

QUARTERLY REPORT

March 2006

Highlights

- On April 7 2006, Arafura successfully raised \$5.58 million through a shareholder share purchase plan (SSPP) through the allotment of 17,468,478 shares. This will increase the Company's cash position to over \$7 million.
- Completion of phase one metallurgy at ANSTO returns successful results for the separation and recovery of rare earth minerals and phosphate. Stage one optimisation in progress before starting stage 2 of the 4 stage process.
- Strong unconformity style uranium anomalies located on Arafura Resources Lagoon Creek tenement EL 23573.
- Aerial geophysics of the Lucy Creek tenement EL 24716 outlines a large zone of uranium mineralisation grading up to 566 ppm (1.25lb/tn) uranium oxide
- Territory Iron upgrades the France Creek iron resources to 4.5 million tonnes at 60.6% Fe on Arafura tenements. Mining expected in late 2006.
- Arafura plans an exploration program of up to \$2.0 million in 2006 in gold and uranium.
- Laramide Resources proposes to spend in excess of \$800,000 on Arafura's Lagoon Creek uranium tenement in the next six months.
- Territory Iron plans an exploration expenditure of \$350,000 on Arafura's Frances Creek tenements and mining development expenditure of at least \$2.0m.
- Strong market outlook in demand and price for rare earths, gold and uranium puts Arafura's short term and medium term growth plans in a sound position to capture real value.

This report contains the two sections. Section 1 contains the activities of Arafura Resources for the period commencing 1 January 2006 to 31 March 2006. Section 2 contains the proposed activities for the June 2006 quarter and an outline of other activities going forward for the remainder of the year.

Section 1 Activities undertaken in the March 2006 Quarter.

Rare Earths - Nolans Bore

Overview

Arafura has successfully drilled a resource of phosphate hosted rare earths and uranium mineralisation at Nolans Bore that supports a mine life of at least 20 years. The drilling indicates that the resource remains open in all directions providing scope for more resources and the ability to target higher grade zones. Metallurgical test work has returned encouraging results from the initial phase of works at ANSTO (the Australian Nuclear Science and Technology Organisation). Initial results indicate recovery of rare earths ranges from 65% to 95% of the feed grade. Further test work is expected to optimize the recovery process.

The progress report indicates that the most effective process route for the recovery of commercial grades of products is;

- Step 1. A mild acid digestion (pre-leach) that dissolves 65% of the phosphate rich rock.
- Step 2. A stronger acid digest of the remaining 35% rare earth rich solid phase.
- Step 3. A hydrochloric digestion to recover rare earth minerals as a rare earth concentrate

Highlights of the test work.

The test work has shown that a mild nitric or hydrochloric acid pre-leach digest has many benefits to the ultimate processing route. These are:

- 1. A small grinding circuit with a coarse grind size (lower operating and capital costs)
- 2. Significantly smaller reagent chemical usage at all stages (lower cost)

3. A smaller rare earth treatment plant with lower capital and treatment costs. For example, Figure 2 demonstrates the potential options for low cost high grade processing.
4. The ability to produce saleable by-products of phosphate
5. Early stage rare earth production that has few impurities

The test work has indicated that commercial products of rare earth are possible. The successful rejection of thorium remains highly probable.

Process Results

The ANSTO results have indicated that a three (3) step process provides the best results for the recovery of rare earths and allows the opportunity to recovery phosphate and uranium.

The Nolans Bore rock contains two dominant minerals. Apatite¹ is a phosphate dominated mineral and cheralite² is a rare earth dominated mineral. Apatite dissolves easily in mild acid while cheralite requires harsher acid conditions.

A diagrammatic flowchart of the process is included in Figure 1.

Step 1 – Mild acid “pre-leach”

An initial mild acid digestion of the feed rock effectively digests all the apatite minerals into solution but not the cheralite. At this stage of the process 65% of the rock mass dissolves into solution. The solution contains 90% of the phosphate, 94% of all calcium, 85% of the fluorine, 40% of the uranium and 35% of the rare earths in the feed material. An acid concentration of 10 to 20% was used³.

¹ The Nolans Bore rock is strictly a fluorapatite. This is a fluorine, calcium and phosphate rich rock that contains rare earths.

