

# Waddikee Graphite Tenement Purchase Completed



SX Code: AXE

## Directors

Greg English  
Chairman

Gerard Anderson  
Managing Director

Tom Phillips AM  
Director (Non-Executive)

Alice McCleary  
Director (Non-Executive)

## Company Secretary

Craig Gooden

## Shares on Issue

84.3 million

## Unlisted Securities on Issue

2.4 million Performance Rights

## Key focus

Campoona and Sugarloaf  
Graphite Projects (Eyre  
Peninsula, South Australia)  
Magnesite (Leigh Creek).  
Second tier projects cover  
manganese, copper and gold.



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## New SA acquisition provides Archer with large flake graphite project and substantial exploration upside

Archer Exploration Limited (ASX:AXE) ("**Archer**") is pleased to announce that the Minister has consented to the transfer of Waddikee EL4662 from Monax Mining Limited (ASX:MOX) ("**Monax**") to Archer's wholly owned subsidiary Pirie Resources Pty Ltd. The total purchase price was \$300,000.

The Waddikee acquisition which complements Archer's existing flagship graphite projects on South Australia's Eyre Peninsula adds:

- The Wilclo South graphite deposit with a JORC 2012 Inferred Resource of 6.38 million tonnes grading 8.8% GC (using a 5% GC lower cut-off grade) for over 561,000 tonnes of contained graphite in Resource. The Resource drilling covered just 1.4kms of a  $\approx$  14 kilometre pronounced linear EM signature.
- Substantial exploration upside with 7 additional graphite prospects already identified and numerous EM targets not yet drill tested.
- Large to jumbo flake indicated in petrology at Cut-Snake, Balumbah and Argent.
- Wilclo South within 25km of Archer's proposed Sugarloaf graphite processing plant.

Commenting on the acquisition, Archer's Managing Director Gerard Anderson said, *"This is a highly complementary acquisition for Archer as it provides the Company with deposits of high-demand flake graphite, immediately trebles our JORC graphite resources and, with numerous largely untested graphite prospects, provides opportunities to further grow our graphite resources."*

With the Waddikee Tenement secured Archer will continue to work towards maximising the potential value of the significant combined graphite portfolio and the exciting opportunities these assets present.

## Forward plans

As part of the due diligence process, Archer undertook metallurgical test work and recovered large, medium and fine flake. Additional testing is underway and the results of that test work will be announced in the coming weeks.

Archer is well funded and intends to undertake a comprehensive review of the geophysical data to identify and rank drill targets. The Company is confident that it can significantly increase the existing Waddikee resource quickly and easily. Metallurgical test work will continue to determine the quantity, quality and size distribution of flake that can be recovered. Engineering design will also be undertaken so that the future Campoona processing plant will be able to process and recover flake graphite from the Waddikee Project.

