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EXPLORATION LICENCE 9358

DELTA

FIFTH ANNUAL REPORT

13 May 2000 - 12 May 2001

LICENSEES:
GIANTS REEF MINING LIMITED
A.C.N. 058 436 794

AUTHORS:
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S C RUSSELL

May, 2001

DISTRIBUTION:
Department of Mines & Energy ☐
Giants Reef Exploration Pty Ltd ☐
Giants Reef Mining Limited ☐

SE53-14
TENNANT CREEK 1:250 000
5758
TENNANT CREEK 1:100 000

SUMMARY

Exploration Licence 9358 *Delta* was granted to Delta Gold Exploration Pty Ltd on 13 May 1996 for 6 years. The Licence was transferred to Giants Reef Mining Limited (then Giants Reef Mining NL) on 13 March 1997.

This report covers the work done on the Licence during its fifth year of tenure.

Targets are gold and copper orebodies, associated with ironstone masses and/or shear zone structures.

The Licence covers part of the highly prospective Eldorado-Juno-Nobles Nob trend. Limited basement outcrops include meta-sedimentary Palaeoproterozoic Warramunga Formation and porphyritic felsic volcaniclastic rocks of the Yungkulungu Formation (Flynn Sub-group). There are a number of ironstone outcrops and magnetic anomalies which have been targeted and partially explored by previous companies.

Work during the fifth year consisted re-modelling of aeromagnetic and ground magnetic data resulting in the identification of the Barracuda and Baloo South magnetic anomalies. The Barracuda anomaly was drill tested with a 348 metre diamond drillhole. The hole intersected magnetic granodiorite, which is the likely cause of the anomaly.

The Licence area was included in a study of the controlling factors on mineralisation in the Tennant Creek mineral field, carried out by Dr Nicole Adshead-Bell of James Cook University. This included structural data readings and one rock chip sample for analysis.

EL 9358 is subject to an Indigenous Land Use Agreement (ILUA), signed in September 2000 with the Native Title holders of the Tennant Creek region and the Central Land Council.

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1. INTRODUCTION

EL 9358 *Delta,* was purchased by Giants Reef Mining N.L. now Giants Reef Mining Limited, from Delta Gold Exploration Pty Ltd in November 1996 and title was registered to Giants Reef in March 1997.

This report records the exploration work done by Giants Reef on EL 9358 during the fifth year of tenure from 13 May 2000 to 12 May 2001.

2. LOCATION

EL 9358 *Delta,* is centred approximately 22 kilometres east-southeast of Tennant Creek. It is located on the Tennant Creek 1:100 000 scale map sheet.

Access is along the Gosse River road which runs east-west through the middle of the Licence but access is limited during rainy periods.

Figure 1 shows the EL and surrounding tenements.

3. TENURE

EL 9358 *Delta*, covering 8 blocks, was granted to Delta Gold Exploration Pty Ltd on 13 May 1996 for a period of 6 years. After Delta ceased exploring in the Tennant Creek field in mid-1996 the Licence was purchased by Giants Reef Mining with transfer of title being registered on 13 March 1997.

The Licence area was reduced from eight to four blocks in 1999. A waiver for the reduction of EL 9358 was granted in April 2000 resulting in the retention of four blocks until May 2001.

The Licence is on NT Portion 1075, within Perpetual Pastoral Lease 1142, Tennant Creek Station.

Figure 2 shows the Licence area held in Year 5.

4. GEOLOGY

The regional geology of the Tennant Creek field has been detailed in many publications. Papers contained in AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp 829-861 would give the reader a good introduction to the regional geology and styles of gold-copper mineralisation of the area. In 1996 the Northern Territory Geological Survey released a geological map and explanatory notes on the Tennant Creek 1:100 000 sheet.

Metasediments of the Palaeoproterozoic Warramunga Formation and porphyritic felsic volcaniclastic rocks of the Yungkulungu Formation (Flynn Sub-group) underlie the Licence, although basement exposure is limited.

The area lies across the easterly extension of the Eldorado-Juno-Nobles Nob trend of mines and mineral occurrences. The above mines are all to the west of EL 9358. To the east of the Licence, on the same trend, are the New Hope, The Plum, Comstock and Desert Hope gold occurrences.

