



# Adelaide Resources Limited

## quarterly report

for the period ending 31 december 2004

### highlights of the quarter

Record expenditure of \$1.19 million from combined activities of joint venture parties and Adelaide Resources.

The Colona Mineral Sands Project has assumed a prominent position in the company's exploration portfolio as a result of recent discoveries in the eastern Eucla Basin of South Australia. This basin now clearly shows potential to develop into a globally important zircon rich mineral sands province.

#### Colona Mineral Sands Joint Venture

- Encouraging discovery of several zones of plus 1% heavy minerals\* (HM) in four of only seven widely spaced reconnaissance drilling traverses completed to date.
- Single drill traverse confirms high grade zircon rich interval in 1990 drill hole EB-119 with individual samples up to 37% HM. Mineralisation open along strike.
- In a separate area three consecutive but widely spaced drill traverses encountered plus 1% HM in numerous holes and highlight a 15 kilometre long area as a focus for more detailed exploration. On one of the three traverses mineralisation shows good continuity over a lateral extent of 2500 metres.
- Follow-up drilling to determine continuity and strike extent and to search for higher grade mineralisation planned early in June quarter after fire ban season.
- Iluka elects to proceed to earn 51% interest after completing Year 1 minimum program.

#### Eyre Peninsula Joint Venture

- Detailed airborne magnetic survey completed over 1220 sq km gold mineralised zone. Interpretation expected to generate new drill targets.

#### Moonta Wallaroo Joint Venture

- Drilling commenced at Target 78 with 700 metre diamond core hole planned for Target 81 West gravity low in coming quarter.

#### Barton Nickel Joint Venture

- Three EM conductors already defined as drill targets.
- Ground EM program expanded and extended prior to drilling early in June quarter.

#### Warrambo Iron Project

- Escalating iron ore market has prompted heightened interest from potential joint venture parties – discussions in progress.

#### Corporate

- A share placement in December of 5.7 million ordinary shares at 28 cents/share raised \$1.596 million less 5% broker fees.

#### Finance

- The company had available funds of \$3.149 million at the close of the quarter.

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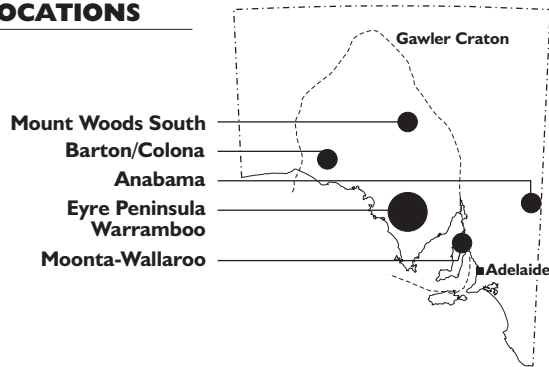
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\* heavy minerals (HM) include zircon, rutile, ilmenite and other non-valuable heavy components

**PROJECT LOCATIONS**



**review of exploration activities**

**Colona Mineral Sands Joint Venture**

Adelaide Resources 100%;  
Iluka Resources Limited earning 51%

On 27 January the Colona Joint Venture announced the discovery of several zones of plus 1% heavy minerals\* (HM) from widely spaced reconnaissance drill traverses within the Colona Joint Venture tenements in the Eucla Basin S.A. Resource modelling at Iluka’s recent Jacinth discovery was completed using a 1% HM cut-off due to the high value, zircon rich assemblage. Accordingly the discovery on the joint venture ground of zones of plus 1% HM is a promising development warranting follow-up drilling.

\* heavy minerals (HM) include zircon, rutile, ilmenite and other non-valuable heavy components

Under the terms of the Colona JV, Iluka may earn a 51% interest in the heavy minerals within these tenements by completing a minimum of 2,500 metres of drilling in the first year and thereafter spending an additional \$1 million. Iluka have now met the Year 1 drilling commitment and have elected to proceed to earn a 51% interest in the joint venture.

