EL 23994 'TANABURS NE'
McARTHUR RIVER REGION NT

ANNUAL REPORT

ON EXPLORATION ACTIVITIES
YEAR 2 OF TENURE
8 September 2006 – 7 September 2007

Submitted by

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

EL 23994 Tanaburs NE
Holder: Gravity Diamonds Ltd
Grant Date: 08 Sept 2004
1:250,000 Sheet: **Bauhinia Downs SE 53-03,**
Minerals Sought: Diamonds, Base metals

SUMMARY

EL 23994 "Tanaburs NE" was granted to Gravity Diamonds Ltd ("Gravity") on 8 September 2004. The EL forms part of broader project area where Gravity is conducting diamond exploration, much of which is under an exploration agreement with Rio Tinto group companies and Diamond Mines Australia (DMA), which is a 100%-owned subsidiary of Gravity.

During 2003 and 2004, DMA through an exclusive arrangement with BHP Billiton deployed the Falcon® Airborne Gravity Gradiometer system in diamond exploration in Australia. The Falcon® system has proved an effective diamond exploration tool since its development by BHP Billiton in the late 1990's.

During the first year of tenure Falcon® data was acquired over part of EL 23994. The system includes airborne gravity gradient data, high resolution magnetics and accurate elevation data derived from on-board differential GPS and laser scanner devices. The area of coverage amounted to approximately 27 km² (~295 line kms) .

During the second year of tenure, detailed targeting based on the acquired gravity gradiometer data within the southwestern part of EL 23994 was completed. Although some second order preliminary targets were proposed, no priority targets were identified for followup within the portion of the EL covered by the Falcon survey. A single gravel sample was collected within EL23994 as part of a broader sampling program in the Tanaburs project area. The sample reported negative for kimberlite indicator minerals.

A detailed review of previous diamond exploration within the whole tenement was subsequently conducted during the 3rd year of tenure. This review suggested that whilst previous heavy mineral sampling coverage was adequate, results from Gravity Diamonds sampling programs elsewhere in the Northern Territory that several sampling programs carried out by previous explorers suffered from poor site and sample collection. Additionally advances in heavy mineral processing through micro-DMS plants has increased the recovery and decreased the effective grainsizes of heavy mineral recovered. To test a historic sample reporting 4 chromites, three samples have been collected during the current tenure year.

Expenditure on the tenement during the reporting period totalled **$ 13,238**

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FIGURES

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INTRODUCTION

EL 23994 "Tanaburs NE", which lies approximately 75 kilometres west of Borroloola in the Gulf Region of the Northern Territory, was granted to Gravity Diamonds Ltd ("Gravity") on 8 September 2004. The EL lies within a general area where Gravity is operating a large diamond exploration program, much of which is under an exploration agreement with Rio Tinto group companies and Diamond Mines Australia (DMA), which is a 100%-owned subsidiary of Gravity.

During 2003 and 2004, DMA had an exclusive arrangement with BHP Billiton to deploy the Falcon® airborne gravity gradiometer system in diamond exploration in Australia. The Falcon® system has proved very effective in diamond exploration since its development by BHP Billiton in the late 1990's.

The southwestern part of EL 23994 was included in the Falcon® flying program which covered seven areas in the Northern Territory and focused on areas of strongly anomalous diamond indicator mineral sampling results, obtained from prior work by Rio Tinto and others.

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

LOCATION AND ACCESS

EL 23994 is located near old Bauhinia Downs homestead, approximately 75 kilometres west of Borroloola in the Gulf Region of the Northern Territory. The tenement lies in the central part of the Billengarrah pastoral lease (administered by the Northern Territory Land Corporation) and is accessible via station tracks (Figure 1).

GEOLOGICAL SETTING & ECONOMIC POTENTIAL

EL 23994 lies within the Batten Trough of the Mesoproterozoic McArthur Basin. The N-S trending Tawallah Fault Zone is the largest scale structure in the district and it is regarded as having similar significance to the Emu Fault, which lies 40km east of the tenement and is associated with McArthur River Zn-Pb mine and the Merlin diamond mine, which lies 75km to the south east of the tenement.

