10 September 2013

AIRBORNE GEOPHYSICAL SURVEY COMMENCES

HIGHLIGHTS

- **Airborne geophysical survey has started over four Cardinal tenements in Ghana, West Africa**
- **Survey to be controlled by Southern Geoscience Consultants Pty Ltd, Perth**
- **Bolgatanga Project survey to cover 3 tenements in NE Ghana totalling 7,649 line kms**
- **Subranum Project survey to cover 1 tenement in SW Ghana totalling 1,516 line kms**
- **Approximately 120 kms of interpreted shear structures to be covered**

Cardinal Resources Ltd (ASX:CDV) ("Cardinal" or "the Company"), is pleased to announce that the airborne geophysical survey over the Company's wholly owned Ghana tenements has commenced.

GHANA PROJECTS

Cardinal, through its wholly owned subsidiary, Cardinal Resources Ghana Limited, holds four tenements prospective for gold mineralisation in Ghana in two NE-SW trending granite-greenstone belts; The **Bolgatanga Project** located within the Nangodi and Bole-Bolgatanga Greenstone Belts in NE Ghana and the **Subranum Project** located within the Sefwi Greenstone Belt in SW Ghana.

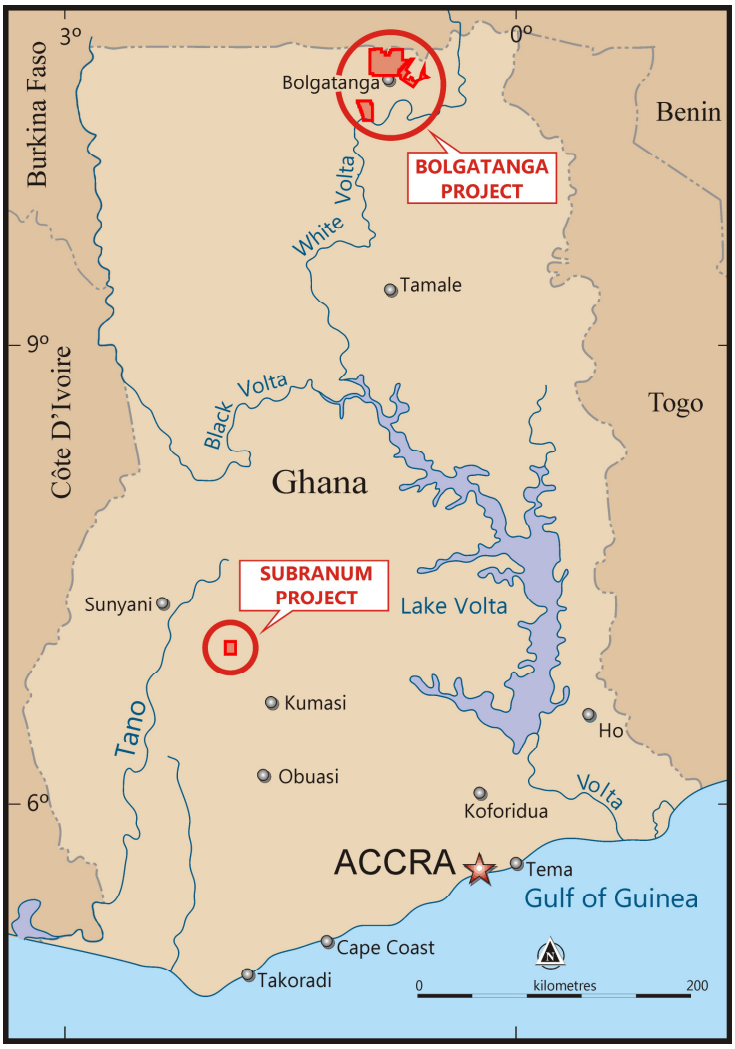

Figure 1: Ghana Regional Map

EXISTING AIRBORNE GEOPHYSICAL SURVEYS

Bolgatanga Project

Aeromagnetic and radiometric data over the Bolgatanga Project has been merged from two previously completed government sponsored surveys by Southern Geoscience that were flown at 400m and 800m line spacing.