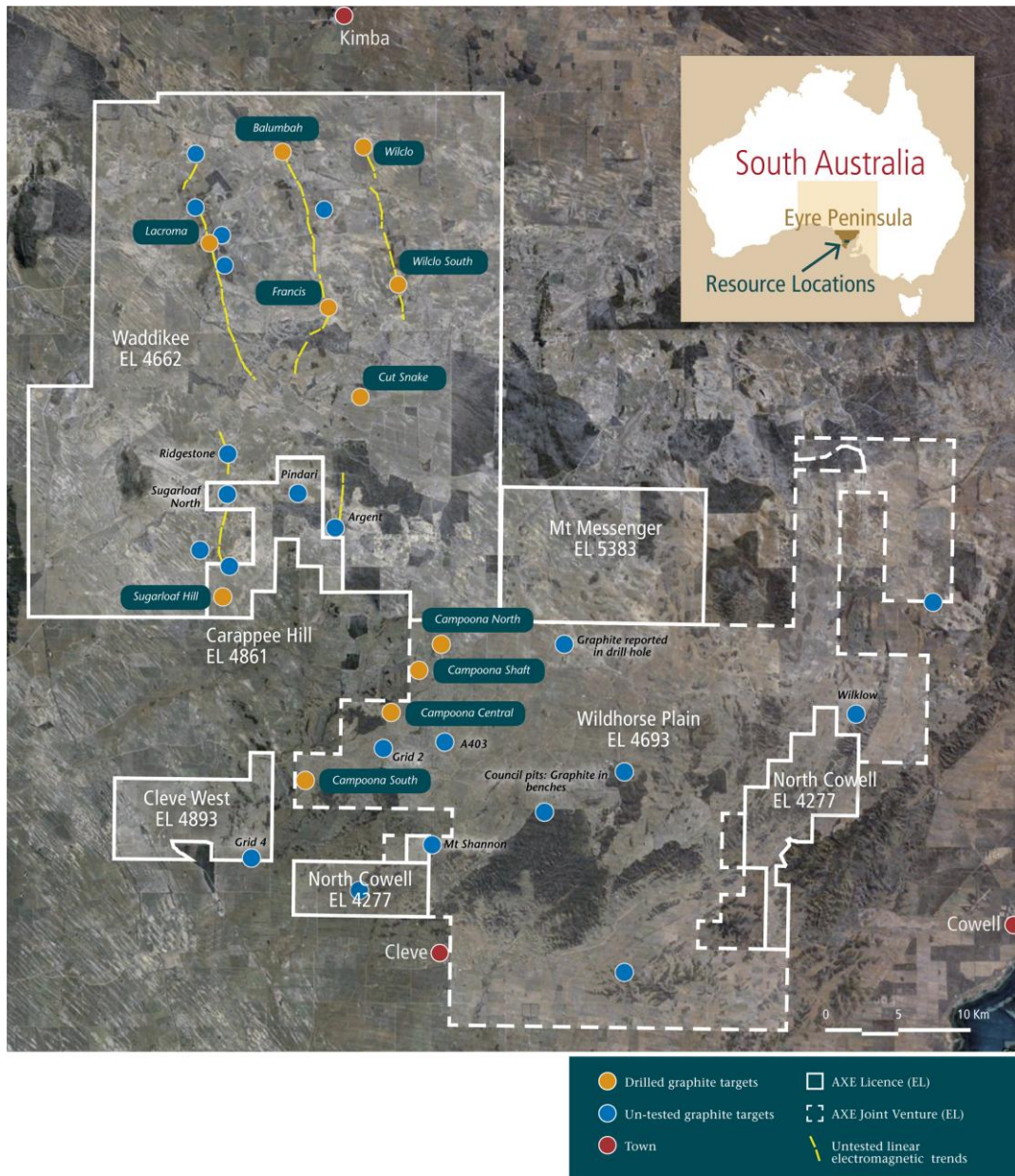
Archer's strategy is to discover or acquire resource projects, to add value through the exploration and resource definition stage and to grow shareholder value through development, strategic partnerships or divestment. Archer looks forward to updating its shareholders as its plans are implemented.

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## About the Waddikee Tenement

Waddikee EL4662 is located between the townships of Cleve and Kimba on Central Eyre Peninsula (Figure 1). The 999km<sup>2</sup> tenement is situated immediately north of Archer's main graphite interests on EL4693 Wildhorse Plain.