The 1800-1400Ma stratigraphy and mineralisation of the Batten Trough, from youngest to oldest, can be summarised as follows:

- Roper Group arenites, shales, iron formations and dolerite sills.

- Nathan Group (or Mt Rigg Group) carbonates that host Zn-Pb mineralisation, eg, the Bulman Zn-Pb deposits.

- McArthur Group fine clastics and carbonates that host strata bound Zn-Pb-Ag and Cu deposits, eg, the HYC (McArthur) Zn-Pb-Ag mine, Batton Zn-Pb and Sly Creek Cu deposits.

- Tawallah Group arenites, black shales and basalts hosting Cu in the Redbank district and U at Westmoreland. There are also a number of Cu occurrences hosted Talwallah Group proximal to the McArthur Project area.

Proterozoic outcrops within the project area are predominantly Tawallah Group.

PREVIOUS EXPLORATION

A number of strata-bound and vein-hosted base metal occurrences hosted by Proterozoic sediments are located near the Scrutton Range which lies west of EL 23994. Several base metal prospects lie within the tenement itself.

A substantial amount of historical diamond exploration work has been carried out in the general vicinity of the tenement.

The main diamond prospect identified to date is the Tanaburs Prospect (also known as Leila Creek) which was identified by Ashton in the 1990s.

Tanaburs is centred on a 6km by 1.5km outlier (plateau) of Cretaceous sediments overlying Tawallah Group and McArthur Group. Ashton noted that the Cretaceous sediments contain fossilised wood fragments similar to those found on the Merlin plateau. The prospect overlies the major, N-S trending Four Archers Fault Zone.

Stream sediment, loam and bulk sampling for diamonds, geomorphological studies, detailed airborne magnetics and drilling have been completed around the Tanaburs area. Macrodiamonds, microdiamonds and indicator minerals (chromite) have been reported from drainages sourced from the Cretaceous sedimentary plateau.

WORK COMPLETED IN YEAR 1

On the basis of historic anomalous diamond and base metal results, a Falcon® airborne gravity gradiometer survey program was conducted over a group of tenements in the Tanaburs area. The southwestern part of EL 23994 was included in this program (figure 2.). 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 survey was flown on north-south oriented lines, 100m apart at a height of 80m above ground level. It covered approximately 27km^2 of the tenement, amounting to a total of approximately 295 line kilometres of survey. Images of the principal data sets resulting from the Falcon® survey are presented in figures 3 to 6. Digital data from the survey have been lodged with DPIFM.

Data processing, interpretation and targeting were also initiated during the reporting year. Initial target areas were defined and first pass field reconnaissance commenced in 2006.

WORK COMPLETED IN YEAR 2

During year 2 of tenure, detailed targeting based on the acquired gravity gradiometer data within the southwestern part of EL 23994 was completed. Although some second order preliminary targets were proposed, no priority targets were identified for followup within the portion of the EL covered by the Falcon survey.

A single gravel sample was collected within EL23994 as part of a broader sampling program in the Tanaburs project area. The sample comprised approximately 50 kg of -1.6 mm material collected from suitable trap site.

The Heavy mineral sample was sent to Diatech Laboratories in Perth for processing through a micro DMS plant and recovery of kimberlite indicator minerals from the -1.2mm +0.3mm fraction of the DMS concentrate. The sample reported negative for kimberlite indicator minerals. A statutory reduction was carried out at the end of Year 2

WORK COMPLETED IN YEAR 3

During the past year of tenure an additional 3 heavy mineral samples were collected from streams in the same drainage catchment as the previously reported historic chromite recoveries. Two of the samples reported negative for kimberlitic indicators, whilst one reported a single chromite of possibly kimberlitic affinity. Again the samples were despatched to Diatech Laboratories in Perth for processing through a micro DMS plant and recovery of kimberlite indicator minerals from the -1.2mm +0.3mm fraction of the DMS concentrate.

Sample No	WGS 84 East	WGS 84 North	Chromite
163960	572935	8209776	0
163963	566791	8214447	0
163980	566138	8213683	1

HMS recovery sheets are attached in Appendix 1.