² Cheralite is a complex rare earth and thorium rich phosphate mineral

³ The test work was successful with both hydrochloric and nitric acid. Pure nitric acid is 70% strength that can be diluted to 10% strength.

Step 2 – Rare earth treatment

The solid phase contains the cheralite minerals that have the majority of rare earths and uranium, and all the thorium. This solid phase contains 35% of the rock mass and 10% of the phosphate, 6% of the calcium, 15% fluorine, 65% of the rare earths and 60% of the uranium in the feed grade.

Recovery of the rare earths from the solution

Recovery of the rare earths from the solution from Step 1 is generally undertaken by re-precipitation of a rare earth phosphate from solution. High recoveries should be anticipated for this process and will be the subject of further test work programs.

Recovery of rare earths from the solid phase

Recovery of rare earths from the solid phase from Step 2 has been assessed using two process routes; caustic and sulphuric acids.

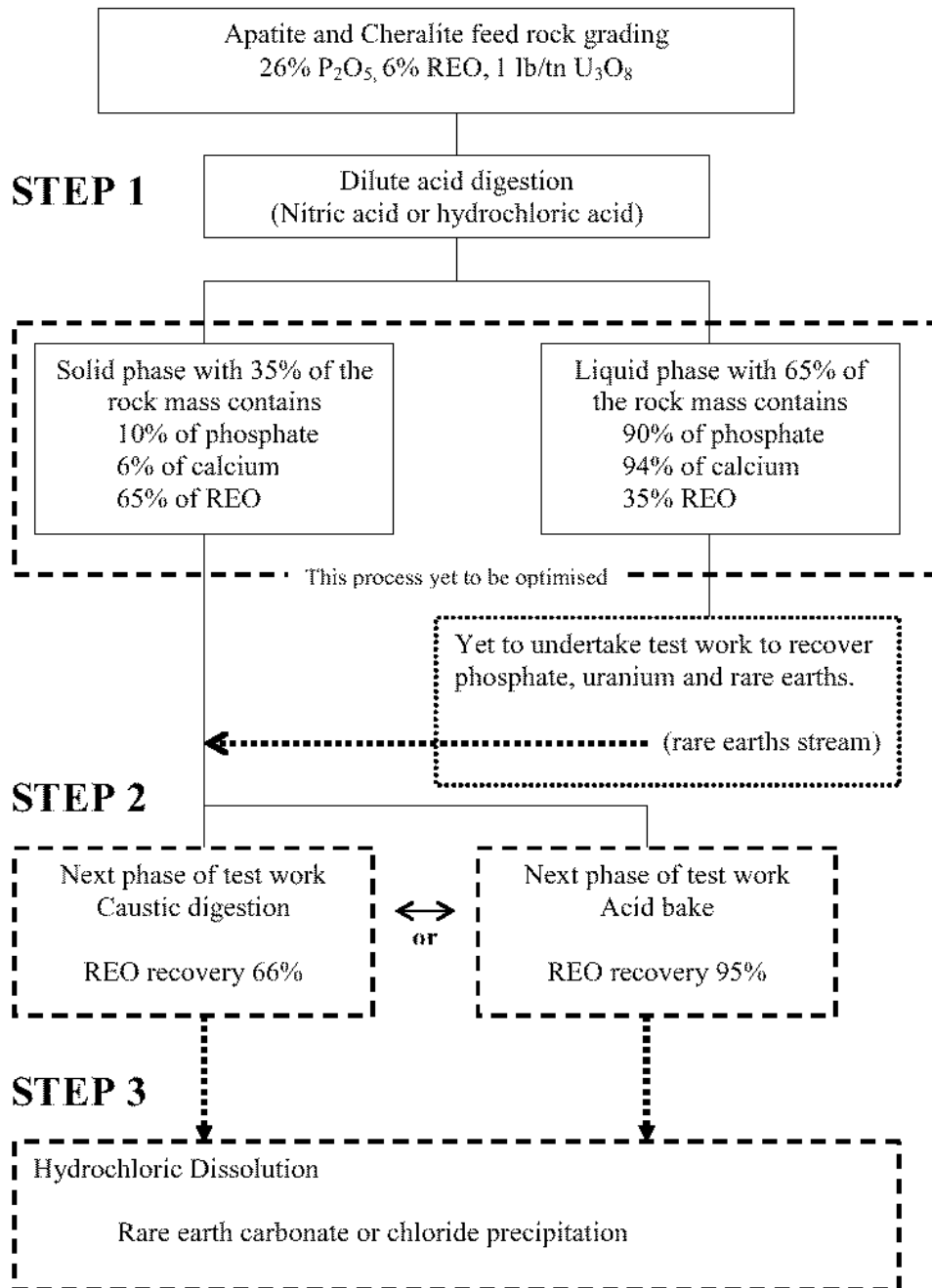
Caustic Acid

The residue from Step 1 was treated with caustic acid. A rare earth carbonate concentrate was produced with indicative recoveries of 66% of the feed grade. The product contained levels of thorium that were slightly higher than commercially acceptable levels. Test work indicates that a lower level of calcium at this phase improved RE recovery and thorium rejection, and will be the subject of further assessment.

Sulphuric Acid

The residue from Step 1 was treated with a hot sulphuric acid bake. A rare earth sulphate salt (concentrate) was produced with recoveries of 95% of the feed grade. The product contained levels of thorium higher than commercially acceptable but these could be reduced to acceptable levels with further test work.

Figure 1: The Nolans Bore process flowchart.



Strategy forward

The scope of stage two of the test work is currently under way. The next stage will focus on:

1. Optimise the acid pre-leach process in Step 1. This will target the optimisation of phosphate recovery into solution. In addition, the improvement of calcium recovery at this

stage improves the rejection of thorium and the recovery of rare earths at later stages of processing.

2. Assess the best recovery process (caustic or sulphuric) for rare earths from the solid phase in Step 2.
3. Determine the recovery of phosphate and rare earths from the solution in Step 1.

Summary of Test Work

These results of the test work are very encouraging. They have identified a metallurgical process that will minimise both capital and operating costs while optimising the recovery of key commodities like rare earths and phosphate. While uranium recovery is yet to be tested, a large piece of the metallurgical process has been identified to unlock the wealth and value of Nolans Bore project. Test work is continuing.

