



# Adelaide Resources Limited

## quarterly report

for the period ending 31 march 2005

### highlights of the quarter

*The acquisition of the Rover Gold-Copper Project represents an exciting opportunity and a substantial upgrading of the quality of the company's exploration portfolio.*

#### **Rover Gold-Copper Project – Tennant Creek NT**

- Acquisition of tenements covering the highly prospective Rover Field near Tennant Creek NT.
- Rover Field geology is identical to the Tennant Creek Goldfield which has produced 5.5 million ounces of gold largely from bonanza grade deposits.
- Tennant Creek style ironstones containing gold and copper mineralisation intersected in limited drilling show high potential for discovery.
- Seven high priority targets identified – drilling planned for second half of 2005.

#### **Colona Mineral Sands Joint Venture – Eucla Basin SA**

- Favoured zircon-rich assemblages confirmed in heavy mineral concentrates.
- Drilling to recommence in mid-May to further explore 15 kilometre long prospective section.

#### **Moonta-Wallaroo Copper-Gold Joint Venture – Gawler Craton SA**

- Promising copper intersections in aircore drilling from two target areas including **29 metres at 0.44% copper** at Target 81 and **11 metres at 1.28% copper** at Target 78, both unbottomed - follow-up drilling underway.

#### **Eyre Peninsula Gold Project – Gawler Craton SA**

- Drilling program completed at Empire geochemical target – final assay results pending.
- Assessment of past uranium exploration data on Eyre Peninsula highlights prospectivity for sedimentary uranium deposits in extensive palaeochannels on company tenements.

#### **Barton Nickel Joint Venture – Gawler Craton SA**

- Ground EM fails to confirm quality conductors. Inco withdraws.

#### **Warrambo Iron Project – Gawler Craton SA**

- In response to heightened interest an end of June deadline has been set for receipt of offers from potential investors.

#### **Corporate**

- Mr John den Dryver and Mr Christopher Drown were appointed to the Board of Directors on 31 March and Dr Kevin Wills resigned as a director on the same date.

#### **Finance**

- The company had available funds of \$3.4 million at the close of the quarter.

#### contact us

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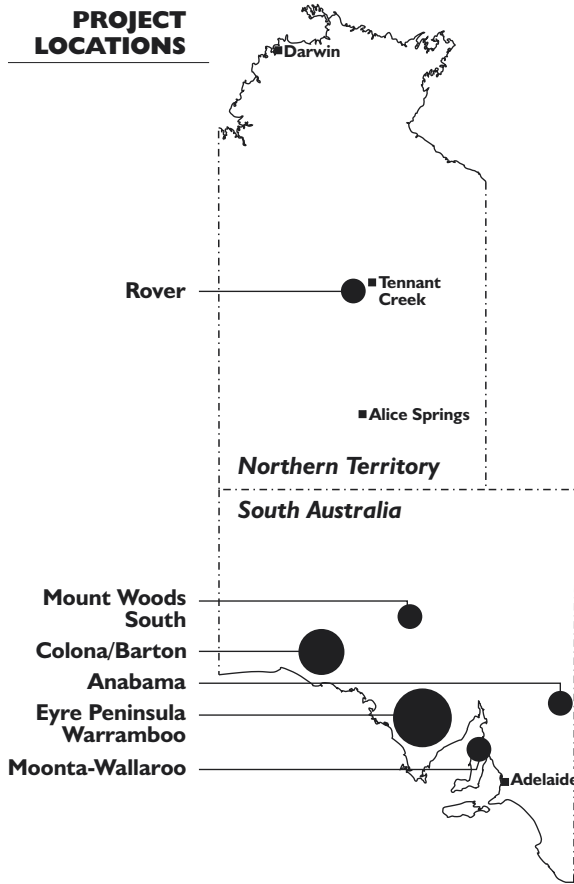
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**review of exploration activities**

**NORTHERN TERRITORY**

**Rover Gold-Copper Project**

*Adelaide Resources 100%*

On 2 March 2005 the company announced that it had acquired from Newmont Gold Exploration Pty Ltd a 100% interest in the Rover Gold-Copper Project located 75 kilometres south-west of Tennant Creek N.T.

Consideration for the acquisition is a \$400,000 minimum exploration commitment, a net smelter return royalty ranging from 1.5% to 2.5% after production, and the grant of an option to Newmont to buy back a 70% interest should a resource of more than 1.5 million gold ounces be discovered.