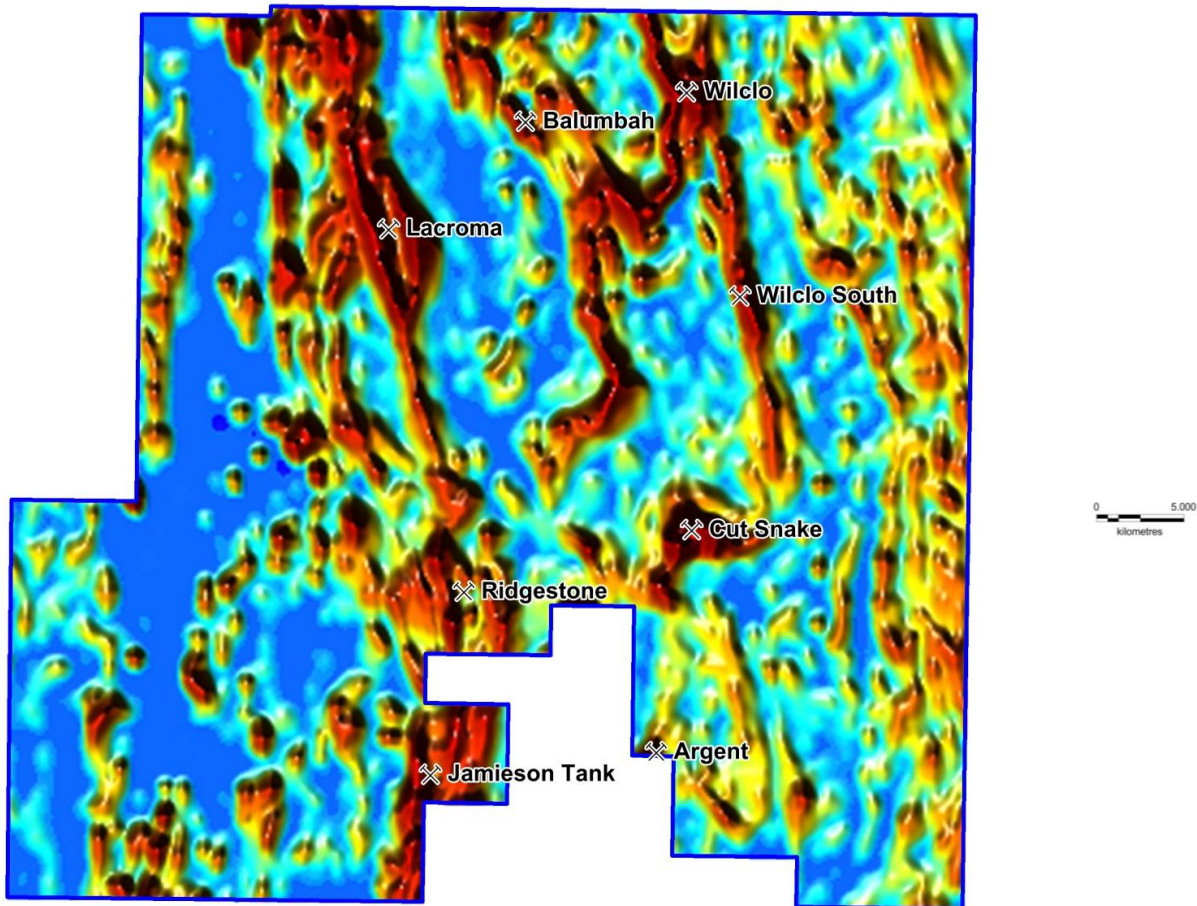


**Figure 1. Satellite image showing Archer's graphite tenements. The yellow dashed lines on the Waddikee tenement indicate the location of linear highly conductive EM signatures that already host a number of flake graphite prospects.**



