Archer Exploration

Positioned for growth

SA Exploration & Mining Conference
7 December 2012

Gerard Anderson *Managing Director*

Disclaimer

Competent persons statement

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 eighteen years experience in the field of activity being reported. Mr Bollenhagen has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity that 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' 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 information in this report that relates to the 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.

Forward looking statements

The information in this presentation is published to inform you about Archer Exploration Limited and its activities. Some statements in this presentation regarding estimates or future events are forward looking statements.

Although Archer Exploration Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results and outcomes will be consistent with these forward-looking statements.

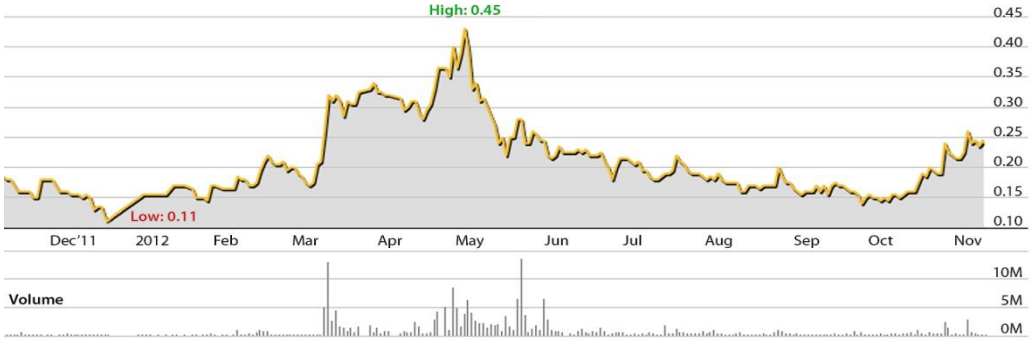
Presentation outline

- **Corporate overview**
- **Company projects**
- **Archer Graphite**
  - Campoona Shaft Geology
  - Campoona EM
  - Campoona Maiden JORC Resource
  - Campoona Metallurgy
  - Positioning Campoona in the Graphite Market
  - Campoona Work Plan
  - What Makes Campoona Special

Corporate overview

13 Exploration Licences and the rights to minerals other than uranium on Wild Horse Plain. One ELA.

ASX Code:	**AXE**
Shares on Issue	82,362,763
Unlisted Options on Issue	6,000,000
Share price at 05/12/2012	$0.18
Market Capitalisation	$14.8 million
Cash at 31/10/2012	**$11.7 million**



Recent trading history

Tenement position at 30 November 2012

With $11.7 million in cash at 31 October 2012, Archer is in a great position not only to fund exploration and development studies on the Campoona graphite deposit but also to fund aggressive exploration on several very promising copper and gold targets.

Company projects

1
Reserve*
Mt Hutton

* SAMAG reports

Resource* 5
Termination Hill
Pug Hill
Mt Playfair
Campoona Graphite
Witchelina

1
Advanced Exploration Project
Sugarloaf Graphite

5
Mineralised Project
Salt Ck Mn
Ketchowla Mn / REE
Bender Au/Cu
Robertstown Cu
Spring Creek Cu

Cost

Probability of Development

Actual # of Projects

9
Geophysical / Geochemical Anomaly
Watervale Au
Eudunda Ba
Ediacara – Coal/CSG/CTL
WHP Graphite
Pindari Ni / REE
Bartel - Au
North Cowell Cu
World's End (Mimic) Cu
Napoleon's Hat Au

15
Tenement / Geological Target
13 Granted Tenements
100% of non uranium mineral rights on WHP
1 ELA

3
Concept / Project Review
Commodity Reviews
Strategic Minerals REE
Industrial Minerals – Magnesite, Graphite, Phosphate, Barite

Probability of Success

Archer is no "one trick pony". The Company has several mineral projects at various stages of evaluation

Archer's projects

Tier 1

Graphite

- Campoona JORC Resource – high grade, high yielding deposit enabling production of ultra pure graphite.
- Sugarloaf – Within 10km of Campoona has an Exploration Target* 40-70Mt @ 10-12%TGC
- 1,100km^2 land bank with several graphite occurrences

The potential quantities and grades presented are conceptual in nature, there has been insufficient exploration to define an overall Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource

Magnesite

- Archer's Leigh Creek tenements host the world's largest cryptocrystalline magnesite deposit with JORC Measured, Indicated and Inferred Resource of 413Mt @ 41.3% MgO. High yielding, high grade caustic calcined magnesia grading >95% MgO.