Exploration completed to date comprises the drilling of 91 holes for 4236 metres on seven regional traverses (see drilling plan). Heavy mineral float/sink results are available for all samples submitted to Iluka’s laboratory. Notable results are included in Table 1.

The relative abundance of the valuable minerals zircon, rutile and ilmenite, and non-valuable heavy grains, or “trash”, requires further analytical processing. Results from assemblage determinations on a number of composite samples taken from the newly discovered zones will be available in February 2005.

**Traverse 2840-1**

A single traverse (2840-1) was drilled in the vicinity of previous drillhole EB-119 which intersected high grade heavy minerals at a depth of 38 metres (see drilling plan). Drilling has confirmed the presence and grade of the historic result and defined a plus 1% HM zone some 150

**Table 1: Heavy Mineral Intersections (plus 1% HM)**

Drill Traverse	Hole Name	From (m)	To (m)	Interval (m)	% Heavy Minerals	%Clay (-53 microns)
<b>2840-1</b>	YE001	36.0	40.5	4.5	10.4	3.6
	YE053	30.0	36.0	6.0	9.3	5.8
	YE054	34.5	39.0	4.5	2.9	5.8
<b>5587</b>	YE004	31.5	33.0	1.5	1.6	7.9
	YE335	42.0	45.0	3.0	2.5	9.6
	YE333	45.0	49.5	4.5	2.5	5.7
	YE334	37.5	42.0	4.5	1.9	10.9
	YE339	27.0	36.0	9.0	1.8	6.1
	YE328	30.0	33.0	3.0	1.7	5.4
	YE331	28.5	36.0	7.5	1.3	8.0
	YE332	34.5	40.5	6.0	1.2	9.0
<b>5570</b>	YE340	22.5	30.0	7.5	1.1	6.3
	YE308	52.5	64.5	12.0	2.3	4.2
<b>5527</b>	YE304	51.0	61.5	10.5	1.9	3.7
	YE315	33.0	36.0	3.0	3.1	1.0
	YE315	40.5	43.5	3.0	1.3	3.6
	YE327	42.0	45.0	3.0	1.5	4.5

metres wide and up to 6 metres thick. HM grades reach 37% in a narrow high grade core in this zone.

Drilling along strike from this zone will commence early in the June quarter 2005.

**Ooldea Range Shoreline**

Six reconnaissance traverses were drilled at very broad spacing of between 2.5 and 10 kilometres to test the ancient shoreline along the Ooldea Range (see drilling plan).

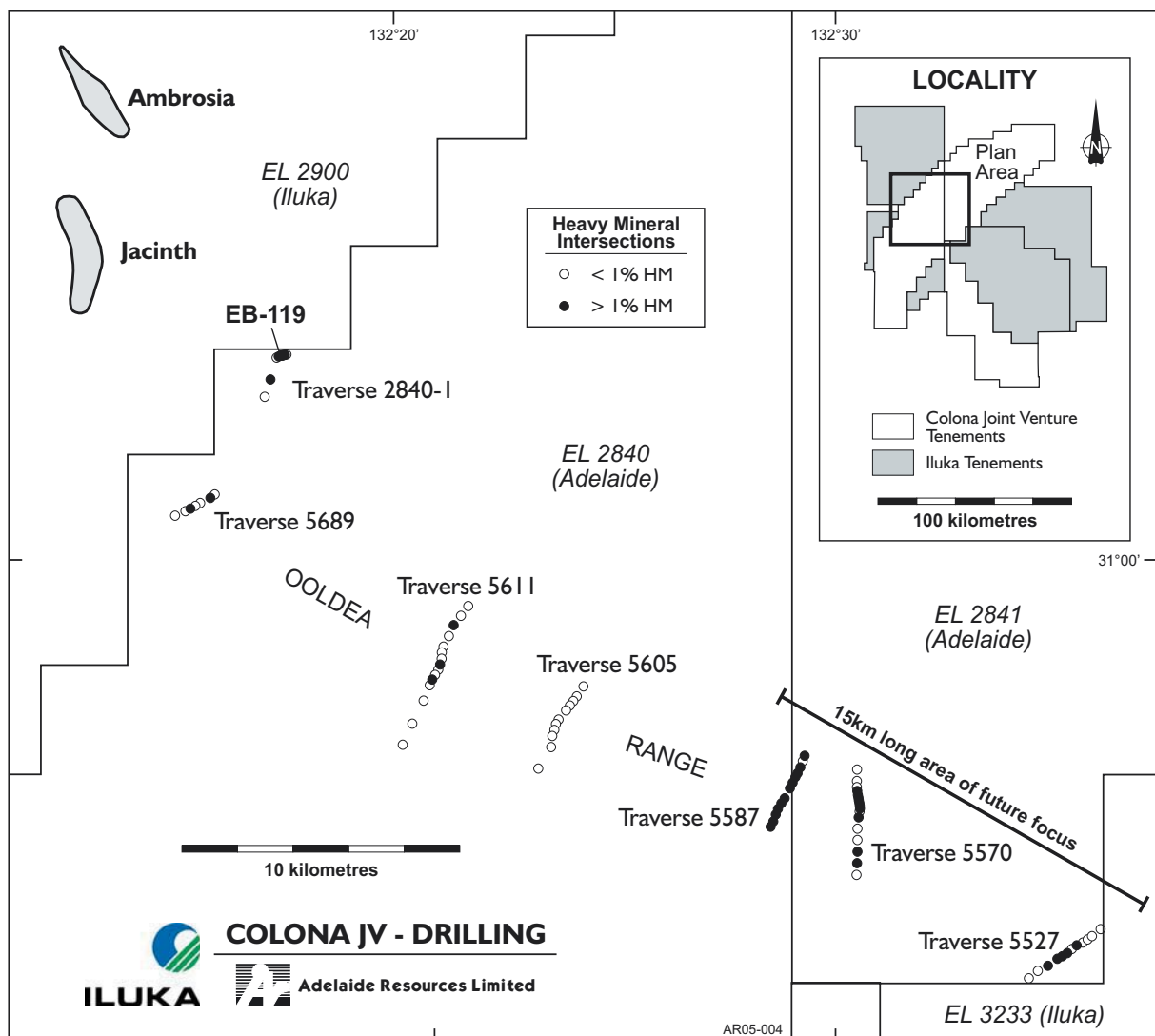
Encouraging intersections of heavy mineral were made on the three eastern traverses with the most promising results returned from Traverse 5587 (see section). Drilling on this traverse has outlined an extensive sheet of +1% HM mineralisation which reaches a maximum thickness of 9 metres