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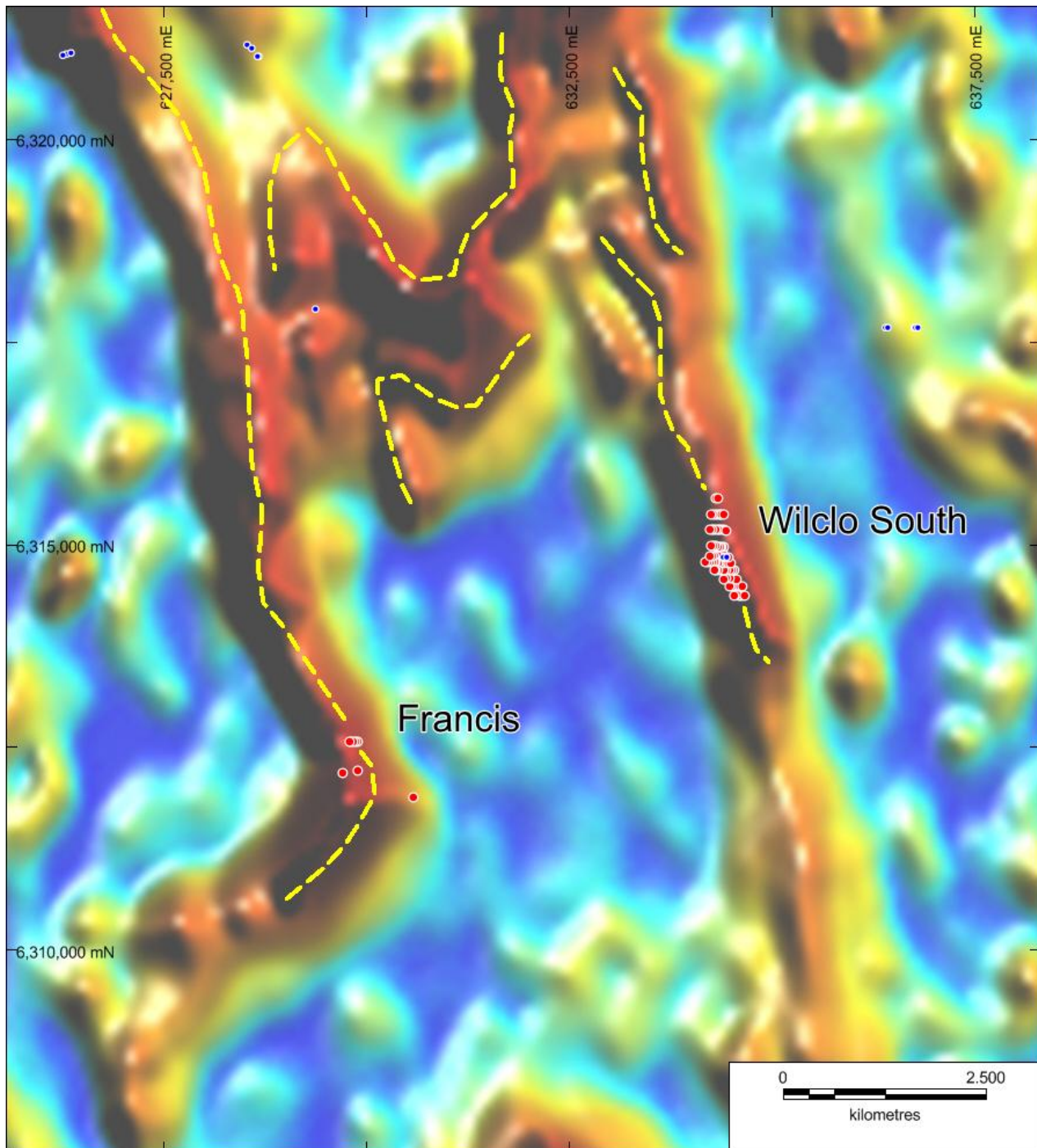
Waddikee has a number of graphite deposits and prospects that have been evaluated using combinations of geophysics (airborne magnetic and electromagnetic surveys), rock chip sampling, detailed petrology and drilling.



**Figure 2. Key graphite deposits and prospects on Waddikee EL4622**

Rock chip sampling by Monax returned high grade graphite at the Argent, Wilclo, Cut Snake, Balumbah and Lacroma prospects. Petrology from several samples showed the presence of large and jumbo flake graphite at the Argent (flake size to 2mm), Balumbah and Cut Snake prospects.

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**Figure 3. Interpreted graphite conductive bodies showing the limited extent of drill coverage.**

EM is a reliable and predictable tool to locate electrical conductors. Monax has an extensive EM data set that indicates potential linear conductors occur over 20 kilometres that remain undrilled. Figure 3 above represents Monax's interpretation of prospectivity for graphite at Waddikee. It is reasonable to conclude that further exploration will increase the graphite Resource.

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## Wilclo South 2012 JORC Indicated Resource

In February 2013 Monax completed 77 reverse circulation drill holes for 7,307 metres over 1.4km of the Wilclo South graphite prospect. The drilling identified multiple shallow dipping graphite horizons.

Graphite mineralisation at Wilclo South is divided into upper and lower lenses separated by two low angle thrust faults. Drilling was conducted on a combination of 200 metre, 100 metre and 75 metre line spacings. All resources are at Inferred category.