Copper

- Excellent polymetallic targets at Mimic and Robertstown (Cu + Au + Ag ± Pb) to be drill tested early 2013.
- Spring Creek mine at Wilmington with full supergene copper mineralisation (malachite, azurite, native copper, cuprite and transition sulphides). Sulphides expected.
- North Cowell surface samples to 15% Cu over a 3km strike plus significant EM conductors.

Tier 2

Gold

- Watervale and Wonna (up to 6g/t in rock chips).
- Huge epithermal alteration system at Bartel. Limited drilling returned best intercept of 29m @ 0.57g/t Au).

CSG/CTL

- PELA at Edicara over gas yielding "oily lignites". First PELA in area now surrounded by gas explorers.

Nickel

- Nickel sulphide (pentlandite) recorded from limited drilling at Pindari. Large untested EM anomaly.

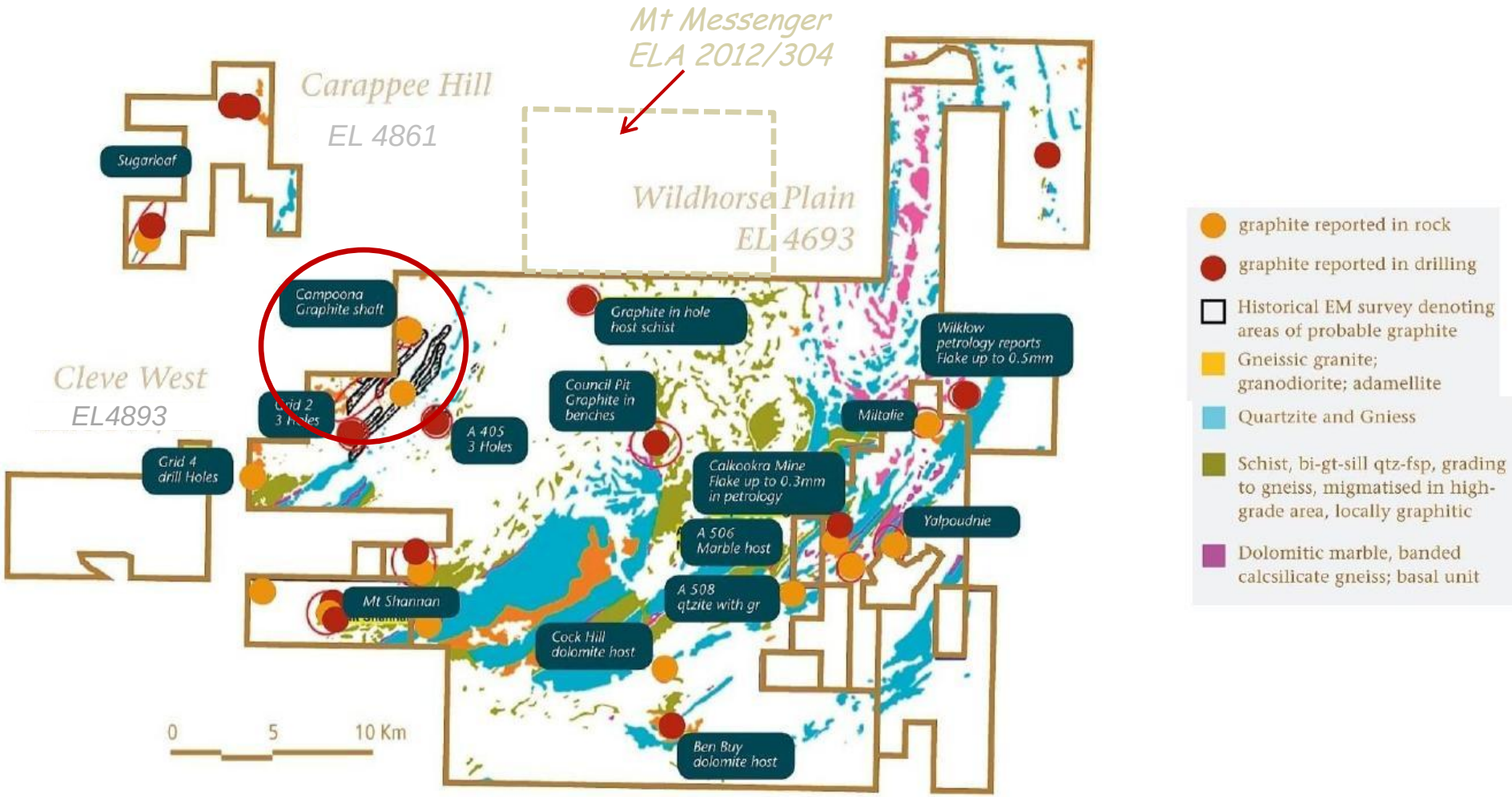
Manganese

- DSO manganese to 38% Mn from DMS at Ketchowla.
- Salt Creek – kilometres of strike of medium-grade manganese.

Barite

- Eudunda covering numerous historic mines.

Archer Graphite

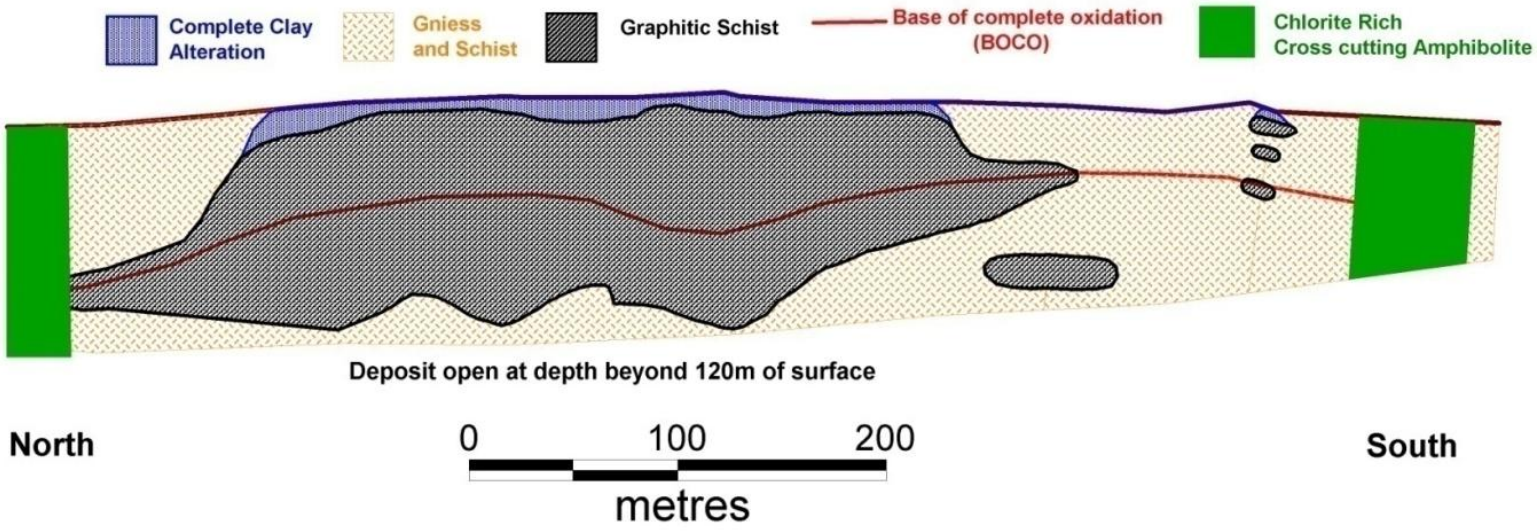


Archer has a substantial land position (1,100km^2) in "graphite province" with several flake occurrences. ELA2012/304 granted October 2012.

