



**EL 22732 MT YOUNG  
COX RIVER DISTRICT, NT**

**ANNUAL REPORT**

**ON EXPLORATION ACTIVITIES  
YEAR ONE OF TENURE  
27 SEPTEMBER 2002 – 26 SEPTEMBER 2003**

**GRAVITY CAPITAL LIMITED  
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**SUMMARY**

EL 22732 “Mt Young” was acquired by Gravity Capital Limited from BHP Billiton soon after it was granted, as part of a diamond exploration venture involving Gravity, Gravity’s 40% associated company, Diamond Mines Australia Pty Ltd and BHP Billiton. These companies also have a diamond exploration arrangement with Rio Tinto Exploration covering a large number of Rio Tinto-controlled tenements in the Northern Territory.

During the first year of tenure, on the basis of encouraging diamond sampling data from nearby tenements, a Falcon™ airborne gravity gradiometer survey was flown over a substantial part of the Mt Young tenement. Results are yet to be received.

Year 1 expenditure on the tenement was \$21, 504.

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1. EL 22732 Tenement Location
2. Hodgson Project Area Tenements

## **INTRODUCTION**

EL 22732 was granted to BHP Billiton Minerals Pty Ltd (“BHPB”) on 27 September 2002. BHPB was at that time in advanced negotiation with Gravity Capital Limited (“Gravity”) concerning the deployment of the Falcon™ airborne gravity gradiometer system. The Falcon™ system is a unique exploration tool developed by BHPB and it has particular application in diamond exploration. Gravity was in the process of forming joint venture arrangements for diamonds and for base metals, which would utilise the Falcon™ system and BHPB agreed to transfer title to EL 22732 to Gravity on the basis that if Falcon™ was deployed over the EL, then BHPB would have some potential rights to discoveries made by the system.

BHPB and Gravity concluded the arrangement on Falcon™ deployment during the year (ASX announcement 01/07/2003) and also formed a joint venture, through its 40% owned associated company, Diamond Mines Australia Pty Ltd (“DMA”) with Rio Tinto Exploration, concerning the diamond and base metal exploration over a large number of Rio Tinto-controlled tenements in the Northern Territory) (ASX announcement 25/07/2003).

On the basis of the agreements, Gravity (on behalf of DMA) commenced diamond exploration in the Northern Territory during July 2003.

