approximately 560 km² in area. Rio Tinto Exploration Pty. Limited was granted the EL in March 1997. The licence area is situated approximately 230 km north of Broken Hill.

The area is under thick transported covered, on the North eastern flank of the Curnamona Nucleus. This presents the potential for the occurrence of base and precious metal associated with basement structures. The stratigraphy is generally north westerly striking with potential granite intrusions.

This report documents the investigations undertaken by Rio Tinto Exploration during the first year of tenure from March 1997 to March 1998.

3 REVIEW OF PREVIOUS WORK

No previous exploration is known to have been undertaken in the area.

4. EXPLORATION COMPLETED IN 12 MONTHS ENDING MARCH 1998

Two ground magnetic traverses, for a total of 31 line kilometres, were collected across the Tilcha Exploration License. The traverses are approximately perpendicular to the linear magnetic anomalies that strike in a north westerly direction across the exploration license. Plan SAa 1255 shows the position of these traverses.

The data was collected using a Scintrex Proton Procession Envinmag magnetometer, with a sensor elevation of 2m. A Scintrex MP3 magnetometer was used as a base station and diurnal corrections were applied to the data. Both lines were collected with 20m spacing. Plan SAb 1256 shows the diurnally corrected profiles.

Modelling of the lines was undertaken using Model Vision V1.3. The results of the modelling show that the depth to the top of the magnetic sources ranged from 1 to 2.5 km. The depth to the top of the models shallowed from east to west and from north to south. The modelling generally had a 10% error fit window.

5. REHABILITATION

No rehabilitation is required.

6. EXPENDITURE

Total expenditure for the tenure period of EL 2289 was \$6,734. Please see Table 1.