Structures interpreted from this data show multiple major NE-SW trending shear structures, **totalling over 100 kms** striking through the Cardinal tenements which will be targets for gold exploration (Figure 2).

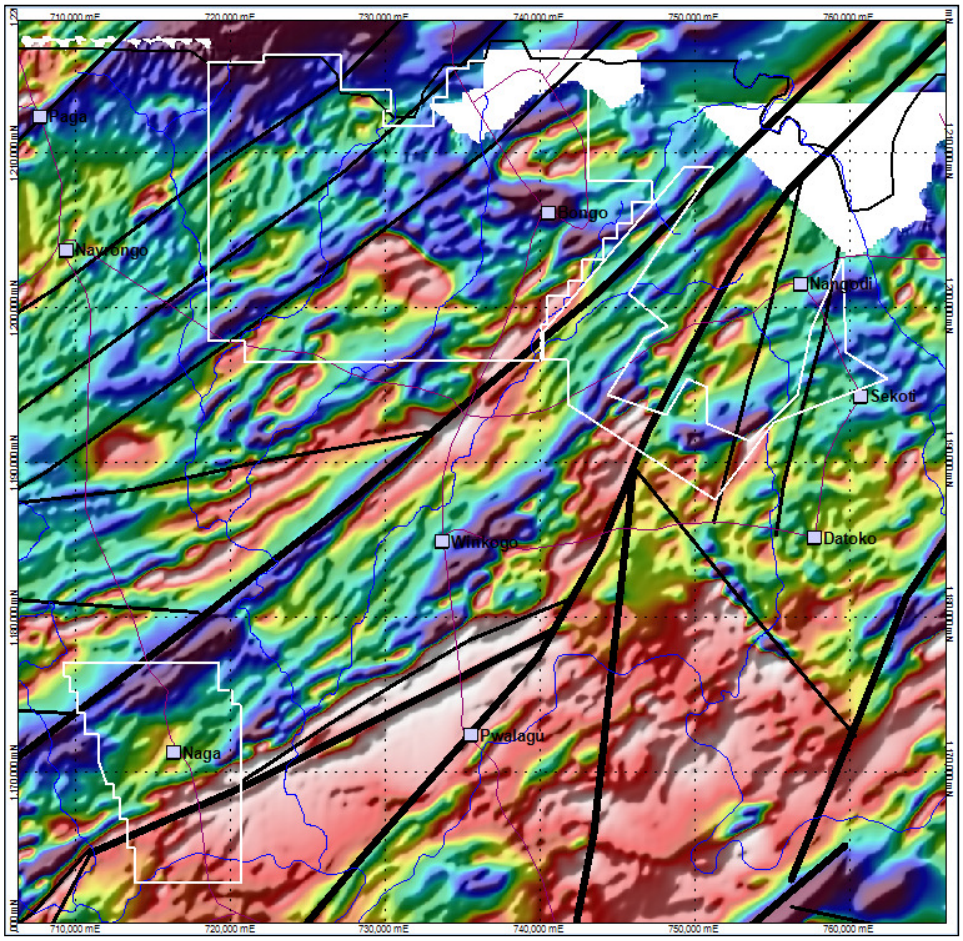

Figure 2: Bolgatanga Project - Planned Airborne Survey
(tenements – white; shear zones - black)

Subranum Project

Aeromagnetic and radiometric data over the Subranum Project is also from a previously completed government sponsored survey flown at 400m line spacing.

Structures interpreted from this data show that gold mineralisation detected from previous exploration closely correlates with one of the NE-SW striking structures.

These two sub parallel structures have a strike length of **at least 8 kms** within the Cardinal tenement. A N-S structure was also detected which was not previously recognised that could also form a focus for gold mineralisation (Figure 3). The combined structures interpreted from this data **total approximately 20 kms** which will be targets for gold exploration.