Campoona Shaft geology

- Graphite outcrops as a NE striking, steep NW dipping, 20-50m thick main zone with narrower discontinuous footwall zones.
- Graphite occurs as highly graphitic schist within a low grade (2-5%TGC) graphitic proto-gneiss derived from mostly clastic marine sediments of Palaeoproterozoic age.
- Stratigraphy:
  - Below thin topsoil (<1m) is a ≈5m clay-rich highly graphitic zone of kaolin + graphite + quartz.
  - Clay-rich horizon passes into highly weathered, porous quartz + graphite + kaolin + garnet + tourmaline ± iron oxides (goethite & hematite). Feldspars all converted to kaolin. Some clay-rich zones occur as cavity fill.
  - Below 60m depth the graphitic schist becomes progressively more competent. Strong weathering persists to at least 100m depth. Feldspars have been converted to illite ± kaolin. Trace pyrite.
- Late NW trending cross faulting with amphibolite intrusives segment the deposit to the north and south.

Long Section Schematic Geology through Campoona Shaft



Campoona Shaft geology

CSDD12_002

- Hangingwall contact with highly weathered gneiss passing directly into completely weathered graphitic schist.
- Graphite interval 11-13m assayed ≈12%TGC.

- Highly weathered, porous quartz + graphite + kaolin + garnet + tourmaline ± iron oxides (goethite & hematite) representing the graphite deposit above the base of complete oxidation (BOCO).
- Interval from 54-58m assayed 19.5%TGC

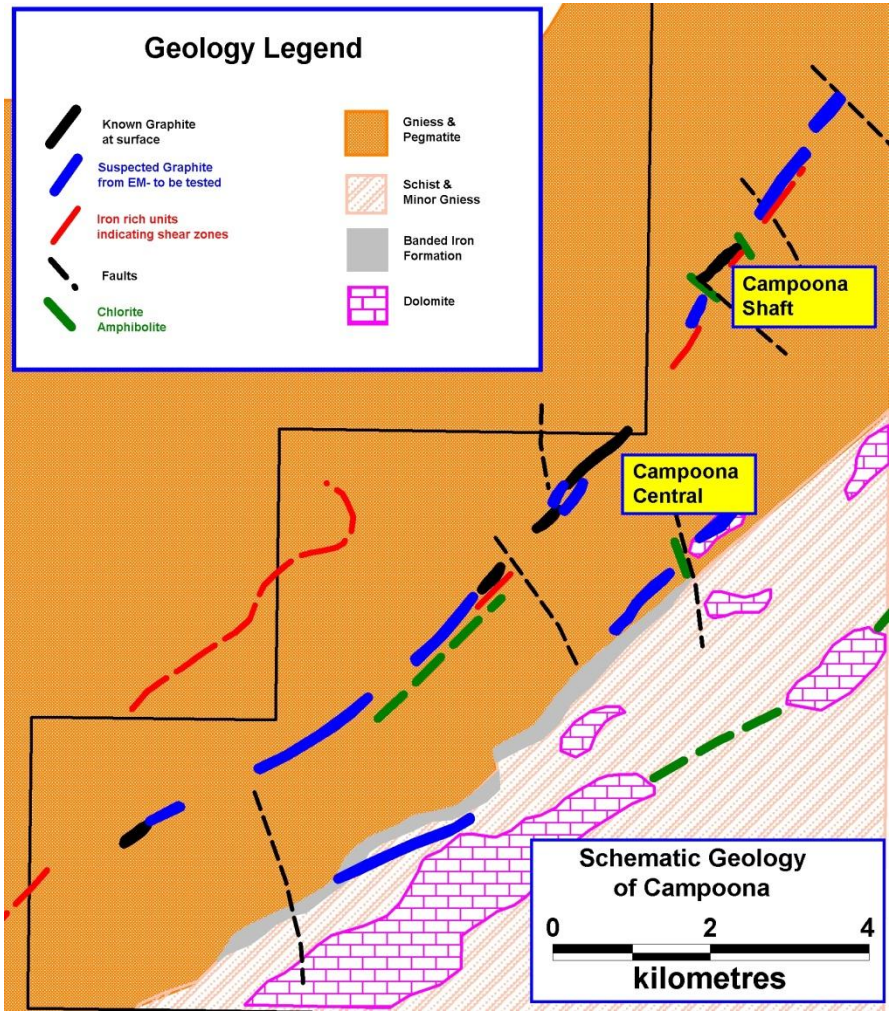
- Strongly weathered graphitic schist below BOCO.
- Feldspars altered to illite ± kaolin.
- Graphitic schist progressively more competent with depth.
- Interval 80-83m assayed 18.9%TGC