7. REFERENCES

Nil

8. LOCATION

Milparinka SH5407 1:250 000 sheet

9. KEYWORDS

Airborne Magnetics, Ground Magnetics, Tilcha

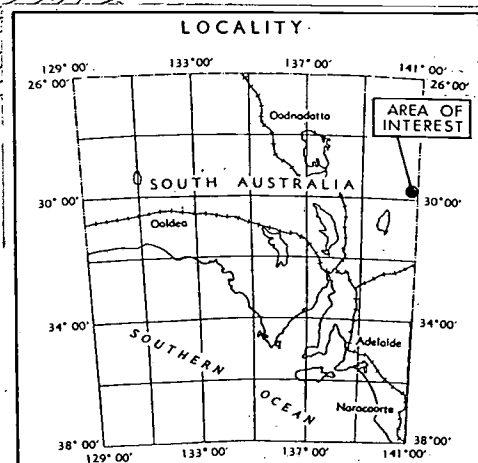
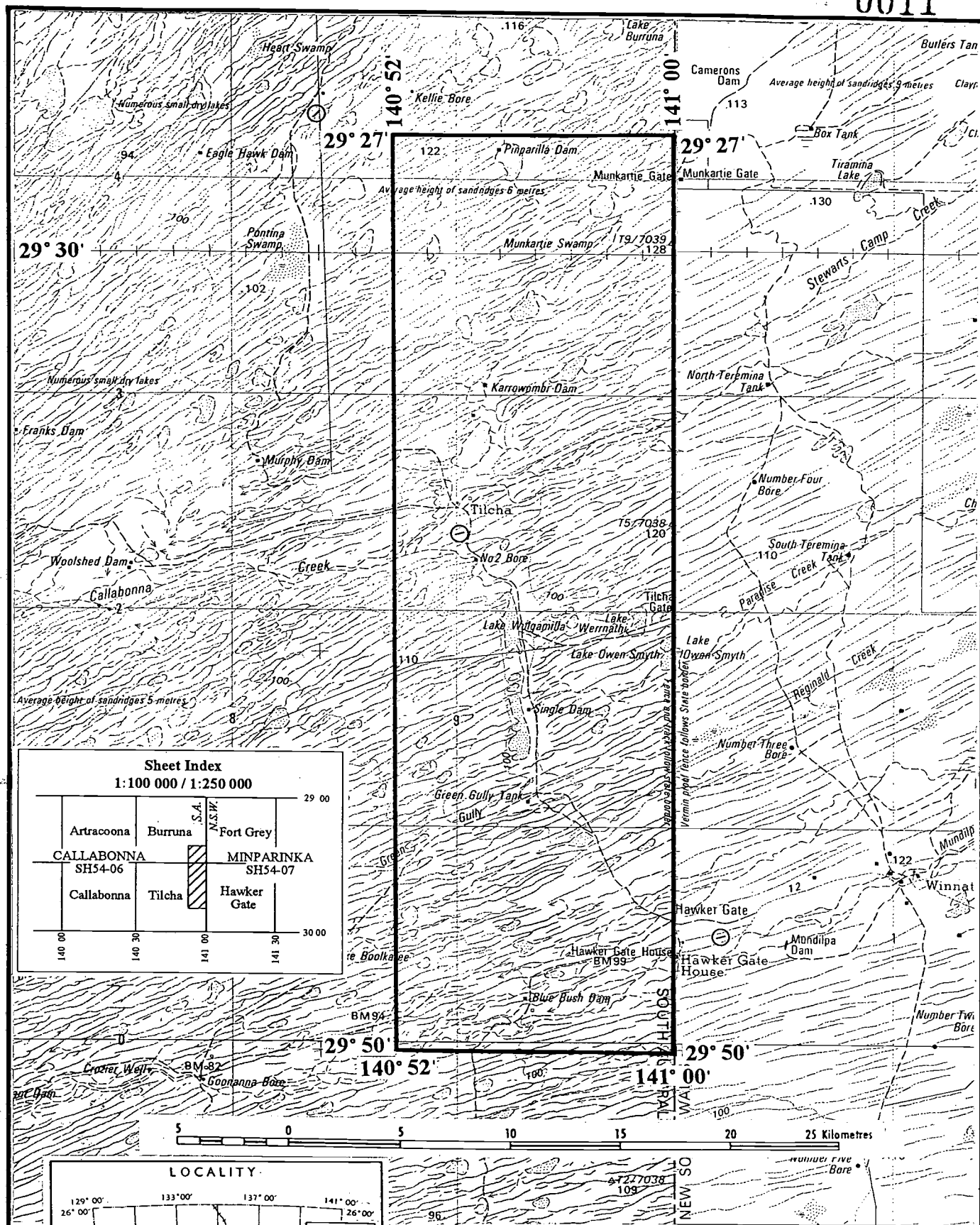
10. DPO REGISTER

Nil.