Marketing – Rare Earths

The market for products containing rare earth products continues to grow strongly. The most influential products in the rare earth market are;

Cerium, a critical material in catalysts for the control of vehicle exhaust emissions and also used in the petroleum refining industry and glass industry,

Lanthanum, used in nickel mixed hydride rechargeable batteries which are used extensively in fuel efficient hybrid cars.

and **Neodymium**, a key product for high powered, high strength, efficient magnets used in the electric motors of fuel efficient hybrid cars.

Other products like **europium** and **terbium** are used extensively in the electronics industry for colour phosphors in products like plasma and LCD screens.

The biggest growth market for rare earths lies in the hybrid car market, a major user of rechargeable batteries and high strength magnets. This market continues to grow in popularity

as the economy looks for fuel efficient transport and a reduction of greenhouse gas pollutants. Most major car manufacturers have aggressive growth plans for the hybrid car market that could replace 15% of the worlds new car manufacture (or 9 million cars) by 2010 with hybrid cars. Total rare earth demand could increase by 50% to 150,000 tonnes by 2010.

**With rising oil prices the demand for rare earth
minerals used in fuel efficient hybrid car
technology will rise dramatically.**

Rare earths minerals are a strategically important commodity and major economies are stockpiling these critical commodities. An article in “The Financial Express”⁴ reports that Japan plans to stockpile commodities like rare earths used in high technology goods because of concern that rising demand from the Chinese economy will create supply shortages. Japan is also looking for alternative measures to stabilise supply of a number of key strategic mineral including rare earths. Arafura has approached JOGMEC (the Japanese Oil, Gas and Metals National Corporation) for interest in the development of the Nolans Bore rare earth resource.

**Rare earths are a key material for phosphors used for
colour in display screens (like plasma screens) in a
rapidly growing electronics industry**

The demand for electronic equipment and fuel efficient hybrid electric cars creates an environment for high demand for rare earth products. In addition, the high concentrations of high value rare earths like neodymium (US\$10,000 per tonne) and europium (US\$300,000 per tonne) means that Arafura is well placed to capture unique value and returns from Nolans Bore rare earth products.

