

Campoona Mining Lease Proposal

SACOME Breakfast Series

Gerard Anderson Managing Director
Archer Exploration Limited

25th June 2015

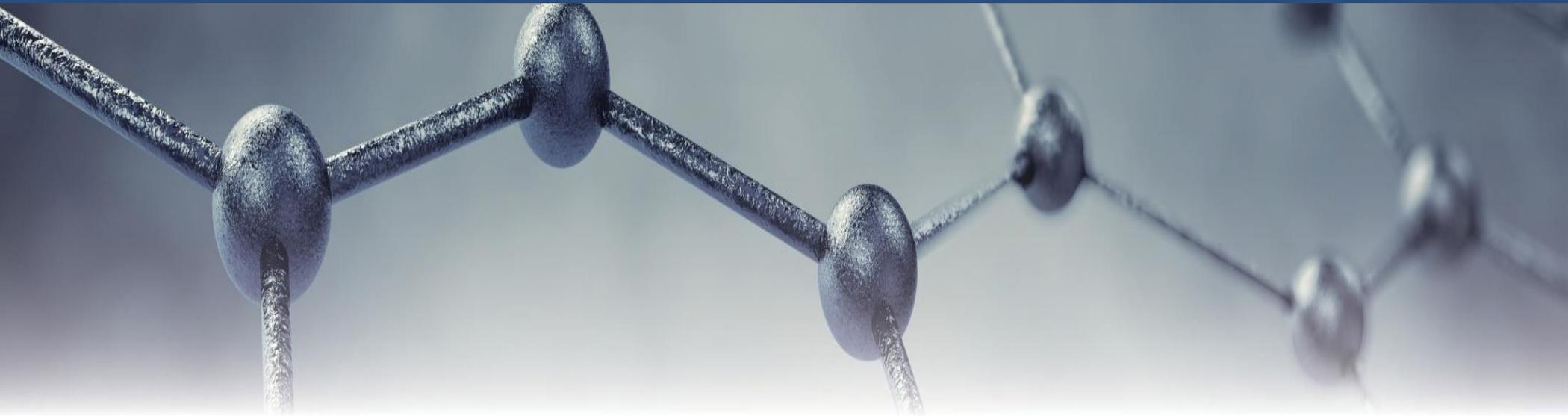
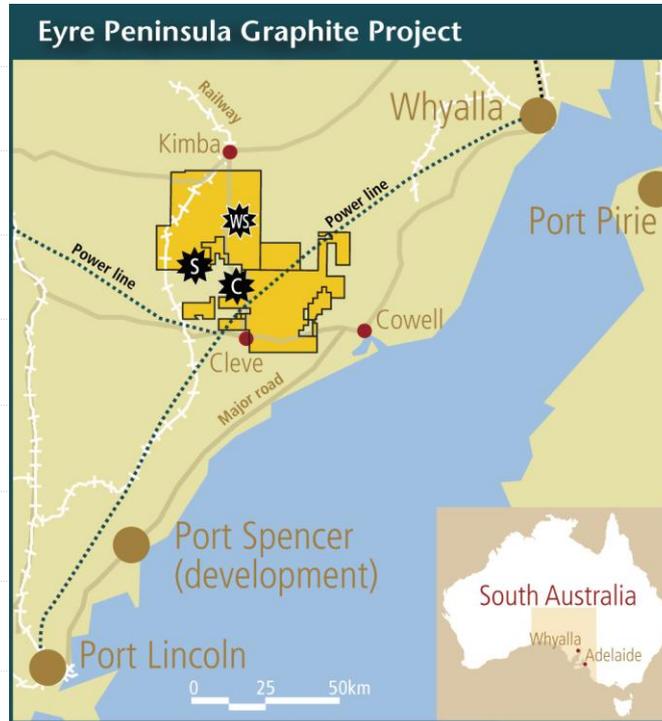


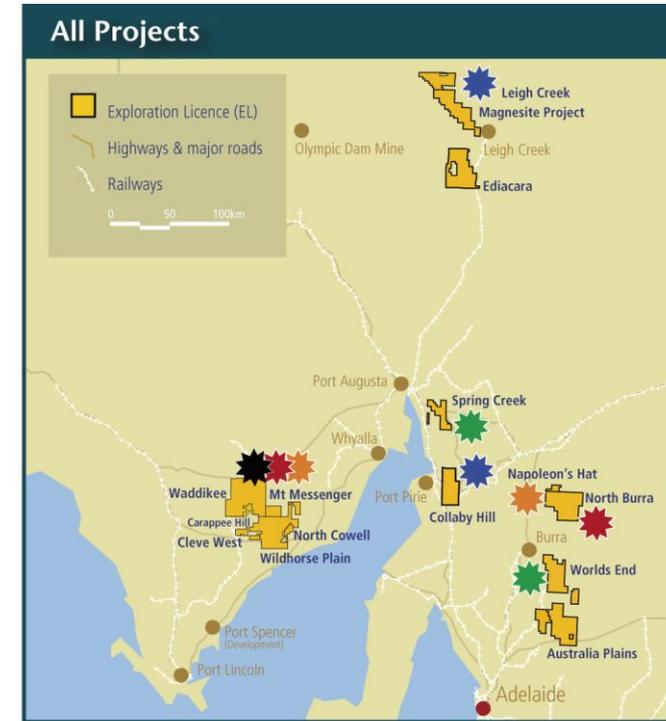
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Advanced Graphite Projects
 ★ Campoona ★ Sugarloaf ★ Wilclo South



Priority 1 and 2 targets:
 ★ Graphite ★ Magnesite ★ Manganese ★ Copper ★ Gold

About Archer



Archer is a South Australian mineral explorer with 15 granted tenements hosting graphite, magnesite, copper, gold and nickel

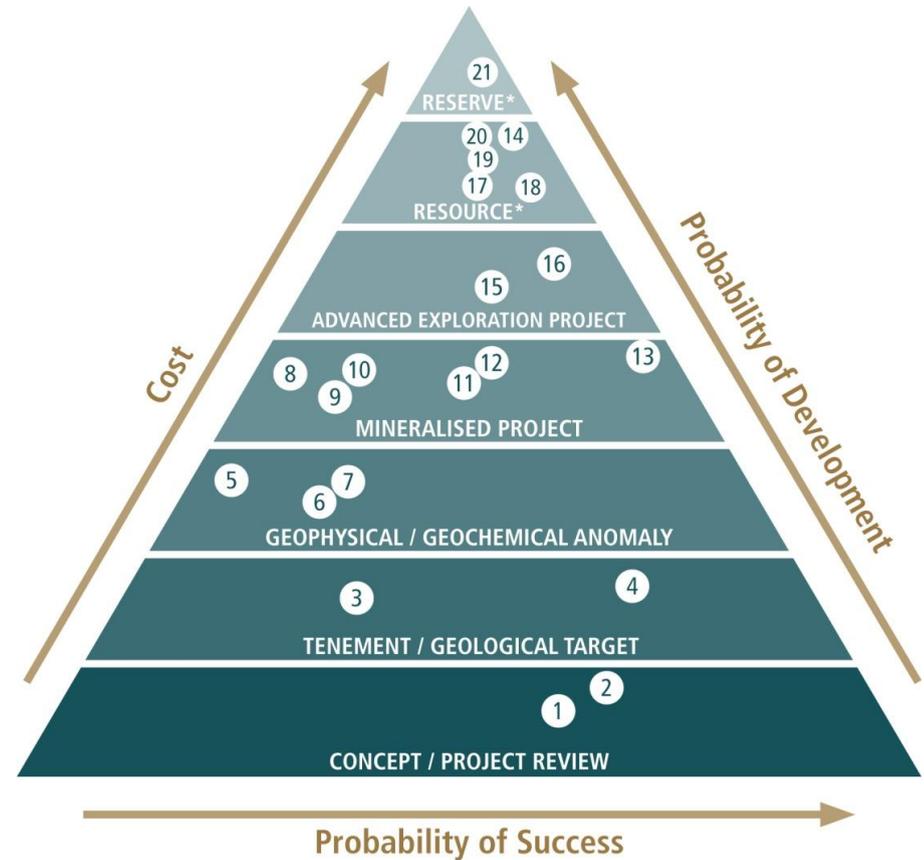
Primary focus is developing graphite assets

- Eyre Peninsula Graphite project – Australia’s largest JORC 2012 graphite resource
 - Campoona ultra pure fine flake graphite
 - Waddikee large flake graphite
 - Sugarloaf bulk graphite
- Campoona Shaft is most advanced project with Draft MLP submitted 14th May 2015

