

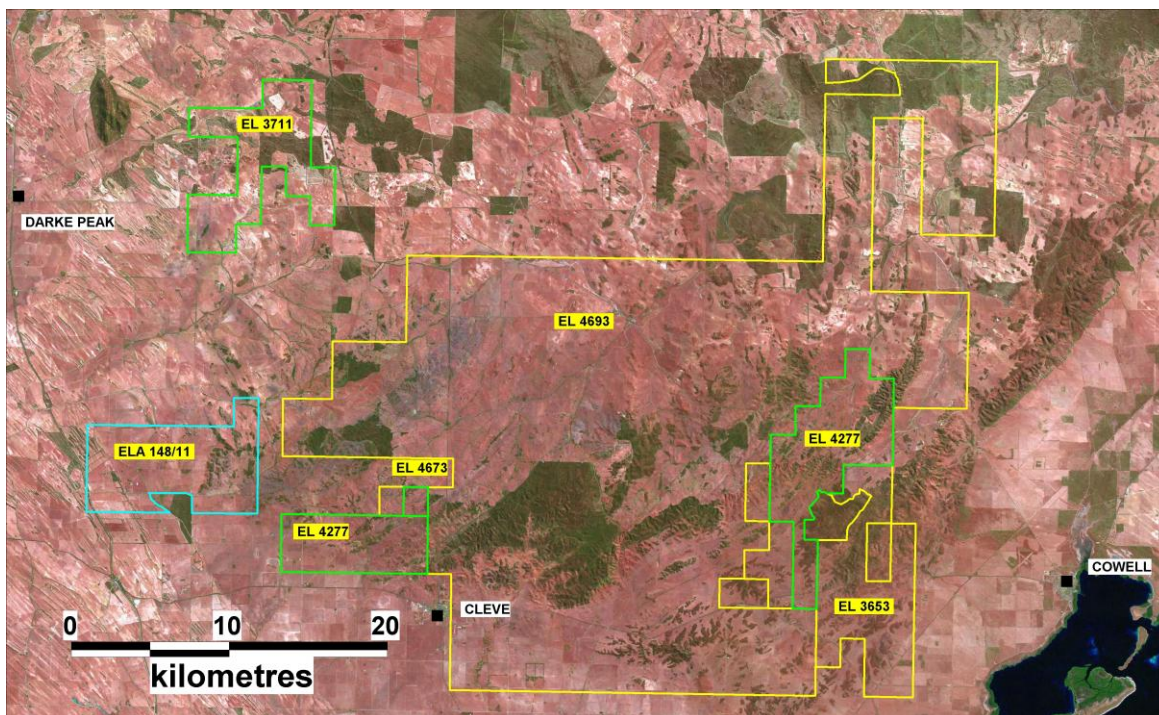
18<sup>th</sup> October 2011

General Manager  
 The Company Announcements Office  
 Australian Securities Exchange