Giants Reef's Big Heart and Desert Gold prospects lie along the south side of a major east-west porphyry dyke or sill, at its contact with Warramunga Formation sediments. The Barracuda prospect, which is the subject of much of this report, and other closely adjacent magnetic anomalies lies along the northern contact of the porphyry body.

5. WORK DONE DURING THE YEAR

5.1 Magnetic modelling

Consultant Frank Lindeman of Lindeman Geophysics Pty Ltd, of Melbourne, Victoria has spent considerable time assessing and modelling the ground magnetics and detailed airborne magnetic data over the Barracuda prospect (formerly named Baloo by North Flinders) and neighbouring magnetic anomalies to the east and west.

The Barracuda area (Figure 3), which contains four magnetic sources of different depths, size and susceptibilities was modelled. Based on this information a drillhole was planned to test the favoured target body, which had the highest magnetic susceptibility and a depth to top of about 120 metres.

Structural maps of the area clearly place the Barracuda anomaly on the same structural line as the Juno and Nobles Nob deposits. Further east, on the same structure but outside the Licence area are the New Hope, Plum, Comstock and Desert Hope mines. The geological and structural position of this anomaly made Barracuda an excellent exploration target.

Consultant Frank Lindeman also modelled the Baloo South magnetic target (Figure 3). This anomaly plots on the same contact between Flynn porphyritic felsic rocks (north side) and Warramunga Formation (south side) as Giants Reef's Big Heart and Desert Gold prospects, which were shallow-drilled in 1997. Despite Big Heart producing a 45 g/t Au surface assay the drilling of this prospect was disappointing.

The top of the modelled Baloo South anomaly is approximately 160 metre below surface and at this shallow depth and geological position makes the anomaly another attractive target.

5.2 Site preparation

Giants Reef's gravity line on AMG 436200E was was cleared using a small front-end loader to enable access to the Barracuda anomaly drill site. The drill site was surprisingly clear of vegetation so the loader had to merely shave the surface of light vegetation and termite hills preventing the need to clear a large pad. Two shallow sumps were dug to assist in the diamond drilling.

5.3 Diamond drilling

One diamond drillhole BCRD001 was drilled to test the large deep magnetic body as modelled by Lindeman. A 220.6 metre RC precollar was drilled, and the hole was completed to a depth of 348 metres using NQ_2 diamond core. Stanley Drilling Co, Perth, Western Australia carried out the drilling using a SD1000 dual purpose RC/Diamond rig.

Statistics for the hole are tabulated below:

Hole Number	Easting AMG	Northing AMG	Azimuth °mag	Dip °	Depth (m)
BCRD001	436785	7819977	350	-70	RC to 220.6m, then NQ_2 From 220.6m to 348m final depth

The hole was cased to the bottom with 50mm PVC pipe, and will be magnetically logged next year. The rock type drilled for the full length of the hole was described as a porphyritic granodiorite. It is likely that this magnetic rock is the cause of the anomaly.

Geological logging was completed on site, using a Hewlett Packard 200LX palmtop computer and downloaded in the evenings. Downloaded geology data is printed out as separate log sheets and then loaded into a Micromine database, along with collar, downhole survey and assay data (Appendix 1).
Samples collected (74507-74550) during the pre-collar RC drilling were composited over 5m intervals. Ten one-metre half-core samples (423456-423465) spread along the cored section of the hole were also sent to Amdel in Darwin for analysis, however none of the results were seen to be anomalous.

This was also the case with the 5 metre speared composite samples collected over the entire length of the RC pre-collar.

Gold assays were done using a 50 gram fire assay with AAS finish, to a detection level of 0.01 g/t (method PM209) by ALS; FA1 by Amdel. Multi-element analysis was also performed by Amdel in Darwin and included Cu, Pb, Zn, Ag, Mo, As, Bi, Fe, Ni Cd and Co using method IC2E. All geochemical data is included in Appendix 1.

