ARAFURA RESOURCES NL

QUARTERLY REPORT
FOR THE PERIOD ENDED 31 DECEMBER 2006

HIGHLIGHTS

- Further mineralisation successfully defined from drilling at Nolans Bore.
- Drilling at Lucy Creek and Lagoon Creek uranium projects completed.
- Drilling defined additional gold mineralisation at Mt Porter.
- Strong magnetite mineralisation intersections returned from drilling at Jervois vanadium project.
- Territory Iron increased resources and reserves at Frances Creek Iron project.
- Arafura offered a Commercial Ready Grant for $3.3 million from AusIndustry for Nolans Bore.
- Rights issue to shareholders raises $13.8 million.
- Prospectus and notice of Meeting for NuPower Resources have been posted to shareholders.

Corporate

In December 2006, the Company undertook a non-renounceable rights issue to shareholders. Following the conversion of 8,358,737 options that raised $1.6 million, the rights issue raised an additional $12.2 million from the rights issue in which shareholders were offered 2 new shares for every 5 shares held at a price of $0.36 per share. Total money raised was $13.8 million.

A total of 33.7 million shares were offered to shareholders. Of this, 26.9 million shares or 80% were accepted showing the strong support from shareholders for the process. The remaining shares were placed to the underwriter, Bell Potter Securities Ltd, to sophisticated and professional investors. The overwhelming support for the rights issue is a further indication that shareholders support the demerger process.

In January 2007, a combined demerger prospectus and a notice of meeting have been posted to all shareholders. This prospectus offers shareholders 1 NuPower Resources Ltd share for every 3 Arafura shares held. Options will be treated in the same ratio. A general meeting seeking shareholder approval is to be held on 16 February 2007 at the City West function centre in West Perth.

Rare Earths – Nolans Exploration (100% ARU)

In July 2006, Arafura undertook 4,363 metres in 51 holes of RC drilling to identify additional extensions of mineralisation in the southern zone of the deposit adjacent to the current main resource in the northern zone. This drilling identified additional mineralisation in a zone south of the main resource. Mineralisation still remains open to the northeast and southwest of the main project area and it remains open at depth in most areas.

Fluorapatite mineralisation (the host for rare earths, phosphate and uranium) in the South Zone, where most of the recent 2006 drilling was directed, is now known to extend over a strike length of 1,500 metres.

Drilling intersections defined mineralisation up to 18 metres in width. The best grades of mineralisation returned 5.0% REO, 25.6% P_2O_5 and 0.81 lb/T U_3O_8. Key intersections in those results included:

- 5 metres at 3.5% REO, 17.1% P_2O_5 and 0.60 lb/T U_3O_8 from 3 metres in NBRC098
- 5 metres at 6.4% REO, 27.8% P_2O_5 and 1.13 lb/T U_3O_8 from 11 metres in NBRC098
- 9 metres at 4.8% REO, 20.7% P_2O_5 and 0.79 lb/T U_3O_8 from 76 metres in NBRC099
- 9 metres at 4.6% REO, 25.6% P_2O_5 and 0.76 lb/T U_3O_8 from 41 metres in NBRC110

- ▲ 6 metres at 3.6% REO, 19.5% P2O5 and 0.39 lb/T U3O8 from 18 metres in NBRC130
- ▲ 16 metres at 4.2% REO, 19.9% P_2O_5 and 0.72 lb/T U_3O_8 from 1 metre in NBRC139
- ▲ 10 metres at 5.0% REO, 22.0% P_2O_5 and 0.81 lb/T U_3O_8 from 67 metres in NBRC143
- ▲ 10 metres at 4.4% REO, 19.5% P_2O_5 and 0.72 lb/T U_3O_8 from 59 metres in NBRC146

Details of these drill results were announced to the ASX in public releases on 9 October 2006 and 23 November 2006 and are available on the company's website.

Rare Earths – Nolans Metallurgical Test Work (100% ARU)

Rare Earth test work at ANSTO is continuing with positive results. The objectives of the current stage are to optimise the recovery of rare earth and the separation of iron, aluminium and thorium.

The caustic cracking test work is progressing well with encouraging recovery of rare earths. It has been identified that rare earth recovery may be improved further with the rejection of clay minerals from the feed to the process. Test work for the rejection of these clays is currently underway and may cause a delay in the final results of this stage of the test work but not the overall programme.

The additional clay test work is likely to provide additional benefits to the overall metallurgical process and project economics. Clay is typically rejected through a simple washing and/or physical separation process. "Gangue" (waste rock) rejection results in an increase in the grade and a reduction in the volume of ore. The reduced volume will reduce transport costs should the recovered concentrate be transported to Darwin and the higher grade will then reduce the capital costs of downstream processing. The rejection of clays from the caustic cracking process is likely to improve the recovery of rare earths significantly and therefore the economics of the project.