Table 1

Tilcha EL 2289
Expenditure for the Period Ending 30 March 1998

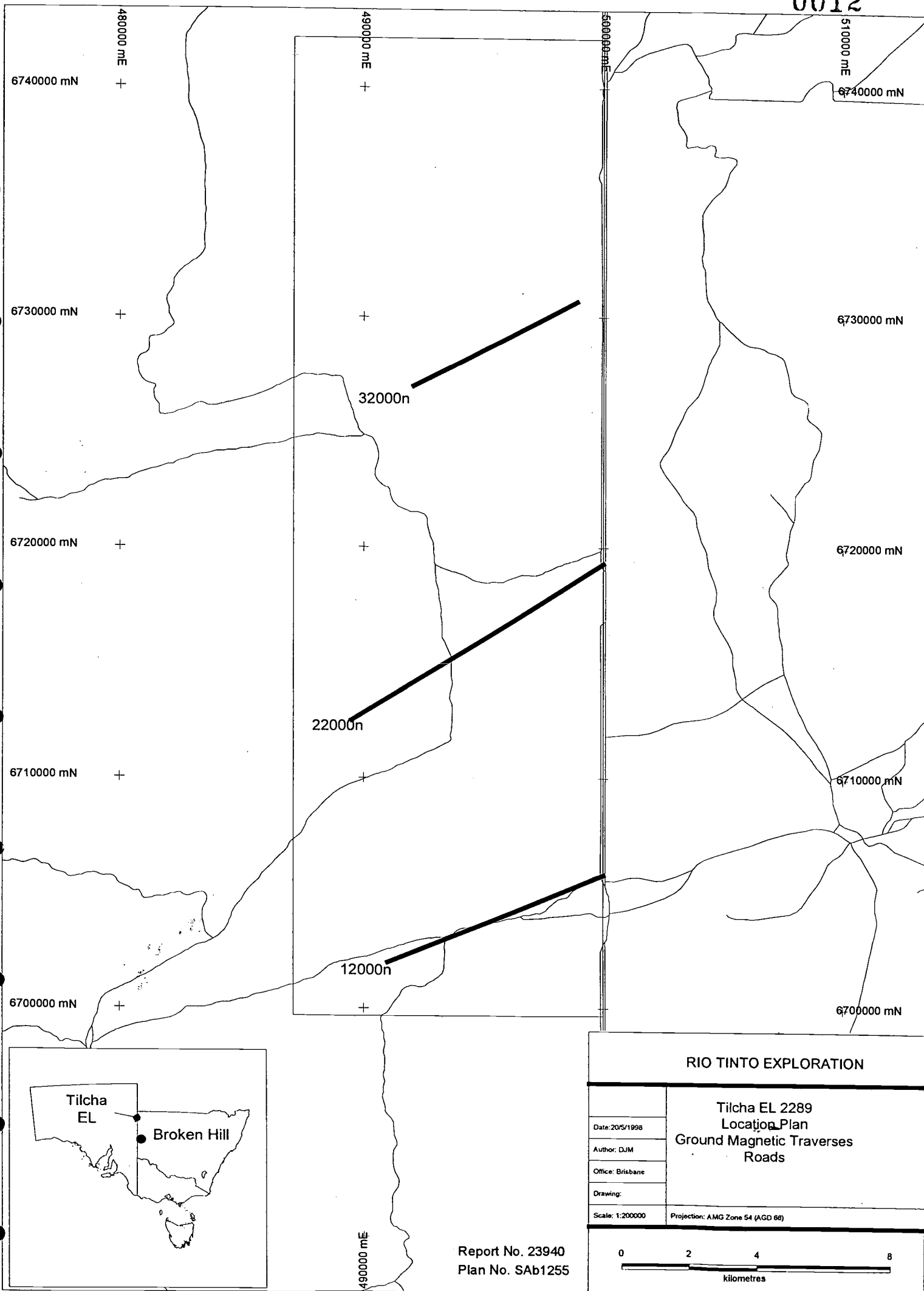
Drilling	
Contract Exploration	220
Laboratory Analysis	
Tenement Payments	1012
Rent & Property	258
Payroll & Benefits	1,882
Field Transport	935
Travel Accommodation	116
Comp & Professional	189
General Office	22
District Indirects	1,757
Regional Indirects	343
Total	\$6,734