⁴ The Financial Express dated 24 March 2006; locatable at http://www.financialexpress-bd.com/index3.asp?cnd=3/29/2006§ion_id=24&newsid=20078&spcl=no

Uranium

In 2006, the price of U_3O_8 increased to US\$41 per pound (3 April 2006) and the outlook for supply growth and price increase is strengthening further. Arafura has been granted access to over 7,500 square kilometers of uranium prospective ground in the Northern Territory. While regional exploration on all tenements will progress through 2006, Arafura's main drilling programs will focus on the Lucy Creek project 250 kilometres NNE of Alice Springs and Lagoon Creek project through our Laramide Joint Venture.

Lagoon Creek (100% ARU, Laramide earning up to 60%)

Airborne geophysical exploration on Arafura's Lagoon Creek tenement (EL23573) has identified strong uranium anomalies. This tenement is located within the Northern Territory against the Queensland border and 25 kilometres along strike from the Westmoreland uranium field. Uranium mineralisation is located along the unconformity contact between the Westmoreland conglomerate and overlying volcanic rock sequences. Mineralisation also has a strong structural control. Previous drilling in the district has intersected mineralisation in widths of 1 to 20 metres with grades of 0.07% to 2.4% U_3O_8 .

Laramide Resources Ltd. Has proposed an exploration program of approximately \$800,000 on EL 23573 to the end of August 2006, including 2,500 metres of drilling.

Lucy Creek (100% ARU)

The Lucy Creek tenement (EL24716) is located within the Northern Territory approximately 250 kilometres NNE of Alice Springs. Airborne geophysical exploration has identified a discrete and strong uranium radiometric anomaly extending over a strike length of 6.5 kilometres and a width of 300 to 1200 metres. Uranium grades of 1.25 lb/t have been returned in rock chip sampling in selected locations. The area has not been explored before, and a limited number of rock chip samples have been taken by Arafura from the project area.

Yalyirambi, Burt Plain, Sandover and Woodforde River (100% ARU)

The projects of Yalyirambi (EL), Burt Plain (EL), Sandover (EL) and Woodforde River (EL) are located north of Alice Springs around the Reynolds Range district approximately 130 kilometres north of Alice Springs. These tenements also form part of extensive tenement holdings around the Nolans Bore project tenement called Aileron.

The tenements cover extensive accumulations of Tertiary aged sediments that are 10 to 300 metres thick. These sedimentary basins have accumulated from the erosion of basement rocks some of which contain elevated values of uranium, as well as the erosion of the Nolans Bore project that contains uranium values up to 1.1lb/t U_3O_8 . An assessment of water bores in the district has also identified elevated values of uranium in water and the potential for the deposition of uranium in geochemical traps called REDOX fronts. Some of these basins also contain extensive layers of lignite, a carbon rich (peat like) material that is a favored location for the enrichment of uranium mineralisation through chemical precipitation and enrichment.

Arafura is currently compiling all relevant information on these basins with the view of potentially drilling these tenements in 2007.

Gold

In April 2006 the gold price strengthened to over A\$800 per ounce. The strong return to gold price and its firm outlook place Arafura in a good position to realize the value of our gold tenements.

Mt Porter (100% ARU)

Mt Porter contains a small resource of 34,200 ounces of gold at relatively high grade, open pit minable resource located 15 kilometres from the Union Reefs mill in the Pine Creek district of the Northern Territory. The resource is contingent on the recommencement of the Union Reefs mill to be able to realise any value to Arafura from mining and processing. The project contains a defined resources (and JORC compliant), an agreement with the NLC for mining

and the majority of the components for a Public Environmental Report (PER). On the completion of a hydro geological survey, the PER can be finalised for submission and clear the way for mining. The company is currently assessing its position with Mt Porter and will review the potential to mine the resource for processing through the Union Reefs mill.

On March 31, 2006, GBS Gold International Ltd. ("GBS") announced that it had successfully completed the 100% acquisition of the Burnside JV between Harmony Gold and Northern Gold NL. This acquisition gives GBS control of the Union Reefs mill as well as 2,500 square kilometres of tenement holding and control over the Maud Creek, Zappopan and Cosmo Deeps gold resources. GBS are focussed on the development of the resources within 125 kilometres of the Union Reefs mill and hope to make a decision on re-commissioning the plant in the second half of 2006.

Kurinelli (100% ARU)

A follow-up soil sample program at Kurinelli was completed in late March 2006 in a region immediately north and east of the most southern extension of the soil anomaly. These results are due in April and will be potentially used to expand on the current drill program, scheduled for May 2006. The current drill program is planned to explore for bedrock mineralisation around parts of the soil anomaly that returned the highest grades of 5 g/t gold in soils.

The Kurinelli gold anomaly extends over a distance of about 4 kilometres and 750 metres wide with broad gold anomalism over 10 ppb.

This region has not been explored before by modern exploration techniques and represents an outstanding greenfield and blue sky opportunity for the discovery of a new gold district. The company is planning a minimum 3,000 metre drill program in the 2006 field season to commence in May 2006.

Joint Ventures

Hammer Hill JV with Mithril Resources Ltd

In 2006 Arafura entered into an agreement with Mithril Resources Ltd for Mithril to explore for nickel sulphide mineralisation on Arafura's Hammer Hill tenement, EL 9725 and EL10136 in the Northern Territory. Exploration on Mithril's Indiana project, adjacent to Arafura's tenement, identified nickel and cobalt mineralisation with values up to 0.52% nickel and 0.06% cobalt in stream sediment samples.

The farm-in allows Mithril to earn up to 70% equity on Arafura tenements for the expenditure of \$5million over 6 years. Mithril also have a strategic alliance with BHP Billiton Ltd subsidiary BHP Billiton Minerals Pty Limited. This alliance allows BHPB to enter into joint ventures into Mithril projects. Mithril intend to commence a stream sediment sampling program in May 2006.

Section 2 **Planned activities for the June Quarter**

Rare earths - Nolans Bore

Metallurgical test work on the recovery of rare earths and other products will continue at ANSTO leading to preliminary flow sheet designs. The initial phase of metallurgical test work is anticipated to be completed by the end of June 2006 and will lead into a scoping study assessment in the following quarter. Following this the project will require further optimisation test work, engineering designs and product specification assessment. At this stage the company is planning to have the project to a status that will allow a pilot plant assessment to be undertaken by June 2007.

An additional 3,000 to 4,000 metre drill program targeting extensions to mineralisation is planned to commence in June 2006. Dependent on results from these drill results and metallurgical test work, and dependent on drill rig availability, the company will consider a follow-up drill program later in the 2006 calendar year.

Uranium

Lagoon Creek.

The Joint Venture at Lagoon Creek intends to commence ground work in May 2006 to access the geological context of uranium radiometric targets. Drilling is expected to commence in the July quarter subject to access after the wet season and drill rig availability. The drilling program, planned to be at least 2,500 metres, will target unconformity style uranium mineralisation similar to the styles of mineralisation and targets in the Ranger district of the Northern Territory.

Lucy Creek.

The Lucy Creek project is targeting near surface uranium mineralisation. An application for access is currently being progressed. On approval Arafura intends to commence drilling in the July-August 2006 period with a drill program of about 1,500 metres.

Gold

Kurinelli

Drilling at the Kurinelli gold project is expected to commence in the May 2006 after the establishment of drill pads. Results from additional soil samples undertaken in March 2006 will also form the basis of additional drilling.

Frances Creek Iron – Territory Iron Ltd

In January 2006 Territory Iron released a new mineral resources estimate for the Frances Creek district that substantially increase the resource base on Arafura held tenements. The preliminary feasibility study released on 21 February 2006 indicated that the mining of iron was economically feasible. These successes have lead to the commitment of mining at Frances Creek and an additional exploration of \$350,000 on

drilling for additional iron resources on Arafura held tenements. Territory Iron Ltd. have subsequently signed a memorandum of understanding with a Chinese steel mill for the purchase of Frances Creek iron ore and also raised \$12.6m from the placement of shares to fund the mine development of Frances Creek. Mining is anticipated to commence in late 2006 with initial ore deliveries commencing in 2007. Based on the pre-payments Territory Iron have undertaken with Arafura, additional iron ore royalties to Arafura should commence in late 2007 but are subject to mining rates and the lump to fines ratio in shipped ore.