Bateman Litwin is continuing the test work in Israel for the recovery of phosphoric acid by solvent extraction. The preliminary results of the works are encouraging and are indicating good selectivity and recovery of phosphoric acid. Further tests are required before the optimum extraction can be determined and the quality of the phosphoric acid that is recovered.

Test work for uranium recovery and calcium chloride production will not commence until the tests for rare earths and phosphoric acid are satisfied. Results from the current programmes are not expected until the second quarter of 2007.

Rare Earths – Markets

The market demand for rare earths continued to strengthen significantly during 2006. Total world demand for REO concentrate in 2006 was about 108,000 tonnes while total production of REO concentrate is estimated to be 91,500 tonnes. Of this, China produced 81,500 tonnes or 90%. The shortfall in production was assisted by a substantial draw down of REO stockpiles to satisfy the world demand that is growing at between 5 to 10% per annum.

Growth in the market for cerium (US$1.65/kg) was moderate at 3-5% but impacted by oversupply. This was caused by suppliers processing more cerium rich materials to satisfy the demand for neodymium.

Lanthanum (US$1.65/kg) growth was also moderate (5%) remained subdued due to high nickel prices (used in NiMH batteries) and a strengthening of the alternative lithium ion rechargeable battery market.

The growth in neodymium (US$21/kg), europium (US$250/kg) and terbium (US$480/kg) markets grew between 15-20% in 2006 with the strong demand for electric motors and electronic components and the absence of a substitute for these strategically important materials. This market is likely to maintain its strength in demand and prices are expected to continue to rise. Praseodymium (US$20/kg) and dysprosium (US$75/kg) also continued to grow strongly in demand and price as they are used in the neodymium magnet market and are important for the efficiency in electric motor technology.

These trends are important and encouraging as the Nolans deposit is enriched in neodymium (21%), praseodymium (6%), dysprosium (0.3%) and europium (0.4%) compared to most other rare earth deposits.

The development by the Chinese of energy efficient refrigeration technology that uses gadolinium will be an important development for gadolinium outside the medical (MRI) usage. Nolans contains highly enriched amounts of gadolinium (1%).

Uranium

Lagoon Creek JV with Laramide Resources Ltd (TSX: LAM)

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

The Lagoon Creek project is located on the Northern Territory side of the NT/Qld border and along strike from the Westmoreland uranium deposit approximately 450 kilometres east-northeast of Tennant Creek.

As announced in the company's ASX release on 20 October, Laramide commenced RC drilling on Arafura's title at that time. This programme was part of a more extensive drill programme that Laramide is undertaking in the Northern Territory and Queensland.

By early December when the drill rig was demobilised from the area pending the on-set of the wet season, Laramide had completed 2,818 metres of drilling in 23 holes on Arafura's ground. Due to the current long lead times in analytical services, results are not expected until sometime in February 2007.

Lucy Creek (100% ARU), Northern Territory

The Lucy Creek uranium prospect is located 270 kilometres northeast of Alice Springs.

Airborne radiometric data acquired in surveys flown by the NT Geological Survey in 2004 and by Arafura in 2005 has defined a broad surface uranium anomaly that is about 6.5 kilometres long and up to 1,200 metres wide. Rock chip samples in the region assay up to 1.25lb/t. The target represents the potential for large tonnages of low-grade uranium mineralisation.

Initial drill testing of the prospect was carried out in November 2006 when a total of 1,712 metes of RC drilling was completed in 60 holes widely spaced across the anomalous area. 1,400 samples reporting elevated scintillometer counts have been submitted for analyses by ALS-Chemex in Alice Springs.

Results are not expected before late February due to the high demand in laboratory services and thus long lead times being experienced at commercial laboratories across the country.

Goanna (100% ARU)

The Goanna uranium prospect is located about 1.5 kilometres south of the Nolans Bore rare earths deposit. The prospect is characterised by a low-amplitude, airborne, radiometric uranium anomaly over calcrete rock types marginal to the Kerosene Camp Creek which cuts across the Nolans Bore prospect further downstream.

Initial drill testing of the prospect was carried out in October when a total of 271 metes of RC drilling was completed in 40 shallow holes over an area of 1,100x350 metres. All drill samples were subsequently analysed by ALS-Chemex in Alice Springs. Anomalous uranium levels were returned by 34 samples as follows:

- 20-50 ppm U -15 samples
- 50-100 ppm U - 14 samples
- >100 ppm U - 5 samples with a peak value of 127 ppm U

While not of economic magnitude these results are significant in that they demonstrate the uranium concentration capability of calcrete host rocks in the Aileron-Reynolds Range area. The Company now plans to investigate numerous other indurated calcrete deposits that occur in its extensive tenement holding in the region (Aileron, Reynolds Range, Yalyirimbi Range, Woodforde River) with a view to locating more extensive mineralisation of higher tenor.

Gold

Mt Porter (100% ARU less royalty interests)

Mt Porter contains a small near-surface resource of 34,200 ounces of gold (ASX announcement, 1 April 2004) at relatively high grade, located 12 kilometres from the Union Reefs processing facility owned by GBS Gold International Inc (GBS).

Four holes (321 metres) from a planned 11 hole RC drilling programme designed to test extensions of the known resource were completed in early November before difficult ground conditions forced suspension of the are programme. Results from the completed holes area listed below.

Hole No.	From	To	Interval	Au g/T
MPRC248	71	84	13	3.53
MPRC249			nil	
MPRC250	33	35	2	2.43
MPRC250	54	57	3	2.89
MPRC250	66	67	1	1.84
MPRC251	13	30	17	1.98
MPRC251	66	67	1	1.77

Holes MPRC248-250 were targeted at a NW extension of the resource and MPRC251 was targeted at a South-east extension. The mineralised intervals in MPRC250 are from the targeted zone but MPRC248 and MPRC249 did not find supporting mineralisation.

The **13 metres intercept at 2.28 g/T Au in MPRC248** represents a **new zone of mineralisation** well below the targeted area and to the west of the Identified Resources. It includes 5 metres at 3.53 g/T Au between 79-84 metres. The zone has not previously been intersected in any drilling at Mount Porter. The Company is reviewing options to further explore this discovery.

The 17 metres interval at 1.98 g/T Au in MPRC251 is through previously defined mineralisation and is consistent with the earlier data and the current resource model. The interval from 66-67 metres is in the lower zone of the southeast target. The remainder of the drilling into the SE target has been rescheduled for the second quarter of 2007.

Vanadium

Jervois (Unca) Fe-Ti-V, (100% ARU)

The Jervois project is located in the Jervois Range area 290 kilometres northeast of Alice Springs and 20 kilometres east of the Lucy Creek uranium prospect. A high-resolution airborne magnetic survey undertaken by Arafura in 2005 identified the potential for magnetite in an area approximately 10x8 kilometres in extent. The project contains scattered outcrops of magnetite mineralisation that contains significant vanadium mineralisation.

Arafura sampled some outcrops in 2005 that returned high grade vanadium results. Typical assays of these outcrops are:

- ▲ Iron (Fe) 51% to 55%
- ▲ Titanium 13.8% to 15.1%
- ▲ Vanadium 1.16% to 1.45%

During the quarter, the Company conducted an RC drilling programme of 937 metres in 15 vertical holes drilled on 10-12 separate targets. Most holes intersected broad zones with magnetite concentration over 10% and some holes intersected near-massive magnetite over intervals of 5-44 metres wide.

285 drill samples have been submitted to ALS-Chemex for determination of the content of recoverable magnetite and the iron, vanadium and titanium contents of the magnetite. Analytical results are expected to be available in March 2007. Subject to confirmation of the quantity and quality of vanadiferous magnetite, the Company is planning a more comprehensive drilling programme at the prospect later in the year.

Nickel

Hammer Hill JV with Mithril Resources Ltd

(100% ARU, Mithril earning up to 70%)

Mithril is continuing to assess the potential for nickel sulphide targets in the Hammer Hill project following the positive outcome from the regional soil sampling programme. During the

quarter as exploration manager for the project, Mithril Resources Ltd completed initial ground EM (electromagnetic) surveys over previously defined geochemical anomalies around the Hammer Hill nickel prospect and now plan to undertake a more extensive airborne EM survey over Arafura's titles. A positive result from this will then lead to drilling later in 2007.

Iron

Frances Creek Iron – Territory Iron Ltd (ARU royalty interest)

Frances Creek is located near Pine Creek, approximately 200 kilometres SSE of Darwin. On 17 January, 2007, Territory Iron announced that it had increased Ore Reserves at Frances Creek to 4.81 million tonnes at 61.3% Fe (up 950,000 tonnes); and increased total Mineral Resources to 9.73 million tonnes at 60.7% Fe (up 1.1 million tonnes) using a 55% Fe cut-off. The total Mineral Resource includes the above stated Ore Reserves.

Arafura's royalty right ($1.30/tonne of lump ore and $1.00/tonne of fines ore shipped from the property) extends over 3.79 million tonnes at 61.8% Fe of the Ore Reserves and 7.45 million tonnes at 61.2% Fe of the Mineral Resources. Arafura has already received $750,000 in royalty pre-payments from Territory Iron.

Mining is currently scheduled to commence at Frances Creek in May 2007, with the first export shipment of iron ore from Darwin due in August 2007.

Royalty payments to Arafura will resume after the initial 600,000 tonnes are shipped to account for the pre-payments made by Territory Iron. Dependent on the start up date, production rates and the lump to fines ratio of ore, Arafura should receive royalty payments of between $1m to $1.5 m per annum from the Frances Creek operation from 2008.