### Wilclo South Inferred Mineral Resources (>5% GC cut-off)\*

Fault Zone	Oxidation State	Tonnage (Mt)	GC (%)	Density (t/m <sup>3</sup> )
Upper Block	Oxide	1.02	8.4	2.3
	Fresh	2.67	8.7	2.3
Middle Block	Oxide	0.36	8.2	2.1
	Fresh	1.72	9.5	2.1
Lower Block	Oxide	0.25	7.9	2.1
	Fresh	0.36	9.1	2.1
Subtotals	Oxide	1.63	8.3	2.2
	Fresh	4.74	9.0	2.2
Total Inferred (no cut-off)		6.38	8.8	2.2

*\*This information was prepared and first disclosed under the JORC Code 2014 (Monax Mining Limited, ASX Announcement 26th August 2013). It has not been updated since on the basis that the information has not materially changed since it was last reported.*

Only a small portion of Wilclo South has been drilled out yet it already contains over 560,000 tonnes of contained graphite. The deposit is open to both the north and south. It is reasonable to expect that additional drilling at Wilclo South will increase the graphite inventory.

The Francis deposit contains very high grade graphite downhole intercepts including 15m @ 20.7% GC; 12m @ 21.9% GC; 3m @ 22.2% GC, and 2m @ 25.0% GC.

Drilling at Lacroma also returned very thick intercepts including 60m @ 6.8% GC. The drilling was completed well west of the intense EM signature due to the land being under crop at the time of drilling.

Rock chip sampling at Balumbah returned grades in excess of 13.7% GC but importantly petrology recorded very coarse to jumbo flake graphite.

Argent which has very coarse graphite (up to 2mm) has not been drilled.

The airborne EM data suggests that there are several kilometres of prospective linear conductors that remain to be drill tested.

The rock chip sampling and detailed petrology has been supported by airborne magnetic and electromagnetic (AEM) data that showed that each of the graphite prospects was located within areas of distinctive linear conductive features.

Subsequent work by Monax increased the number of graphite deposits and prospects to eight. In July 2012



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Monax drilled 40 reverse circulation drill holes for 2,908 metres on five of the graphite prospects. From this drilling Monax identified the Wilclo South, Francis and Lacroma prospects as high priority exploration targets.

## ***Waddikee Metallurgy***

Archer evaluated the metallurgical performance of Waddikee prior to committing to purchase the tenement. Approximately 20 kilograms of sample was collected from selected drill holes at Wilclo South and Francis. Samples were taken by scoop from individual sample bags and combined to form one sample for metallurgical testing.

The yield of marketable grade flake obtained was calculated about 20% (+/- 5%) of the available elemental carbon at 90% grade cut-off.

The potential yield of combined flake increased to around 32% at about 85% grade cut-off into 20-25% of the sample weight.

## ***Waddikee Manganese and Iron***

The Waddikee project has strong potential for iron and manganese mineralisation within the Palaeoproterozoic Hutchison Group metasedimentary rocks. More than 80km of strike length of the host sequence, including banded iron formation (BIF), occur throughout the tenement. The BIF sequences are clearly evident as long curvi-linear highs within Monax's 100m line spaced aeromagnetic data. Rock chip sampling by Monax identified a number of iron (hematite) and manganese prospects within the tenement.

Monax completed 13,204 metres of RC Air Core and Percussion drilling across the project primarily evaluating the potential for economic manganese mineralisation.

The Jamieson Tank manganese prospect in the south west of the tenement comprises over 5km strike of banded iron formation. Manganese mineralisation occurs along strike parallel bands on either side of the BIF sequence and extends well into EL4693 Wildhorse Plain. Archer has the rights to all minerals other than uranium on EL4693.

## ***Forward plans***

Archer's strategy is to discover or acquire resource projects, to add value through exploration and resource definition and to crystallize value through development, strategic partnerships or divestment.