Complete oxidation is a defining characteristic of the Campoona graphite deposits as it greatly enhances the liberation of graphite from gangue minerals

Campoona EM

Airborne EM has highlighted probable strike extensions to Campoona Shaft and Central Campoona

- EM provides an effective tool to identify the presence of conductive bodies.
- EM has identified several possible graphite bodies along strike from the known graphite occurrences at Campoona Shaft and Central Campoona.
- Late stage cross faulting and boudinaging has “segmented” the graphite to form discrete bodies.
- Campoona Shaft and Central Campoona account for just 2km of strike of highly graphitic schist. (**see black bars)**
- A further 8km of likely graphite (tram-track EM response) is yet to be drill tested. **(see blue bars)**
- EM suggests the possibility of parallel likely fold repeated EM signatures to the southeast which require drill testing.



Campoona Maiden JORC Resource

Campoona JORC Resource (2%TGC lower cut-off grade)

Area	Resource Category	Tonnes (t)	Graphite (% TGC)	Contained Graphite (tonnes)
Campoona Shaft	Measured	340,000	14.8	50,200
	Indicated	1,100,000	12.7	134,500
	Inferred	3,500,000	5.0	173,800
Central Campoona*	Inferred	400,000	10.1	40,100
Combined	Total Resource	5,340,000	7.6	397,600

Campoona JORC Resource (5%TGC lower cut-off grade)

Area	Resource Category	Tonnes (t)	Graphite (% TGC)	Contained Graphite (tonnes)
Campoona Shaft	Measured	340,000	14.8	50,200
	Indicated	1,100,000	12.7	134,100
	Inferred	840,000	10.7	89,600
Central Campoona*	Inferred	290,000	12.5	36,900
Combined	Total Resource	2,570,000	12.3	310,800

Central Campoona Resource estimation confined to 200m of known strike of 1,400m

Campoona Maiden JORC Resource

- Maiden JORC Resource accomplished within 9 months of discovery.
- Resource estimation undertaken by independent expert consultancy MiningPlus.
- In-fill Resource drilling at Central Campoona scheduled for February 2013 for entire 1,400m strike length to a 100m drill spacing.
- Reasonable to conclude that with at least 80% of Campoona strike undrilled and pronounced EM conductors present that extension drilling north and south of Campoona Shaft and Central Campoona planned for April 2013 is highly likely to outline resource additions.

Campoona metallurgy

Lonsdale Sample Facility

- Established during September 2012.
- Facility provides a metallurgical workshop and a bulk sample storage area for the preparation of bulk samples to be sent to commercial laboratories for metallurgical trials.
- Further in-house testing capability is being developed to allow for the bench scale testing of differing extractive processes.
- Ore microscopy established to provide visual assessments of performance of intermediate processing steps.

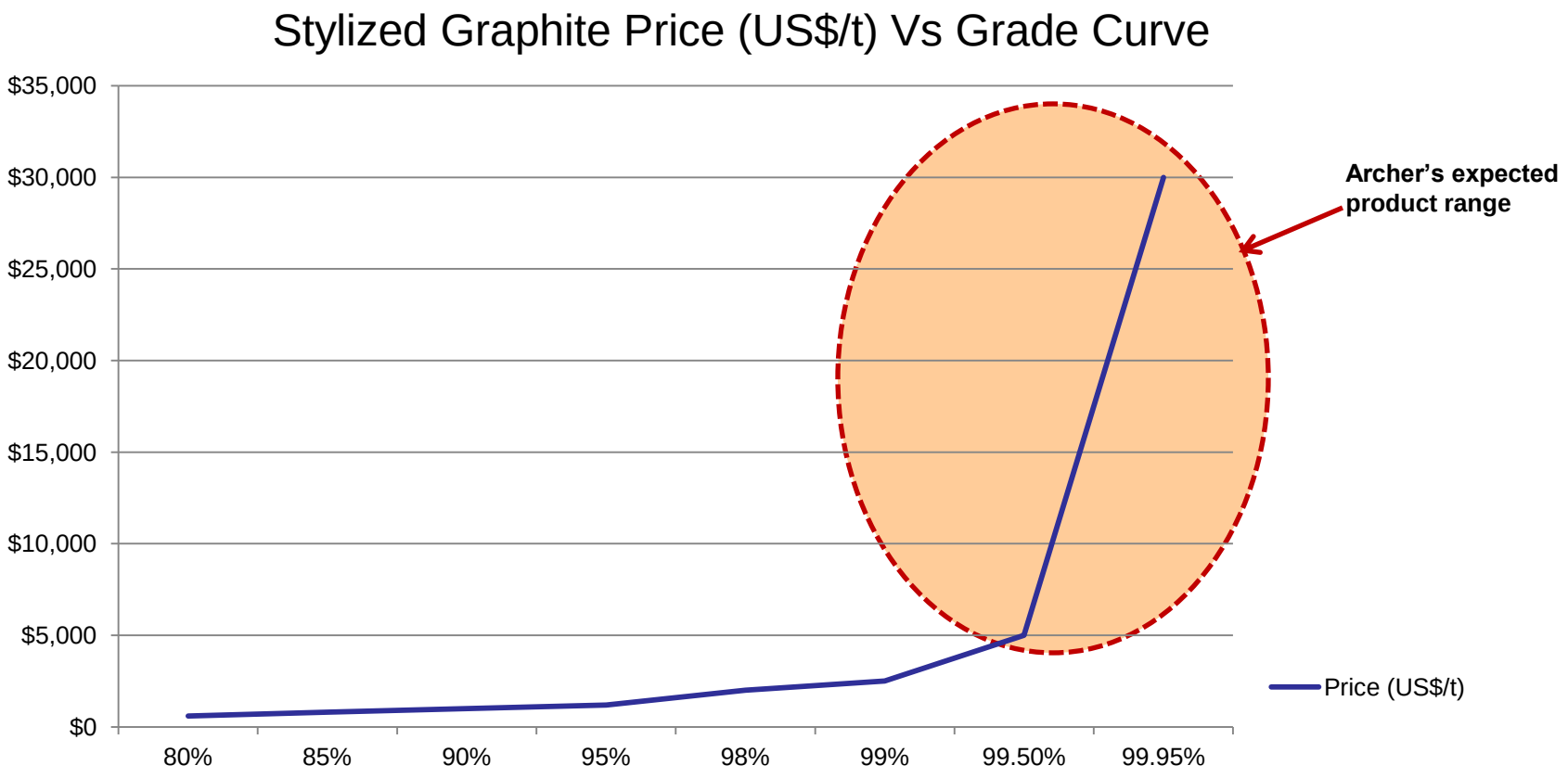
Outstanding Metallurgy Results

Samples to BOCO

- Base of complete oxidation (BOCO) at 50-60m depth. Rock is largely decomposed.
- The intense weathering brings both opportunities and issues.
- Considerable testing was required before an efficient process for clay removal was developed.
- Invaluable knowledge gained through systematic testing and application of mineral science.
- -75 micron simple mechanical cell flotation concentrates achieving 95-98%TGC. No acid needed or used. Further grade enhancements expected.
- Flake size recovery tests are underway.

A combination of traditional and widely adopted new technologies will be used to process all three material types