In conjunction with regional Joint Venture partner Sandfire Resources all openfile aeromagnetic data covering this tenement area has been reprocessed late in the reporting year. Interpretation and targeting is underway and will be reported during the upcoming year. A further statutory relinquishment of blocks occurred during September 2007.

ENVIRONMENT AND REHABILITATION

On-ground exploration activities comprised low impact indicator-mineral sampling. Sampling comprised collection of approximately 50 kg of sieved sample at each site. As access to sample sites was achieved using 4WD's (predominantly utilising existing tracks), there was negligible impact on the environment within EL 23994 and hence no requirement for rehabilitation.

CONCLUSIONS AND RECOMMENDATIONS

EL 23994 lies within an area primarily targeted for its potential to host primary diamond sources – ie kimberlites. Results from the Tanaburs project area have generally been disappointing although exploration by the company in EL23994 and adjacent tenements continues

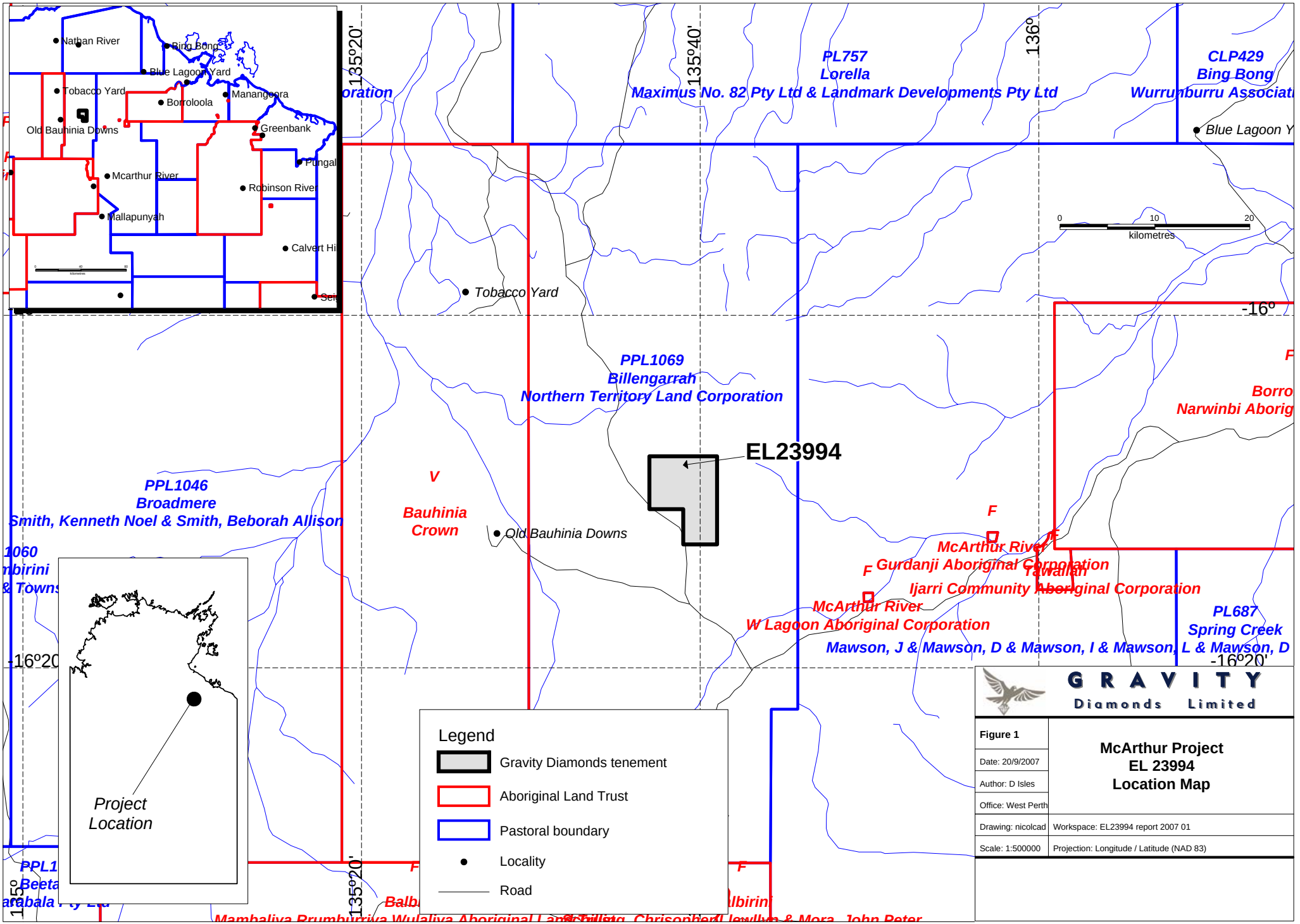
During the past year of tenure further sampling has been carried out within the tenement. A single sample recovered a chromite of possibly kimberlitic origin. As a new compilation of existing aeromagnetic data has been undertaken – further targets in the headwaters of this drainage may be identified and further sampling take place.