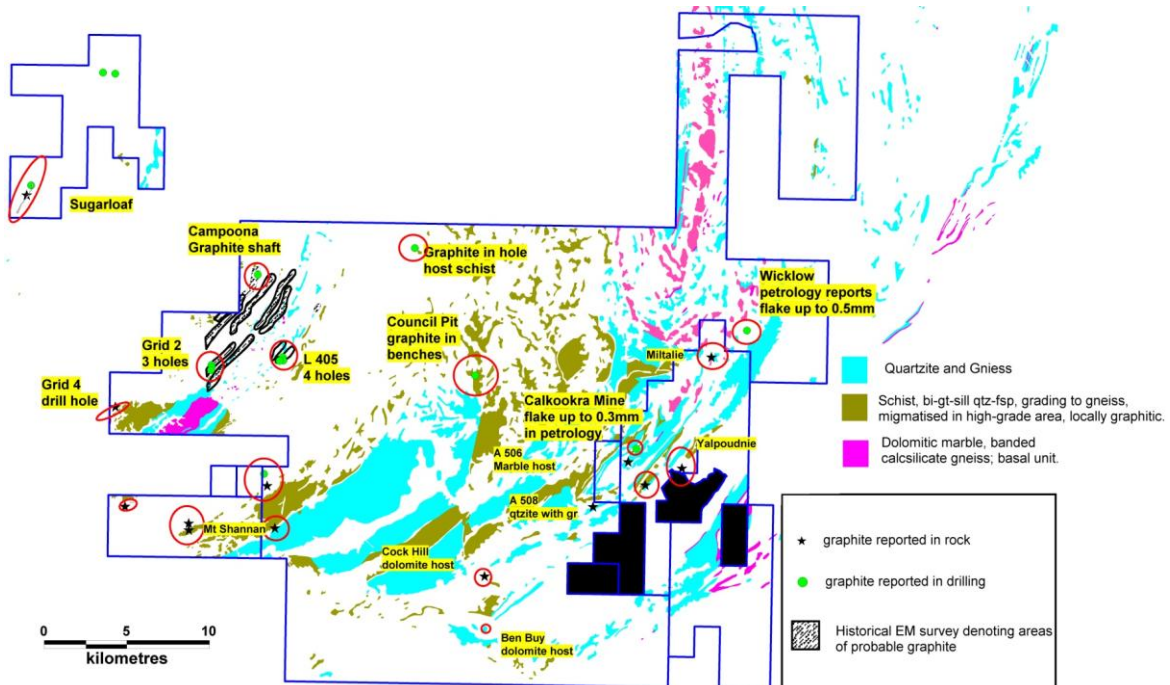
## **DRILLING COMMENCES ON CAMPOONA GRAPHITE DEPOSITS**

The Directors of Archer Exploration Limited are pleased to advise that a 10 hole RC drill programme testing the Campoona South and Grid 2 graphite deposits commenced on 17<sup>th</sup> October 2011. The drill targets are located in the northwestern portion of EL4693 Wildhorse Plain located between Cleve and Darke Peak on Eyre Peninsula, South Australia (figs 1 & 2).

The drill programme is expected to take 2 weeks to complete.



**Figure 1. Archer's Graphite Tenements and Interests in the Cleve Area of South Australia**



**Figure 2. Archer Exploration Limited’s numerous graphite deposits and occurrences on EL3711 Carapee Hill and EL4693 Wildhorse Plain near Darke Peak, Eyre Peninsula, South Australia.**

Despite access limitations due to cropping, Archer will use fallow paddocks and Council fire roads to provide good first pass coverage of the Campoona South and Grid 2 graphite targets. The drilling will provide “bulk” samples for metallurgical test work including grind liberation tests, staged flotation and detailed graphite characterisation of the graphite concentrates.

Campoona South occurs as a prominent north trending graphite outcrop that has consistently assayed >25% C. The outcropping graphite has visible large flake present.



**Plate 1. Looking North at graphite outcrop along Campoona South**





**Plate 2. Close up of hand specimen from Campoona South showing coarse graphite flakes up to 1mm**

Petrology on Campoona South recorded the graphite size ranging from  $5\mu\text{m}$  to  $80\mu\text{m}$  (width) x  $300\mu\text{m}$  (length) with an average size estimated by Pontifex of  $50\mu\text{m}$  x  $250\mu\text{m}$ . Petrological examination reported the graphite as occurring within “heterogeneous, fine layered quartz-feldspar microgneiss, together with quartz-graphite schist”. This includes “minor quartz-clay-sericite-altered ex-sillimanite, and scattered small lenses of relatively concentrated graphite.”

Crystalline graphite at  $300\mu\text{m}$  equates to US50mesh and is classified as Extra Large flake graphite. The average size of Campoona South flake is  $250\mu\text{m}$  equating to US60 mesh is termed Large flake and occurs within graphite clots up to 4mm in length.

The presence of sillimanite is important as it reflects a high grade metamorphic overprint has occurred. The metamorphism of a rock refers to the temperature and pressure that the rock has experienced over time. As metamorphic grade increases, higher pressures and temperatures generally enable the development of larger crystal sizes and, in the case of the graphite occurrences tested on Wildhorse Plain, is conducive to the formation of large crystalline flake graphite.

Grid 2 High Bluff was tested for base metal mineralisation by ESSO with 3 + 150m holes spaced at 200m apart. Graphitic schist was reported in all holes. The holes lie on the southerly extent of one of the Campoona EM conductors.