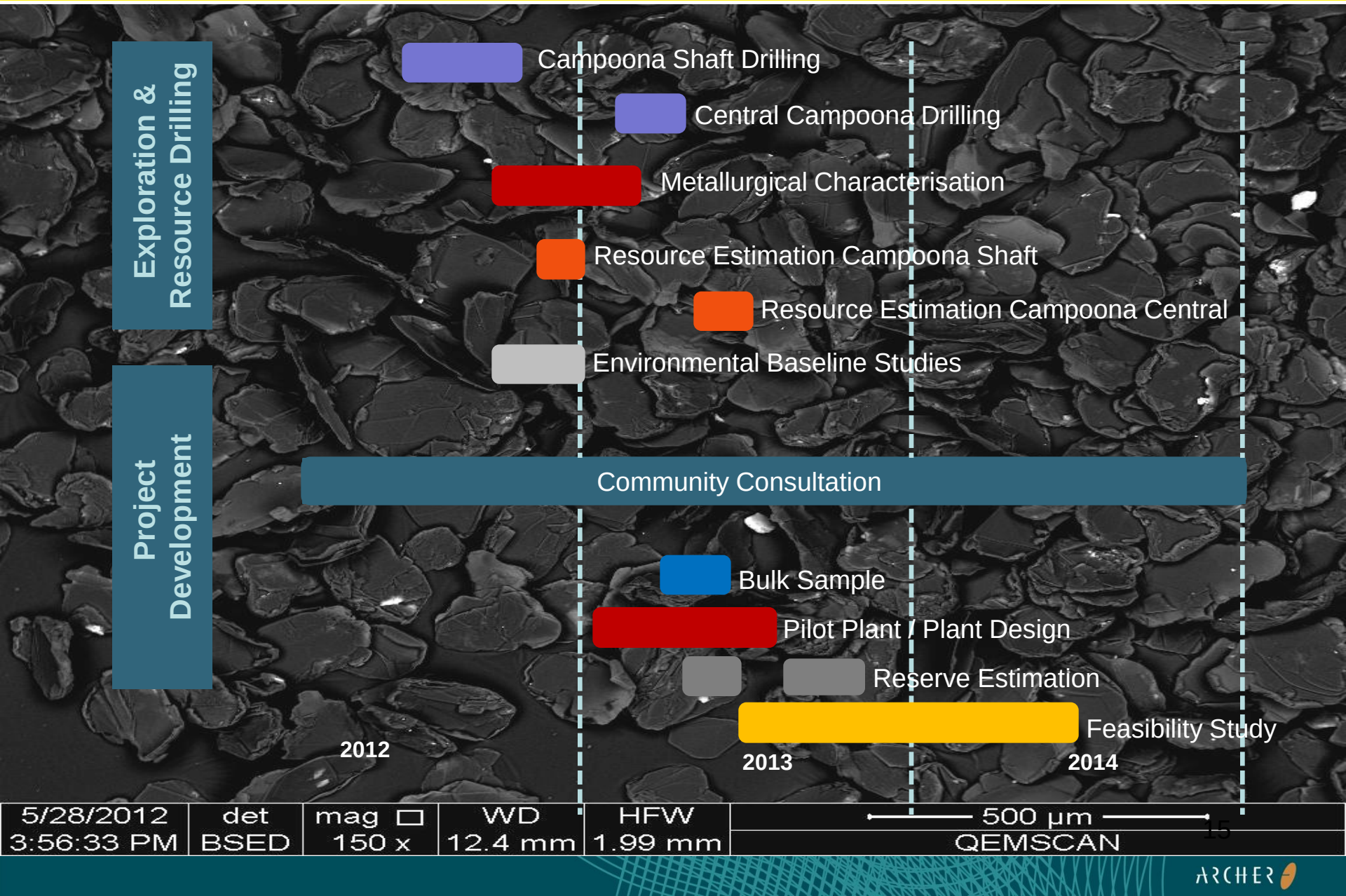
Positioning Campoona in the Graphite Market



Archer's focus is QUALITY

- Can differentiate our concentrates.
- Can significantly reduce marketing risk.
- Can facilitate producer to buyer agreements.

Campoona work plan



What makes Campoona special

- ✓ **Grade** : 12.3%TGC places Campoona well into the upper quartile of emerging projects.
- ✓ **Quality** : Ultra pure graphite concentrates.
- ✓ **Costs** : Expect low capital and operating costs.
- ✓ **Project** : Current resource could support long-life project as it is. 80% of Campoona untested.
- ✓ **Exploration** : 1,100km^2 land bank. EM/known geology outline several untested graphite occurrences.
- ✓ **Mining** : Open cast mining with expectation of predominantly free-dig.
- ✓ **Extractive process** : Final stages of definition using *"tweaked"* conventional processes.
- ✓ **Infrastructure** : Critical infrastructure - roads, power, water in area.
- ✓ **AAA Mining Jurisdiction** : Low sovereign risk - SA one of the World's most secure mining jurisdictions.
- ✓ **Leverage**: 100% owned; 87 million shares, $11.7 million in cash at 30 October 2012.

Archer has the technical know how to make Campoona happen

Contact details

Archer Exploration Limited

Ph: +61 8 8272 3288

Fax: +61 8 8272 3888

Email: info@archerexploration.com.au

Thank you