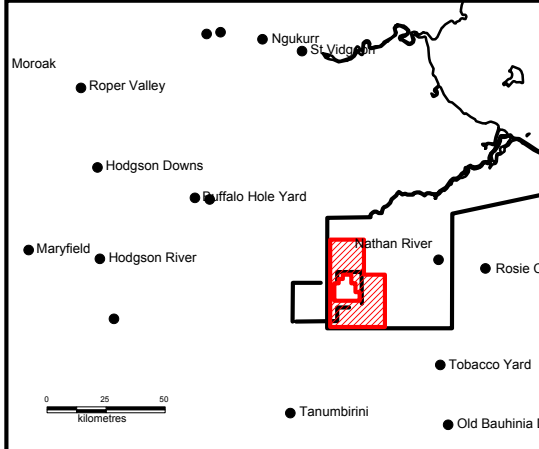
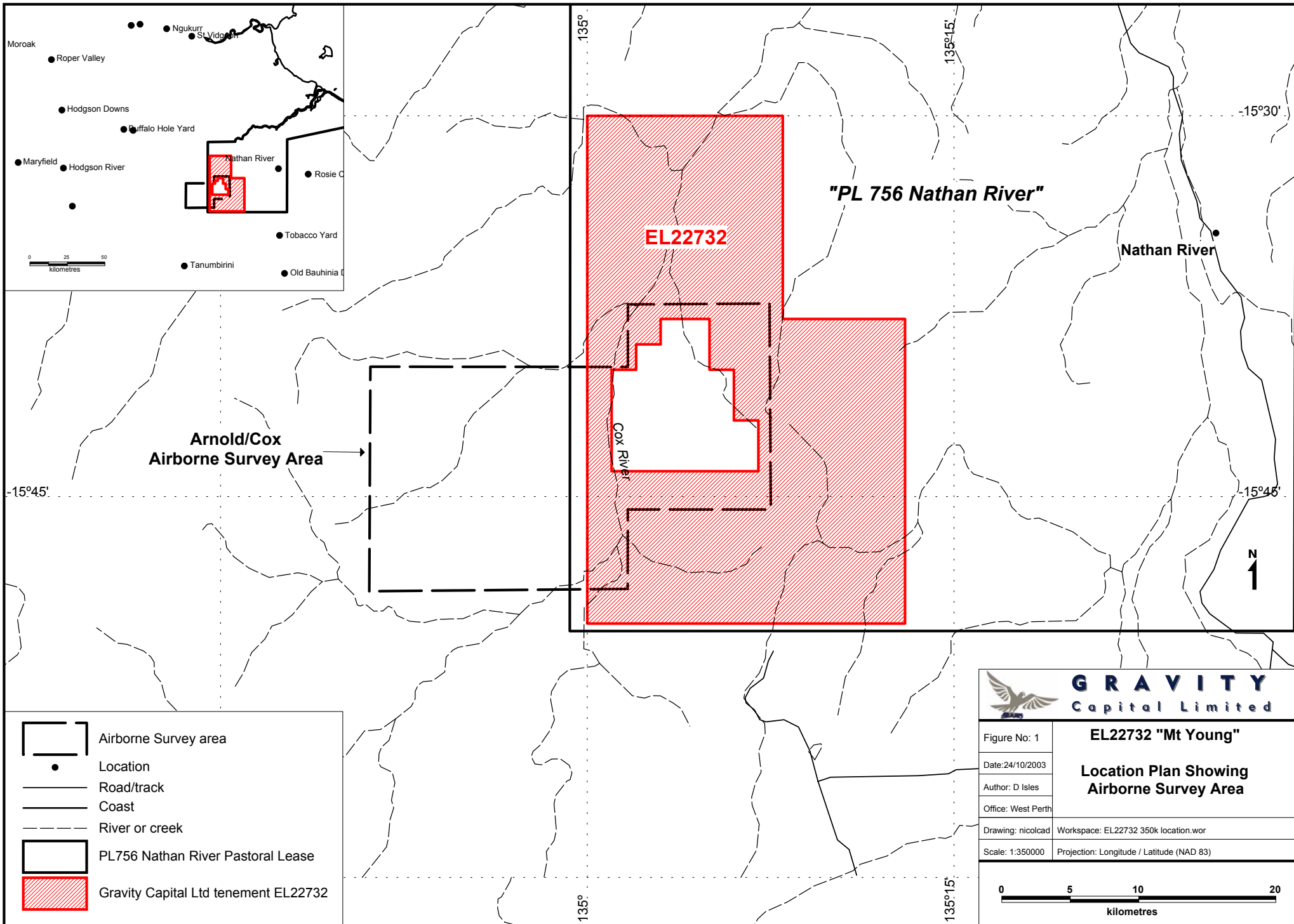
In essence, the agreements provide for DMA to deploy the Falcon™ system and earn an interest in any discovery. BHP Billiton retains a right to buy into DMA’s interest in any discovery. Gravity is managing all exploration for DMA.

The flying program which covered parts of EL 22732 also included coverage of ELs controlled by Rio Tinto (and included in the Rio Tinto – Gravity Capital – DMA joint venture) and other EL application areas by Gravity.

The principal target in the area is diamonds with some interest also directed toward base metal deposits.

## **LOCATION AND ACCESS**

EL 22732 is located 25 kilometres west of Nathan River homestead in the Gulf Region of the Northern Territory. The tenement lies in the south west part of the pastoral lease and is accessible via station tracks (figure 1).