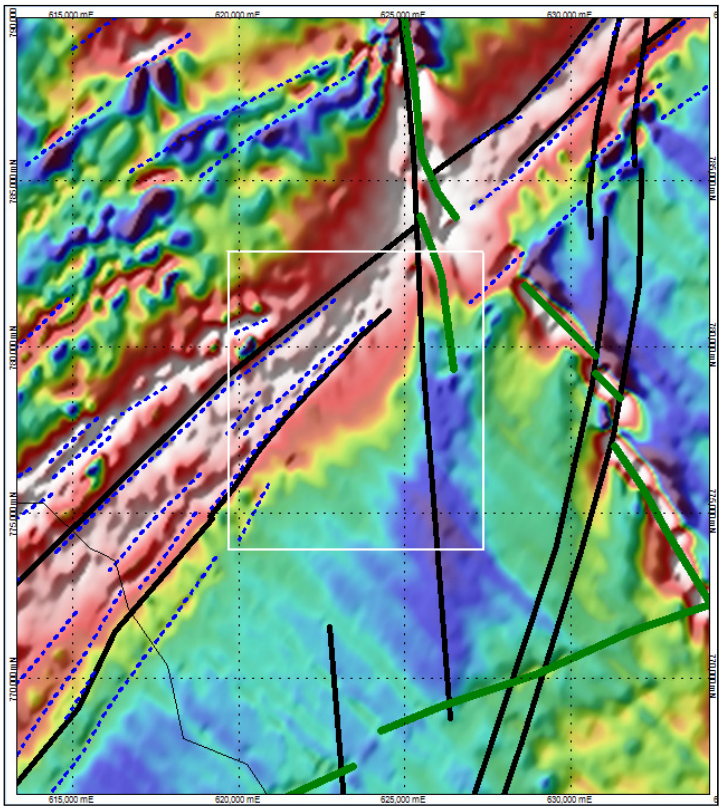

Figure 3: Subranum Project - Planned Airborne Survey (tenement – white; shear zones - black)

SEPTEMBER 2013 AIRBORNE SURVEYS

Although the existing government airborne survey data is very useful in a regional context, the line spacing and the spatial resolution is relatively low for detailed exploration.

In order to significantly advance our geological understanding and provide focussed exploration targets, this airborne geophysical survey will acquire much higher resolution data using close line spacing. This is illustrated by the images from a small ground magnetic survey at Subranum which are shown overlain on the aeromagnetic image (Figure 5). It is readily apparent that multiple thin magnetic units and subtle faults are seen in the close spaced ground magnetic data but not in the wide spaced airborne data.

It is impractical to cover the large areas involved with ground magnetic surveys. The logical approach is to conduct a detailed low level airborne survey of the areas. An added advantage of airborne survey is the simultaneous acquisition of radiometric data which is very useful for lithological mapping and alteration mapping. Potassium rich alteration is commonly associated with gold mineralisation.

The airborne geophysical survey contract will be undertaken by Terrascan Airborne GmbH and supervised by Southern Geoscience Consultants Pty Ltd, Perth.

Figure 4: Terrascan survey aircraft on location Bolgataga, Ghana

Bolgatanga Project

The airborne survey will cover the 3 Bolgatanga tenements (Figure 2).

This Bolgatanga survey has the following parameters:

- Line Direction: NW-SE
- Line Spacing: Mainly 100m with some small 200m spacing blocks
- Flight Height: 50m
- Line Kms: 7,649
- Measured Parameters: Magnetics, radiometrics and elevation

Subranum Project

The airborne survey will also cover the Subranum tenement (Figure 3).

This survey has the following parameters:

- Line Direction: NW-SE
- Line Spacing: 50m over the tenement area and 100m NE of the tenement
- Flight Height: 40m -50m
- Line Kms: 1,516
- Measured Parameters: Magnetics, radiometrics and elevation

The 50m line spacing has been selected for the block covering the tenement to gain maximum detail over an area already known to contain gold mineralisation.