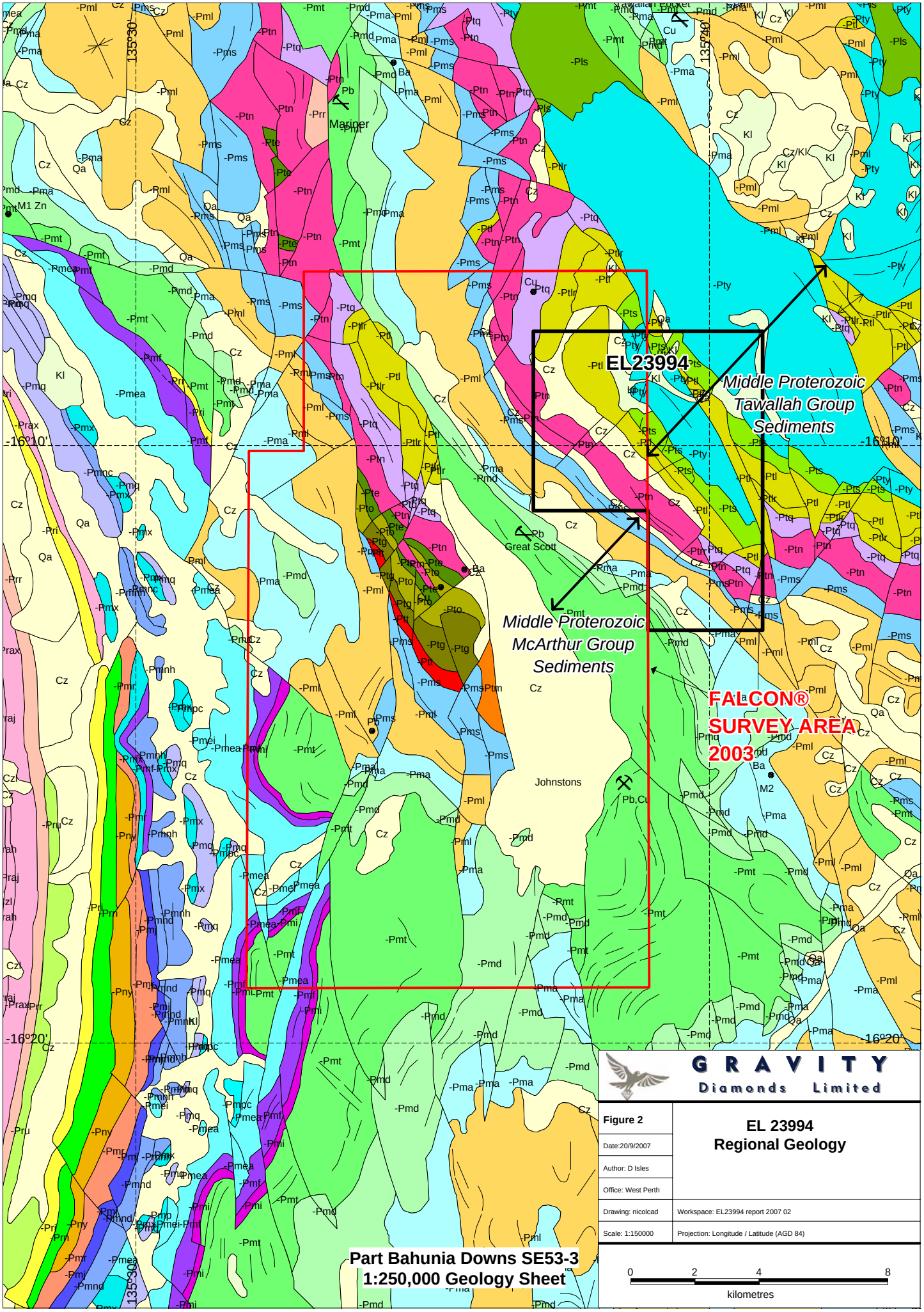
PROPOSED EXPLORATION BUDGET

Professional & Personnel costs	$ 5,000
Sampling and sample analysis costs	$ 5,000
Office support/Administration costs	$ 3,000
TOTAL	**$ 13,000**

EXPENDITURE STATEMENT

Legal/Tenement maintenance costs	$ 440
Assays	$ 2,482
Professional & personnel costs	$ 4,802
Data processing / computing costs	$ 1,206
Helicopter and Vehicle hire	$ 2,230
Office and Field Consummables	$ 210
Communications and Safety	$ 274
Travel and accommodation costs	$ 1,049
Administration/overhead	$ 545
TOTAL	**$ 13,238**


Nathan River
Bing Bong
Blue Lagoon Yard
Tobacco Yard
Borroloola
Manangoora
Old Bauhinia Downs
Greenbank
Mcarthur River
Robinson River
Mallapunyah
Calvert Hi
135°20'
135°40'
136°
PL757
Lorella
Maximus No. 82 Pty Ltd & Landmark Developments Pty Ltd
CLP429
Bing Bong
Wurrumburru Associat
Blue Lagoon Y
Tobacco Yard
-16°
PPL1069
Billengarrah
Northern Territory Land Corporation
EL23994
PPL1046
Broadmere
Smith, Kenneth Noel & Smith, Beborah Allison
V
Bauhinia
Crown
Old Bauhinia Downs
F
McArthur River
Gurdanji Aboriginal Corporation
Ijarri Community Aboriginal Corporation
Tawallah
W Lagoon Aboriginal Corporation
PL687
Spring Creek
Mawson, J & Mawson, D & Mawson, I & Mawson, L & Mawson, D
-16°20'
0
10
20
kilometres
Project
Location
Legend
Gravity Diamonds tenement
Aboriginal Land Trust
Pastoral boundary
Locality
Road
GRAVITY
Diamonds Limited
Figure 1
McArthur Project
EL 23994
Location Map
Date: 20/9/2007
Author: D Isles
Office: West Perth
Drawing: nicolcad
Workspace: EL23994 report 2007 01
Scale: 1:500000
Projection: Longitude / Latitude (NAD 83)