Arnold/Cox  
Airborne Survey Area








"PL 756 Nathan River"

EL22732

Nathan River

Cox River

N  
1

-  Airborne Survey area
-  Location
-  Road/track
-  Coast
-  River or creek
-  PL756 Nathan River Pastoral Lease
-  Gravity Capital Ltd tenement EL22732


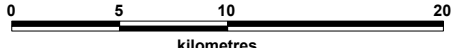
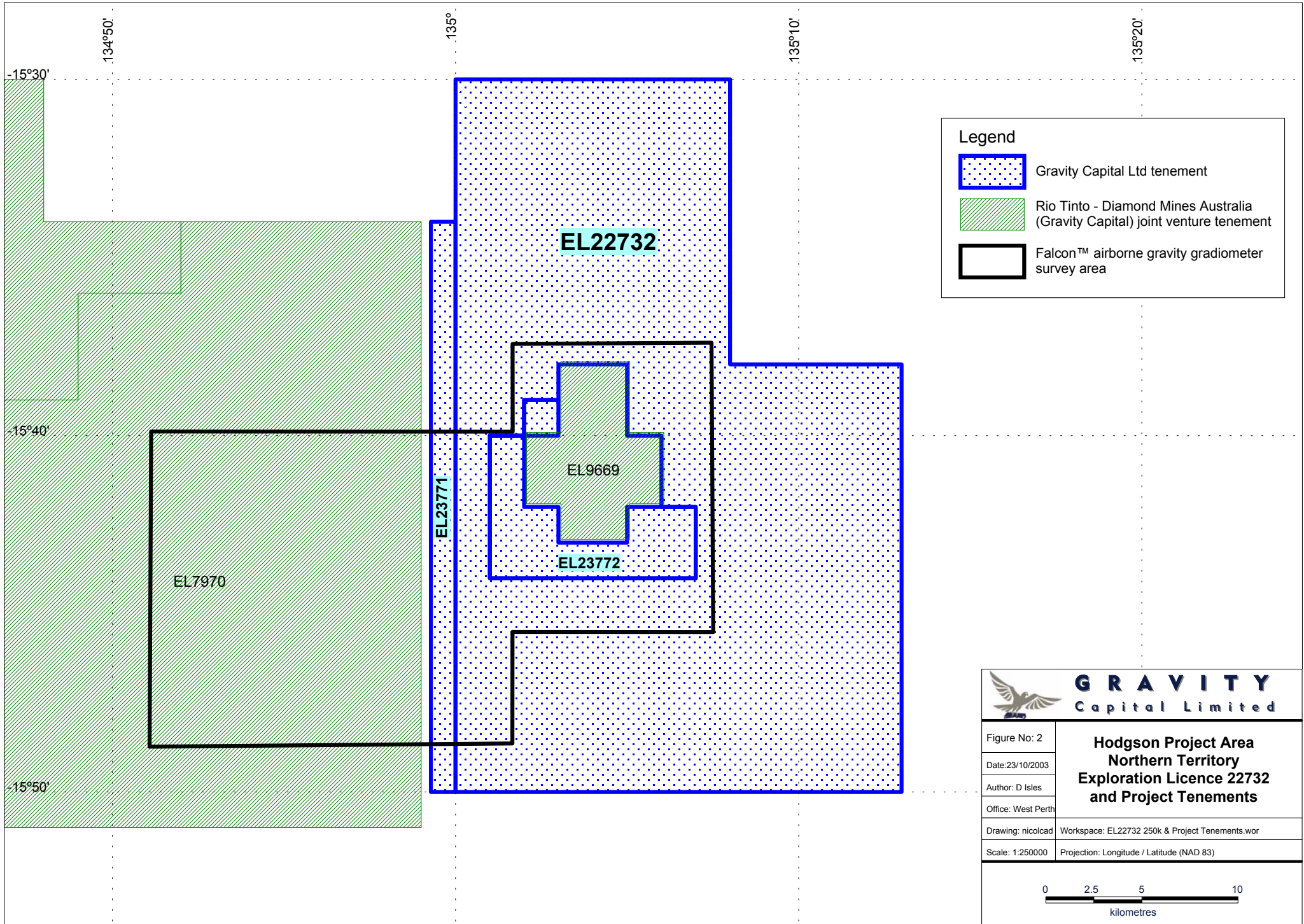