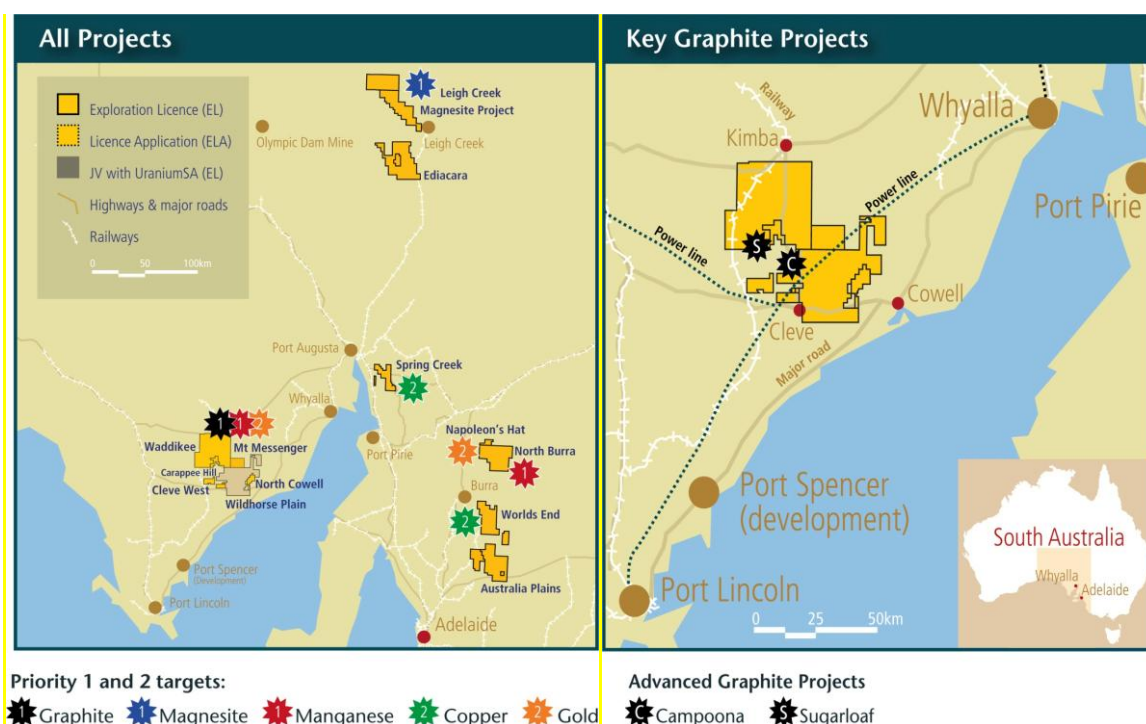
The experienced team at Archer will now assess its immediate options with respect to the Waddikee project.

Archer will continue to update its shareholders as the plans are implemented.

# About Archer

Archer Exploration Limited is an Australian Stock Exchange listed company with 100% ownership of 15 tenements and one Exploration Licence Application all in South Australia covering 6,053 km<sup>2</sup>. Archer also has the rights to all minerals other than uranium on EL4693 covering a further 816 km<sup>2</sup>. Archer's main project is the Campoona Graphite Project which is located within reach of established and major developing infrastructure. It has a JORC 2004\* Resource of 5.27 million tonnes @ 7.6 % TC (based on 2% TC cut-off). Archer plans to submit a Mining Lease Proposal to the South Australian Government for approval in the third quarter of calendar 2014.

\* This information was prepared and first disclosed under the JORC Code 2004 (Archer Exploration Limited, ASX Announcement 6th December 2012). It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.



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The Archer 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 eighteen years experience in the field of activity being reported. Mr. Bollenhagen has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" relating to the reporting of Exploration Results. Mr. Bollenhagen consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

The Archer information in this report that relates to the JORC 2004 Mineral Resource estimation has been prepared by Mr B Godsmark who is a Member of the AusIMM and peer reviewed by Mr G Reed who is also a Member of the AusIMM (CP). Mr Godsmark is a full time employee of Mining Plus Pty Ltd and Mr Reed is a sub-contractor to Mining Plus Pty Ltd, both have more than five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Godsmark and Mr Reed have consented in writing to the inclusion in this announcement of the Mineral Resource estimation information in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.