Mineral Exploration
Tungsten & Tin

ACN: 123 993 233

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Tungsten and tin mineralisation identified on Archer tenements

Highlights

- Tungsten mineralisation identified in historic drilling on Archer's Broken Hill tenements.
- Tungsten is scheelite hosted with geological horizon mapped extensively across Archer tenements.
- New application lodged for tin/tungsten project near Stanthorpe, NSW – historic tungsten and tin mining projects located within the area of the tenement application.
- Mapping, rock chip sampling and review of historical drilling at Broken Hill to commence in coming weeks.
- Tungsten is considered a critical material in many world markets due to its economic importance and limited substitution options.

Archer Exploration Limited ("Archer", "Company") is pleased to announce the discovery of tungsten at the Company's Broken Hill project and the application for a new exploration licence over an area of historic tungsten and tin mining near Stanthorpe, NSW.

Commenting on the latest exploration results, Archer Executive Chairman Greg English said, "The identification of scheelite hosted tungsten mineralisation on our Broken Hill tenements adds to the prospectivity of these tenements. The fact that the tungsten is found in scheelite is significant given that scheelite (along with wolframite) is the most mined type of tungsten deposit in the world and is one of the easier types of tungsten ore to process.

"The new exploration licence application in northern New South Wales hosts historic tin and tungsten mines. These mines last operated in the 1970s and in 1974 approximately 8% of Australia's total tin production came from the area of the exploration licence application.

"Tin and tungsten metals are both in demand with prices for both metals forecast to rise in the future. We are excited by the potential of these projects and intend to commence exploration at Broken Hill in the coming weeks."

Broken Hill Project

The Broken Hill Project area is centred approximately 20km north of the township of Broken Hill, NSW. The projects were acquired by Archer in 2017 and since that time Archer has actively explored the tenements and this exploration has led to the successful discovery of cobalt, copper and gold mineralisation within the project area.

A recent review of historical information at Broken Hill has led to the identification of scheelite hosted tungsten mineralisation within the area of Archer's tenements. The tungsten mineralisation is stratigraphically hosted, and it is thought that the scheelite was partially remobilised into fold hinges and retrograde calc-silicate rocks in the deformation history. Worldwide, there are more than 30 known tungsten-bearing minerals with scheelite (along with wolframite) being the most mined type of tungsten deposit.

The known outcrop has been mapped extensively over Archer's tenement area (Fig. 1.) and the mineralised horizon likely extends under cover. The outcropping areas are highly prospective for tungsten mineralisation.