Other significant portfolio assets include

- Leigh Creek magnesite – the world’s largest high grade cryptocrystalline magnesite resource with JORC Resource of 453Mt grading 41.4% MgO
- Spring Creek historic high grade (≈ 10%) copper mine
- SA Manganese – 7 manganese prospects including Jamieson Tank and Salt Creek on Eyre Peninsula and Ketchowla near Burra
- Gold projects over historic Wanna workings, Watervale and Bartels

Record of identifying projects and creating value



- | | | |
|---------------------------|-------------------------|--------------------------|
| 1) Strategic Minerals REE | 8) Bender - Au/Cu | 15) Ketchowla - Mn / REE |
| 2) Commodity Reviews | 9) Watervale - Au | 16) Sugarloaf Graphite |
| 3) 15 Granted Tenements | 10) WHP - Fe | 17) Mt Playfair |
| 4) 1 PELA | 11) Napoleon’s Hat - Au | 18) Witchelina |
| 5) Pindari Ni / REE | 12) WHP - Cu | 19) Termination Hill |
| 6) WHP - Au | 13) Salt Ck - Mn | 20) Pug Hill |
| 7) World’s End - Cu | 14) Campoona Graphite | 21) Mt Hutton |

Graphite Deposits

Archer has 2,154km² under tenure on Eyre Peninsula with three graphite deposits and 10 graphite prospects identified to date

Overview of Archers Key Assets

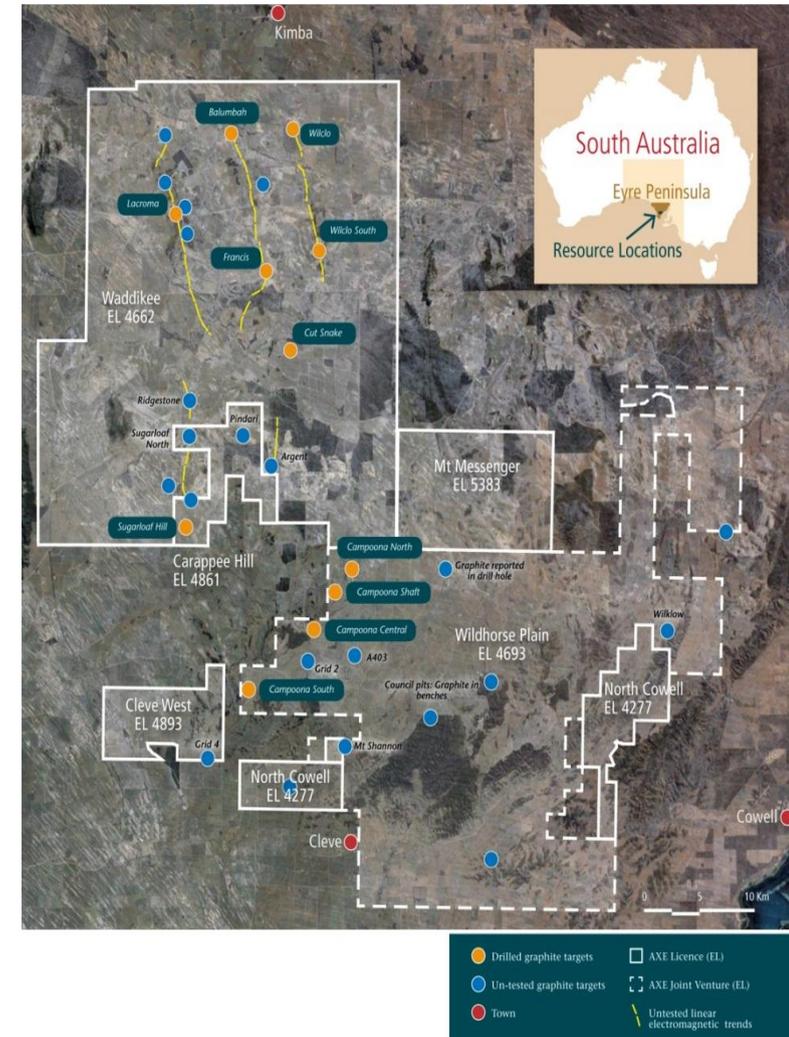
Location	<ul style="list-style-type: none"> Near Cleve-Darke Peak-Kimba, Eyre Peninsula, South Australia Close to Whyalla and Port Lincoln
Total Area	<ul style="list-style-type: none"> 2,154km²
Total Resource	<ul style="list-style-type: none"> 8.55Mt @ 9.0%Cg (770,800t contained graphite)
Deposits	<ul style="list-style-type: none"> Campoona Shaft, Central Campoona & Wilclo South
Prospects	<ul style="list-style-type: none"> Sugarloaf, Campoona North, Wilclo, Balumbah, Francis, Cut-Snake, Argent, Jamieson Tank, Lacroma and Ridgestone
Land Ownership	<ul style="list-style-type: none"> 1,403 acres surrounding the Sugarloaf deposit Binding agreement over sufficient land at Campoona Shaft for mining to proceed
Mining Permit	<ul style="list-style-type: none"> Draft Mining Lease Proposal submitted to government on 14th May 2015

Details of Tenements

Name	Exploration Licence	Interest	Defined Graphite
Wildhorse Plain ²	<ul style="list-style-type: none"> EL4693 	100%	Campoona Project
Waddikee	<ul style="list-style-type: none"> EL4662 	100%	Wilclo South Deposit; Wilclo, Balumbah, Francis, Cut Snake, Argent, Lacroma and Ridgestone prospects
Carapee Hill	<ul style="list-style-type: none"> EL4861 	100%	Sugarloaf Deposit & Campoona processing plant
Mt Messenger	<ul style="list-style-type: none"> EL5383 	100%	Limited exploration on tenement to date
Cleve West	<ul style="list-style-type: none"> EL4893 	100%	1 identified, untested graphite target
North Cowell	<ul style="list-style-type: none"> EL4277 	100%	2 identified, untested targets lie within the permit

1. Campoona Shaft Resource Announcement 4 August 2014
2. UraniumSA has 100% of mining rights to all uranium minerals

Locations of Resources and Exploration Targets

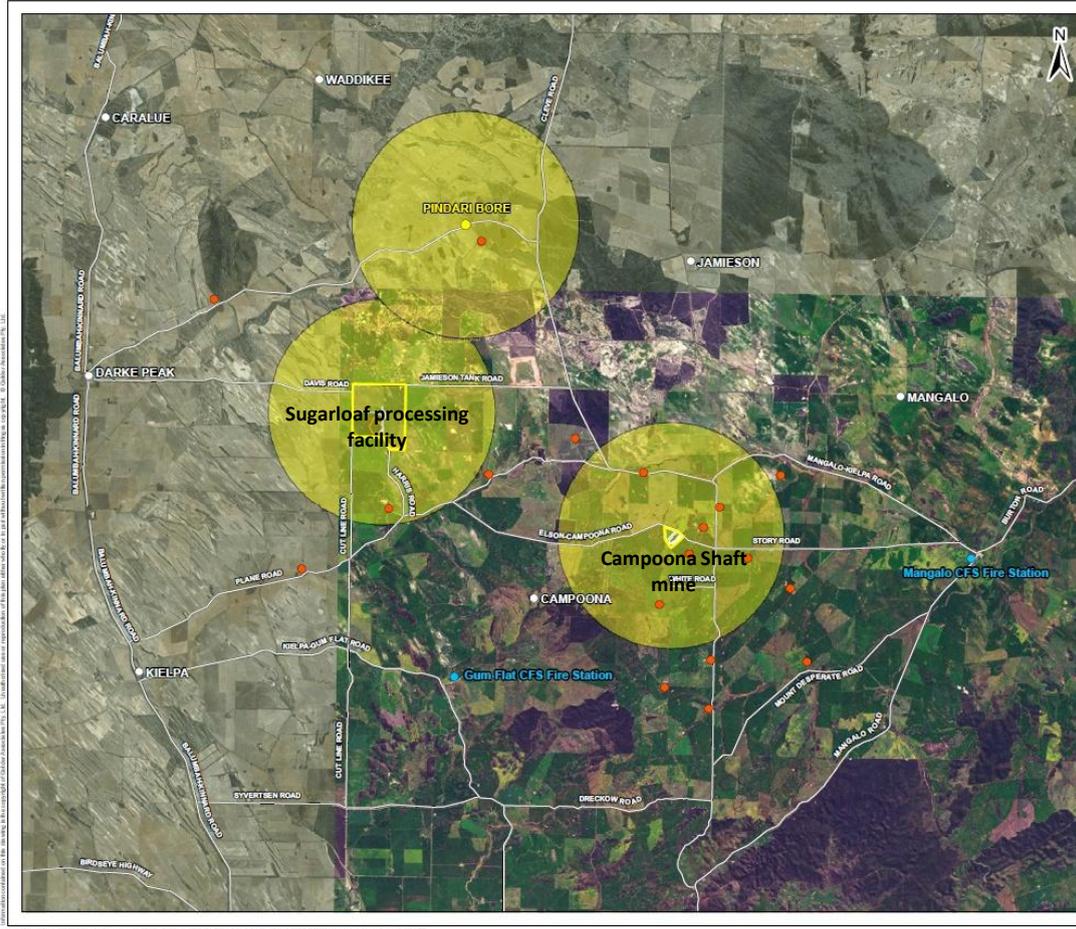


Campoona Shaft Mining Lease Proposal



Draft Campoona Shaft Mining Lease Proposal submitted 14th May 2015
 Final MLP and PEPR expected to be submitted around August 2015

- ### Draft Mining Lease Proposal
- MC Campoona Shaft - ≈ 65 ha covering the conventional open pit mine
 - MPL Sugarloaf - to cover the Sugarloaf processing site and TSF
 - MLP Process Water - to cover the Pindari Borefield and process water line to Sugarloaf
 - MPL Potable Water – covering potable water line from Jamieson Tank to Sugarloaf
 - MPL Power – covering electricity line from Darke Peak water treatment facility 4.75kms to Sugarloaf



DRAFT SOCIO-ECONOMIC
 IMPACT REPORT
 ARCHER EXPLORATION -
 CAMPOONA GRAPHITE PROJECT
 ARCHER EXPLORATION LTD
 CAMPOONA GRAPHITE
 PROJECT AND NEARBY
 LANDOWNERS

LEGEND

- Primary Study Area
- Local Residents
- Pindari Bore
- CFS Fire Station
- Town

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 World Imagery - Source: Esri, Digital Globe, GeoEye, Ikonos, USDA, USDA, AEX, GeoMapping, AeroGRID, IGN, IXP, and the GIS User Community. Aerial image sourced from World Imagery, date sourced 27.02.2015.
 LGA data sourced from Department of Planning, Transport and Infrastructure, South Australian Government, sourced 27.02.2015.
 Township and road data sourced from MapInfo StreetPro.

0 0.5 1 2 3 4 5
 Kilometres
SCALE (at A3) 1:150,000
 DATUM GDA 94, PROJECTION MGA Zone 53

PROJECT: 127663057
 DATE: 27 FEB 2015
 DRAWN: NS
 CHECKED: BMC

FIGURE 2



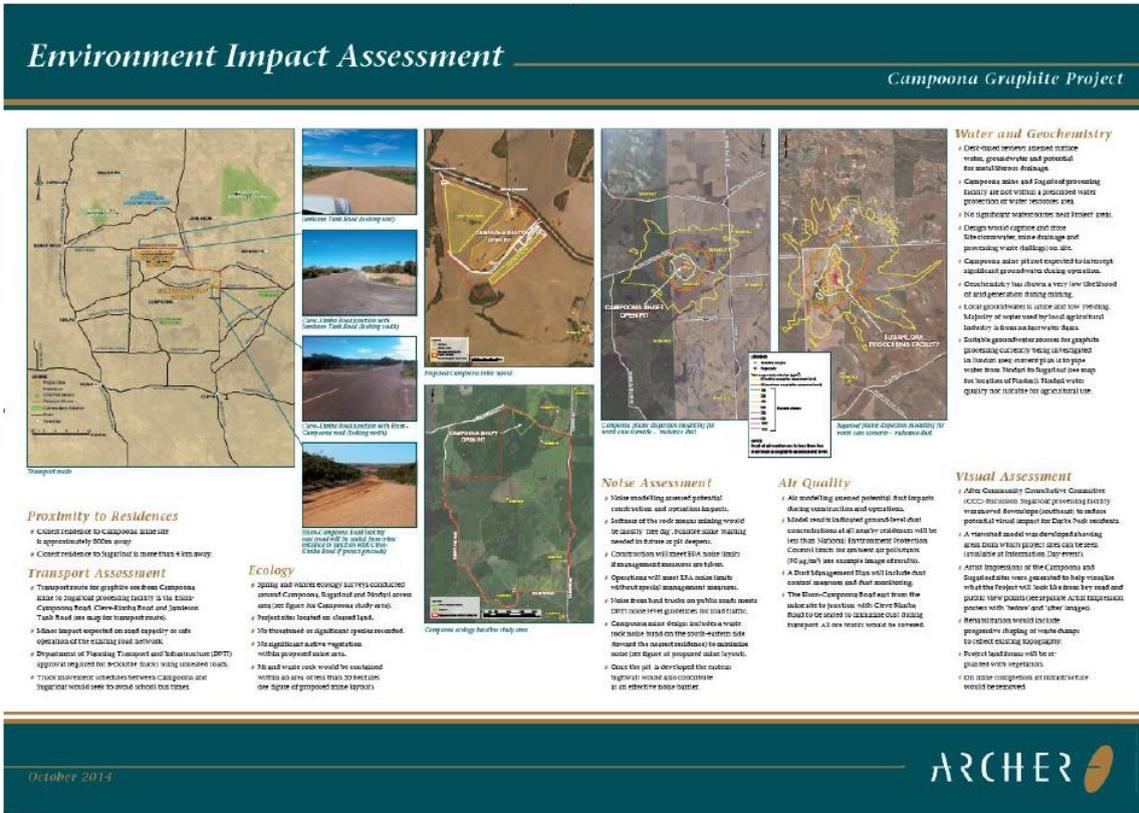
Campoona Community Consultation

Longstanding community engagement with community support for project

- Focus group meeting September 2013.
- Established Community Consultative Committee (CCC) with community representatives and 1 Archer representative, (facilitated)
- CCC meetings held ~every 2 months) during 2013, 2014 and 2015.
- Project newsletters sent to region through mail and further hardcopies at Council
- Provided written information in the EP Tribune
- Community Open Day October 2014.
- Technical study information posted on Archer website
- Participated in annual Eyre Peninsula Field Days (Cleve)
- Liaised with Cleve Council and State government regulators through the life of project.

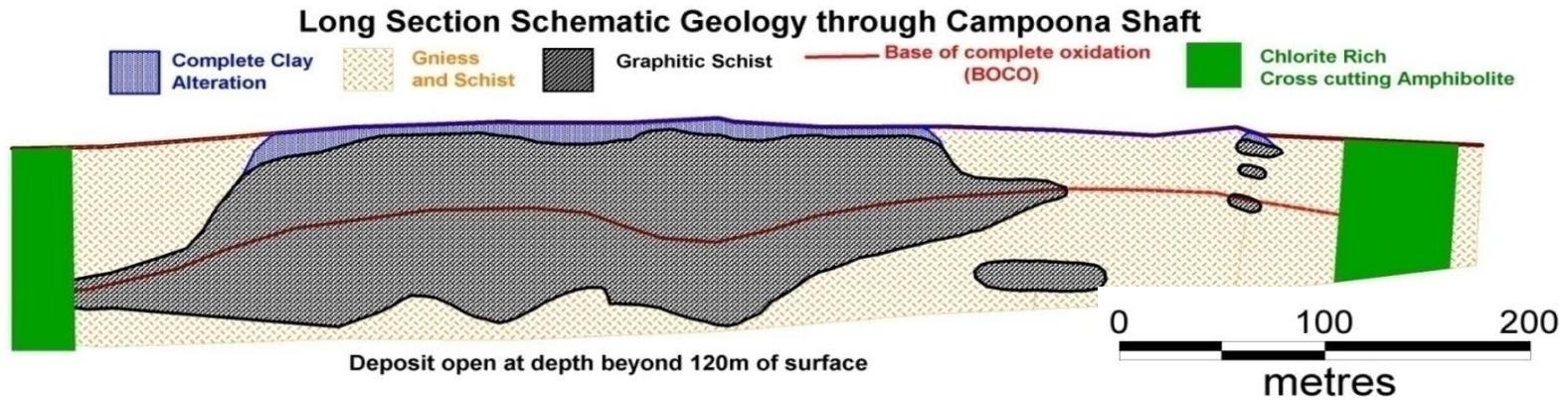


Community Newsletter No.6 (top) and Community Information day poster (right).