5.4 Magnetic susceptibility readings

Magnetic susceptibility readings of the pre-collar drill chips were collected at 1 metre intervals and recorded on Giants Reef standard RC drill chip logging sheet (Appendix 1). Susceptibilities were measured in the field using a Kappameter KT-5 Magnetic Susceptibility meter.

The magnetic susceptibility of BCRD001 drill chips returned a rather elevated response, especially when compared with magnetic susceptibilities in similar rock types. Disseminated magnetite was present throughout the hole and is probably responsible for the magnetic signature as modelled.

5.5 Study of controls on Au-Cu-Bi mineralisation in the Tennant Creek region

Dr Nicole Adshead-Bell from James Cook University of North Queensland completed a two-month regional study on the structural and timing controls of Au-Cu-Bi mineralisation within the Tennant Creek mineral field. Her work included several days collecting mainly structural data within Giant Reef 's Project Area's, including EL 9358. One rock chip sample was taken from EL 9358. A portion of the cost of her geological work has been recorded against EL 9358, as the EL was within the regional study area. The analytical results together with AMG locations and structural readings collected at the outcrop is presented as Appendix 2.

5.6 Indigenous Land Use Agreement

Exploration Licence 9358 is subject to an Indigenous Land Use Agreement (ILUA), signed in September 2000 with the Native Title holders of the Tennant Creek region and the Central Land Council. A large number of other tenements and EL applications in the region are also subject to the ILUA. These are all on the Tennant Creek and Phillip Creek Pastoral Leases.

The ILUA provides for 25 years of continuity of tenure, and covers any present or future Exploration or Mining Tenement applications and development within the above Pastoral Leases.

6. REHABILITATION

All sample bags and drilling rubbish generated have been removed from the drill site. Recent inspection of the drill site concludes that natural vegetation has begun to return at both the drill site and access track.

7. CONCLUSIONS

Drilling of the Barracuda magnetic anomaly intersected a magnetite-bearing porphyritic granodiorite. This probably explains the magnetic anomaly but this conclusion needs to be confirmed.

The magnetic anomalies of the Barracuda group are regarded as possible drill targets but the latest magnetic re-modelling of them has not been completed. The separate Baloo South anomaly is seen as a more attractive drill target for the next year.

Finding deeper mineralised bodies at Big Heart and Desert Gold remains a distinct possibility, despite the results of Giants Reef's previous shallow drilling at both these prospects.

EL 9358 Delta remains highly favoured as an exploration area, because of its location across the easterly extension of the Eldorado-Juno-Nobles Nob trend of mines and mineral occurrences.

8. EXPENDITURE

The expenditure covenant for the fifth year of tenure was $18,000. Actual expenditure was as follows:

	$ Year 5
Geology	6,817
Geophysics	5,201
Geochemistry	195
Surveying	237
Data Integration	1,883
Analytical	960
Tenure Maintenance	1,707
Drilling	44,922
Administration and Overheads	2,306
TOTAL	$64,233

9. PROPOSED PROGRAMME AND EXPENDITURE FOR NEXT YEAR

	$
Geology supervision, assessment, logging	1,000
Geophysics consultant; downhole logging	2,000
Analytical analysis of drill samples	3,000
Drilling RC percussion	11,000
Rehabilitation	1,000
Administration and Overheads	2,000
TOTAL	$20,000