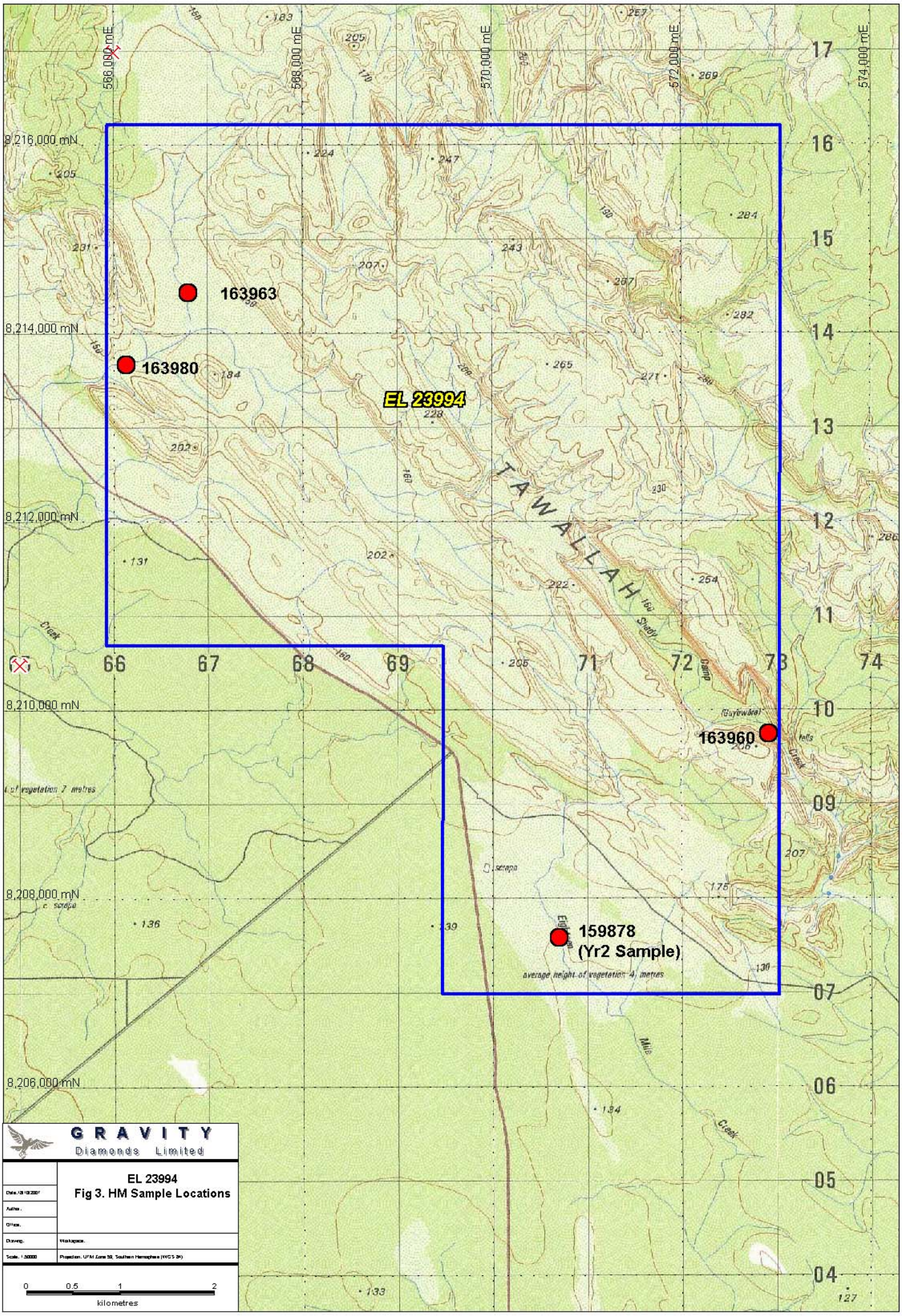


GRAVITY Diamonds Limited

Figure 2	EL 23994 Regional Geology
Date:20/9/2007	
Author: D Isles	
Office: West Perth	
Drawing: nicolcad	Workspace: EL23994 report 2007 02
Scale: 1:150000	Projection: Longitude / Latitude (AGD 84)

Part Bahunia Downs SE53-3
1:250,000 Geology Sheet

0 2 4 8
kilometres


568,000 mE
570,000 mE
572,000 mE
574,000 mE
8,216,000 mN
8,214,000 mN
8,212,000 mN
8,210,000 mN
8,208,000 mN
8,206,000 mN
163963
163980
163960
159878
(Yr2 Sample)
EL 23994
TAWALLAH
average height of vegetation 4 metres
GRAVITY
Diamonds Limited
EL 23994
Fig 3. HM Sample Locations
Workspace.
Projection: UTM Zone 53, Southern Hemisphere (WGS 84)
0 0.5 1 2
kilometres

DIATECH
HEAVY MINERAL SERVICES
Ph 61 8 9361 2596
Fx 61 8 9470 1504

Detailed Heavy Mineral Analysis

Our Job No.: 07096
Disc No.:

