# ASX/AIM RELEASE

**ASX & AIM Code: GRN** 



# **Quarterly Report for the period ended 30 September 2006**

- Bulk sampling program commences at ABN 021
- Gravel sample results return chromites at Ellendale
- Luebo follow-up sampling underway in priority areas
- Kasai Craton regional sampling results identify four priority blocks for aeromagnetic surveys

#### Northern Australia Diamonds, Northern Territory

Bulk sampling program commences at Abner Range.

Follow-up sampling programs were completed at Tee Dee and Cox-Arnold.

#### Ellendale-Blina, Western Australia

Chromites were recovered from all samples collected from thin gravel horizons encountered in exploration pits targeting the palaeochannels.

#### Kasai Craton – Democratic Republic of Congo ("DRC")

Detailed follow-up sampling programs are underway over high priority prospect blocks on the Kasai craton.

Aeromagnetic surveys covering four blocks to commence shortly.

#### Corporate

Gravity raised A\$5.02 million through a private placement to Mwana Africa Plc.



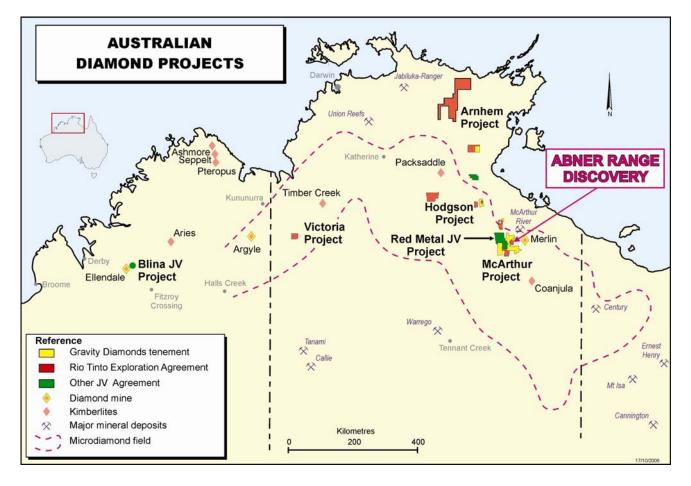
## FORTHCOMING ACTIVITIES

Project	Location	Exploration Activity Planned	Timetable
Northern Australia Diamonds	Northern Territory	Fly HoistEM survey; Bulk sampling at ABN 021; Abner Range district drilling	October - December
Ellendale-Blina	Western Australia	Evaluate sample results from pitting program of interpreted palaeochannels and Kimberley 45	November – December
Kasai Craton	DRC, Africa	Follow-up close-spaced sampling of priority KIM anomalies; Aeromagnetic surveys over four blocks	October - December

The following programs are planned for the December 2006 quarter:

## AUSTRALIAN PROGRAMS

Exploration programs advanced on the Northern Australia Diamonds Program with the commencement of bulk sampling at ABN 021 and completion of sampling programs at Tee Dee and Cox-Arnold. At Ellendale/Blina, results were received for the Kimberley 45 bulk sample and gravel horizons within the interpreted palaeochannels.





#### NORTHERN AUSTRALIA DIAMONDS AREA – Northern Territory

This program area covers exploration projects carried out under the following terms:

- an Exploration Agreement with Rio Tinto Exploration Pty Limited; Gravity can earn 51%;
- a Joint Venture with Red Metal Limited; Gravity can earn 80%; and
- projects held 100% by Gravity.

#### Abner Range (McArthur Project)

#### ABN 021 (Rio Tinto Exploration Agreement)

During the quarter, vehicular access to the Abner Range plateau, site of the ABN 021 kimberlite, was re-established. Track work was completed, upgrading the access roads for heavy machinery and equipment associated with proposed bulk sampling and drilling programs.

The much anticipated bulk sampling program of the ABN 021 kimberlite pipe commenced at the end of the quarter. It is planned to excavate 300 to 400 tonnes of kimberlite from various positions within the pipe, beginning the assessment of the potential diamond grade of ABN 021. A commercial arrangement has been reached with North Australian Diamonds Limited for the recovered kimberlite material to be processed through a Mark III Dense Media Separation plant at its Merlin Mine, located some 50 kilometres to the east of the Abner Range. The program is expected to be completed during the December quarter, with initial diamond recovery results due early in 2007.

# Abner Range – District Exploration (Rio Tinto Exploration Agreement; plus Gravity Diamonds Limited 100% owned ground)

The previously announced helicopter-borne transient electromagnetic survey (HoistEM) of the Abner Range district commenced in early October with 3,000 line kilometres of 80 metre flight line data to be collected. It is expected that data generated from this detailed survey will facilitate the detection of small, as well as large, kimberlite targets and serve to screen Gravity's existing, but as yet untested, FALCON® targets. In addition, the survey will extend detailed geophysical coverage to adjacent tenements held 100% by Gravity and to areas nearby the ABN 021 kimberlite where indicator minerals with no known source have been recovered.

Final completion of the survey is expected during the last week in October with preliminary interpretation of data and target generation scheduled for early November. This rapid turnaround in data interpretation will allow Gravity to sample high priority targets later in the month.

#### Abner Range – District Exploration (Gravity Diamonds Limited 100%)

Results were received from the limited sampling program completed on Gravity's tenements surrounding the Abner Range in the previous quarter. The gravel samples returned generally negative or low priority results. Additional sampling of the other selected sample sites, which were previously inaccessible due to river and stream flows, is planned before the onset of the northern wet season.



A meeting was held with Traditional Owners at Borroloola in early August regarding Gravity's Exploration Licence Applications which lie within the area covered by Balbirini Station, immediately adjacent to the Abner Range. Consent for negotiations to begin was received.

#### Abner Range – District Exploration (Red Metal JV)

Fieldwork commenced within the Red Metal joint venture area during the quarter. Three gravel samples were collected from drainages where historic sampling had reported significant chromite values. Results from this program are awaited before planning follow-up exploration for this area.

#### **Other Projects – Northern Australia Diamonds**

Follow-up field programs were completed at Cox-Arnold and Tee Dee areas during the quarter. Results were also received from sampling in the Tanaburs area.

#### **Cox-Arnold – Hodgson Project (Rio Tinto Exploration Agreement)**

During September, detailed follow-up sampling of the previously reported Cox002 FALCON® anomaly and 'Sample 159817' in the Cox 022 drainage basin was completed. Both areas returned numerous chromites of possible kimberlitic origin from Gravity's earlier sampling program. The aim of the program is to locate the source of the chromites in adjacent drainages.

The current program comprised 22 gravel samples and one loam sample, primarily focused on small tributaries within the 9.8 square kilometre area of the Cox022 drainage basin and directly on the sand covered Cox002 anomaly. All samples have been submitted to Diatech Heavy Mineral Services in Perth for processing and indicator mineral recovery.

#### **Tee Dee – Victoria Project (Rio Tinto Exploration Agreement)**

A follow-up work program was completed upstream of the TD033 FALCON® anomaly where Gravity's initial sampling returned 15 chromites. The anomalous sample drainage area is adjacent to a zone of intense loam and gravel sampling, with few reported positive results, carried out by previous explorers Stockdale Prospecting and Ashton Mining. Seven samples were taken during this program. Heavy mineral analysis will be carried out by Diatech in Perth, with results expected during the December quarter.

# **Tanaburs – McArthur Project (Rio Tinto Exploration Agreement; plus Gravity Diamonds Limited 100% owned ground)**

A single gravel sample collected from a small drainage within Gravity's tenement holding reported 15 chromites during the quarter. Electron microprobe data from these chromites is currently being evaluated as historic samples collected downstream within this drainage have reported high counts of chromite, some possibly kimberlitic in origin. All FALCON® features upstream of this sample are being reassessed.

#### **Benda-Arnhem Project (Rio Tinto Exploration Agreement)**

No field work was undertaken at Benda during the quarter.



# ELLENDALE-BLINA JV – Western Australia (50/50 JV with Blina Diamonds NL; Blina Managing)

Results were received from bulk sampling of the Kimberley 45 lamproite and from sample pit programs across interpreted palaeochannels to the north of Blina's E9 North palaeochannel.

The recently discovered lamproite pipe Kimberley 45, within the Blina/Gravity joint venture area, was bulk tested with approximately 225 tonnes of lamproite from the central portion of the body processed at Blina's Dense Media Separation plant. No diamonds were recovered and no further work is planned on this pipe.

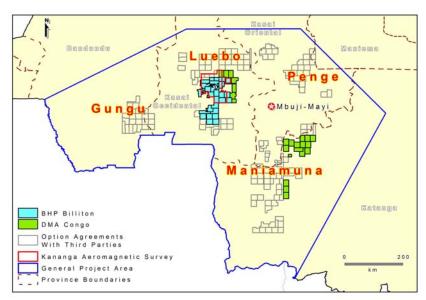
The pitting program was designed to evaluate curvilinear features interpreted as palaeochannels and potentially related to the Ellendale 9 North alluvial deposits. A total of 57 pits were excavated across the interpreted palaeochannels at three localities. Although a major palaeochannel was not identified, gravel horizons were recorded in several of the pits.

Samples of these gravels were collected and submitted to Blina's processing facility in Perth for the recovery of indicator minerals. Lamproitic chromites were identified in all samples. The data for this area is being reviewed prior to any further follow-up.

## DEMOCRATIC REPUBLIC OF CONGO PROGRAM

#### **KASAI CRATON (BHP Billiton Framework Agreement and Various Third Party Option** Agreements)

The Kasai craton diamonds program is comprised of four main project areas of focus for Gravity's diamond exploration activities: Luebo, Penge, Maniamuna and Gungu.



During the quarter, all field operations were temporarily suspended over the July-August period while the DRC held its first democratic elections in 45 years. By September, field teams had remobilised to the Luebo base camp to commence a detailed follow-up sampling program designed to assist with further assessment of aeromagnetic targets in this area. Also finalised were new areas for aeromagnetic surveying within three of the Kasai projects.



#### Luebo Project

Following an extensive review of all data collected for this area, this project has now been prioritised into numerous prospect-size blocks for detailed follow-up work. On 26 September, field crews were remobilised to the work areas where two separate field camps were established supporting six 4-man sampling crews. Follow-up sampling has commenced in six priority areas; Sasaie, Lubembe, Dibinga, Kabunji-Nzemba, LUMAG137 and Yabanse. To mid-October, this program, with an average sample density of one per five to eight square kilometres, had sampled a total of 133 sites. It is anticipated that approximately 400 samples will be taken in the high priority part of the block of tenements, with full results expected to be available towards the end of the year.

Treatment and observation of the coarse fraction (1-4mm) from each sample is being carried out at the Luebo base camp by experienced laboratory staff from MSA Geoservices in South Africa. This system is facilitating the rapid identification of highly prospective areas for immediate follow-up. The -1mm pan concentrates are being shipped to South Africa for processing and picking.

The aim of this program is to map out the source areas of the KIM anomalies identified in the regional sampling, leading to the prioritisation of areas and selection of targets for the next stage of drilling.

#### Infill Sampling

Results were received for the coarse fractions (1-2mm and 1-4mm) from the infill/follow-up sampling programs completed in a number of high priority catchments in the Luebo area in June.

Laboratory results have returned numerous samples yielding large numbers of pyrope garnets and ilmenite. In addition, several samples have returned chromites and olivine grains which have been submitted for microprobe analysis. The occurrence of both of these minerals is significant in terms of an indication of proximity to source, as both of these are rarely transported over significant distances. These results are being evaluated to define a more constrained area as the potential source of the original regional KIM anomaly. Significantly, many of the drainages shedding these indicators are also subject to intense mining activities by local artisans. Further close-spaced sampling in this area is planned.

#### Drill Core Heavy Mineral Results

No additional results have been received from heavy mineral analysis of the further 49 core samples taken from holes that contained Kwango Series sediments which were submitted for heavy mineral analysis reported on last quarter.

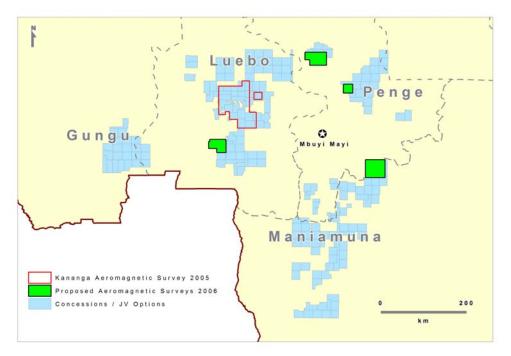
#### Drill Core Petrography Results

In August, five drill core samples from LUMAG064 were submitted to a consulting geologist for petrographic analysis to identify whether fragments contained within the samples were kimberlitic. The report indicated that two of the specimens contained rare fragments of possible kimberlitic material and, as such, could be crater-facies or distal re-sedimented kimberlitic rocks. However, the proportions of possible kimberlitic material were too low and weathered to allow definitive classification. Gravity is encouraged by this finding, suggesting the possible close proximity to kimberlite, and is incorporating the results into planning further follow-up work.



#### Penge, Maniamuna and Luebo Projects – 2006 Aeromagnetic Surveys

During the quarter, the areas selected for flying with aeromagnetics were finalised. These consist of four survey blocks in three of the Kasai project areas; two blocks on the Penge project, one block at Maniamuna and one block on the Luebo project.



These areas have been selected on the basis of positive kimberlitic indicator results/anomalies from the regional sampling program – the respective parameters are summarised below:

Survey Block Name	Project	Area (km <sup>2</sup> )	Line km
Luzambo	Penge	1,360	12,305
Lubefu	Penge	450	4,109
Katshimu	Luebo	1,040	9,394
Luembe	Maniamuna	1,870	16,847
Total		4,720	42,655

UTS Geophysics will collect approximately 40,000 line kilometres of data at a line spacing of 125 metres and terrain clearance of 50 metres. The flying is expected to commence in November and will take approximately two months to complete. The next stage will involve data interpretation for kimberlite target identification and appropriate field programs.

#### **Gungu Project**

Work on this project has focused on a regional geological interpretation of the available Landsat imagery, placing the positive heavy mineral and geochemical results within a geological context. This interpretation is expected to be completed during the December quarter.



#### **Non Diamond Minerals**

The ongoing review of the regional geochemical data collected along with the heavy mineral samples, identified a number of large anomalous areas prospective for base and precious metals. Landsat geological interpretation of these areas is in progress to provide additional data for assessing these anomalies and enable planning of follow-up programs.

#### **Ground Rationalisation**

The extensive review of the regional heavy mineral picking results allowed for further significant ground reductions across all four project areas during the quarter. A total of 79 permits covering an area of approximately 29,000 square kilometres was submitted for relinquishment, in line with Gravity's strategy to focus on key areas of the Kasai craton.

#### CORPORATE

On 4 August 2006, Gravity announced that, through a private placement to another AIM-listed resources company, Mwana Africa Plc, the company had raised a further A\$5.02 million. Mwana, pursuing its goal to build a substantial business in the DRC, invested in 20.1 million shares at A\$0.25 per share. Earlier this year, Mwana entered the diamond industry by acquiring a 20% stake in the DRC's top diamond producer, the Societe Miniere de Bakwanga, the operator of the Mbuji Mayi diamond mines in the DRC and holder of substantial areas of prime diamond ground. This funding will be largely directed at the continued exploration in the Kasai Shield, one of the world's most under-explored diamond areas.

The information in this report that relates to Exploration Results is based on information compiled by Gravity Diamonds Limited's Managing Director, Phillip Harman BSc (Hons), who is a member of The Australasian Institute of Mining and Metallurgy. Mr Harman has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity undertaken. He is qualified as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Harman has consented to the inclusion of this information in the form and context in which it appears in this report.

For further details please contact:

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Rule 5.3

# **Appendix 5B**

# Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

#### **GRAVITY DIAMONDS LIMITED**

ABN

72 009 178 689

Quarter ended ("current quarter")

#### **30 SEPTEMBER 2006**

#### Consolidated statement of cash flows

Cash flows related to operating activities		Current quarter	Year to date (three months)	
			\$A'000	\$A'000
1.1	Receipts from product sales	and related debtors	6	6
1.2	Payments for (a) explore	tion and evaluation	(1,003)	(1,003)
	(b) develo	pment	-	-
	(c) produc	tion	-	-
	(d) admini	stration	(437)	(437)
1.3	Dividends received		-	-
1.4	Interest and other items of a	similar nature received	25	25
1.5	Interest and other costs of fin	nance paid	-	-
1.6	Income taxes paid		-	-
1.7	Other – recoupment of explo	ration expenditure	_	-
	Net Operating Cash Flows		(1,409)	(1,409)
	Cash flows related to inve	sting activities		
1.8	Payment for purchases of:	(a) prospects	-	_
		(b) investments	-	_
		(c) other fixed assets	(6)	(6)
1.9	Proceeds from sale of:	(a) prospects	_	-
		(b) investments	-	-
		(c) other fixed assets	16	16
1.10	Loans to other entities		-	-
1.11	Loans repaid by other entitie	S	-	_
1.12	Other		_	-
	Net investing cash flows		10	10
1.13	Total operating and investing (carried forward)	g cash flows	(1,399)	(1,399)

<sup>+</sup> See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	(1,399)	(1,399)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	5,020	5,020
1.15	Proceeds from sale of forfeited shares	_	_
1.16	Proceeds from borrowings	_	_
1.17	Repayment of borrowings	_	_
1.18	Dividends paid	-	_
1.19	Other – cost of issue	(11)	(11)
	Net financing cash flows	5,009	5,009
	Net increase (decrease) in cash held	3,610	3,610
1.20	Cash at beginning of quarter/year to date	967	967
1.21	Exchange rate adjustments to item 1.20	(1)	(1)
1.22	Cash at end of quarter	4,576	4,576

## Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

		\$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	115
1.24	Aggregate amount of loans to the parties included in item 1.10	-

#### 1.25 Explanation necessary for an understanding of the transactions

Payment of directors' fees, salaries, superannuation and retainers in relation to the provision of exploration and management services to the group

#### Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

<sup>+</sup> See chapter 19 for defined terms.

## Financing facilities available

Add notes as necessary for an understanding of the position.

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	_	-
3.2	Credit standby arrangements	_	-

### Estimated cash outflows for next quarter

	Total	1,200
4.2	Development	-
4.1	Exploration and evaluation	1,200
		\$A'000

# **Reconciliation of cash**

the co	nciliation of cash at the end of the quarter (as shown in nsolidated statement of cash flows) to the related items accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	2,021	912
5.2	Deposits at call	_	-
5.3	Bank overdraft	_	-
5.4	Other – Term Deposit	2,555	55
	Total: cash at end of quarter (item 1.22)	4,576	967

#### Changes in interests in mining tenements

		Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed				
6.2	Interests in mining tenements acquired or increased				

<sup>+</sup> See chapter 19 for defined terms.

# **Issued and quoted securities at end of current quarter** Description includes rate of interest and any redemption or conversion rights together with prices and dates.

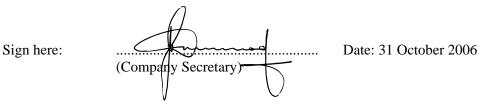
		Total number	Number quoted	Issue price per security (see note 3)	Amount paid up per security (see note 3)
				(cents)	(cents)
7.1	Preference <sup>+</sup> securities (description)				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	+Ordinary securities	153,953,753	153,953,753		
7.4	Changes during quarter				
	(a) Increases through issues	20,080,000	20,080,000	25	25
	(b) Decreases	150	150	50	50
	through returns of capital, buy-backs				
7.5	+Convertible debt				
	securities (description)				
7.6	Changes during quarter				
	(a) Increases through issues				
	(b) Decreases				
	through securities matured, converted				
7.7	Options			Exercise price	Expiry date
	GRNO	6,564,794	6,564,794	50	30 November 2007
	GRNAK	6,000,000	-	38.808	30 September 2014
	GRNAM	2,350,000	-	33.808	30 November 2009
	GRNAO	2,200,000	_	43.808	8 April 2008
	GRNAQ	1,000,000	_	60.808	17 May 2010
	GRNAS	200,000	-	50	26 February 2011
7.8	Issued during quarter				
7.9	Exercised during quarter				
	GRNO	(150)	(150)	50	
7.10	Expired during quarter				

<sup>+</sup> See chapter 19 for defined terms.

7.11	Debentures (totals only)	
7.12	Unsecured notes (totals only)	

# **Compliance statement**

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Law or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Print name: M J S Drummond

# Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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<sup>+</sup> See chapter 19 for defined terms.