



FLINDERS
DIAMONDS

Australian Stock Exchange Announcement

BAROSSA AIRBORNE MAGNETIC SURVEY COMMENCES

8 June 2004

The Manager
Companies Announcements Office
Australian Stock Exchange
20 Bridge Street SYDNEY NSW 2000

Dear Sir

Summary

A new high-resolution airborne magnetic survey is being flown over the Barossa Ranges in the first half of June. Targets from this survey will be integrated with anomalous kimberlitic indicator mineral results from recent stream sampling and are expected to lead to the discovery of new potentially diamond-bearing kimberlite pipes.

Barossa Airborne Magnetic Survey

Flinders Diamonds Limited today commenced test flying for its Barossa Ranges high-resolution airborne magnetic survey which will be carried out over the next two weeks. The survey is designed to help locate kimberlite pipes in the Barossa Ranges area as shown on the attached plan.

The survey aircraft is a Shrike Aerocommander (see photo) which will fly at a nominal altitude of 60 metres (about 200 feet). Over towns, the flying height will be increased to 150 metres (about 500 feet). The aircraft will fly north-south traverses at 100 metre spacing and east-west traverses at 1000 metre spacing. Test flying will be followed tomorrow by about ten days of routine surveying unless inclement weather causes delays.

Data recorded by the airborne magnetometer will enable the creation of the most detailed magnetic image of the survey area that has ever been produced. The image will be used to help search for kimberlite, the host rock to most diamond deposits. Kimberlite often contains magnetic minerals such as magnetite and ilmenite which can produce an anomalous feature on a magnetic image. Such anomalies can then be regarded as an exploration target.

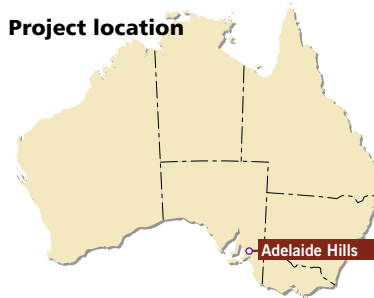
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Project location



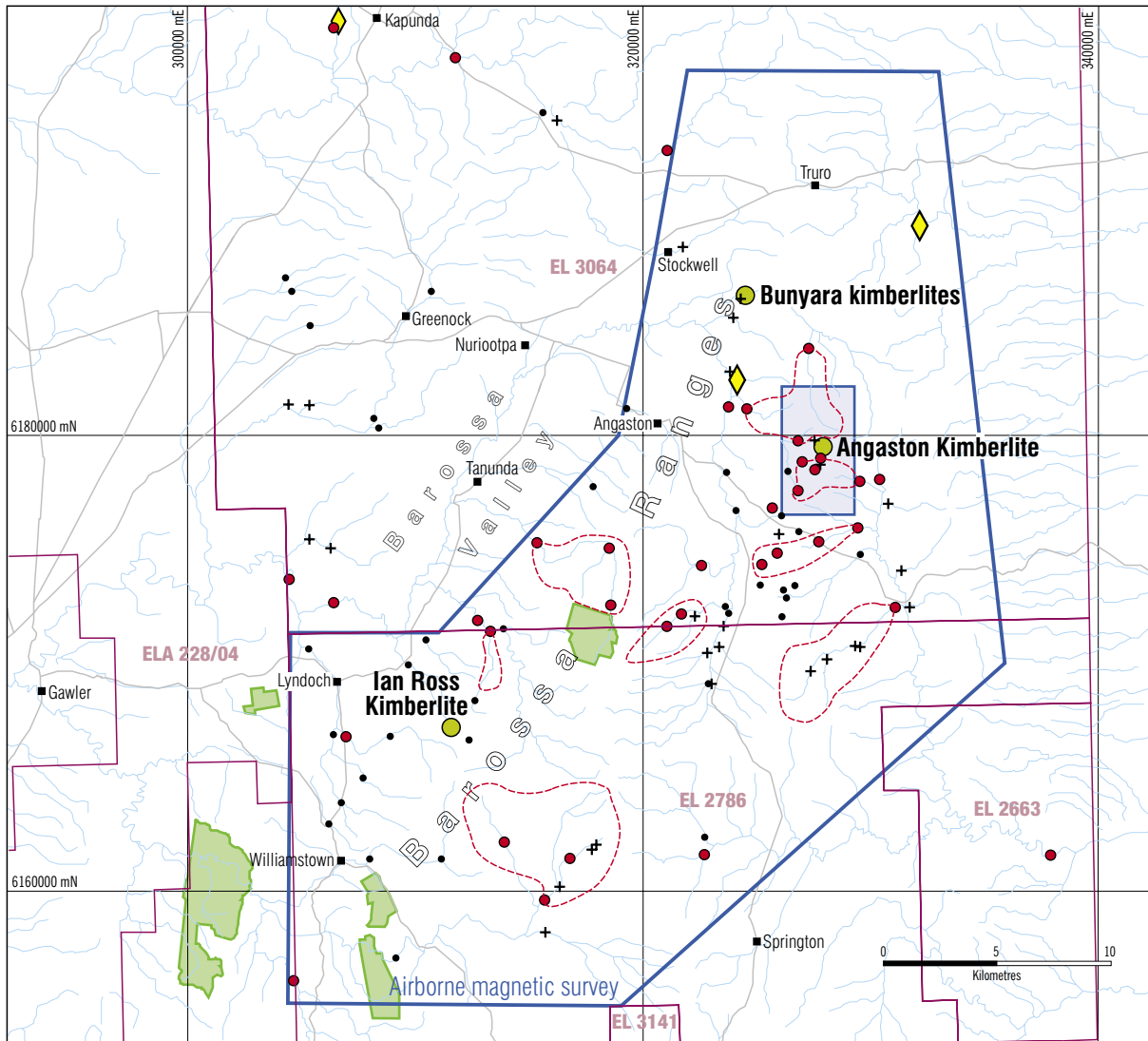
The Shrike Aerocommander conducting the survey

