



FLINDERS  
DIAMONDS

## Australian Stock Exchange Announcement

### **FORTY NEW KIMBERLITE TARGETS LOCATED IN FLINDERS RANGES AREA**

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The Manager  
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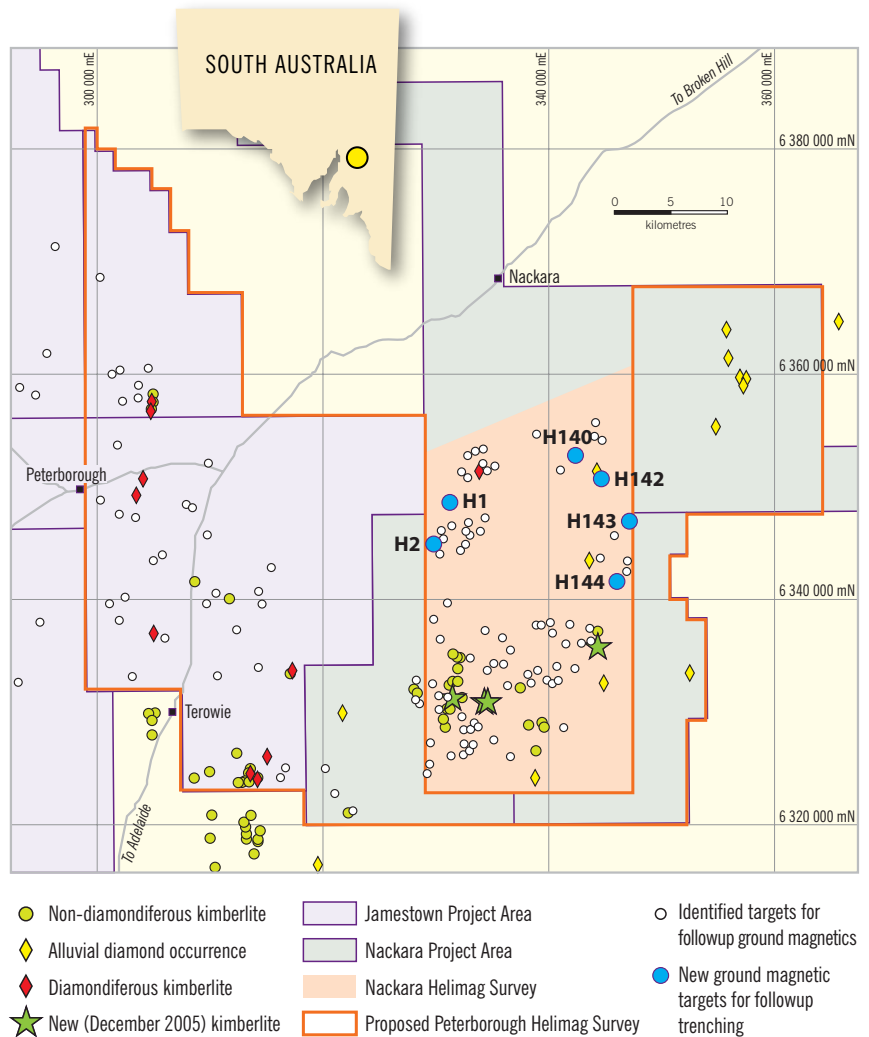
#### **HIGHLIGHTS**

- *Forty new kimberlite targets identified by ground magnetics*
- *12 pipe-like targets and 26 dyke-like targets ready to excavate*
- *One fissure-like target has been geophysically modelled as 40 metres wide*
- *On track to discover 100 new kimberlites in next four months and then commence bulk sampling*

#### **Flinders Ranges Project**

A program of ground magnetics to follow up airborne magnetic targets was carried out between 18 January and 1 February in the Flinders Ranges Project area of South Australia. The two main areas of focus were Jamestown and Nackara with a particular emphasis on defining kimberlite pipe targets (Figure 1). A total of 27 locations were visited and a total of 81 line kilometres of ground magnetics recorded.

Eleven airborne targets were accounted for by 7 high voltage transmission towers, 3 farm building complexes and one rubbish dump. The remaining 16 airborne targets were fully surveyed and are thought to represent probable kimberlites. Across the Flinders Ranges Project as a whole there are currently 8 identified airborne targets in the