Campoona Shaft Geology

Deep lateritic weathering resulting in excellent liberation of graphite from gangue



- Graphite under a thin (0.5m) topsoil veneer
- 20-50m wide steep westerly dipping graphitic schist within protogneiss
- Complete oxidation enhances liberation of graphite



Hangingwall contact with highly weathered gneiss passing into weathered clay-rich graphitic schist



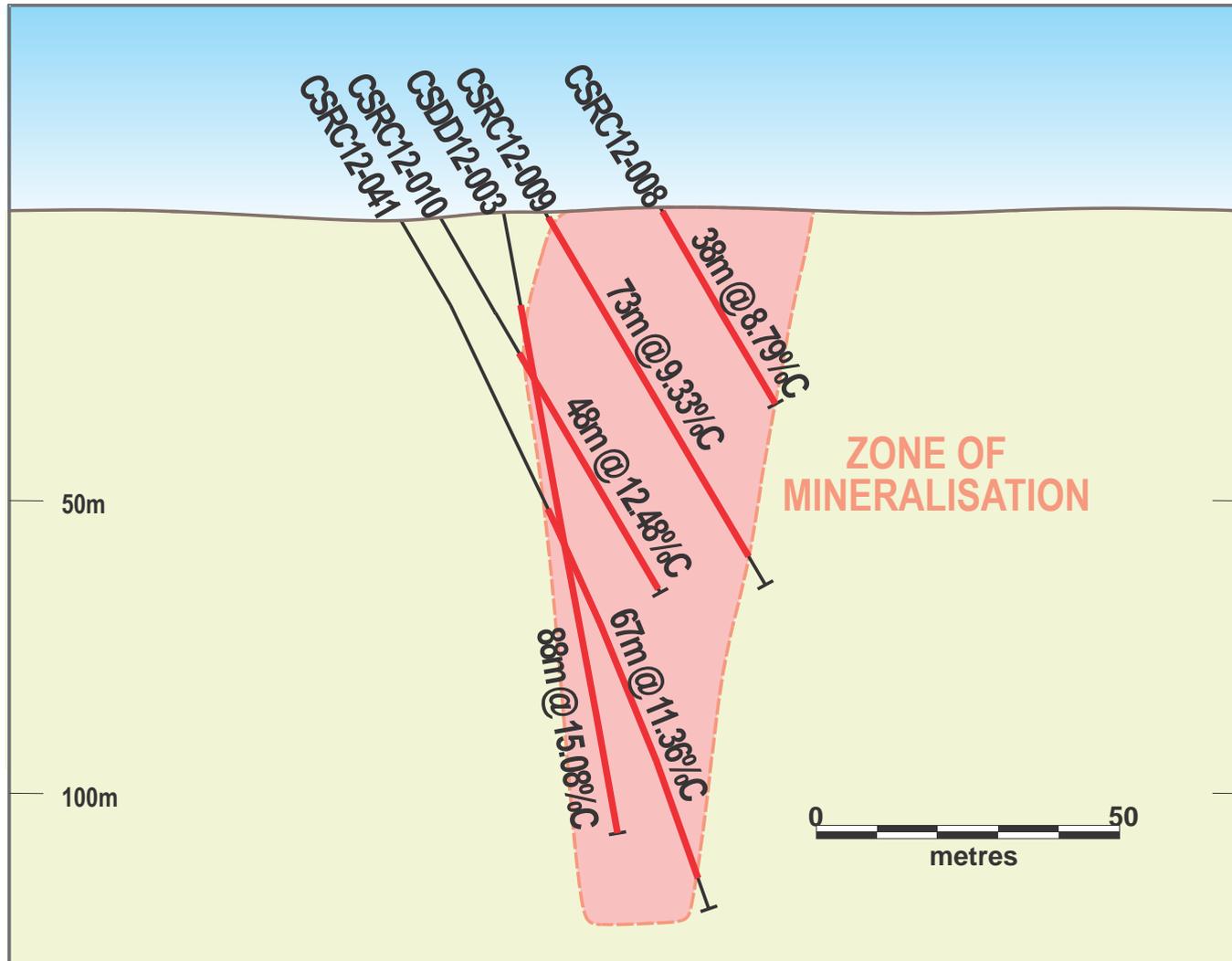
Highly weathered graphitic schist representing the graphite deposit above the base of complete oxidation (BOCO).



Weathered graphitic schist below BOCO. Graphitic schist progressively more competent with depth.

Campoona Shaft Cross Section

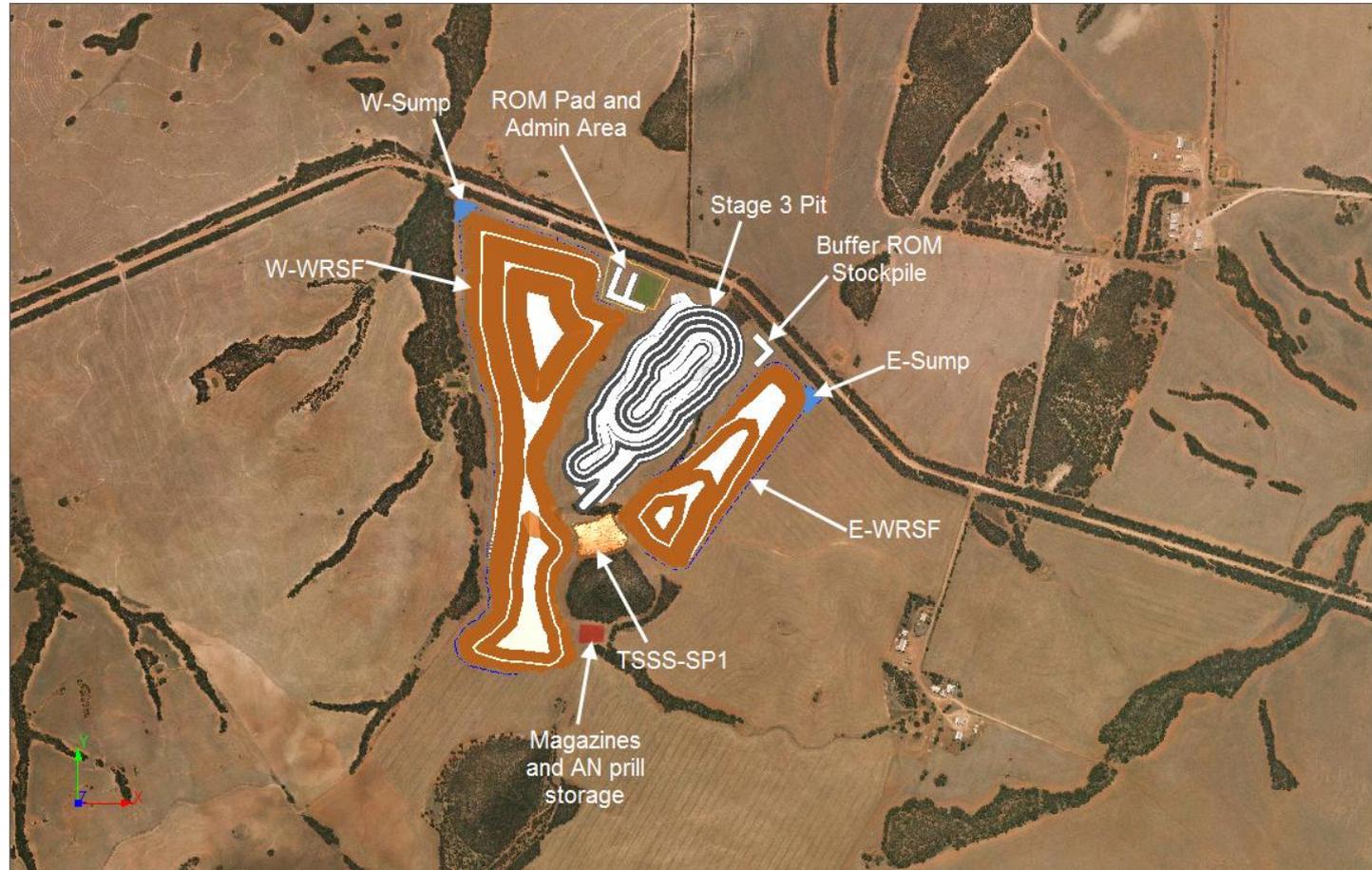
Steep westerly dipping, 600m long, 20-50m wide graphitic schist within a granitic gneiss Campoona Shaft is one of a number of similar “faulted pods” of graphitic schist along the 16km Campoona Shear



Campoona Shaft Mine

Conventional largely free dig open pit to mine up to 140,000tpa of graphite ore. Output not resource constrained.