Sample No: 163960

Overall Sample Assessment: **Negative**

Your Project Code: Tanaburs

Sample Type (as collected):	Loam	Head Weight	63.3 kg
Sample Type (as received):	Loam	Wet Weight	kg
Observed Sample Type:	DMS Concentrate		

Diamond

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Total particles	Description of these particles

Number of particles in each size fraction

Key Minerals

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)

Number of particles in each size fraction

Other Minerals

% Percentage of particles in each size fraction

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
Anatase					Tr				MW					
Barite					Tr				MW					
Corundum					Tr				MF					
Fe Oxide/Hydroxide			97	95	95				W					
Ilmenite				Tr	Tr				MW					
Leucoxene				Tr	Tr				W					
Phosphate			Tr	Tr	Tr				WW					
Rutile				Tr	Tr				W					
Tourmaline			3	5	5				WW					
Zircon					Tr				WW					
TOTAL	%	%	100%	100%	100%	%	%	%						

What Has Been Observed?

Final Conc Weight	46.650000 g	Size Range	-1.2+0.3 mm
Weight Observed	46.650000 g		

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10
NM			All	All	All			
M6/7			All	All	All			
M4/5			All	All	All			

Technician: JED
Date Observed: 07-Aug-07
Report Printed: 22/08/2007 1:57:24 PM

Comment about this sample:

DIATECH
HEAVY MINERAL SERVICES
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Detailed Heavy Mineral Analysis

Our Job No.: 07096
Disc No.:

Sample No: 163963

Overall Sample Assessment: **Negative**

Your Project Code: Tanaburs

Sample Type (as collected):	Loam	Head Weight	45.62 kg
Sample Type (as received):	Loam	Wet Weight	kg
Observed Sample Type:	DMS Concentrate		

Diamond

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Total particles	Description of these particles

Number of particles in each size fraction

Key Minerals

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)

Number of particles in each size fraction

Other Minerals

% Percentage of particles in each size fraction

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
Anatase					Tr				W					
Barite					Tr				MW					
Corundum				Tr	Tr				MF					
Fe Oxide/Hydroxide			100	95	95				W					
Leucoxene				Tr	Tr				W					
Phosphate				Tr	Tr				WW					
Rutile				Tr	Tr				W					
Tourmaline			Tr	5	5				WW					
Zircon					Tr				WW					
TOTAL	%	%	100%	100%	100%	%	%	%						

What Has Been Observed?

Final Conc Weight	53.609999 g	Size Range	-1.2+0.3 mm
Weight Observed	53.609999 g		

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10
NM			All	All	All			
M6/7			All	All	All			
M4/5			All	All	All			

Technician: JED
Date Observed: 07-Aug-07
Report Printed: 22/08/2007 1:58:22 PM

Comment about this sample:

DIATECH
HEAVY MINERAL SERVICES
Ph 61 8 9361 2596
Fx 61 8 9470 1504

Detailed Heavy Mineral Analysis

Our Job No.: 07099
Disc No.:

Sample No: 163980
Overall Sample Assessment: **Unresolved**
Your Project Code: Tanaburs

Sample Type (as collected):	Loam	Head Weight	28.18 kg
Sample Type (as received):	Loam	Wet Weight	kg
Observed Sample Type:	DMS Concentrate		

Diamond

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Total particles	Description of these particles

Key Minerals

	mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)
Chromite/Cr-Spinel						1				MW	C1	1		C	B
black, twinned rounded octahedra															

Other Minerals

	mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10	Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
Fe Oxide/Hydroxide				100	100	100				W					
Leucoxene						Tr				W					
Tourmaline				Tr	Tr	Tr				WW					
Zircon						Tr				WW					
TOTAL		%	%	100%	100%	100%	%	%	%						

What Has Been Observed?

Final Conc Weight	24.890000 g	Size Range	-1.2+0.3 mm
Weight Observed	24.890000 g		

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+.8	+.4	+.3	+.25	+.20	+.10
NM			All	All	All			
M6/7			All	All	All			
M4/5			All	All	All			

Technician: JED
Date Observed: 23-Aug-07
Report Printed: 3/09/2007 10:37:21 AM

Comment about this sample: