



**EL 23772 MT YOUNG
COX RIVER DISTRICT, NT**

ANNUAL REPORT

**ON EXPLORATION ACTIVITIES
YEAR TWO OF TENURE
19 AUGUST 2004 – 18 AUGUST 2005**

**GRAVITY DIAMONDS LIMITED
(ABN - 72 009 178 689)
Level 7, Exchange Tower
530 Little Collins Street, Melbourne, Victoria, 3000**

EL 23772
Holder: Gravity Diamonds Limited
Grant Date: 19 August 2003
1:250,000 Sheet : **Mt Young SD 53-15,**
Minerals Sought: Diamonds, Base metals

SUMMARY

EL 23772 “Mt Young” was granted to Gravity Capital Limited on the 19 August 2003. 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 and also over neighbouring tenements.

The survey was completed on September 27th, 2003 and acquired a total of 5153 linear kilometres of gravity gradiometer, magnetics, and laser scanner data. Approximately 9% of this survey was contained within EL 23772.

Data was processed by BHP Billiton’s Falcon Operations Group and delivered to Gravity Capital in November 2003. Gravity Capital Limited changed its name to Gravity Diamonds Limited in October 2004 to reflect its exclusive focus on diamond exploration.

Detailed interpretation, anomaly ranking and exploration targeting from the Falcon survey by Gravity Diamonds was completed during 2004. No priority targets were identified within EL 23772 but one target area warranting field reconnaissance was recognised. In addition to this, a number of targets have been identified in adjacent EL’s currently being explored by Gravity. Several of these lie close to the boundary of EL 23772 and drainage sampling is proposed within EL 23772 to assist evaluation of these targets.

Year 2 expenditure on the tenement was \$6,129.

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INTRODUCTION

EL 23772 “Mt Young” was granted to Gravity Capital Limited (“Gravity”) on the 19 August 2003. Gravity was at that time in advanced negotiation with BHPB 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.

BHPB and Gravity concluded the arrangement on Falcon™ deployment during 2003 (ASX announcement 01/07/2003) and also formed a joint venture, through its 100% owned subsidiary, 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 23772 also included coverage of Exploration licenses controlled by Rio Tinto (and included in the Rio Tinto – Gravity Capital – DMA joint venture) and other EL application areas by Gravity. Gravity Capital Limited changed its name to Gravity Diamonds Limited in October 2004 to reflect its focus on diamond exploration.

LOCATION AND ACCESS

EL 23772 is located 30 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).

GEOLOGICAL SETTING

The northern part of EL 23772 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.

PREVIOUS EXPLORATION

Two small, low grade kimberlitic dykes (Packsaddle and Blackjack) were discovered by Stockdale in the late 1980's on the north east of the Hodgson Project area some 100km NE of EL 23772. These small dykes contain diamonds with low grades and shed kimberlitic chromite into drainages. Surface sampling by both CRAE and Ashton was completed over the majority of the project area during the 1980's with some subsequent infill sampling during the 1990's. This sampling identified widespread macrodiamonds, microdiamonds and indicator minerals, mainly chromite, across the project area (Figure 2). The geochemistry of the chromite suggests they are derived from both kimberlitic and non-kimberlitic sources.

As mentioned above, an agreement covering much of the Rio Tinto-controlled diamond exploration tenements in northern Australia was finalised in July 2003 between Rio Tinto and DMA. A review of available geophysical and sample data was carried out by Gravity (managing the project on behalf of DMA) during the current reporting period and this confirmed the potential for diamondiferous kimberlites to be located within the Arnold River tenement block.

On this basis, a Falcon™ airborne gravity gradiometer survey was planned and acquired in August and September, 2003.

The survey was completed on September 28th, 2003 and acquired a total of 5153 linear kilometres of gravity gradiometer, magnetics, and laser scanner data. Falcon™ coverage was obtained over an area of approximately 43 km² within EL 23772 approximating to 9% of the survey (see 2004 annual report).

WORK COMPLETED IN YEAR 2

Data processing and interpretation from the Falcon survey was completed during 2004. No priority targets were identified in EL 23772 but one target area requiring field reconnaissance was recognised (figure 3). A number of targets were recognised in adjacent tenements close to the EL 23772 boundary and evaluation of these targets is likely to require drainage sampling within EL 23772. The field work within EL 23772 was planned as part of the program to test all targets resulting from the Falcon survey in the region, however this program was delayed due to problems in completing the access and work program approval process.

Sampling within the EL is now scheduled for October 2005.

ENVIRONMENT AND REHABILITATION

No on-ground work was carried out during the reporting period and hence there was no requirement for rehabilitation.

CONCLUSIONS AND RECOMMENDATIONS

Exploration license 23772 occurs in an area that is considered prospective for diamonds as anomalous kimberlitic indicator mineral results have been recovered nearby.

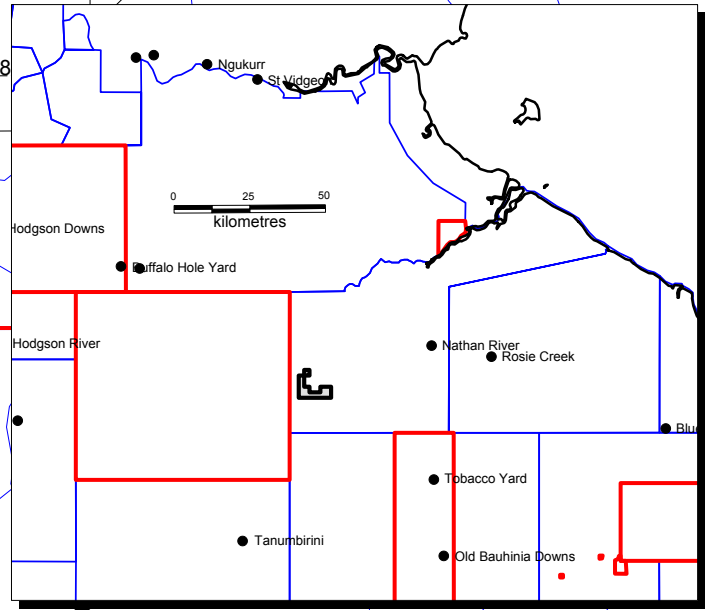
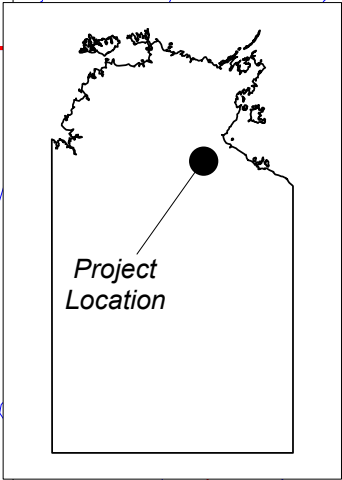
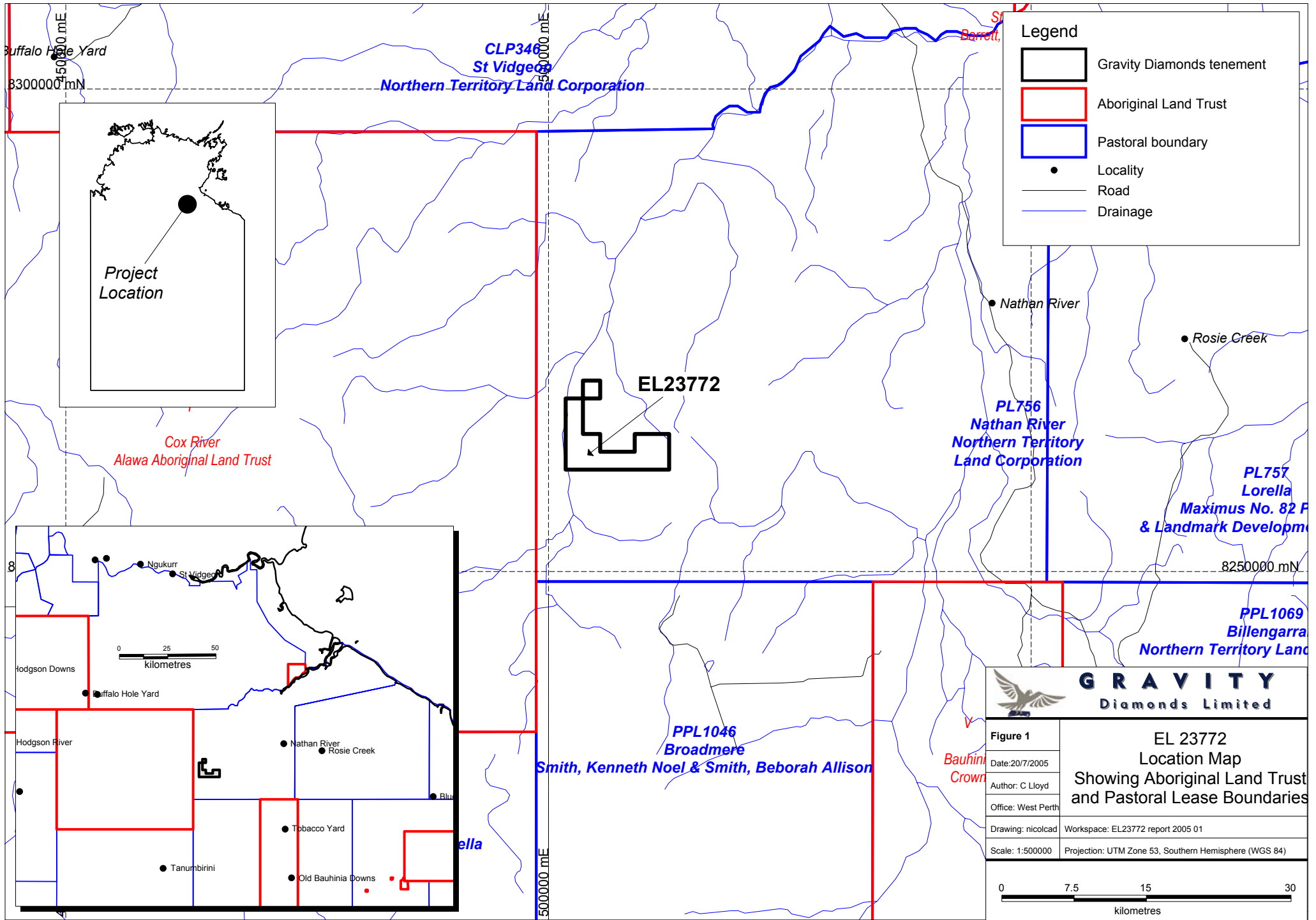
A Falcon airborne gravity gradiometer survey has been flown over much of the EL area but no priority targets for kimberlite pipes have been identified from this data. A low order Falcon target has been recognised within the EL and several other targets have been identified on adjacent EL's under the control of Gravity Diamonds. Ground sampling is recommended within EL 23772 to further the evaluation of these targets.

EXPENDITURE STATEMENT

Legal/Tenement management costs	\$ 1,635
Professional personnel costs	\$ 2,400
Data processing / computing costs	\$ 962
Cartography	\$ 256
Travel and accommodation costs	\$ 320
Administration/overhead	<u>\$ 556</u>
Total	<u>\$ 6,129</u>

PROPOSED EXPLORATION BUDGET

Field support & logistics	\$ 2,500
Sampling and sample analysis costs	\$ 3,500
Personnel costs	\$ 4,500
Tenement maintenance, access, clearances	\$ 1,500
Office support, computing, cartography	\$ 1,500
Administration, legal, overhead	<u>\$ 1,500</u>
Total	<u>\$15,000</u>



Legend

- Gravity Diamonds tenement
- Aboriginal Land Trust
- Pastoral boundary
- Locality
- Road
- Drainage



Figure 1	
Date: 20/7/2005	EL 23772 Location Map Showing Aboriginal Land Trust and Pastoral Lease Boundaries
Author: C. Lloyd	
Office: West Perth	
Drawing: nicolcad	Workspace: EL23772 report 2005 01
Scale: 1:500000	Projection: UTM Zone 53, Southern Hemisphere (WGS 84)