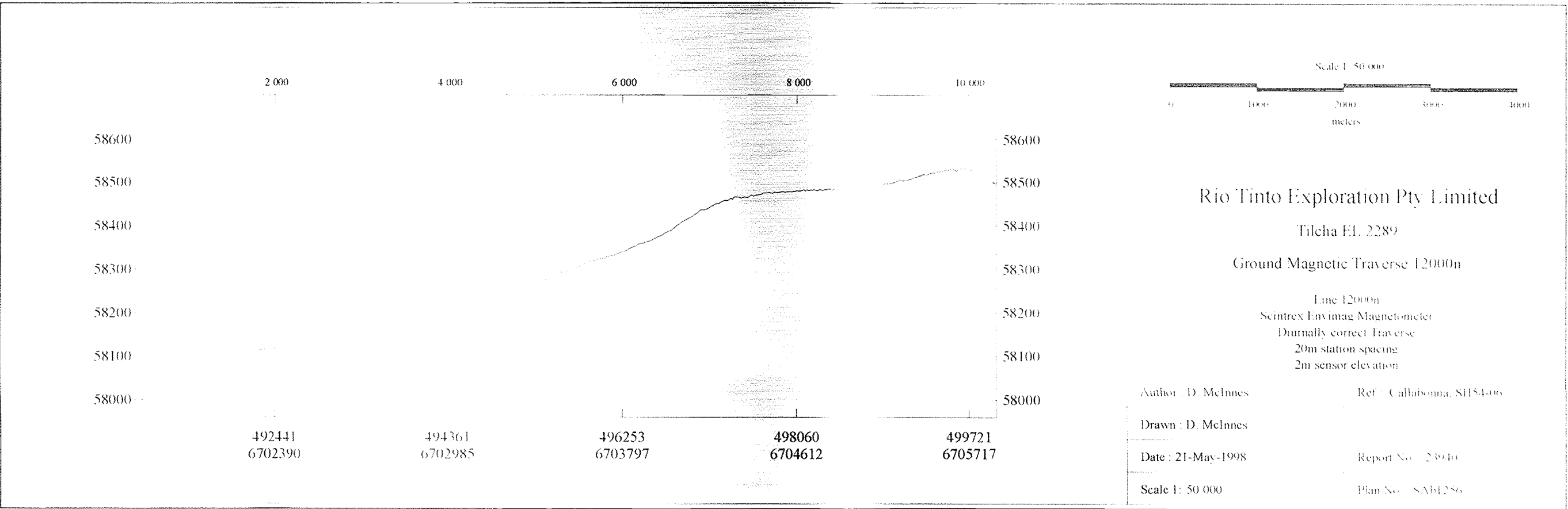
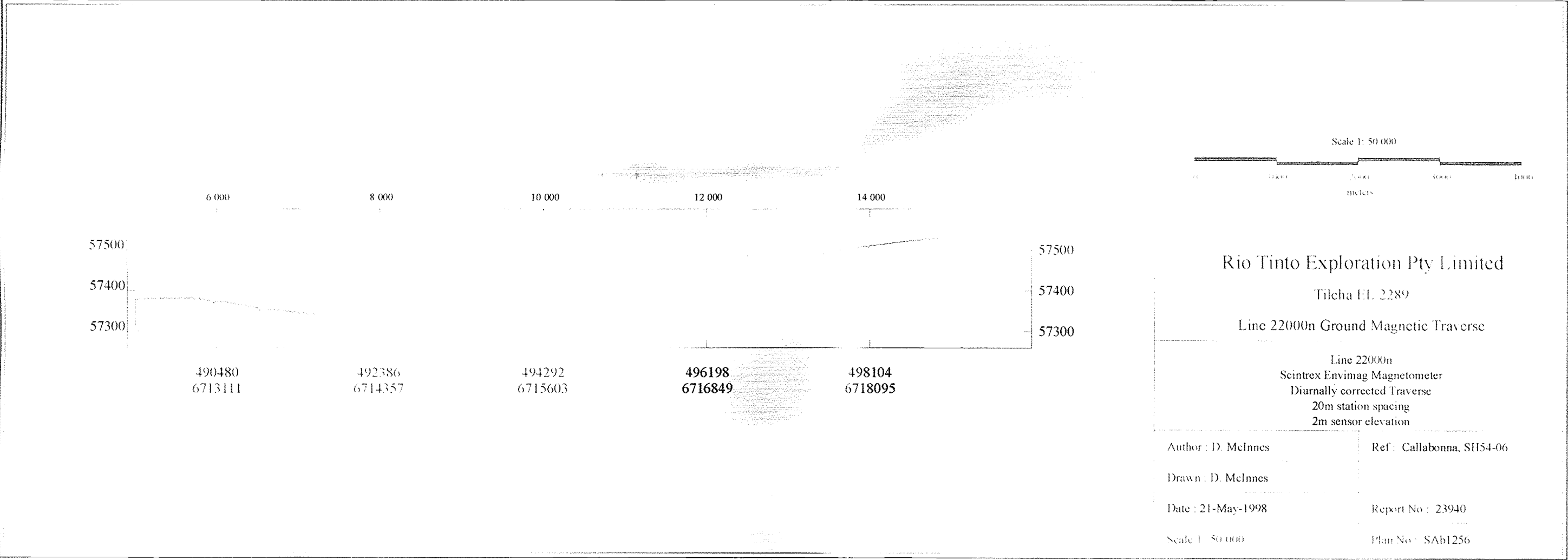
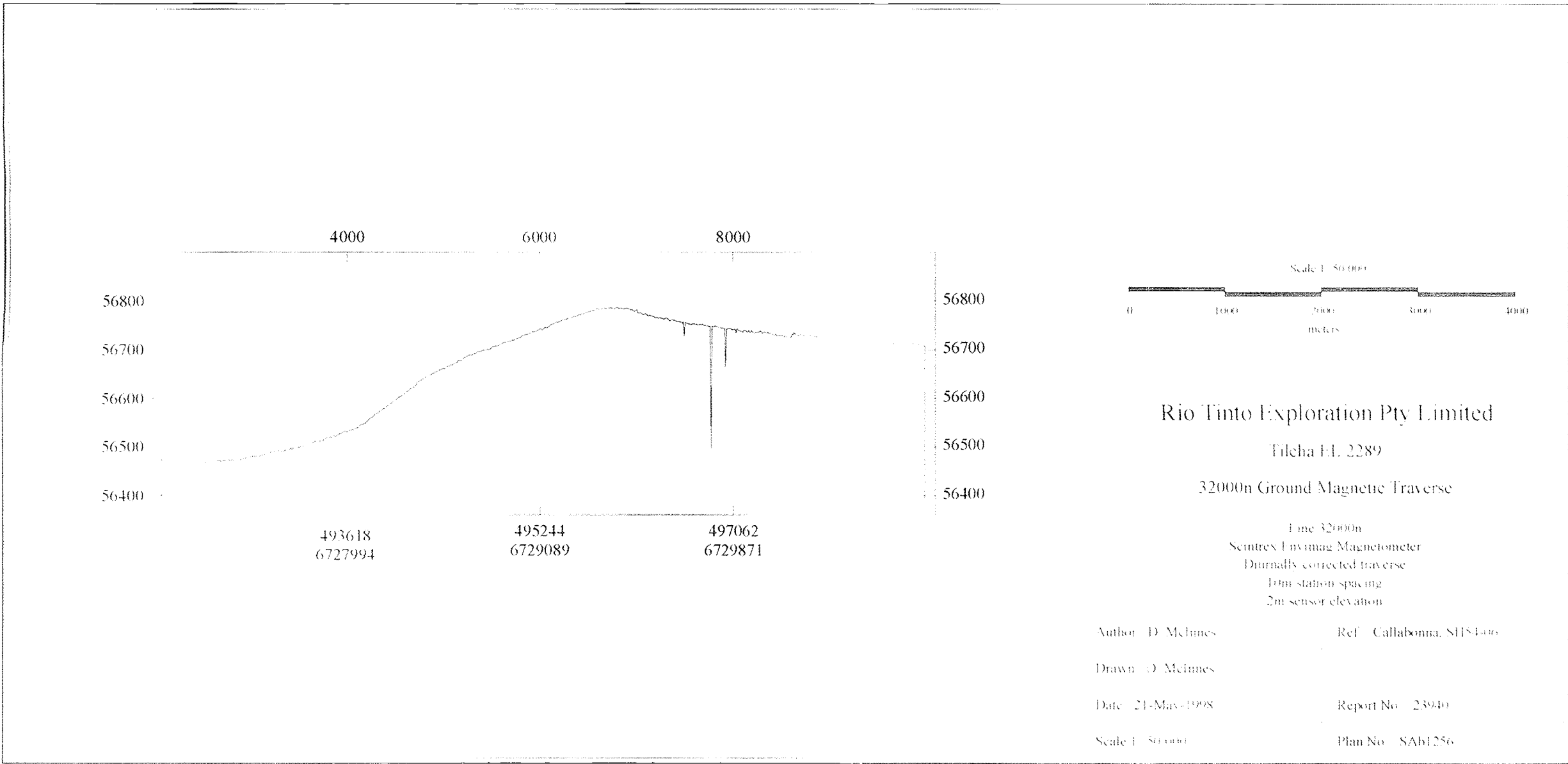
CRA EXPLORATION PTY LIMITED

Tilcha EL 2289 -SA**Location Plan**

REF.:	Callabonna SH54-06	
SCALE:	1:250 000	DRAWN:
AUTHOR:	T.C.M.	REPORT: Report No. 23940
DATE:	Nov..96	PLAN NO.: SAa 6664



TILCHA EL 2289 Ground Magnetic Traverses



9429-1