Appendix 5B

MINING EXPLORATION ENTITY QUARTERLY REPORT

Name of entity

ARAFURA RESOURCES NL

ACN or ARBN

080 933 455

Quarter ended ("current quarter")

31 March 2006

Consolidated statement of cash flows

	Current Qtr \$A'000	Year to Date (9 months) \$A'000
Cash flows related to operating activities		
1.1 Receipts from product sales and related debtors		
1.2 Payments for: (a) exploration and evaluation	(90)	(1,412)
(b) development		
(c) production	(572)	(1,175)
(d) administration		
1.3 Dividends received	23	77
1.4 Interest and other items of a similar nature received		
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (provide details if material)	(24)	(67)
Cost reimbursement		
GST Refund/(Paid)		
	(663)	(2,577)
Net Operating Cash Flows		
Cash flows related to investing activities		
1.8 Payment for purchases of: (a) prospects		
(b) equity investments	(13)	(22)
(c) other fixed assets		
1.9 Proceeds from sale of: (a) prospects	-	475
(b) equity investments		
(c) other fixed assets		
1.10 Loans to/from other entities		
1.11 Loans repaid by other entities		
1.12 Other (provide details if material)	(13)	453
Net Investing Cash Flows		
1.13 Total operating and investing cash flows (carried forward)	(676)	(2,124)

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1.13 Total operating and investing cash flows (brought forward)	(676)	(2,124)
Cash flows related to financing activities		
1.14 Proceeds from the issue of shares, options, etc.	-	1,818
1.15 Proceeds from the sale of forfeited shares		
1.16 Proceeds from borrowings		
1.17 Repayment of borrowings		
1.18 Dividends paid		
1.19 Other – Capital Raising Expenses	-	(91)
	-	1,727
Net financing cash flows		
Net increase (decrease) in cash held	(676)	(397)
1.20 Cash at beginning of quarter/year to date	2,484	2,205
1.21 Exchange rate adjustments		
	1,808	1,808
1.22 Cash at end of quarter		

Payments to directors of the entity and associates of the directors

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

	Current Qtr \$A'000
1.23 Aggregate amount of payments to the parties included in item 1.2	95
1.24 Aggregate amount of loans to the parties included in item 1.10	Nil

1.25 Explanation necessary for an understanding of the transactions

Directors Fees & Super (28) Salaries & Super (67)

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

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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

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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		\$A'000
4.1 Exploration and evaluation		1,300
4.2 Development		
Total		1,300

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to related items in the accounts as follows.

	Current Quarter \$A'000	Previous Quarter \$A'000
5.1 Cash on hand and at bank	82	42
5.2 Deposits at call	1,726	2,442
5.3 Bank Overdraft		
5.4 Other (provide details)		
Total: cash at end of quarter (Item 1.22)	1,808	2,484

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				

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.

	Number Issued	Number quoted	Issue price per security (cents)	Amount paid up per security (cents)
7.1 Preference securities (description)				
7.2 Issued during Quarter				
7.3 Ordinary securities	58,233,259	58,233,259		
7.4 Issued during Quarter	100,752	100,752	20 cents	20 cents
7.5 Convertible debt securities (description)				
7.6 Issued during quarter				
7.7 Options (description)	25,739,248	25,739,248	Exercise Price	Expiry Date
	3,000,000	-	20 cents	30/6/2008
	500,000	-	30 cents	30/6/2009
	500,000	-	35 cents	30/6/2009

7.8 Issued during Quarter	500,000 500,000	- -	30 cents 35 cents	30/6/2009 30/6/2009
7.9 Exercised during Quarter	100,752		20 cents	30/6/2008
7.10 Expired during Quarter				
7.11 Debentures (totals only)				
7.12 Unsecured notes (totals only)				

Statement

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

R. Arancini

Sign here:

Ross Arancini
Company Secretary

Date: 20/04/2006

Notes

1. The quarterly report is to provide a basis for informing the market how the activities of the entity have been financed for the past quarter and the effect on its cash position. Any 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.

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5. **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.