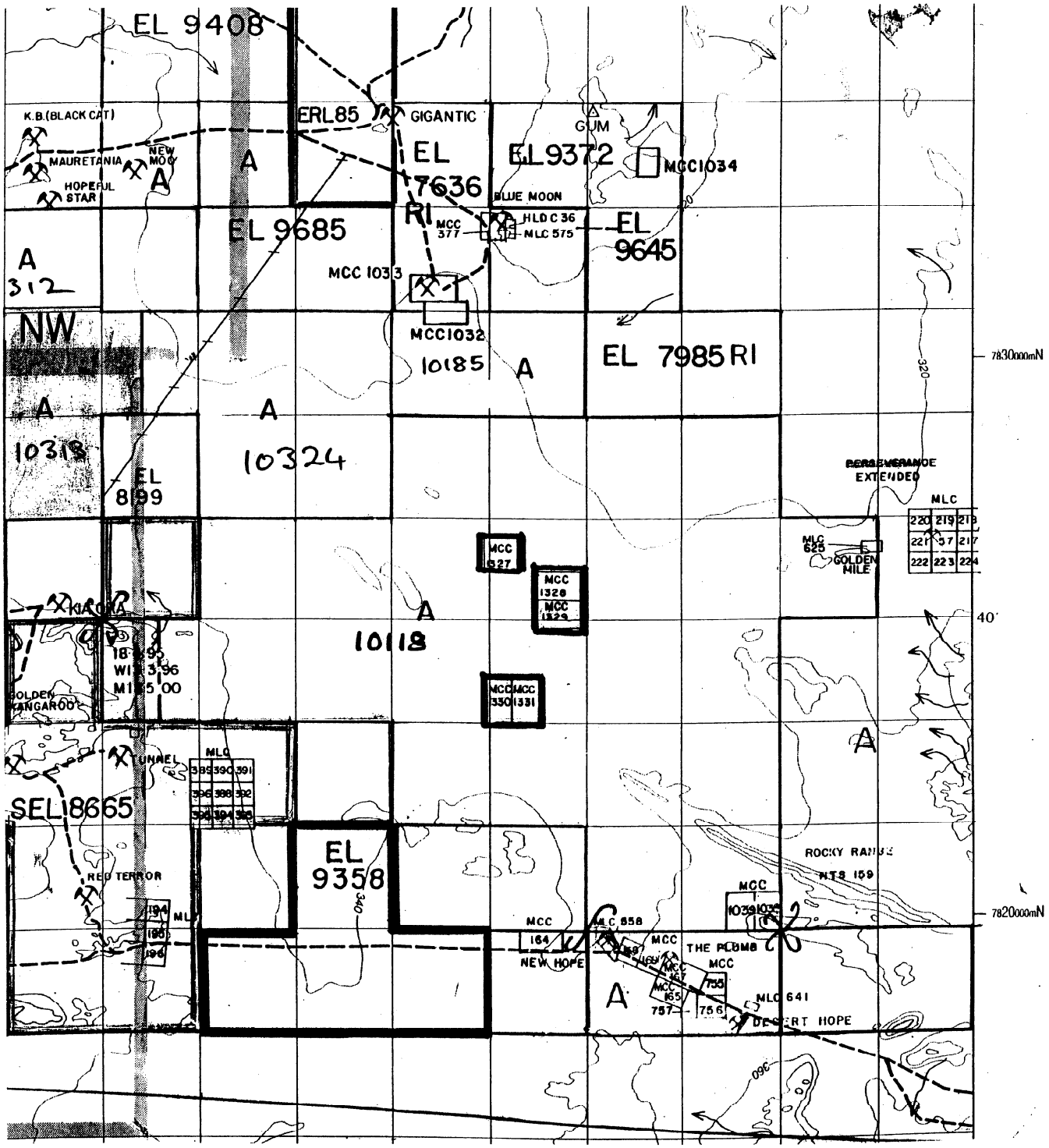
P G Simpson
Exploration Manager

S C Russell
Exploration Geologist

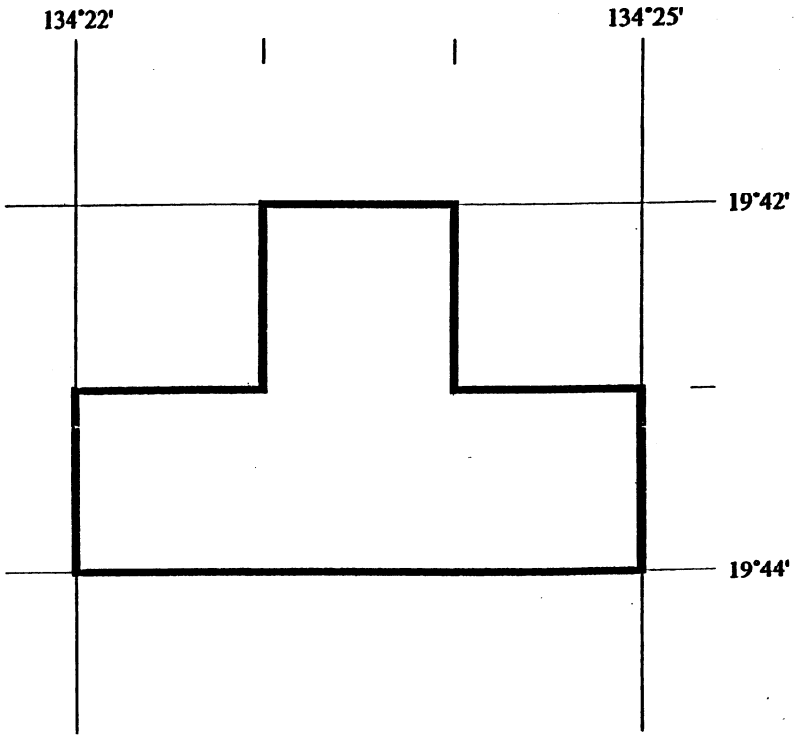
GIANTS REEF MINING LIMITED

HARD COPY REPORT META DATA FORM

REPORT NAME:	EXPLORATION LICENCE 9358 *DELTA* FIFTH ANNUAL REPORT 13 May 2000 – 12 May 2001
PROSPECT NAMES(s): GROUP PROSPECT NAME:	DELTA
TENEMENT NUMBERS(s):	EL 9358
ANNIVERSARY DATE:	12 MAY 2001
OWNER/JV PARTNERS:	GIANTS REEF MINING LIMITED
AUTHOR(s):	P.G SIMPON S.C. RUSSELL
COMMODITIES:	GOLD, COPPER
MAPS 1:250 000:	TENNANT CREEK SE53-14
MAPS 1:100 000:	TENNANT CREEK 5758
TECTONIC UNIT(s):	TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s)	WARRAMUNGA FORMATION YUNGKULUNGU FORMATION FLYNN SUB-GROUP
AMF GENERAL TERMS:	PORPHYRITIC GRANODIORITE
AMF TARGET MINERALS:	GOLD, COPPER
AMF GEOPHYSICAL:	MAGNETIC ANOMALIES, MAGNETIC SUSCEPTIBILITIES
AMF GEOCHEMICAL:	
AMF DRILL SAMPLING:	DIAMOND CORE, COMPOSITE SAMPLES
MINES:	NEW HOPE, (440937E 7819524N) THE PLUM (441966E 7819075N) DESERT HOPE (443731E 7818372N)
DEPOSITS:	
PROSPECTS:	DELTA, BARRACUDA,BALOO SOUTH
KEYWORDS:	DELTA, BARRACUDA, BALOO SOUTH BCRD001