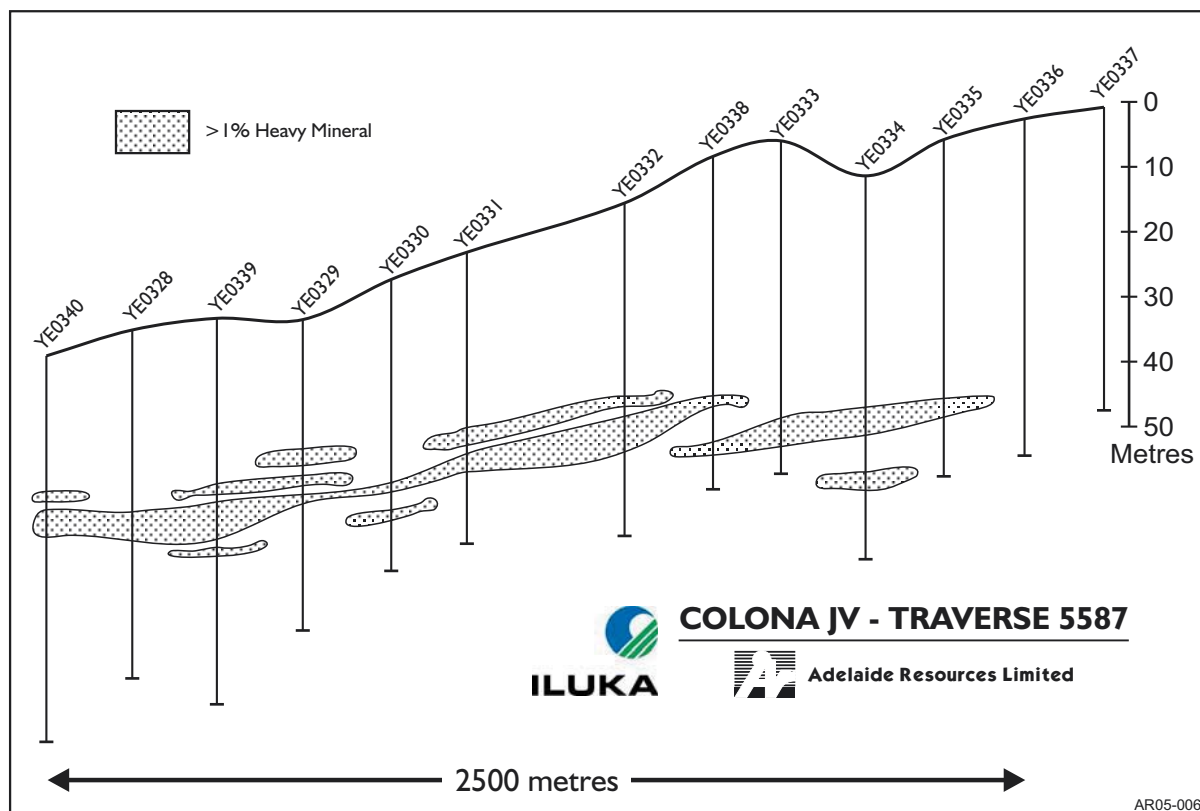
and a width of 2500 metres. HM grades returned from individual 1.5 metre samples within this zone are typically between 1 and 2% but reach a maximum of 5.5% HM. The distances from Traverse 5587 to the two adjacent drill traverses are 8 and 2.5 km respectively.

Zones of heavy mineral intersected on Traverses 5570 and 5527 show less continuity than that intersected on Traverse 5587, however together the three drill lines identify a 15 kilometre long prospective section of the Ooldea Range which will be subject to more detailed drilling.

**Forward Program Timing**

Heavy mineral assemblage determinations on composite samples taken from the new Colona JV discoveries are now underway with results to be available in February, 2005.





Infill and extended drill traverses are now planned for both the 15 kilometre prospective section of the Ooldea Range and in the vicinity of Traverse 2840-1 to determine the strike extent and continuity of the mineralisation, and to search for higher grade concentrations elsewhere along the shoreline.

Drilling is planned to recommence early in the June quarter 2005 after the expiry of the fire ban season. ■

### Mount Woods South Joint Venture

(Adelaide Resources 50%; Perilya Limited 50%)

A program of reverse circulation drilling tested two magnetic anomalies at the Gemini target. Three vertical holes for 910 metres were drilled with the deepest hole reaching 350 metres. Two holes successfully penetrated the basement rocks below sedimentary cover.

Basement in the successful holes, intersected at depths of around 220 metres, comprised basalt and rhyolite volcanic units. Disseminated magnetite present in the basalt accounts for the source of the magnetic anomalies targeted in the program.

Hematite-sericite-chlorite hydrothermal alteration, and rare carbonate-fluorite veins are present in the basalt. Copper and gold assays are at background levels. ■

### Moonta-Wallaroo Copper-Gold Venture

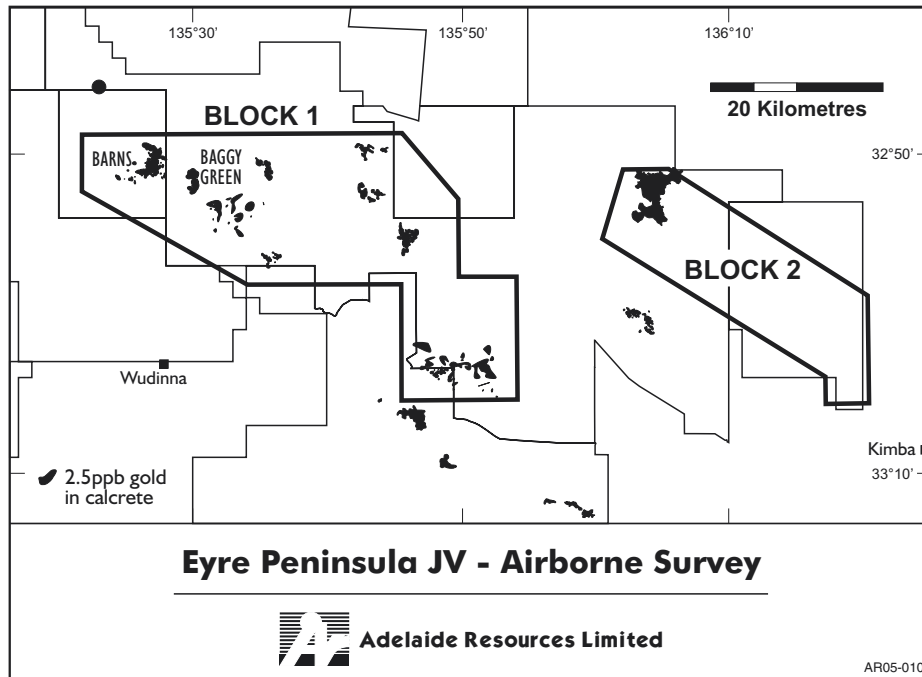
Adelaide Resources 100%; Phelps Dodge Australasia, Inc. / Red Metal Limited Alliance earning 70%

An aircore drilling program was initiated to test broad zones of anomalous copper and gold in calcrete geochemistry. Additional gravity readings and calcrete samples were taken. A total of 60 holes for 1,311 metres were drilled across Target 78 before the break for the holiday period.

Drilling recommenced on 12 January 2005.

After the completion of the aircore program, a 700 metre deep rotary / diamond core hole will be drilled to test Target 81 West, a 1,500 by 500 metre gravity low coincident with copper and gold anomalism in calcrete and in historic holes located adjacent to the target.

Results from both the aircore and diamond core programs will be available in the March quarter. ■



### Eyre Peninsula Joint Venture

*Adelaide Resources 100%;  
Newmont Australia Limited earning 51%.*

A high resolution airborne magnetic survey was flown over two blocks totalling 1220 sq. km in area. The objective was to present a greatly improved picture of the regional geology, to unravel the geological controls on the gold mineralisation within the district and to assist in the selection and ranking of future gold exploration targets.

Achieving these objectives required the acquisition of significantly more detailed geophysical data than had been collected in previous surveys. This detail was accomplished by flying at 40 metres above the ground surface on lines spaced only 75 metres apart. Radiometric and elevation data were also acquired.

The new data has allowed interpretations to be made of the detailed structural setting and magnetic character of gold deposits such as Barns and Baggy Green which were over-flown during the survey. This understanding can be extrapolated and applied to other areas of the project to locate similar environments which may warrant exploratory drill testing.

The process of selecting areas for further exploration using the magnetic data is now in

progress with a number of new targets becoming apparent. Several of these targets are also supported by other coincident positive data, such as associated calcrete gold anomalism, thus lending confidence to the target selection process.

The joint venture parties plan to meet in February to review the targets that emerge from full evaluation of the survey results prior to determining the next stage of exploration. ■

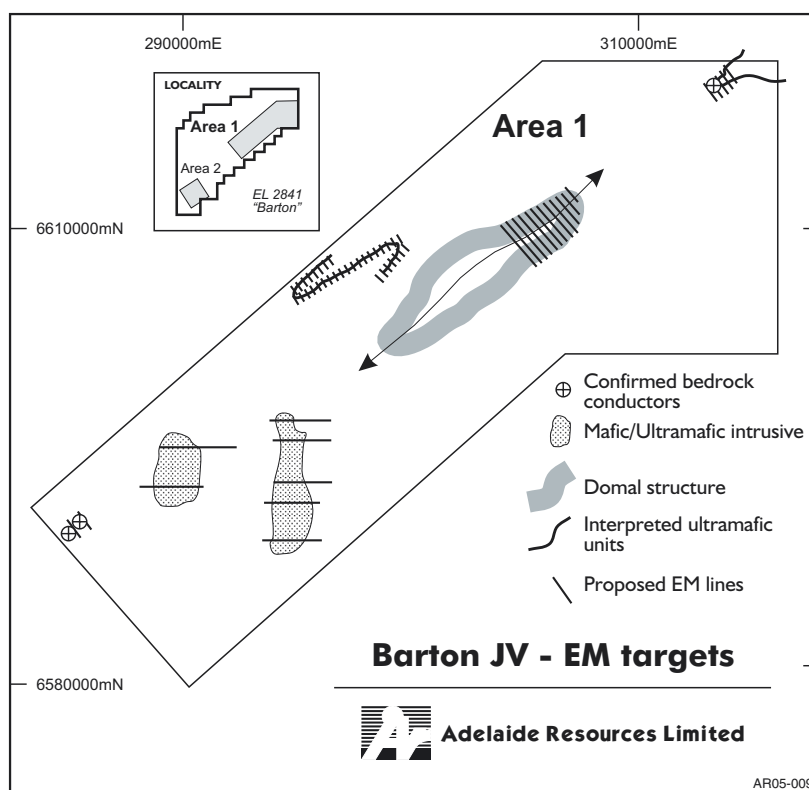
### Barton Nickel Joint Venture

*Adelaide Resources 100%;  
Inco Resources (Australia) Pty Ltd earning 60%*

The ground electromagnetic (EM) geophysical program commenced in the quarter is to be expanded and extended into 2005 prior to the start of drilling. The ground EM surveys are being undertaken to determine whether anomalies selected from the 2004 airborne EM survey, and other prospects, contain bedrock conductors worthy of drilling.

Further ground EM surveys will be conducted in the March quarter ahead of first stage drill testing planned to commence early in the June quarter.

Already three of the airborne EM anomalies covered by ground surveys in late 2004 have been confirmed as bedrock conductors (see plan) and these have been selected for drilling.



The more northerly conductor is coincident with a magnetic anomaly which may correlate with a similar magnetic feature associated with nickel anomalous ultramafic rocks located just east of the tenement boundary.

The ongoing ground EM program will also target a number of areas not surveyed in 2004 which are conceptually prospective for nickel sulphide deposits. The successful definition of bedrock conductors in these areas would add additional targets to those already selected for drilling. ■

### Warrambo Iron Project

Adelaide Resources 100%

The escalating iron ore market has prompted heightened interest from potential joint venture parties. Discussions which commenced in the September quarter are continuing with parties representing Asian steel interests. ■

### corporate

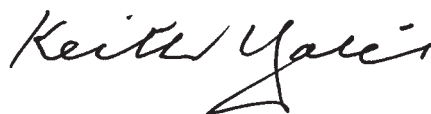
The company completed a placement of 5,700,000 ordinary shares at 28 cents/share in December to raise \$1.596 million less 5% broker fees. ■

### finance

As at 31 December 2004, the Company had available funds of \$3.149 million comprising cash and term deposits of \$2.796 million and liquid investments of \$0.353 million.

Exploration expenditure by the Company during the September quarter was \$76,000.

Expenditure incurred by joint venture parties on the Company's tenements during the quarter was \$1.111 million.



Keith Yates - Executive Chairman  
Signed on behalf of the Board of Adelaide Resources Limited  
Dated: 31 January 2005

*The information in this report insofar as it relates to ore or mineralisation is based on information compiled by K R Yates, who is a Corporate Fellow of the Australasian Institute of Mining and Metallurgy and who has a minimum of five years' experience in the field of activity being reported on.*

Enquiries should be directed to Keith Yates, Executive Chairman. Ph (08) 8271 0600. ■