- Mining**
- Conventional open pit mine largely free dig to 70m bgl
 - Campaign day shift mining (notionally spring and autumn), six days per week to mine up to 140,000tpa of graphite ore
 - Dry pit. Rainfall harvested to augment bore water for dust suppression
 - Starter pit west of ridge line with waste rock stored in E-WRSF
 - E-WRSF constructed Year 1- 4 will provide noise attenuation. Battered to 20° and progressively rehabilitated.
 - Trenches and bunds around WRSFs to prevent silt entering western ephemeral creek.
 - ROM stockpile sized to ensure Sugarloaf supplied between mining campaigns



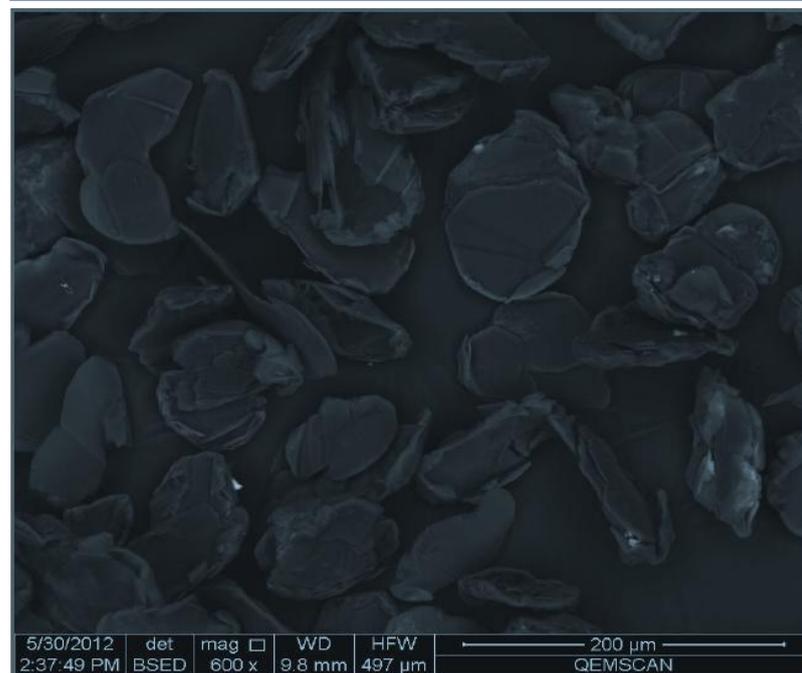
Campoona Metallurgy

Archer to build a facility capable of providing finely crystalline graphite concentrates grading >99%Cg

Overview of Campoona Metallurgy Testing

- Rigorous metallurgical bench-scale testing of representative diamond drill core samples of Campoona graphite
 - Archer's aim is to produce graphite products grading to 99.5% carbon, matching the world's highest quality natural graphite concentrates
- The flotation trials demonstrates that the combination of a high-performing graphite flotation followed by acid treatment to remove trace contaminants consistently produces a graphite concentrate product grading to >99% Cg over the entire deposit
- The results achieved show that Archer can focus on the production of ultra-pure graphite that may rival synthetic graphite in purity but is likely to outperform synthetic graphite due to its crystallinity
- Both x-ray diffraction (XRD) analysis and scanning electron micro-scope (SEM) analysis highlight the high crystallinity of Campoona graphite

Highly Crystalline Graphite Concentrate

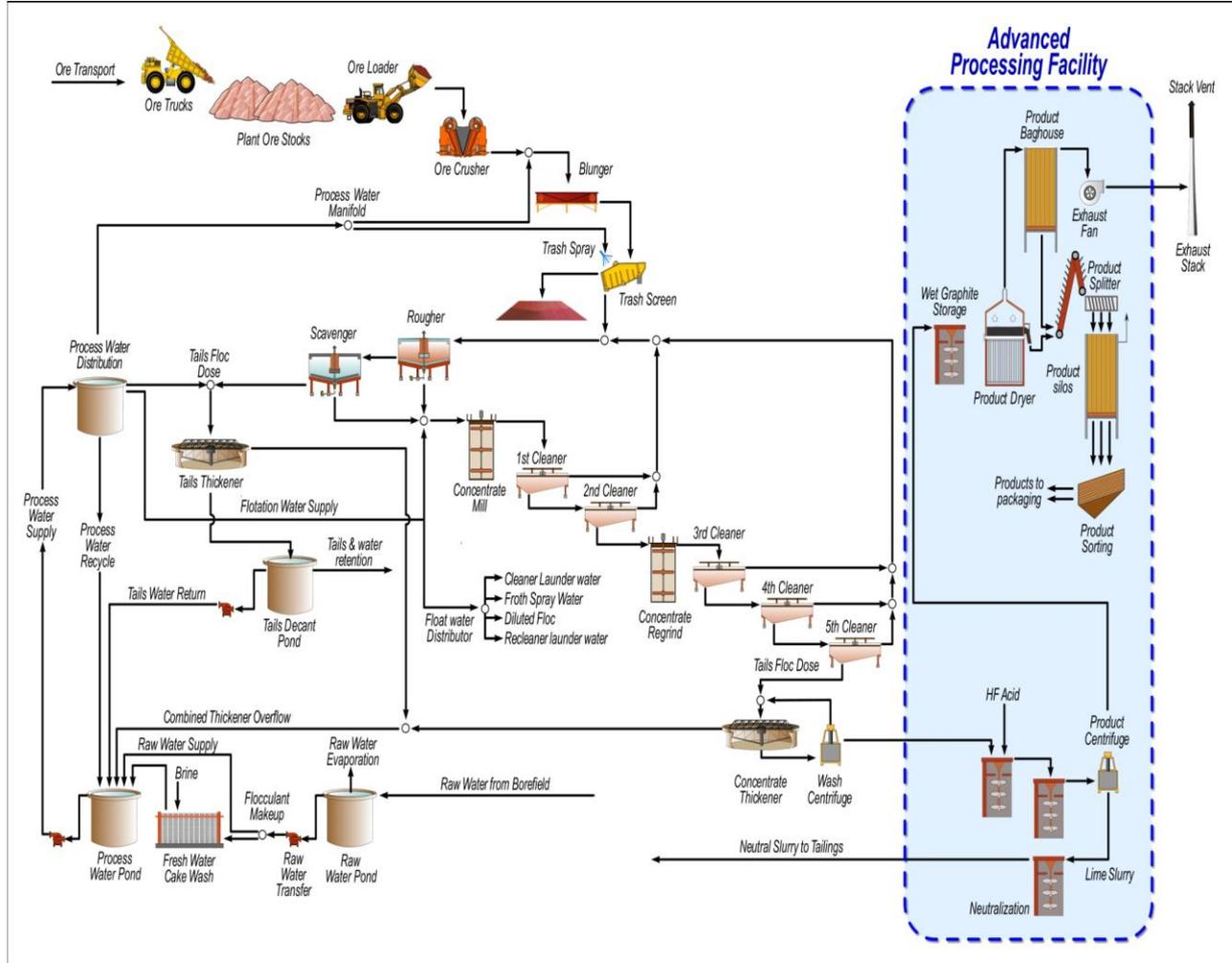
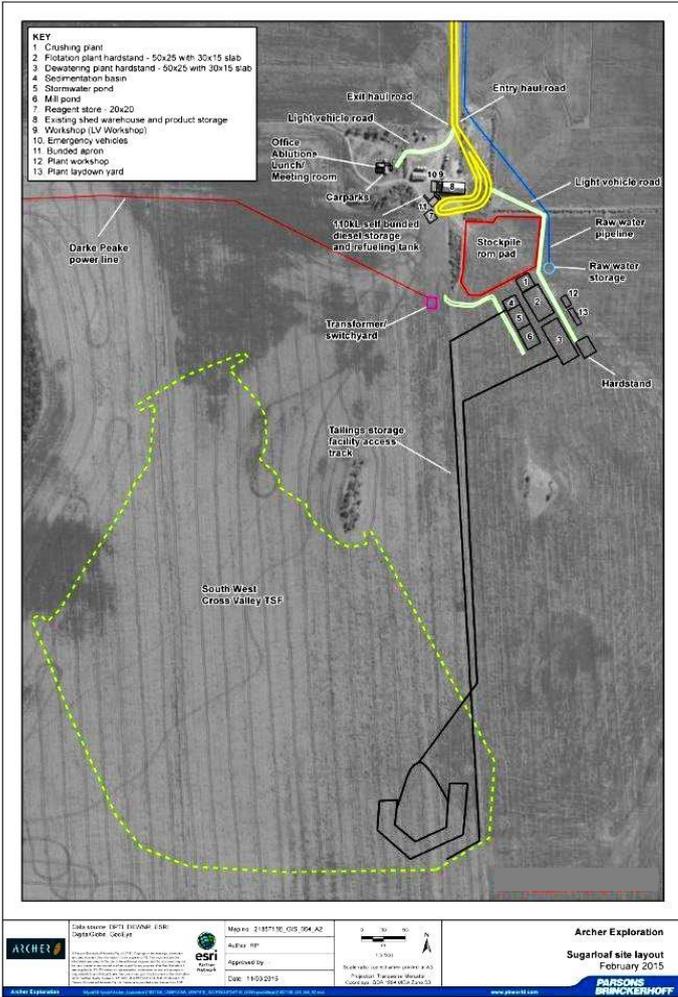


Note: Morphology typical of the ultrafine highly crystalline graphite concentrate (-75 micron) showing very pure crystalline graphite flake. Concentrate processed to remove trace contaminants to achieve a fine natural graphite flake (>99%Cg)

“the mechanical cell flotation results presented by Archer have been assessed by the Tech Minerals Consulting Group and they consider the results largely unheard of in the natural flake graphite arena with the exception of vein graphite.”