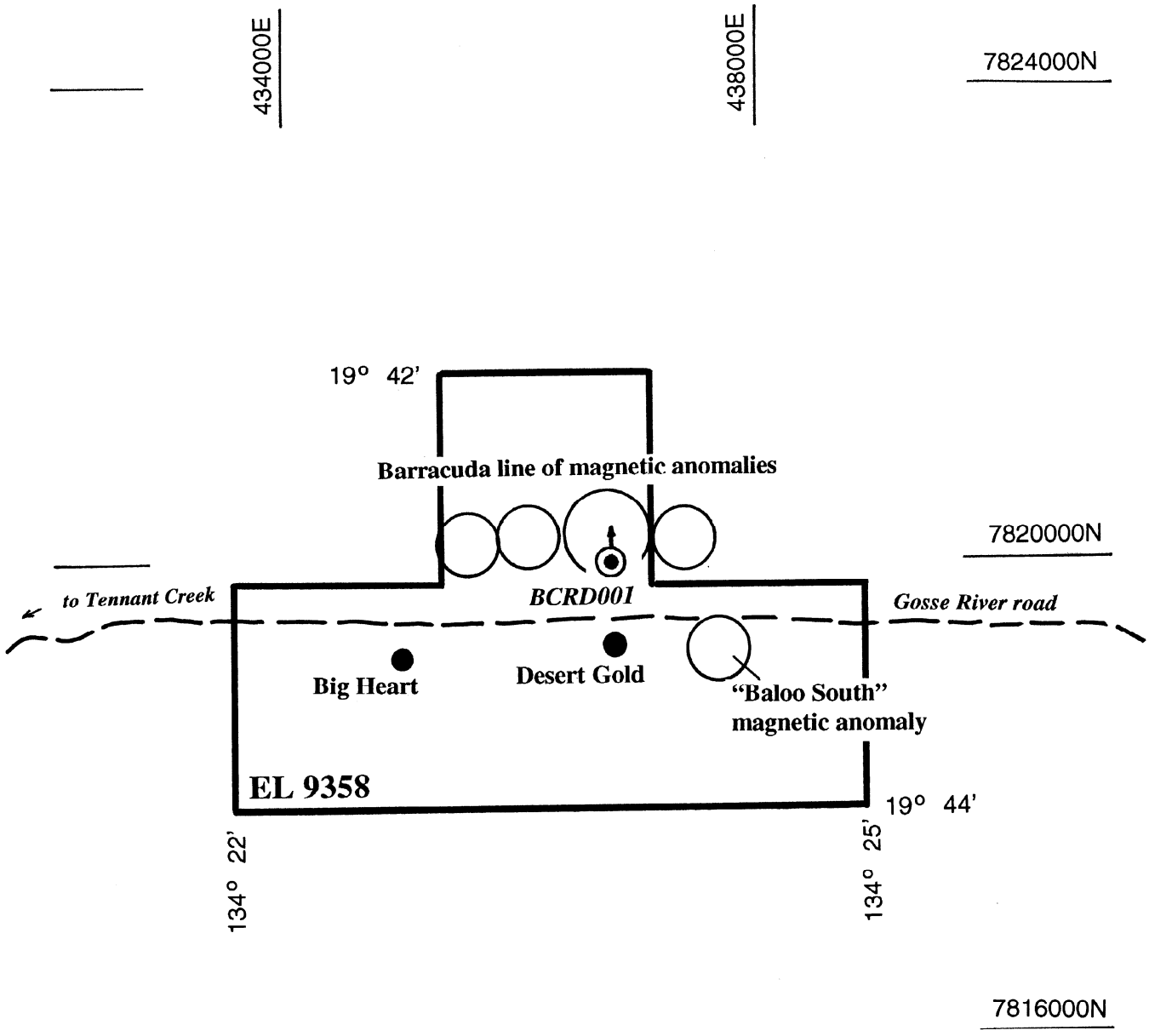


GIANTS REEF MINING LIMITED TENNANT CREEK NORTHERN TERRITORY			
AREA	EL 9358 - *DELTA*		
MAP REF.	5758 TENNANT CREEK 1:100 000		
SUBJECT	Location and Surrounding Tenements *Extract DME MINING TENURE 52/5*		
DATE	AUTHOR	SCALE	
MAY 2001		1:100 000	**FIGURE 1**



EL9358
4 BLOCKS
13 sq kms

GIANTS REEF MINING LIMITED TENNANT CREEK NORTHERN TERRITORY			
AREA	EL 9358 - *DELTA*		
MAP REF.	5758 TENNANT CREEK 1:100 000		
SUBJECT	Licence Area *Extract DME SECOND SCHEDULE*		
DATE	AUTHOR	SCALE	
MAY 1996			**FIGURE 2**



Kilometres

0 1 2 3 4 5

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GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	EL 9358 *DELTA*		
MAP REF	5758 TENNANT CREEK 1:100 000		
SUBJECT	LOCATIONS OF PROSPECTS AND MAGNETIC ANOMALIES		
DATE	AUTHOR	SCALE	
MAY 2001	PGS	1 : 50,000	**FIGURE 3**

APPENDIX 1

EL 9358 DELTA

MICROMINE GEOLOGICAL DATABASE FILES

BAR_COLL.dat	Drillhole locational data
BAR_SURV.dat	Drillhole survey data
BAR_GEOL.dat	Drillhole lithological data
BAR_SAMP.dat	Drillhole geochemical data
Readme.txt	Explanatory notes
Legend V3.pdf	Lithological logging codes

README PLEASE - EL9358 DELTA FIFTH ANNUAL REPORT

BAR_COLL,BAR_SAMP,BAR_SURV,BAR_GEOL have been directly extracted from Giants Reef Mining Limited
geological data management system - Micromine. These files can be opened using standard
Microsoft software.