Figure No: 1	<b>EL22732 "Mt Young"</b>
Date: 24/10/2003	<b>Location Plan Showing Airborne Survey Area</b>
Author: D Isles	
Office: West Perth	
Drawing: nicolcad	Workspace: EL22732 350k location.wor
Scale: 1:350000	Projection: Longitude / Latitude (NAD 83)


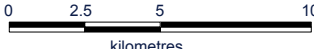


kilometres



**Legend**

-  Gravity Capital Ltd tenement
-  Rio Tinto - Diamond Mines Australia (Gravity Capital) joint venture tenement
-  Falcon™ airborne gravity gradiometer survey area

 <b>GRAVITY</b> Capital Limited	
Figure No: 2	<b>Hodgson Project Area          Northern Territory          Exploration Licence 22732          and Project Tenements</b>
Date: 23/10/2003	
Author: D Isles	
Office: West Perth	
Drawing: nicolcad	Workspace: EL22732 250k & Project Tenements.wor
Scale: 1:250000	Projection: Longitude / Latitude (NAD 83)
	

## **GEOLOGICAL SETTING**

The northern part of EL 22732 comprises gently deformed mid Proterozoic Roper River Group sediments of the McArthur Basin. In the southern part, the Roper River Group is overlain by the Bukalara Sandstone, which forms the basal part of the Cambrian Georgina Basin sequence. The area is of low relief, being drained by the Cox River and exposure is relatively poor.

The principal exploration target in the area is diamonds. The area lies within the northern Australian Craton “microdiamond field” which extends from the Camooweal region of NW Queensland to the East Kimberley district in north west WA. The diamondiferous “Packsaddle” kimberlite dykes area located 120km to the north west of the tenement and the Merlin diamond field lies approximately 200km to the south east.

While the McArthur Basin is known for its base metal potential, known occurrences are rare in the Roper River Group and exploration for lead, zinc and copper are a low priority.

## **WORK COMPLETED IN YEAR 1**

Review of available geophysical and geochemical data was carried out indicating considerable potential for diamondiferous kimberlites. Neighbouring tenements which form part of the Gravity Capital – Diamond Mines Australia – Rio Tinto “Northern Australia Diamonds” Joint Venture contain numerous microdiamonds and kimberlitic indicator minerals.

On this basis, a Falcon™ airborne gravity gradiometer survey was planned and flown in August-September 2003. In addition to the gravity gradiometer data, the Falcon™ system records total magnetic intensity and laser scanner data, which is used to construct a very accurate (1m vertical resolution) digital elevation model.

The Falcon™ system was developed by BHP Billiton in the late 1990s and has since shown a remarkable ability to detect kimberlite pipes.

The survey was flown on east-west oriented lines, 100m apart at a height of 80m above ground level.

Data processing was in progress at the time of this report.

## **ENVIRONMENT AND REHABILITATION**

No on-ground work was carried out during the reporting period. The airborne survey involved no impact on the environment and hence no requirement for rehabilitation.

## CONCLUSIONS AND RECOMMENDATIONS

EL 22732 lies within an area of strongly anomalous kimberlitic indicator sampling results and a critical part of the tenement has now been flown with the Falcon™ system. The results of the airborne survey are due in November 2003 and interpretation should be complete before year end.

Recommendations for further exploration will be based on the interpretation of the Falcon™ data.

## PROPOSED EXPLORATION BUDGET

Falcon™ Survey – acquisition and processing costs	\$100,000
Interpretation costs	\$7,500
Field reconnaissance	\$20,000
Sampling and sample analysis costs	<u>\$20,000</u>
	<u>\$147,500</u>

## EXPENDITURE STATEMENT

Tenement rental	\$1,930
Legal/Tenement administration costs	\$1,206
Professional personnel costs	\$3,640
Data processing / computing costs	\$1,224
Cartography	\$725
Travel and accommodation costs	\$279
Falcon™ airborne geophysical survey costs (pro rata mobilisation charge)	<u>\$12,500</u>
	<u>\$21,504</u>