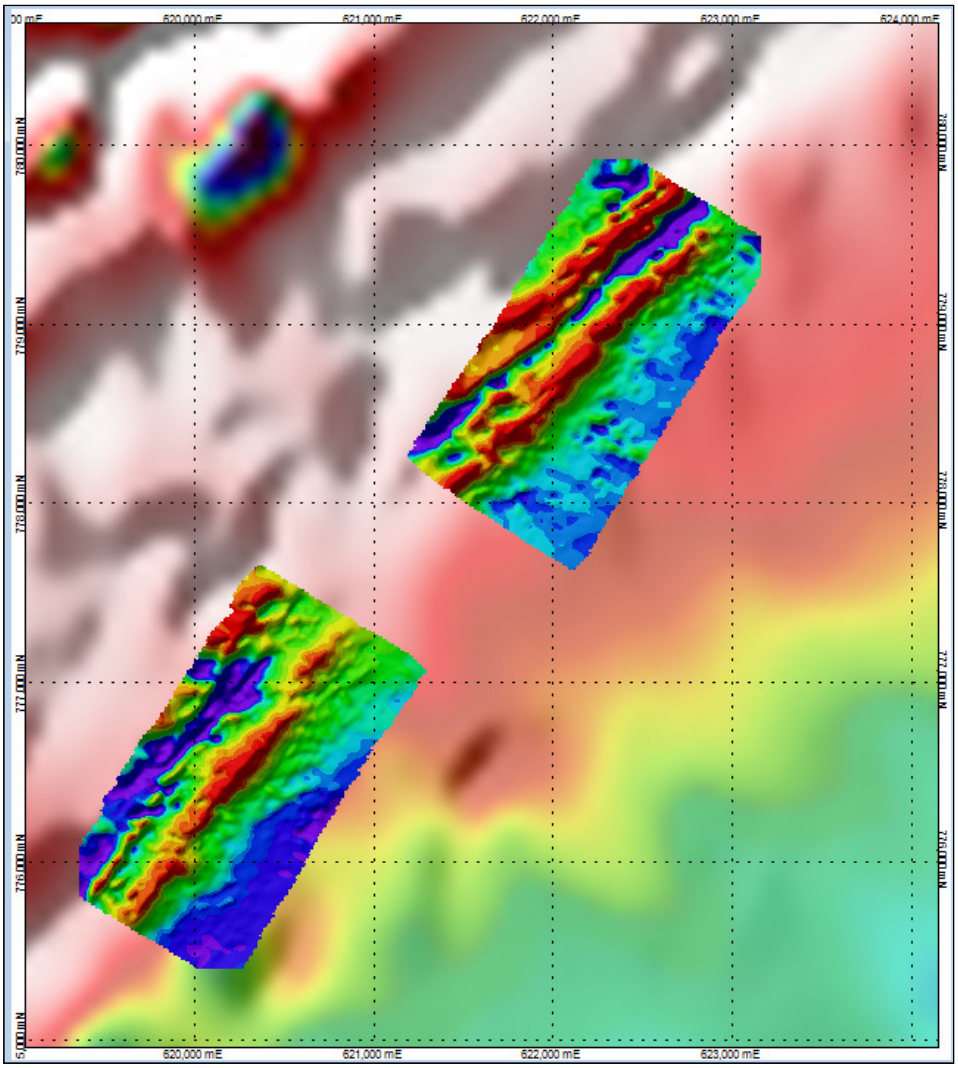

Figure 5: Subranum Project - Ground magnetic image over airborne magnetic image illustrating the gain in resolution.

Survey Timeline

The flying is estimated to take about two months with a single aircraft with subsequent processing and interpretation taking approximately a further two months with early results to be used as guide to exploration.

Managing Director Archie Koimtsidis said "This is a very exciting time for the company, the Airborne Survey geophysical interpretation combined with the existing geological database will enable Cardinal to prioritise and subsequently complete an initial reverse circulation and diamond drill programme on our tenements in Ghana."

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Competent Persons Statement

Information in this report that relates to the Bolgatanga Project is based on information compiled by Paul Abbott a full time employee of Cardinal Resources Limited, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Geological Society of South Africa. Paul Abbott has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Paul Abbott consents to the inclusion in this report of the statements based on his information in the form and context in which it appears.