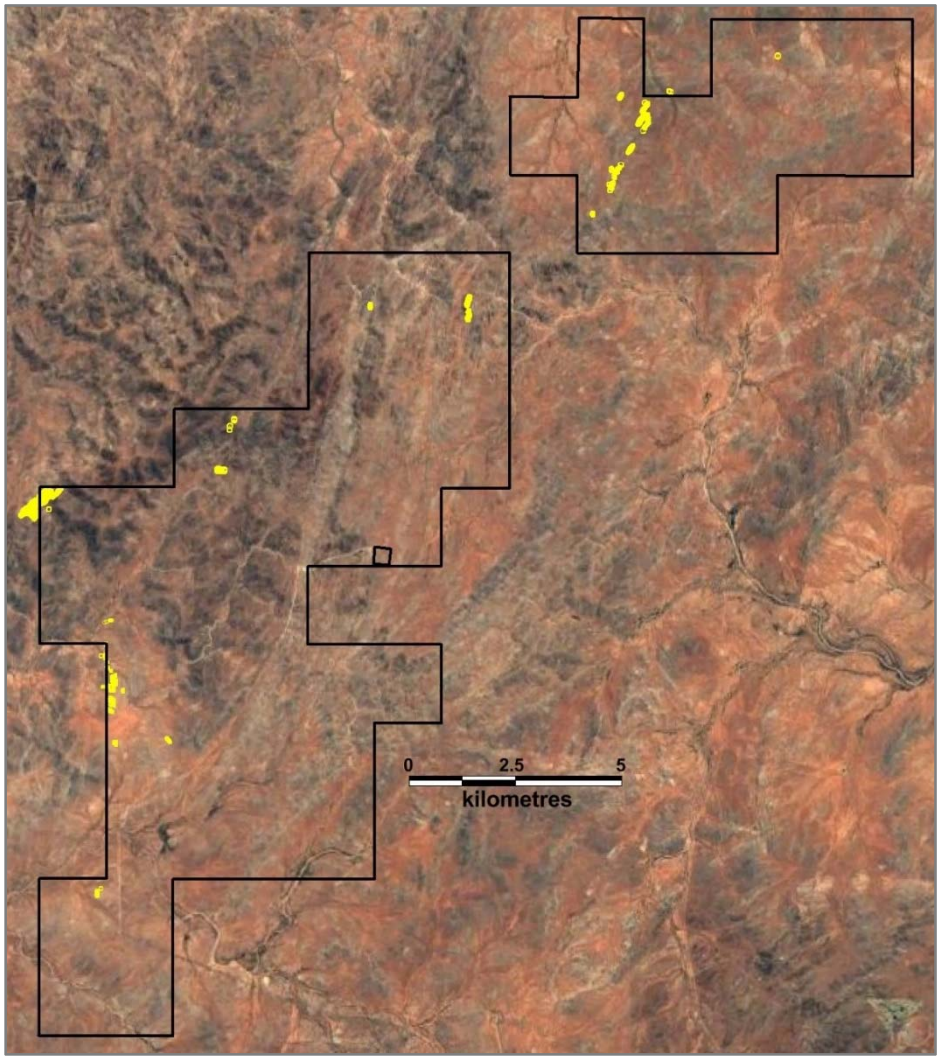

Fig. 1. Mapped tungsten prospective calc-silicate lithologies (shown in yellow shading) within Archer tenement boundaries.

Stanthorpe ELA 5814 (NSW)

Archer has made an application for a new exploration licence (ELA) over an area of approximately 300km^2, located east of the township of Stanthorpe, NSW (Fig. 2.).

The ELA covers areas of historic tungsten and tin mines and prospects. In 1974 approximately 66,000t of tin concentrate was produced from the ELA area which accounted for 8% of Australian tin production at the time. Almost all of the tin production from the ELA area was

from alluvial tin and tungsten deposits with minimal drilling to test the prospectivity of the old mines and deposits below surface.

Archer considers the ELA to be highly prospective for tin and tungsten, given the high volume of tin produced from the ELA area.

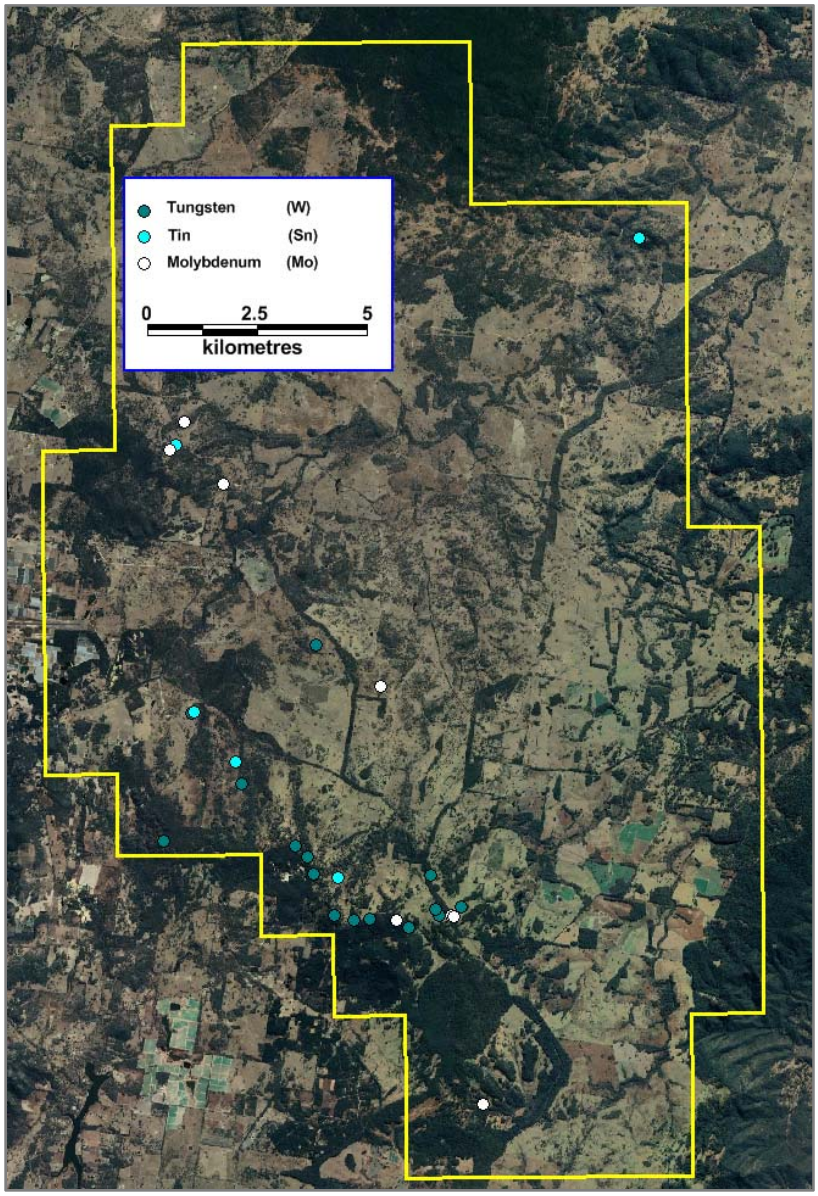

Fig. 2. ELA 5814 (Stanthorpe) showing locations of prospective hard rock tungsten (W), Tin (Sn) and molybdenum (Mo) occurrences.

Tungsten and Tin

Exploration for tin and tungsten will compliment Archer's exploration for valuable commodities (e.g. copper, cobalt, manganese and graphite) that will be required for the expanding energy and technology markets.

Tungsten metal and its alloys are amongst the hardest of all metals and tungsten has the highest melting point of all pure metals. The combination of its hardness and high-temperature capabilities make it desirable for many commercial and industrial applications. Tungsten's range of properties also makes it difficult to substitute with other metals.

Tungsten and tin are considered critical materials in many world markets due to its economic importance and few substitution options. Tungsten and tin have been categorised by the US as a critical and strategic raw materials due to their economic importance, supply risk and few potential substitutions[1].

Tungsten carbide has a hardness approaching that of diamond and is used for cutting and in wear-resistant materials. Tungsten also has applications in industries such as transport (including aircraft manufacturing and railways), mining, construction, defence medical (X-ray tubes and radiation shields), consumer durables (e.g. smartphones) and chemical products. Tungsten and tin-based materials are also candidates for application in lithium-ion batteries.

Next Steps

The Company intends to commence mapping and geochemical sampling of the outcropping tungsten horizon at Broken Hill tenements in the coming weeks, subject to final government and landowner consents. At Stanthorpe, Archer will continue to review all historical information and intends to explore the tenement area once the tenement is granted and all government and landowner approvals are finalised.

For further information, please contact:

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For more information about Archer's activities, please visit our:

Website
https://archerx.com.au/

Twitter:
https://twitter.com/archerxau?lang=en

YouTube:
https://bit.ly/2UKBBmG

Medium:
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Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Wade Bollenhagen, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Archer Exploration Limited.

Mr Bollenhagen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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". Mr. Bollenhagen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

[1] https://www.federalregister.gov/documents/2018/05/18/2018-10667/final-list-of-critical-minerals-2018

JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data *(Criteria in this section apply to all succeeding sections.)*

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• No sampling being reported
Drilling Techniques	• Drill type (e.g. core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• No drilling being reported
Drill Sample Recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• No drilling being reported

Criteria	JORC Code Explanation	Commentary
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.	• No drilling being reported.
Sub-Sampling Techniques and Sample Preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• No sampling being reported.
Quality of Assay Data and Laboratory Tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• No sampling being reported.

Criteria	JORC Code Explanation	Commentary
Verification of Sampling and Assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• No sampling being reported.
Location of Data Points	• Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• No drilling being reported.
Data Spacing and Distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• No drilling being reported.
Orientation of Data in Relation to Geological Structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• No drilling being reported.
Sample Security	• The measures taken to ensure sample security.	• No sampling being reported.
Audits or Reviews	• The results of any audits or reviews of sampling techniques and data.	• No auditing or reviews of sampling techniques and data.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Tenement status confirmed on MINVIEW. • ELA 5814 is still in application and is not yet granted. • All other tenements (EL 8592 & 8593) are in good standing with no known impediments.
Exploration Done by Other Parties	• Acknowledgment and appraisal of exploration by other parties.	• Previous exploration under EL 8592 & 8593, has been for Broken Hill style mineralisation, as well as for other commodities including tungsten, the literature is still being reviewed. • In the late 1970's and early 80's North Broken Hill Ltd undertook Zn-W exploration drilling at Lake's Nob with some success, the drilling reported values over 0.2% WO_3. In 1982 exploration ceased and no other work has been undertaken in this area for W (that literature searches have revealed). • Previous exploration under ELA 5814, has been for tin, tungsten, gold and molybdenum. Literature searches are still ongoing,

Criteria	JORC Code Explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralisation.	• Tungsten mineralisation under the granted EL's is associated with calc-silicate rocks and in locations W has been remobilised into hinge zones and concentrated. Exploration will be focused on these calc-silicate rocks. • In the Stanthorpe region , W, Sn mineralisation is associated with quartz veining, it is thought to have an association with the Ruby Ck Granite, the area has been postulated has having potential for Intrusion Related gold and some REE potential.
Drillhole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: – Easting and northing of the drill hole collar – Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar – Dip and azimuth of the hole – Downhole length and interception depth – Hole length • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• No drill holes being reported
Data Aggregation Methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No drilling being reported.

Criteria	JORC Code Explanation	Commentary
Relationship Between Mineralisation Widths and Intercept Lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	• No drilling being reported.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• See main body of report.
Balanced Reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• The reporting is considered to be balanced.
Other Substantive Exploration Data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• None to report at this stage of the review.
Further Work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• The work being reported is introductory, literature searches have not yet been completed or assessed, on-ground verification is required before exploration plans are proposed.