

# **ASX Announcement and Media Release**

13 July 2017

# WA'S DOOLGUNNA REGION FOCUS OF KALAMAZOO'S NEW COPPER EXPLORATION PROGRAM

- Kalamazoo has commenced exploration at its Cork Tree Project in WA's highly prospective Doolgunna region.
- The exploration area covers a contiguous block of six tenements covering 40 kms of strike mainly within the Earaheedy Basin and partly along the contact with the Yerrida Basin.
- The area is strategically located in the Doolgunna region, which hosts the DeGrussa Copper Mine, Thaduna Copper deposit, Enigma Copper prospect and Horseshoe Lights Copper-Gold mine.
- Historical exploration<sup>1</sup> has indicated encouraging copper potential:
  - Regional soil sampling defined an anomaly some 1,950m x 600m in extent with results ranging from 2ppm to 25ppm Cu.
  - Eight rock samples of 'gossans' returned copper assay above 0.1% with a maximum of 1.42% copper.
- Kalamazoo continues exploration at its flagship Snake Well project in WA.

## Next Steps:

Kalamazoo has commenced a program at its Cork Tree Project of infill lag geochemistry, reprocessing and remodeling of historical geophysical data, including gravity, magnetics and electromagnetics (EM), geological mapping and rock chip sampling. Review of this data is expected to lead to a better understanding of the regional geology and most importantly directing exploration to specific target areas for follow up exploration.

1 Refer to Independent Geologists Report in Section 5 of the Company's Prospectus dated 3 October 2016



Copper-gold exploration company, Kalamazoo Resources Limited **(ASX: KZR)** ("**Kalamazoo**"), today announced it has commenced exploration programs at its Cork Tree Project, located in Western Australia's highly prospective Doolgunna region.

The Cork Tree Project consists of three granted exploration licences (E52/2056, E52/2057, E52/3042), and more recently three exploration licence applications, comprising 117 blocks and covering approximately 370km<sup>2</sup> along the contact of the Yerrida Basin and the Earaheedy Basin (Figure 2). The Company now controls an area approximately 40 km x 20 km along the basin margins.

Kalamazoo entered into a farm-in and joint venture (JV) agreement with ASX-listed Atlas Iron over two Cork Tree tenements in March 2013, and has currently completed the Stage 1 earn-in for 51%<sup>1</sup>.



Figure 1: Location of the Cork Tree Project



The tenements lie 30 kms to the south-east of DeGrussa and Monty deposits owned by ASX-listed Sandfire Resources (Figure 3). Kalamazoo believes the region to be prospective for copper and potentially lead-zinc mineralisation.



Figure 2: Location of Cork Tree tenement package, geology and significant deposits



Figure 3: Location of Other Parties Tenements at Cork Tree Project



Given the large acreage held, Kalamazoo has taken a holistic approach to its exploration strategy. It has initiated an air magnetics and gravity interpretation of a significantly larger area than the tenements themselves, to identify the major lithological and structural elements of the Archaean basement that will impact the overlying Proterozoic sedimentary basins.

Open file electromagnetic data was interpreted, and areas of anomalous responses within the Kalamazoo tenements were identified. Field mapping of the sparse outcrops within the tenements suggest the lithologies within this restricted sub-basin are the Yerrida sediments/ Bubble Well carbonates (1840Ma) and Yelma equivalents.

A conceptual exploration model to suggest how mineralisation may have formed within the Kalamazoo tenements has been compiled (Fig 4).



Figure 4: Idealised model for copper mineralisation - Cork Tree Copper Prospect

Kalamazoo Resources Ltd ACN 150 026 850



# Local Geology and Mineralisation<sup>1</sup>

The Cork Tree Project straddles rocks of the Yerrida Basin and the western extremity of the Earaheedy Basin. Rocks mapped comprise of clastics and dolomites, largely exposed as chert breccias and silcretes, which underlie most of the tenement area. Outcrop is very poor with most exposed material being alluvial or colluvial in origin (Figure 5).



Figure 5: Typical colluvial exposure



Figure 6: Malachite mineralisation in silicified dolomite drill cuttings - Cork Tree Prospect



Bedrock geology in the project area is heavily masked by lateritic duricrust, deep oxidation and transported material. Exploration within the belt has been hindered by a lack of outcrop, dense vegetation, deep weathering and widespread transported cover which can be up to 80m thick. Previous exploration has identified widespread secondary copper mineralisation (Figure 6) within thick dolomite-shale-sandstone stratigraphy at a number of prospect areas within the Cork Tree tenements.

# Nearby Copper Deposits<sup>1</sup>

Mineralisation within the area surrounding the Cork Tree Project dominantly occurs as epigenetic gold deposits (Peak Hill, Fortnum, and Horseshoe mining centres) with lesser VHMS (Horseshoe Lights and DeGrussa deposits) and epigenetic copper (Thaduna deposit). The operating DeGrussa copper-gold mine is located 30km to the west, while the Thaduna copper mine is located 10km to the west. Mineralisation in the project region includes new discoveries by ASX-listed Sipa Resources Limited (ASX: SRI) at the Enigma prospect, and by Sandfire Resources NL (ASX:SFR) at Red Bore.