Steve Russell
Exploration Geologist
Giants Reef Mining

GIANTS REEF MINING LIMITED

GEOLOGICAL LEGEND

ROCK CODE COLUMN

Volcanic

Vu	Undifferentiated
Vb	Basic volcanic
Vf	Felsic volcanic
Vr	Rhyolite
Vt	Tuff

Intrusives

Iu	Undifferentiated
Ib	Gabbro
Id	Dolerite
Ig	Granite
Il	Lamprophyre
Im	Monzonite
In	Granodiorite
Io	Diorite
Ip	Porphyry

Sedimentary

Su	Undifferentiated
Sc	Conglomerate
Sb	BIF
Sh	Shale
Si	Limestone
Sl	Siltstone
Sm	Mudstone
Ss	Sandstone
St	Chert
Sw	Greywacke
Sx	Sedimentary Breccia
Sz	Quartzite

Metamorphic & Replacement

Ma	Amphibolite
Md	Dolomite
Mg	Gneiss
Mi	Ironstone
Mj	Jasper
Ms	Schist
Qz	Quartz

Alteration Rocks

(Used only if alteration is strong, minimum 4 on scale)

Achl	Chlorite rock
Asi	Silicified rock
Atl	Talc rock
Aun	Undifferentiated

Regolith/Overburden

Oa	Alluvium
Ob	Calcrete
Oc	Soil/Colluvium
Od	Unconsolidated Sand
Og	Gravel
Oh	Hardpan
Ol	Laterite/Ferricrete
Os	Silcrete
Oy	Clay

COLOUR COLUMN

be	beige
bk	black
bl	blue
br	brown
dk	dark
gbr	grey-brown
gn	green
gy	grey
lt	light
or	orange
pk	pink
pu	purple
rbr	red-brown
rd	red
wh	white
ybr	yellow-brown
ye	yellow

TEXTURE/FABRIC COLUMN

ba	banded
bd	bedded
bx	brecciated
cg	coarse-grained
fd	folded
fg	fine-grained
fo	foliated
fr	fractured
ft	faulted
ma	massive
mg	medium-grained
pi	pisolitic
pr	porphyritic
sh	sheared
vfg	very fine-grained

Faults/Breccias

(Must be used with one or more rock codes e.g. AchlFz or SlBx, core logs only)

Bx	brecciated
Fz	Fault zone

WEATHERING COLUMN

W	Weathered
T	Transitional
F	Fresh
H	Water Table (Hydro)

ALTERATION COLUMNS

Fe	Iron minerals
Cl	Chlorite
Tl	Talc
Do	Dolomitisation
Si	Silicification

Iron minerals

feox	undiff. Iron oxides
go	goethite
he	hematite
li	limonite
mt	magnetite

Alteration Intensity on 1 – 5 Scale

1 = very weak
5 = very strong

VEINING COLUMN

(written as %volume)

Qv	Quartz veining
Cv	Carbonate veining

MINERALISATION COLUMN

(Written as symbol + intensity, ie; cp1 = weak chalcopyrite)

as	arsenopyrite
az	azurite
bi	bismuthinite
bo	bornite
cc	chalcocite
cp	chalcopyrite
ch	chrysocolla
ga	galena
ma	malachite
mc	marcassite
py	pyrite
po	pyrrhotite
sp	sphalerite

DESCRIPTION COLUMN

mn	manganiferous
se	sericite

APPENDIX 2

1 x FILE
TCStructure_Assay.xls

EL 9358 ROCK CHIP STRUCTURAL AND GEOCHEMICAL DATA SET

data as received from

Dr Nicole Adshead-Bell

STRUCTURAL AND ASSAY DATA COLLECTED

These two files can be opened using Microsoft excel or a similar program. This data has not been modified by Giants Reef Mining and is exactly as received from Dr Nicole-Adshead Bell.

Steve Russell
Exploration Geologist
Thursday, May 25, 2001