After flying is completed the survey contractor will take a few weeks to produce images of magnetics, radiometrics and a digital model of the terrain. These products are expected to be available by the end of June. The data will be interpreted by FDL's consultant geophysicist, with particular focus on the areas known to contain numerous kimberlitic indicator minerals, as shown on Figure 1.

New Clusters of Indicator Mineral Anomalies

In recent months FDL has collected about one hundred stream samples from creeks draining the Barossa Ranges. From these samples about 75 results are available, of which about 40 are negative and 35 are positive. Results for a further 25 samples are expected in the next few weeks. These first results are shown on Figure 1, together with balloons outlining the most interesting positive catchment areas.

These areas contain multiple positive kimberlitic indicator results, often consisting of pyrope garnet, chromite and varieties of picroilmenite. Mineral grains are generally angular, suggesting nearby primary sources. To date,



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|------------------------------------|---|
| Drainage sampling | High-resolution airborne magnetic survey - 100m line spacing |
| Positive result | Ultra high-resolution airborne magnetic survey - 50m line spacing |
| Negative result | FDL licence area |
| Sample collected, awaiting results | Main roads |
| Positive catchment areas | Creeks |
| Area containing kimberlite | Reserve - excluded from Exploration Licence |
| | Micro diamond locations from previous exploration |

Figure 1 Barossa Airborne Magnetic Survey

a total of eight clusters of positive results have been located as shown on Figure 1. These are expected to lead to a number of previously unrecognised kimberlites or kimberlite clusters.

FDL announced on 26 March that it had located a new kimberlite at Bunyara and another in the Ian Ross Quarry. Four possible additional kimberlites are also present at Bunyara. The area also contains the Angaston Kimberlite which was discovered by Rio Tinto in 1994. None of these kimberlites to date has been shown to contain diamonds although diamonds have been previously found in the area (Figure 1). Some of the associated pyrope garnets consist of G9 and G10 varieties which normally indicate high diamond potential.

When results from all stream samples are integrated with results from the airborne survey, by early July, it is expected that FDL will be in a position to locate a number of new, potentially diamondiferous, kimberlite pipes.

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