The Rover Field contains mineralised ironstone bodies which are identical to those of the well established Tennant Creek Goldfield, which has produced in the order of 5.5 million ounces of gold largely from highly profitable bonanza grade gold

deposits such as Juno (56 g/t) and Nobles Nob (17 g/t).

The acquisition involves two Exploration Licences (ELs) and an Exploration Licence Application covering 400 sq km. Very importantly, there are signed Deeds for Exploration with the traditional landowners covering the two ELs which are both situated on Aboriginal Freehold Land. These Deeds are to be assigned to the company.

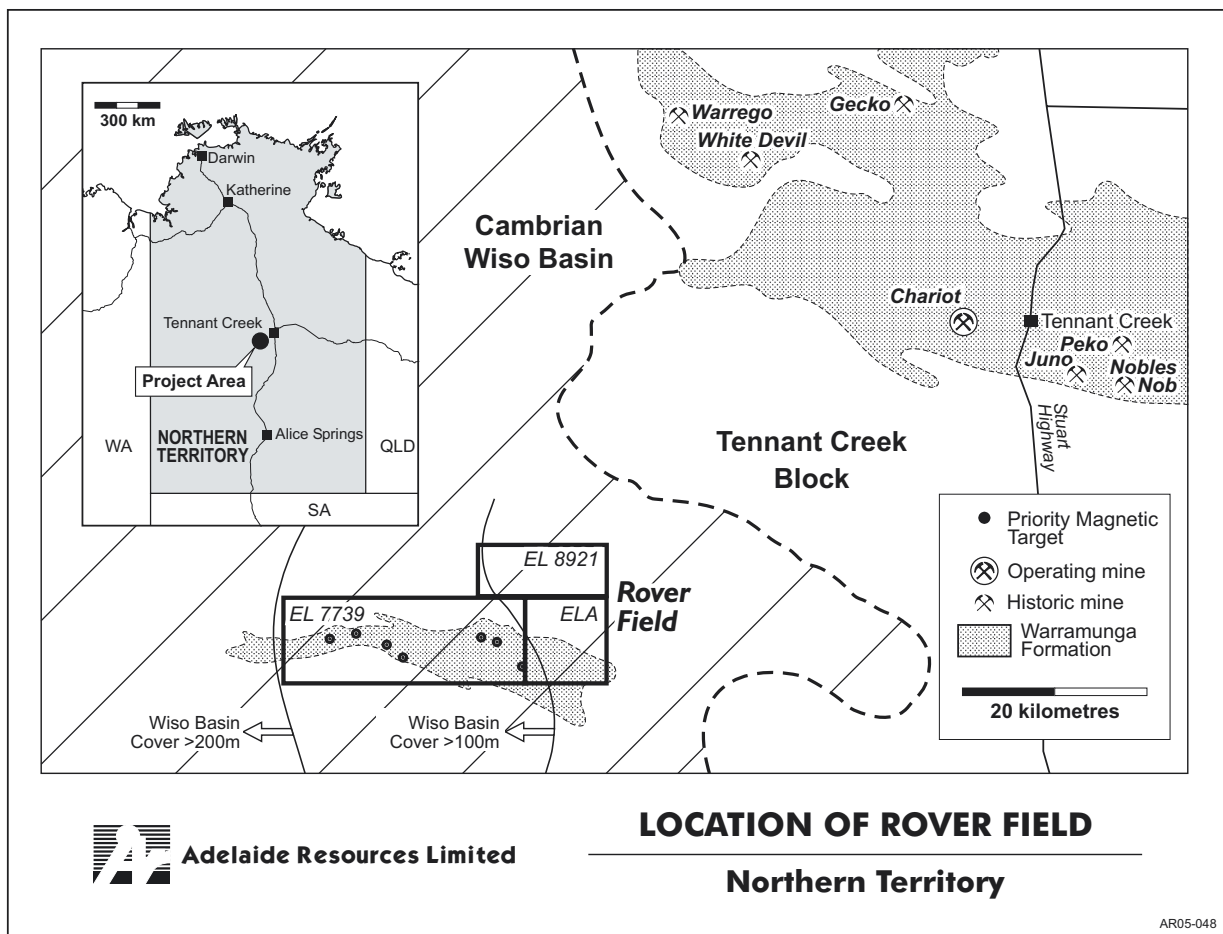
First identified by airborne magnetic surveys in the 1960's the prominent magnetic anomalies located over the ironstones were tested by limited drilling undertaken by Peko and Shell between 1971 and 1982. This drilling confirmed the similarity with the main Tennant Creek Field with widespread evidence of a gold-copper mineralising episode overprinted on the Rover Field ironstones. Experience shows that such an overprint is a positive indicator of the potential for such ironstones to host significant bodies of high grade gold mineralisation.