Dependent on the start up schedule, production rates and the lump to fines ratio of ore, Arafura should receive royalty payments of between $1 million to $1.5 million per annum from 2008.

The information in this release that relates to drilling, geological interpretation, exploration results and mineral resources has been compiled by Mr John Goulevitch, BSc(Hons), MSc, of Exploremin Pty Ltd. Mr Goulevitch is a Fellow of the Australian Institute of Geoscientists and he has sufficient experience relevant to the various styles of mineralisation mentioned to qualify as the Competent Person as defined in the *Australasian Code for Reporting of Mineral Resources and Ore Reserves* (JORC Code). Mr Goulevitch acts as a geological consultant to Arafura Resources and he consents to the inclusion in this report of the matters contained in the form and context in which they appear. An entity associated with Mr Goulevitch is a shareholder in Arafura

ARAFURA RESOURCES NL

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PROJECT & EXPLORATION OFFICE

To be opened on 1 March 2007 in Darwin

BOARD & MANAGEMENT

Peter N Walker	Chairman
Alistair Stephens	Managing Director
Ian Kowalick	Non-executive Director
Irvin (Mick) Muir	Non-executive Director
Gavin Lockyer	Company Secretary
Steven Mackowski	GM – Projects & Operations

SHARES & OPTIONS

118.5 m ordinary shares
17.2 m options expiring on 30 June 2008.

SHARE PRICE

$0.92 as at 25 January 2007.

ASX Codes

ARU, ARUO

Appendix 5B

MINING EXPLORATION ENTITY QUARTERLY REPORT

ARAFURA RESOURCES NL	
ACN or ARBN	Quarter ended ("current quarter")
080 933 455	31 December 2006

Consolidated statement of cash flows

	Current Qtr $A'000	Year to Date (6 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	(985)	(1,633)
(b) development		
(c) production		
(d) administration (inc. rights/demerger)	(1,201)	(2,489)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	71	132
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (provide details if material)		
Cost reimbursement		
GST Refund/(Paid)		
Net Operating Cash Flows	(2,115)	(3,990)
Cash flows related to investing activities		
1.8 Payment for purchases of: (a) prospects		
(b) equity investments		
(c) other fixed assets	(13)	(36)
1.9 Proceeds from sale of: (a) prospects		
(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)		
Net Investing Cash Flows	(13)	(36)
1.13 Total operating and investing cash flows (carried forward)	(2,128)	(4,026)

1.13 Total operating and investing cash flows (brought forward)	(2,128)	(4,026)
Cash flows related to financing activities		
1.14 Proceeds from the issue of shares, options, etc.	13,847	14,009
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		
Net financing cash flows	13,847	14,009
Net increase (decrease) in cash held	11,719	9,983
1.20 Cash at beginning of quarter/year to date	4,542	6,278
1.21 Exchange rate adjustments		
1.22 **Cash at end of quarter**	16,261	16,261

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	36
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 & superannuation

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

Nil

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

Nil

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	Nil	Nil
3.2 Credit standby arrangements	Nil	Nil

Estimated cash outflows for next quarter

	$A'000
4.1 Exploration and evaluation	305
4.2 Development	-
Total	305

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	41	28
5.2 Deposits at call	16,220	4,515
5.3 Bank Overdraft		
5.4 Other (provide details)		
Total: cash at end of quarter (Item 1.22)	16,261	4,543

Changes in interests in mining tenements

	Tenement Reference	Nature of interest	Interest at Beginning of Quarter	Interest at End of Quarter
6.1 Interests in mining tenements relinquished, reduced or lapsed	Nil			
6.2 Interests in mining tenements acquired or increased	Nil			

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**	118,484,824	118,484,824		
7.4 Issued during Quarter	50,000 8,358,737 33,736,726	50,000 8,358,737 33,736,726	$0.34 $0.20 $0.36	$0.34 $0.20 $0.36
7.5 **Convertible debt securities** (description)				
7.6 Issued during quarter				

7.7 **Options** ARUO exp 30-6-08 ARUAY exp 30-6-08 (20c) ARUAA exp 30-6-09 (34c) ARUAI exp 30-6-09 (40c) ARUAK exp 30-6-09 (45c)	17,206,159 3,000,000 200,000 750,000 750,000	17,206,159 - - - -		
7.8 Issued during Quarter	Nil	- -		
7.9 Exercised during Quarter – ARUAA - ARUO	50,000 8,358,737	- 8,358,737	$0.34 $0.20	$0.34 $0.20
7.10 Expired during Quarter – ARUAA	50,000	-	$0.34	$0.34
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.

Sign here: _____ Date: 30/1/2007

Gavin Lockyer
Company Secretary

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.

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.

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