Process Overview

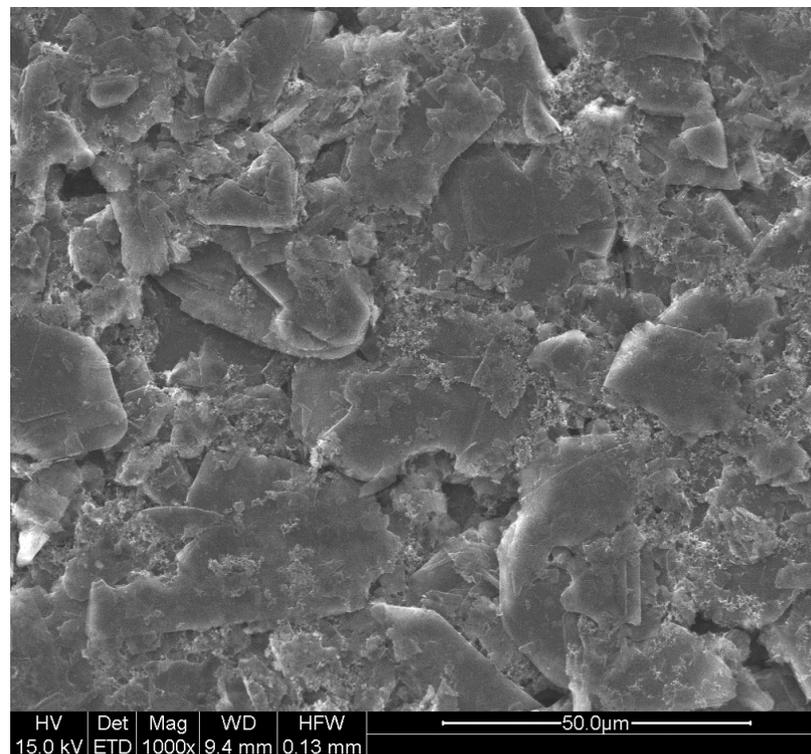
10,500tpa of high grade, battery quality, micronised 15 – 28µm finished graphite



High Purity Product

Campoona graphite suitable for lithium-ion battery applications and very high quality lubricants

- Campoona final product 15-28 μ m (or finer depending on customer requirements) micronised graphite grading >99% Cg
- Typical specifications are:
 - Carbon 98.5 – 99.5% Cg
 - Sulphur <0.1%
 - Fe < 100ppm
 - Ni, Cu, V < 10ppm
 - Specific gravity 2.35 g/cc
- Battery electrodes were prepared from Campoona natural graphite and other commercially available synthetic graphite powders, which were then used to construct coin cells in a half-cell configuration. The performance of each cell and the properties of the anodes in each cell were then tested. Test results showed that the performance of Campoona high grade graphite in terms of charge capacity was equivalent to that of commercial synthetic graphite.
- Lithium-ion battery use is expected to increase dramatically:
 - Electric cars
 - Lithium-ion batteries for storing electricity generated by roof-top photovoltaic systems. Li-ion batteries have the potential to fundamentally change the retail electricity market and to substantially increase demand for high quality graphite.



SEM image of 99.5% Cg Campoona micronised graphite



Market Engagement

Market fundamentals and high purity product support customer engagement for Campoona graphite

Market Overview

- High purity Campoona graphite concentrates to be provided to specific market segments for assessment most notably for use in lithium-ion batteries and high quality lubricants
- Market interest from Asia and North America
- Research agreement entered with Adelaide University to focus on new product opportunities for Archer graphite and graphene products

Market Demand Snapshot

Target markets include:

- Batteries –lithium-ion, dry cell, alkaline and lead-acid
- High end lubricants and greases
- Recarburisation of steel
- Brake pads
- Carbon brushes
- Ceramics

Market Supply Snapshot

- Chinese supply (~75% of market)
- Chinese production has seen recent mine consolidations, some closures, increasing costs and environmental challenges
- China has “captured” most of the emerging African production capacity via off-take agreements
- Graphite identified as a critical industrial mineral by USA & UK



Infrastructure

Access to power, water, transport and shipping



Process water

- High yielding fractured rock aquifer at Pindari located 8kms north of Sugarloaf
- Saline water ~ 22,500 ppm TDS - no other beneficial users
- Two bores to supply initial requirement of 100ML/yr dropping to 60ML/yr
- TSF decant to provide 40ML/yr

Potable water

- Agreement with SA Water for supply of 40ML/yr rising to 80ML/yr at Archer's election
- Potable water required for final concentrate wash water and site domestic uses

Power

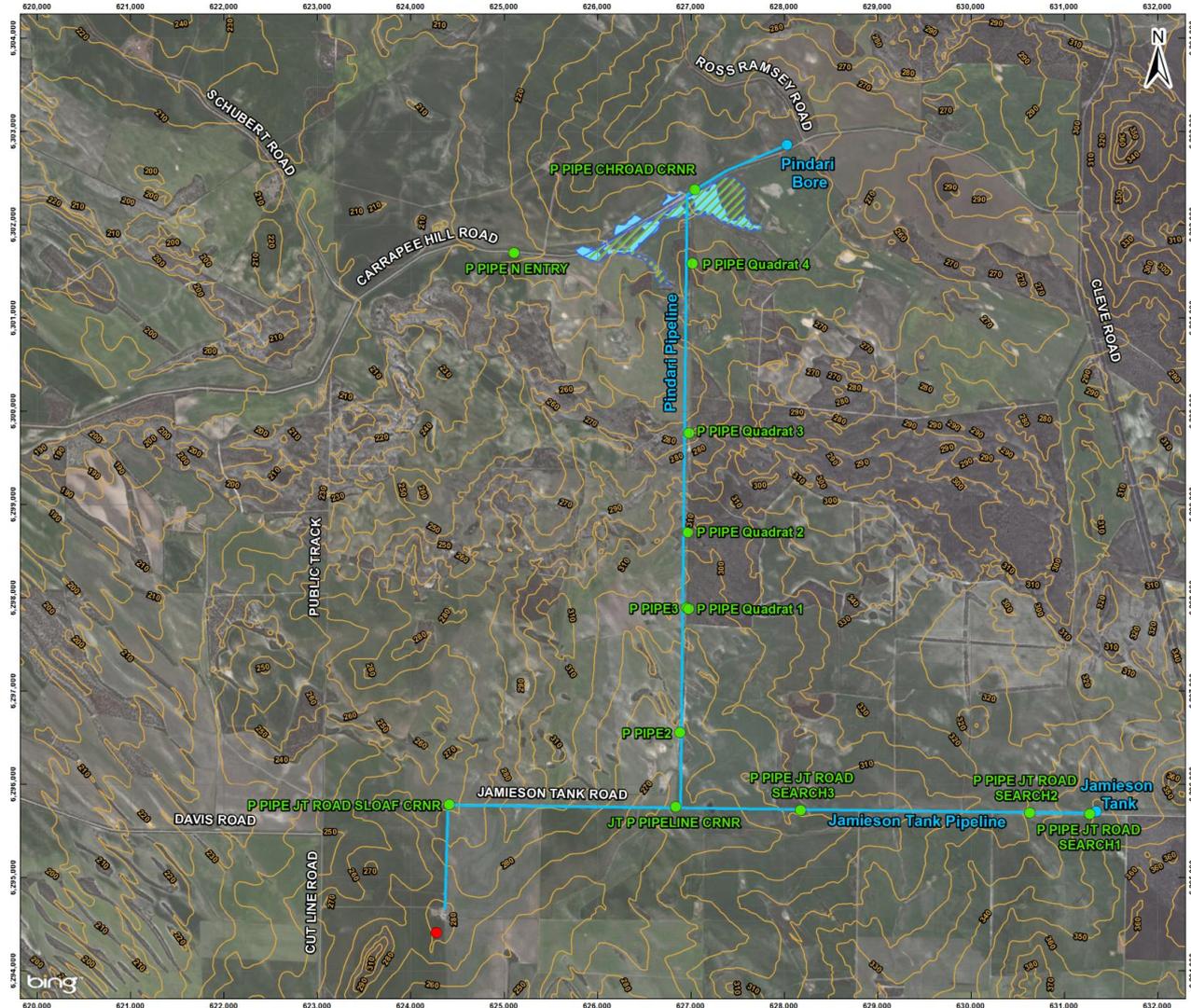
- Electricity demand 0.8 MW
- 11kV line 4.75kms west of Sugarloaf plant

Transport

- Cleve-Kimba road B-Double capable

Port

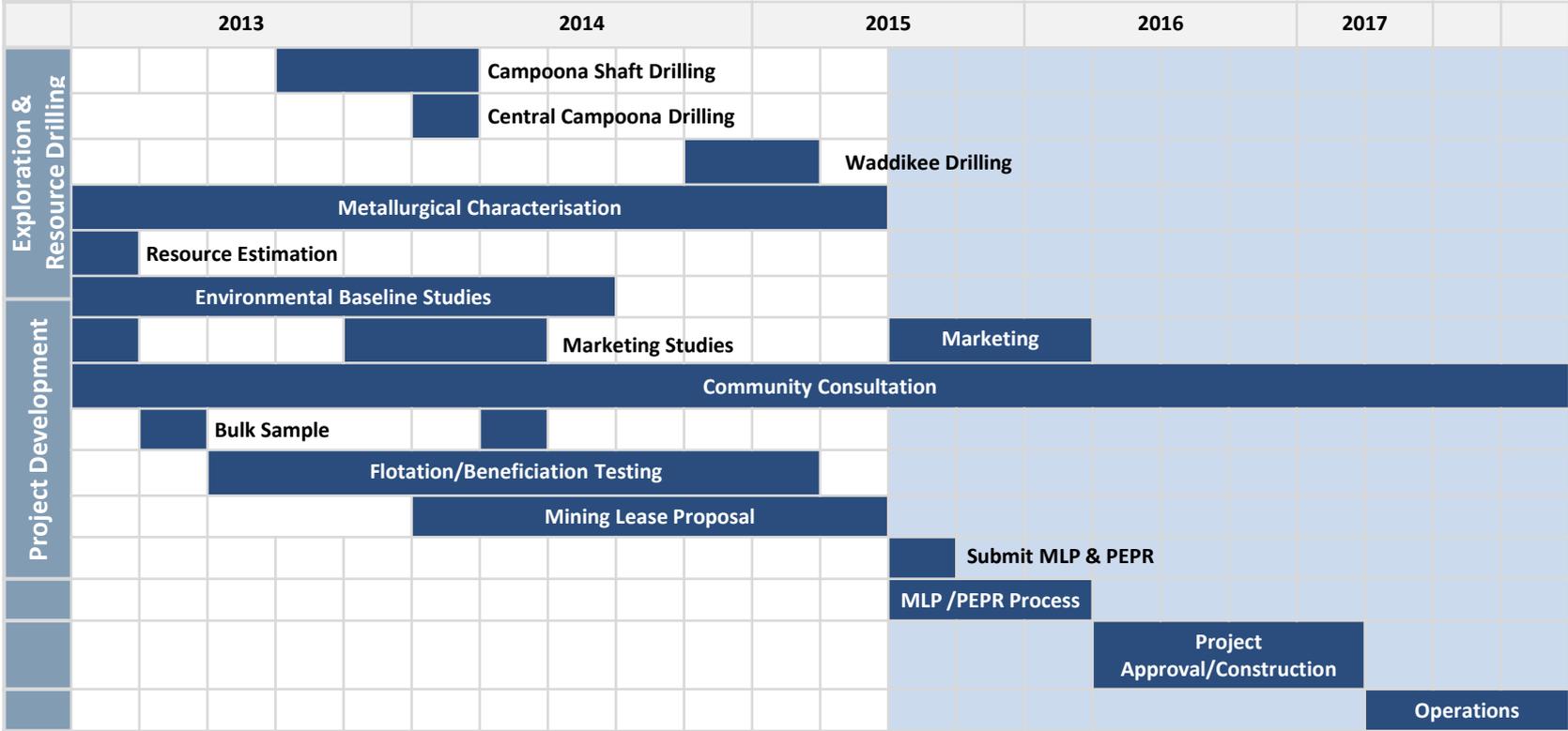
- Port Adelaide preferred as container capable





Indicative Project Timeline

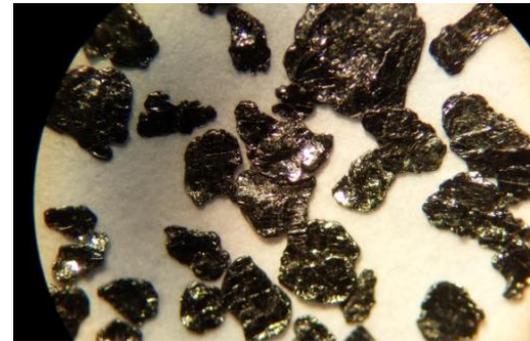
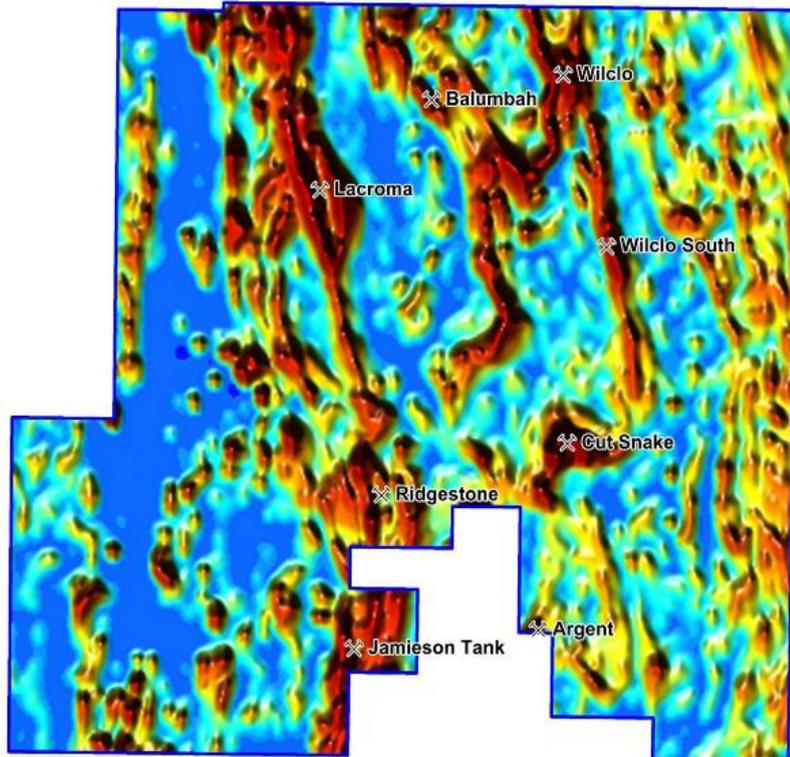
Final Mining Lease Proposal and PEPR expected to be submitted around August 2015



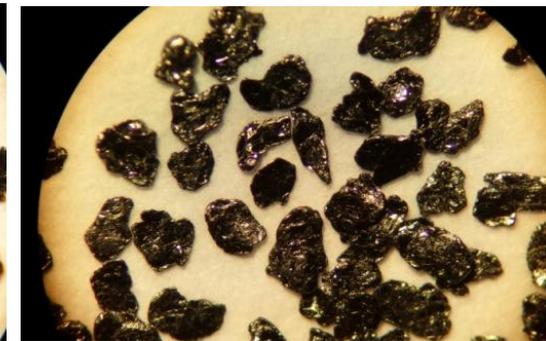
Waddikee Flake Graphite

Waddikee graphite flakes are much coarser, complimenting Campoona’s concentrate product. Wilclo South and Francis have 50% of graphite reporting to Flake

Waddikee Flake samples



+425µm fraction showing Extra Large – Jumbo flake



+300µm Extra Large Flake

Wilclo South has JORC 2012 Inferred Resource of 6.28Mt @ 8.8% Cg based on drilling just 1.2kms of strike of the 11km long eastern limb of the antiform. Step out drilling north and south of the Wilclo South Resource along the EM “tram track” intersected graphite of the same disposition and tenor as Wilclo South for an additional 1.2kms of strike. Reasonable to expect that further drilling would increase Waddikee’s resource.

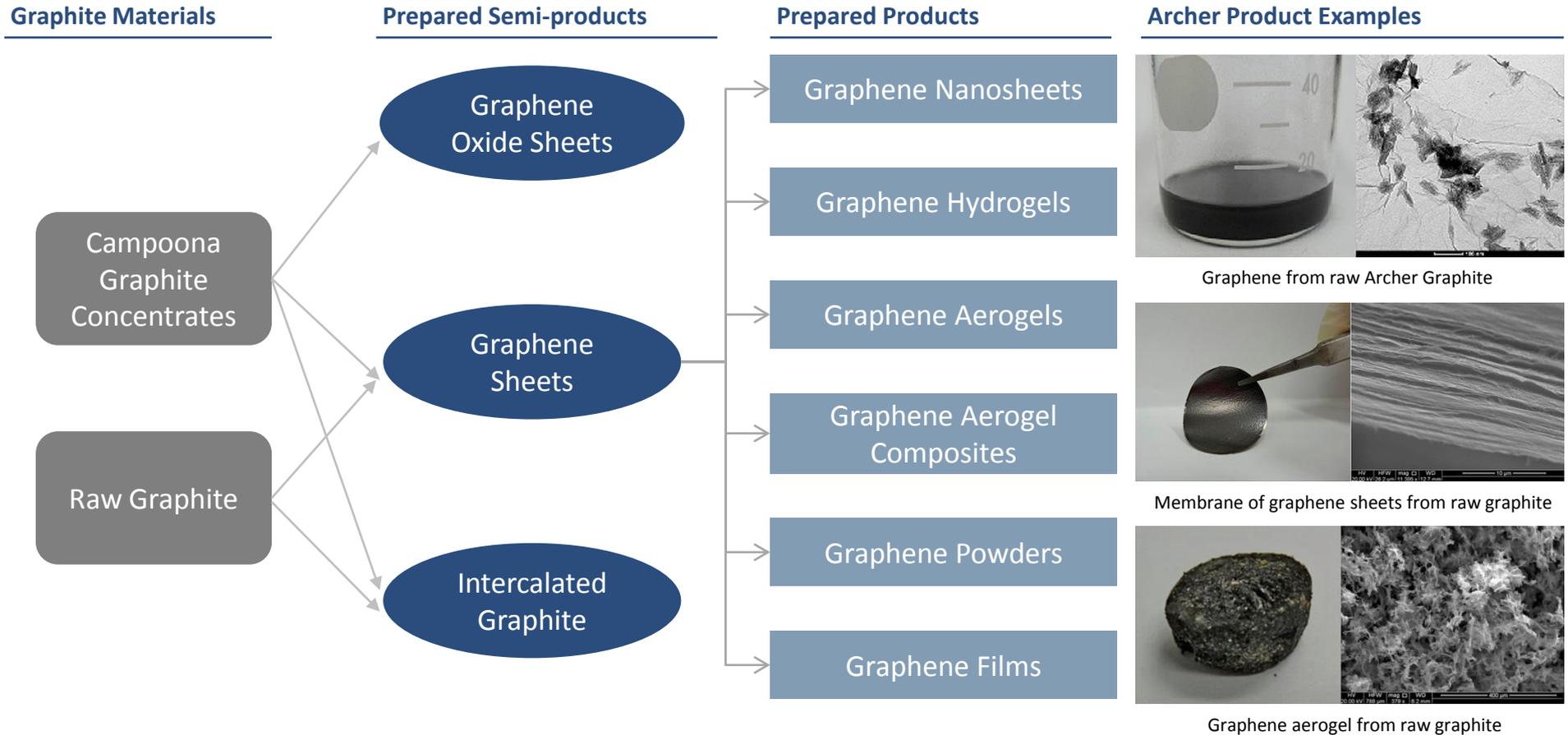
Indicative Flake distribution from the oxide profile at Wilclo South

Graphite size (µm)	Grade (% Cg)	Graphite distribution in flake product (%)
Extra large / Jumbo flake +425µm	92.2	5%
Extra large flake +300µm	91.6	10%
Large flake +180µm	91.8	29%
Fine & Medium flake +75µm	92.3	56%

The Wilclo South deposit and Francis prospect produced Extra Large, Large, Medium and Fine Flake graphite at grades of 91-92% Cg from basic Halutain superpanner sorting

Research & Development

Archer and the University of Adelaide in a two year study which is highlighting outstanding opportunities for Archer’s Sugarloaf graphite for agricultural applications



- Initial tests successful in coating commercially available fertilizers to slow and regulate NPK (nitrogen, phosphorus, potassium) solubility
- Research has now highlighted excellent opportunity for raw run-of-mine Sugarloaf carbon with its unique natural characteristics for use as soil conditioning and slow release fertilizer agents. Separate ASX Releases will be issued in the coming days.



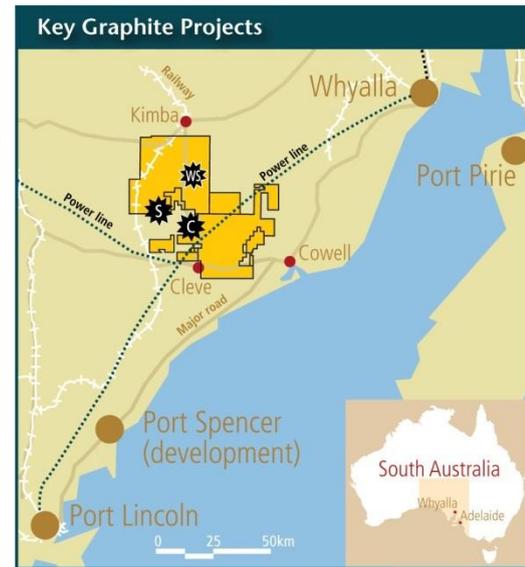
Graphite Executive Summary

Scalable project initially producing 10,500tpa of battery quality graphite

Executive Summary

1	Large Position in Premium Graphite Location	<ul style="list-style-type: none"> 2,154km² under tenure near Cleve-Darke Peak-Kimba on Eyre Peninsula, South Australia which is Australia's premier graphite exploration and production region
2	Multiple Discovered Resources ¹	<ul style="list-style-type: none"> Australia's largest JORC 2012 Resource of 8.55Mt @ 9.0% Cg (770,800t of contained graphite) <ul style="list-style-type: none"> Campoona Shaft Total: 1.65Mt @ 9.2% Cg (151,400t contained graphite) Central Campoona Total: 0.52Mt @ 11.1% Cg (58,000t contained graphite) Wilclo South Total: 6.38Mt @ 8.8% Cg (561,400t contained graphite)
3	High Quality Graphite	<ul style="list-style-type: none"> Rigorous metallurgical testing demonstrates the ability to deliver high purity, high value, crystalline fine graphite Campoona Shaft graphite suitable for lithium-ion batteries Large to jumbo flake recovered from Wilclo South and Francis and further large flake indicated from petrology at Cut-Snake, Balumbah and Argent Portfolio provides options to deliver the full spectrum of graphite products
4	Exploration & Expansion Upside	<ul style="list-style-type: none"> 10 graphite prospects with huge exploration potential High quality airborne EM and magnetic coverage across key areas Archer owns land at Sugarloaf and executed a legally binding agreement to purchase land at Campoona Shaft
5	Close to Existing Infrastructure Network	<ul style="list-style-type: none"> Located close to existing and proposed infrastructure Power and major road infrastructure all located within the perimeter of the tenements with access to various port options Substantial saline groundwater aquifer (~22,500 ppm TDS) north of Sugarloaf will supply process water needs of an extended project. Agreement signed with SA Water for the supply of potable water to project.

Location



Advanced Graphite Projects
 ⚙️ Campoona ⚙️ Sugarloaf ⚙️ Wilclo South

- ✓ Low sovereign risk, good access to infrastructure
- ✓ High quality product ≥99%
- ✓ Excellent recoveries
- ✓ Combined deposit grade of 9.0%Cg could support ~20 year project
- ✓ Predominantly free-dig, open cut mining with low overall strip ratio
- ✓ Draft Mining Lease Proposal submitted

1. Reported using a cut-off grade of 5%Cg

Website www.archerexploration.com.au

Archer Exploration Limited



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Disclaimer

Competent persons statement

The exploration results and Exploration Target 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 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 information in this report that relates to the Campoona Shaft and Central Campoona JORC 2012 Mineral Resource estimation has been prepared by Mr B. Knell who is a Member of the AusIMM and peer reviewed by Dr. C Gee who is also a Member of the AusIMM (CP). Mr Knell is a full time employee of Mining Plus Pty Ltd and Dr. Gee is a full time employee of 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Knell has 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 2012.

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.