At Rover 1 less than 100 metres from Adelaide Resources' ground there are gold intersections up to 15 metres at 17.3 g/t gold and 0.7% copper.

There has been a 23 year hiatus in exploration since the area was last drilled in 1982. This hiatus is largely related to the requirements to negotiate an access agreement with the traditional landowners which was not achieved until 2000. As a result, Adelaide Resources is presented with a rare and exciting opportunity to explore a highly prospective gold project which is preserved in an under-explored state.

The prospective Precambrian basement of the Rover Field is covered by younger Cambrian sedimentary rocks ranging from less than 100 metres in the east to around 200 metres in the west of the project area. Preliminary economic modelling provides confidence that acceptable returns can be achieved in the event a mine is developed on a discovery similar in character to the top four or five high grade producers at Tennant Creek, despite a requirement to develop through the overlying cover rocks.

Seven high priority and relatively untested magnetic targets have been identified for follow-up. These targets have to date been tested with



as few as none to only five holes. Drilling is planned for the second half of 2005 following site clearance surveys currently scheduled in May. The program is likely to involve the testing of at least three of the priority targets with up to 4000 metres of drilling. ■

## SOUTH AUSTRALIA

### Colona Mineral Sands Joint Venture

Adelaide Resources Limited 100%;  
Iluka Resources Limited earning 51%

The encouraging discovery of several zones of plus 1% heavy minerals in four of only seven widely spaced reconnaissance drill traverses was reported in January 2005. Three of these traverses defined a 15 kilometre long section of the Ooldea Range shoreline as a focus for more detailed drilling (see plan).

During the current quarter the joint venture received the results of mineral assemblage determinations for mineralisation in the

abovementioned drilling. The analyses were completed on samples composited from mineralised intervals on traverses 2840-1 and 5587.

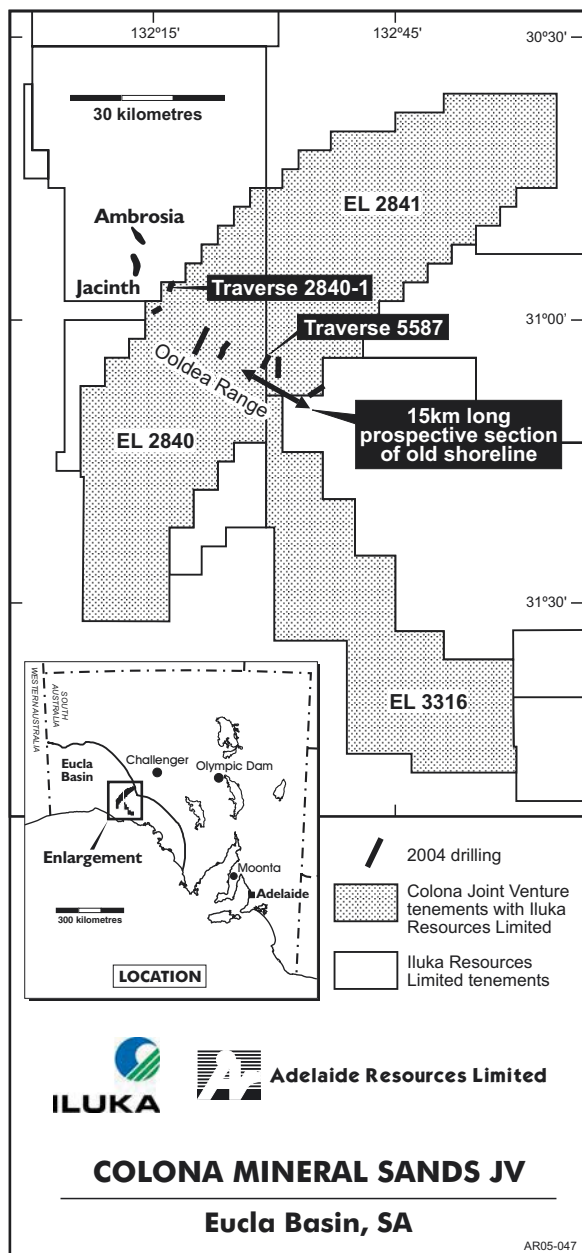
The results of the assemblage determinations are as follows:

### Indicative Mineralogy – Colona Joint Venture

Traverse	% Zircon	% Rutile	% Ilmenite
2840-1	37	5	49
5587	23	2	37

\* The bulk of the ilmenite has been altered to the more valuable high titanium variety.

Such early results are promising in terms of the high zircon content which is a desirable attribute under prevailing market conditions. The zircon content of these heavy mineral concentrates is at the top end of the range for Australian mineral sand deposits.



The recommencement of drilling is planned for mid-May. A significant part of this drilling will involve infill and extended traverses within the abovementioned prospective section, with additional traverses within the new Exploration Licence 3316 (see plan). ■

### Moonta-Wallaroo Copper-Gold Joint Venture

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

During the quarter the joint venture completed an aircore drilling program designed to test broad zones of anomalous copper and gold in soil calcrete over two specific targets. Promising copper intersections resulted.

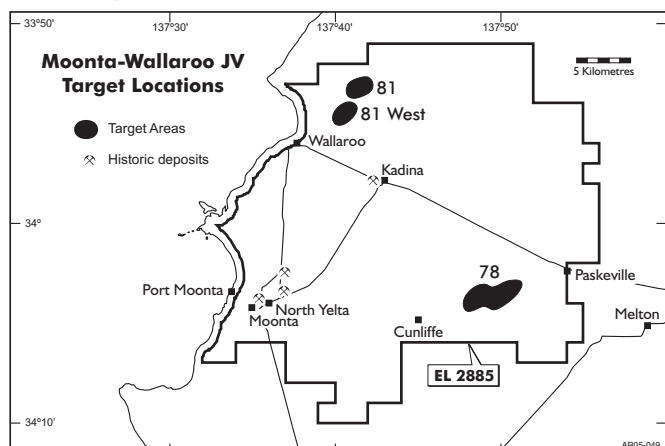
Drilling below the extensive gold and copper anomaly at **Target 81** intersected a ferruginous and gossanous ironstone containing significant copper mineralisation including 29 metres at 0.44% copper and 0.1g/t gold from 18 metres to the end of hole.

Drilling at **Target 78** defined several narrow zones of secondary copper mineralisation at the boundary between fresh and weathered bedrock associated with de-magnetised faults. A best intercept of 11 metres at 1.24% copper and 0.1g/t gold from 14 metres to the end of hole was returned at this target.

Additional aircore drilling following up on these encouraging results at Target 81 and Target 78 is currently in progress.

A 700 metre deep rotary mud/diamond core hole will begin in early May to test **Target 81 West**, a 1500 metre by 500 metre negative gravity anomaly with coincident copper and gold anomalism in soil calcrete and in adjacent historic drill holes.

Results from the current aircore and diamond drilling programs are anticipated in the June quarter. ■



## **Eyre Peninsula Gold Project**

*Adelaide Resources 100%*

A program of rotary airblast (RAB) drilling was recently completed to test the Empire copper-gold geochemical target situated 13.5 kilometres east of the Barns gold deposit. This program commenced after the decision on 1 March by Newmont Gold Exploration Pty Ltd to withdraw from the Eyre Peninsula Joint Venture after having spent a total of \$2.2 million. Adelaide Resources retains 100 per cent ownership of the project.

Empire, formerly WUD 9, is the most prominent copper geochemical anomaly evident in the company's extensive calcrete database for the Eyre Peninsula. Highly anomalous copper is associated with anomalous gold, nickel and zinc making the target an outstanding multi-element surface geochemical feature.

Previous RAB drilling at the prospect failed to locate mineralisation considered likely to source the geochemical anomaly.

Drilling comprised 44 holes for a total of 3827 metres. Analysis of drill samples is currently underway with early results indicating that anomalous gold and arsenic together with elevated concentrations of copper, zinc and nickel are present in weathered bedrock.

In withdrawing from the joint venture Newmont acknowledged that the project continued to be prospective for gold but that it did not perceive the area to be sufficiently prospective for a gold deposit large enough to match its demanding exploration targets.

The company is now in the process of reviewing its extensive Eyre Peninsula exploration database with the objective of reassessing the gold potential of the project area. This could well lead to a revised exploration strategy with increased emphasis on the application of geophysical methods.

High resolution airborne magnetic data was acquired last quarter; a government funded gravity survey is in progress; and the potential for using electrical methods to detect sulphide minerals associated with gold is currently the subject of in-house assessment.

## **Uranium Potential**

A comprehensive review of the uranium potential of the Eyre Peninsula Project area is currently in progress.

In the northern and central Eyre Peninsula there are Tertiary palaeochannels known to contain uranium-bearing water derived from the weathering of granites with anomalous uranium content.

The most recognised is the 170 km long Narlaby Palaeochannel, a significant length of which is situated in the northern sector of Adelaide Resources' tenements. In 1981-1983 drilling undertaken in this palaeochannel by Carpentaria Exploration was the last recorded uranium exploration in the district.

Conditions conducive to the deposition of sedimentary uranium in the Narlaby Palaeochannel are exemplified by the presence of the Yarranna uranium deposit located north-west of the project area. ■

## **Warramboe Iron Project**

*Adelaide Resources 100%*

Recent negotiations between the world's major iron ore suppliers and consumers conducted in the current climate of strong global demand has resulted in a significant increase in the price of seaborne iron ore.

This strong demand for iron ore has also seen a high level of interest in the Warramboe Iron Project with a significant number of groups interested in participating in further exploration of the project. The majority of these parties have connections to the Asian iron and steel industry.

Airborne magnetic surveys completed over the Warramboe Iron Project reveal an extensive strike length of magnetic anomalies indicating that potential exists to define a significant tonnage of magnetite-bearing material. Only nine effective drill holes have tested the magnetite-bearing units at Warramboe and a significant amount of exploratory drilling is required before potential magnetite resources can be determined.

Laboratory scale metallurgical testwork completed by Adelaide Resources in 2000 showed that a

magnetite concentrate with an excellent chance of meeting the most demanding specifications for iron ore could be produced from the Warrambo mineralisation. Magnetite concentrates produced from samples collected from reverse circulation drill holes contain in excess of 70% iron. Importantly, levels of potentially deleterious elements in the concentrates were also at very acceptable levels.

The company has set an end of June deadline for receipt of offers from interested parties. ■

### **Barton Nickel Joint Venture**

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

A moving loop time domain ground electromagnetic survey was completed on Exploration Licence 2841. Five areas were surveyed with a total of 98 line kilometres of data collected.

Results from the ground EM survey were negative with no evidence of responses attributable to bedrock conductors. Infill ground electromagnetic lines completed to follow up EM anomalies evident in the 2004 survey downgraded these features.

Following the negative ground EM results Inco Resources (Australia) Pty Ltd advised on 26 April of its decision to withdraw from the Barton Nickel Joint Venture. Inco earned no equity in the project during its involvement. ■

### **corporate**

#### **Changes in Directorships**

Mr John den Dryver and Mr Christopher Drown were appointed to the Board of Directors on 31 March 2005.

Mr den Dryver is a mining engineer with some 30 years' experience in operational and corporate management as well as extensive experience in mining project studies and implementations.

Mr Drown is a geologist with some 20 years' experience in the minerals industry. He joined the

Adelaide Resources team as Exploration Manager in March 1997

Dr Kevin Wills, a founding director of Adelaide Resources, who played a major role in establishing the company's exploration program and strategic planning, resigned on 31 March 2005.


The changed structure broadens the spectrum of skills and experience at Board level thereby increasing the capacity of the company to pursue a wider range of opportunities. ■

### **finance**

As at 31 March 2005, the company had available funds of \$3.404 million comprising cash and term deposits of \$3.051 million and liquid investments of \$0.353 million.

Exploration expenditure by the company during the March quarter was \$0.062 million.

Expenditure incurred by joint venture parties on the company's tenements during the quarter was \$0.343 million.



Keith Yates - Executive Chairman  
Signed on behalf of the Board of Adelaide Resources Limited  
Dated: 28 April 2005

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by KR Yates, who is a Fellow of the Australasian Institute of Mining and Metallurgy, and qualifies as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.*

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