# Thaduna Mine<sup>1</sup>

The Thaduna copper mine was discovered by prospectors in 1941 and total recorded production of copper oxide ore (malachite, cuprite and chrysocolla, Figure 7) is 30,290t at 8.7% Cu. There remain stockpiles of 48,400t at 2.74% Cu and tailings of 20,500 tonnes at 2.5% Cu (Ventnor, 2016)2. The Thaduna lode is about 600m long and averages 3m wide. The mineralisation comprises high-grade, shear hosted shoots and lower-grade disseminated mineralisation. In places the disseminated zone is up to 20m wide.



Figure 7: High grade copper (malachite) mineralisation, Thaduna Mine



### **DeGrussa Mine**<sup>1</sup>

The DeGrussa copper-gold deposit is a chalcopyrite rich VHMS deposit blanketed by highgrade supergene sulphide and oxide ore, which was discovered in 2009 by Sandfire Resources NL(ASX: SFR). It has current Mineral Resources of 10.7Mt at 4.5% Cu and 1.8g/t Au which convert to Ore Reserves of 10.8Mt at 3.6% Cu and 1.5g/t Au.

Current production rate for the DeGrussa mine is 1.6Mtpa. Additionally, the recently discovered Monty deposit has current Mineral Resources of 1.05Mt at 9.4% Cu and 1.6g/t Au (Sandfire, 2016)<sup>1</sup>.

The initial discovery was made in follow up drilling investigating a zone of oxide gold mineralisation. The deposit is covered by recent alluvium and despite high grade chalcocite copper being within 30m of surface has no anomalous surface geochemistry. The Red Bore prospect, located 0.5km southeast of DeGrussa, is hosted in mafic rocks and may also be a similar VHMS. At Red Bore a drill intersection of 17m at 11.7% Cu, 1.73g/t Au was announced in 2011 (Society of Economic Geologists 2011)<sup>1</sup>.

### **Exploration Potential and Targets**

Kalamazoo believes its tenements hold significant potential for the discovery of copper mineralisation. Historic exploration has identified widespread secondary copper mineralisation within thick dolomite-shale-sandstone stratigraphy at a number of prospect areas within the Cork Tree tenements. Potential exists to develop new base metal targets within the Cork Tree Project through undertaking regional geophysical and geochemical surveys over areas where coverage by previous explorers has been poor.

#### Planned Exploration

Kalamazoo is commencing a program of:

- reprocessing and remodelling of historical and open file geophysical data, including gravity, magnetics and electromagnetics,
- infill lag geochemistry, and;
- geological mapping and rock chip sampling.

Review of this data is expected to lead to a better understanding of the regional geology and most importantly improving the exploration model directing exploration to specific target areas for follow up.

Kalamazoo Resources Ltd ACN 150 026 850



### For further information, please contact:

Mr. Peter Benjamin Managing Director Kalamazoo Resources Limited +61 8 9481 8188 peter.benjamin@kzr.com.au

#### About Cork Tree Project

Kalamazoo's copper asset is the Cork Tree Project, located 830km north east of Perth, 120 kms north-north west of Wiluna and 160 kms north east of Meekatharra, in the Mid-West region. It is situated within the Peak Hill (SG50-08) 1:250,000 map sheet and the Thaduna (2846) 1:100,000 map sheet. The project can be accessed from Meekatharra via the Great Northern Highway, then the graded Neds Creek Station road. It consists of three granted mining leases and three exploration licence applications. Access within the tenements is straightforward through relatively flat terrain using mining and exploration tracks.

Although the project is an exploration project some infrastructure exists in the area and reasonable proximity to Meekatharra and Wiluna provides access for some exploration supplies and services. Sandfire's DeGrussa ore processing facility lies some 30km west of the project area

#### **Competent Persons Statement**

The information in this release that relates to the exploration data is based on information compiled by Mr Lance Govey, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Govey is an employee of BinEx Consulting who is engaged as the Exploration Manager for the Company. Mr Govey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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'. Mr Govey consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

For additional and detailed information, please refer the Independent Geologist's Report prepared by Ravensgate in Section 5 of the Company's Prospectus dated 3 October 2016 and Supplementary Prospectus, dated 14 November 2016.

#### Forward Looking Statements

Statements regarding Kalamazoo's plans with respect to its mineral properties and programmes are forwardlooking statements. There can be no assurance that Kalamazoo's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Kalamazoo will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Kalamazoo's mineral properties. The performance of Kalamazoo may be influenced by a number of factors which are outside the control of the Company and its Directors, staff and contractors.

Kalamazoo Resources Ltd ACN 150 026 850