Drill hole logs report;

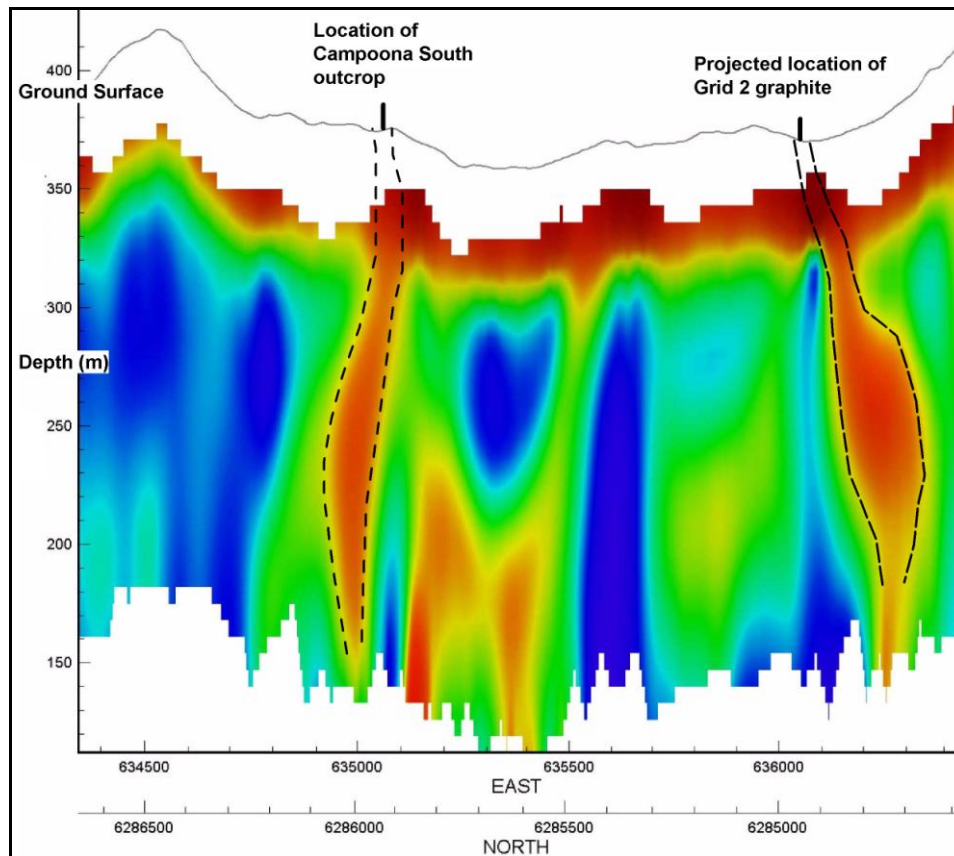
- Hole G2P-1 0 to 147m Biotite quartz, muscovite, feldspar, garnet schist/micro gneiss with varying graphite, pyrite and magnetite as accessories.
- Hole G2P-2 0 to 161m Biotite quartz, muscovite, feldspar graphite schist, intruded by pegmatites. Abundant graphite occurred over an interval of 25m.

- Hole G2P-3 0 to 150m Biotite quartz schist with varying feldspar, garnet graphite, chlorite and pyrite, with minor pegmatites.

No petrological or qualitative work was performed on the graphite occurring in the drill holes. The ESSO drill logs report high grade metamorphic minerals such (sillimanite and cordierite) as well as zone of migmatite that provide encouragement for graphitic flake development.

The current drilling programme was designed using the airborne EM survey that was completed in August 2011. That survey showed:

1. The close spaced EM survey closely mirrored historic wide spaced EM survey data.
2. Both EM surveys accurately reflect outcropping high grade graphite at Campoona South.
3. The Campoona – Campoona South trend is a significant regional trend.
4. There is at least 20km of strike of highly conductive rocks within the immediate Campoona – Campoona South trend.
5. The geophysical data supports the observation that that the two occurrences at Campoona South and the Campoona Shaft are one continual graphitic unit.
6. The potential for large flake graphite is enhanced by the nearby presence of gneissic granite and the presence of high grade metamorphic mineral assemblages.



**Figure 3. Section of the highly conductive Campoona South and Grid 2 graphite deposits (North to left of page). The two graphite deposits are labelled and depth extents highlighted.**

Figure 3 shows that both Campoona South and the Grid 2 occurrences are persistent bodies that extend to a depth of at least 200 metres.

A second larger resource definition drilling programme over the Campoona graphite deposits is planned for early calendar 2012 following the 2011 harvest.

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*The exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr. Wade Bollenhagen, Exploration Manager of Archer Exploration Limited. Mr. Bollenhagen is a Member of the Australasian Institute of Mining and Metallurgy who has more than sixteen years experience in the field of activity being reported. Mr. Bollenhagen consents to the inclusion in the report of matters based on his information in the form and context in which it appears.*