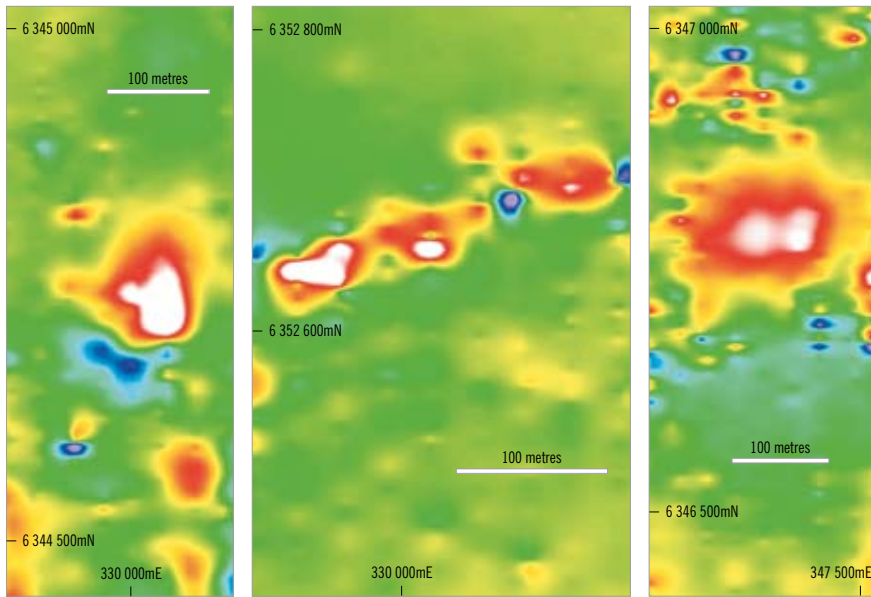


**Figure 1** Kimberlites and targets in the Peterborough - Nakara Area, SA.

Springfield Project area, 55 targets in the Jamestown Project area and 140 targets in the Nackara Project area. This is a total of 203 targets to investigate. Processed ground magnetic data are available for 86 of these targets and 40 targets are ready to excavate.

#### **New Kimberlite Targets**

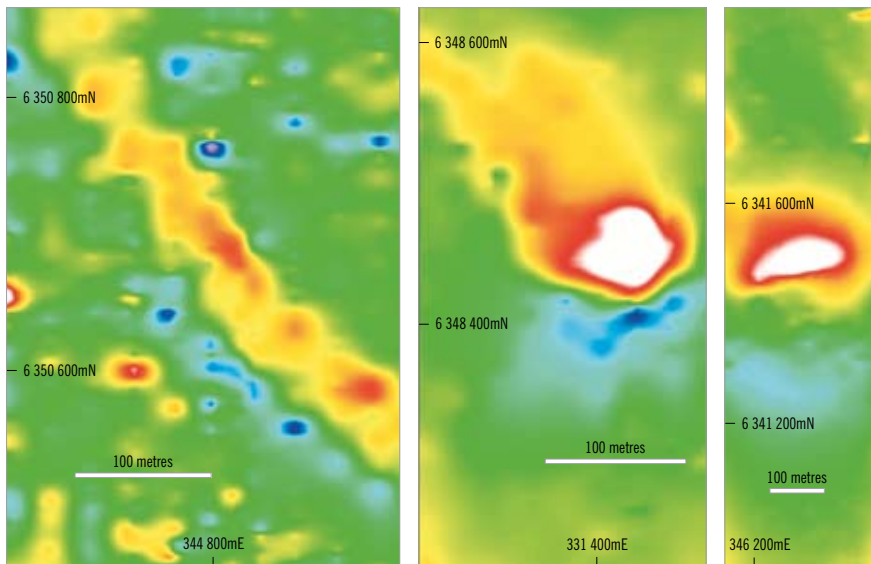
A selection of ground magnetic images of six current targets is shown in Figure 2. Four of the targets illustrated are pipe-like (H1, H2, H143 and H144) and two are dyke or fissure like (H140 and H142). In these images it is known from



**Anomaly H2**

**Anomaly H140**

**Anomaly H143**



**Anomaly H142**

**Anomaly H1**

**Anomaly H144**

**Figure 2** Location and images from ground magnetic surveys of four pipe-like and two dyke-like kimberlite targets.

previous work that the most magnetic areas of red and yellow colouration are likely to be underlain by kimberlite. One of the dykes or fissures recently located has a magnetic modelled width of 40 metres and is shown as H142 in Figure 2. Of the 40 targets ready to excavate, 26 appear to be dyke-like (vertical sheets), 12 are pipe-like (carrot shaped) and 2 are sill-like (horizontal sheets). FDL is focusing on the pipe-like targets since, if they contained economic grades they could be mined as open pit operations.

Most of the dykes located to date are in the 1-3 metre width range which is wider than several kimberlite dyke diamond mines in South Africa.

### Diamond Results

FDL currently has samples from four kimberlites discovered in December 2005 at the laboratory undergoing microdiamond determinations — results are expected by about the end of February. The company is also carrying out some work on nitrogen characterisation of the diamonds it

has located to date to see if any patterns emerge which will assist the exploration program. These results are also expected by the end of February.

### Forward Program

The next round of excavation is planned for early March. It is also planned to set up a field base in the Nackara area and to increase geological input by having two field teams operating for the next four months. One team will focus on ground magnetics and the other on target excavation. In this way it is expected that the kimberlite discovery rate will increase to 100 new kimberlites before the end of June 2006. To assist identification of new airborne targets the new Peterborough airborne magnetic survey is planned for March (Figure 1). Bulk sampling for macrodiamonds is planned to commence in July.

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The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Dr K Wills who is a Fellow of the Australasian Institute of Mining and Metallurgy and acts as a geological consultant to Flinders Diamonds Limited. Dr Wills has more than five years relevant experience in the style of mineralisation and types of deposit under consideration and consents to inclusion of the information in this report in the form and context in which it appears. He qualifies as Competent Person as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves".