

## ASX Announcement and Media Release

31 January 2018

### DECEMBER 2017 QUARTERLY ACTIVITIES REPORT FOR KALAMAZOO RESOURCES LIMITED

Kalamazoo Resources (ASX: **KZR**) ("**Kalamazoo**") is pleased to report on its December 2017 quarter activities. The Company has continued to progress exploration and development initiatives. This includes:

- A significantly increased mineral resource estimate reported at its flagship project - the Snake Well Gold Project in Western Australia;
- Taking an option to purchase several tenements prospective for gold in the Pilbara region of Western Australia; and
- Continued assessment of the base metal potential, discovered during the drilling program at A-Zone, part of the Snake Well Gold Project.

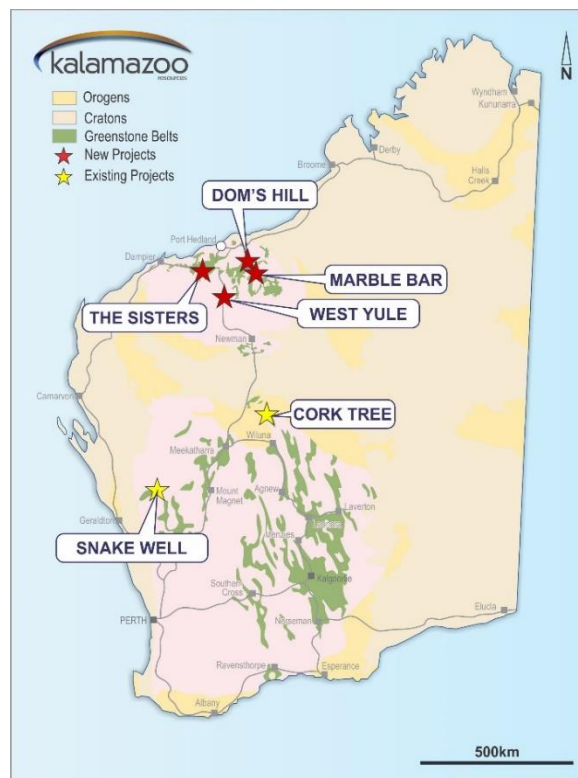


Figure 1: Location of Kalamazoo current and optioned Projects

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## HIGHLIGHTS – GOLD

### ▪ Snake Well Gold Project – Mixy Gold Lode

A significant new geological interpretation<sup>1</sup> was completed for the Mixy gold lode at the Snake Well Project in Western Australia. This new interpretation was based on an extensive review of the historical and recent geological drilling database which was supported by an independent consultant.

- Key points of new interpretation include:
  - The gold lode is now separated into three zones: Main Zone, Hanging Wall (HW) Zone and Footwall (FW) Zone.
  - The Main Zone is now larger and more cohesive - up to 400m in strike and 250m down dip and is still open in all directions.

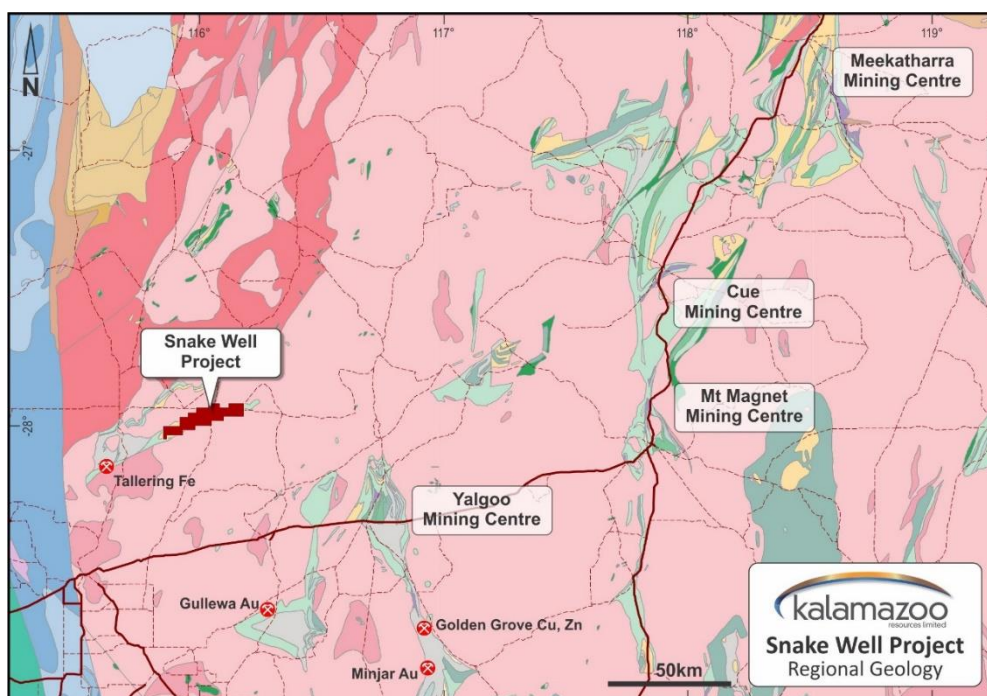


Figure 2: Location plan of Snake Well Gold Project

1. For a detailed description of the geology and Mineral Resource Estimate, refer to the Independent Geologist's Report in Section 5 of the Company's Prospectus dated 3 October 2016 and Supplementary Prospectus, dated 14 November 2016.

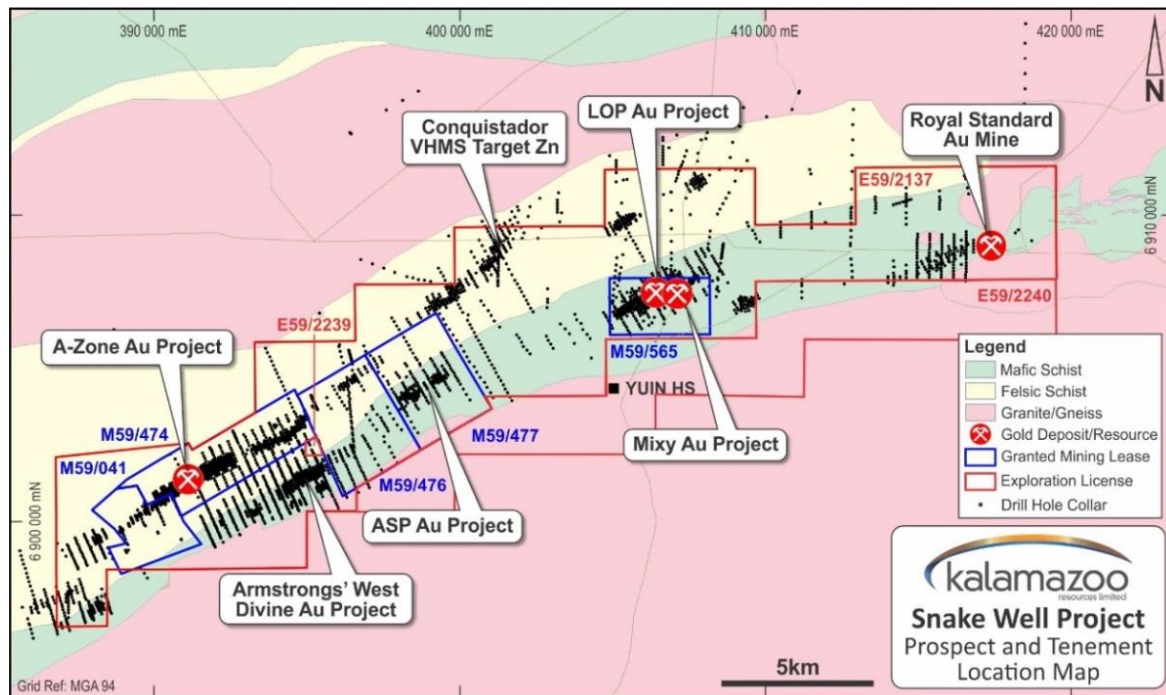


Figure 3: Location of A-Zone and Mixy Project areas

- The Main Zone now has a shallower plunge with potential for more ounces per vertical metre - an important consideration for any development proposal.
- Separating the lower grade HW and FW zones from the Main Zone should also result in an overall increase in the average gold grade for the Main Zone.

The outcomes from the new interpretation<sup>2</sup> support more drilling for both increased confidence in upper oxide portion of the mineral resource and to test for resource extensions.

2 Refer to release ASX: KZR 19 October 2017

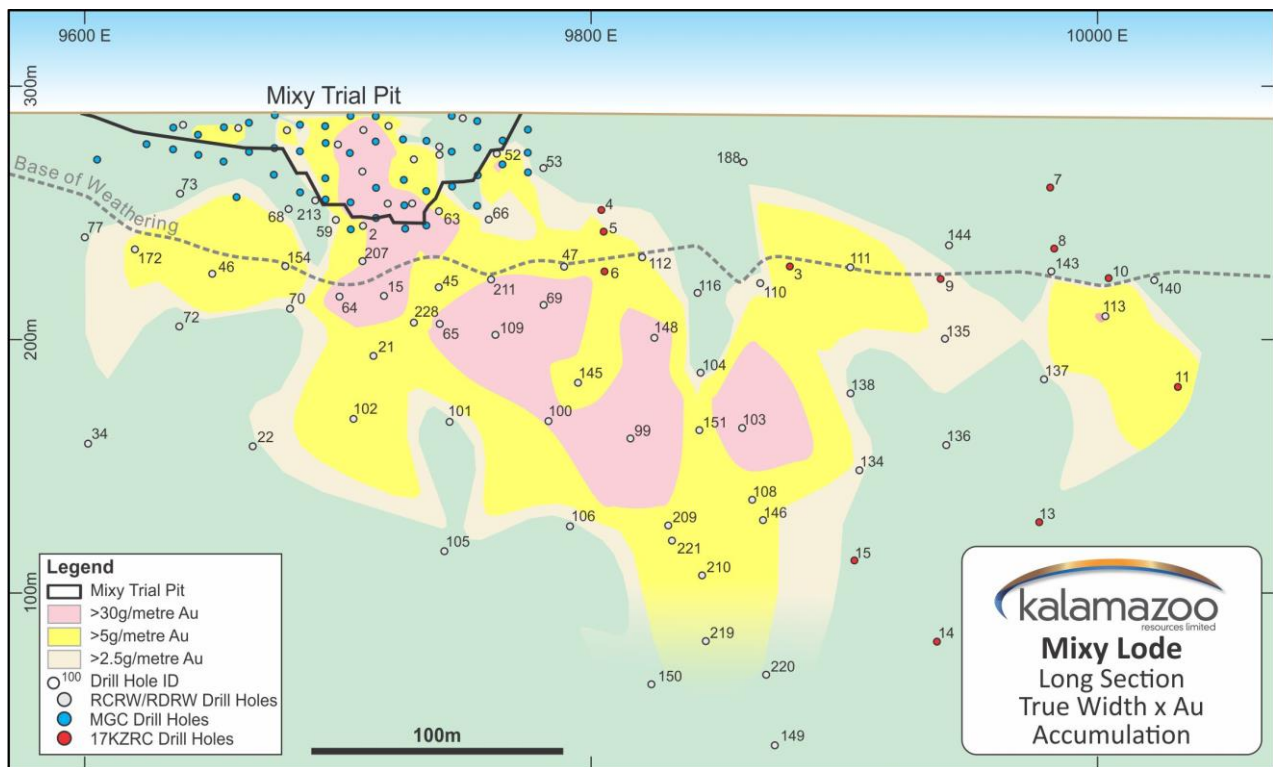


Figure 4. Contoured (Accumulation in gram/metres gold)\* of the Mixy Main Zone gold shoot.

Note: Pierce points and hole numbers are displayed.

*\*Accumulation modelling is modelling based on contouring of the gold grade of the drill intersection pierce point and the estimated true intercept width in metres (ETW), expressed in grams/metre. Modelling by Ravensgate Mining Industry Consultants using Vulcan software, contouring with no anisotropy and accumulation was grade (g/t Au sample & uncut) multiplied by true thickness (metres) and samples were length weighted.*

This new interpretation for the Mixy lode was used as a basis for an updated Mineral Resource estimate<sup>3</sup> - prepared by an independent expert in accordance with JORC 2012 - has resulted in a significant 85% increase in grade and a 13% increase in tonnage for a total increase in contained metal of 63%.

Consequently, the Mineral Resource (JORC 2012) inventory for Snake Well has increased by 32% to 141,000 ozs.

This much-improved mineral resource provides consideration for options for a larger pit possibly leading to underground development.

3 Refer to release ASX: KZR 14 November 2017



**TABLE 1: GLOBAL MINERAL RESOURCE ESTIMATE<sup>4</sup> FOR MIXY LODGE,  
NOVEMBER 2017**

JORC Category 2012	Cut Off Grade (g/t Au)*	Total Tonnages	Gold Grade (g/t Au)	Metal Ounces
Measured	0.5 & 2.0 g/t Au	11,000	5.3	2,000
Indicated	0.5 & 2.0 g/t Au	110,000	5.4	20,000
Inferred	0.5 & 2.0 g/t Au	350,000	3.9	44,000
<b>Total</b>	<b>0.5 g/t Au</b>	<b>470,000</b>	<b>4.3</b>	<b>65,000</b>

Notes: Open Pit Resource is up to 90m below surface (>200mRL) & Underground Resource is below 90m from surface (<200mRL). Tonnages reported as dry tonnes.

Rounding has been applied to appropriately reflect the precision of the estimate.

## Second Drilling Program

The new interpretation provided confidence to commence a second drilling program at the Mixy Lode. The objective is to test along strike and for deeper extensions of the high-grade Main Lode mineralisation.

This program comprises a combination of reverse circulation/diamond drilling for about 1500 metres.



Figure 5: RC drill rig at Mixy Lode, Snake Well, 2017

## HIGHLIGHTS – GOLD

### ▪ Pilbara Gold Projects

During the quarter, Kalamazoo entered into an Option Agreement<sup>4</sup> to acquire between 80% and 100% equity in three Pilbara gold projects covering 252 km<sup>2</sup>. These tenements include the DOM's Hill Gold, Sisters and Marble Bar gold projects – controlled by WA resources industry stalwart Denis O'Meara Prospecting (DOM) and Brett Keillor (KS Gold Pty Ltd).

<sup>4</sup> Refer to release ASX: KZR 6 October 2017

The tenements are highly prospective for gold and located in proximity to the Pilbara gold projects of Novo Resources (TSX: NVO) / Artemis (ASX: ARV), De Grey Mining (ASX: DEG), Venturex Resources (ASX: VXR), Impact Minerals (ASX: IPT), DGO Gold (ASX: DGO) and Calidus (ASX: CAI).

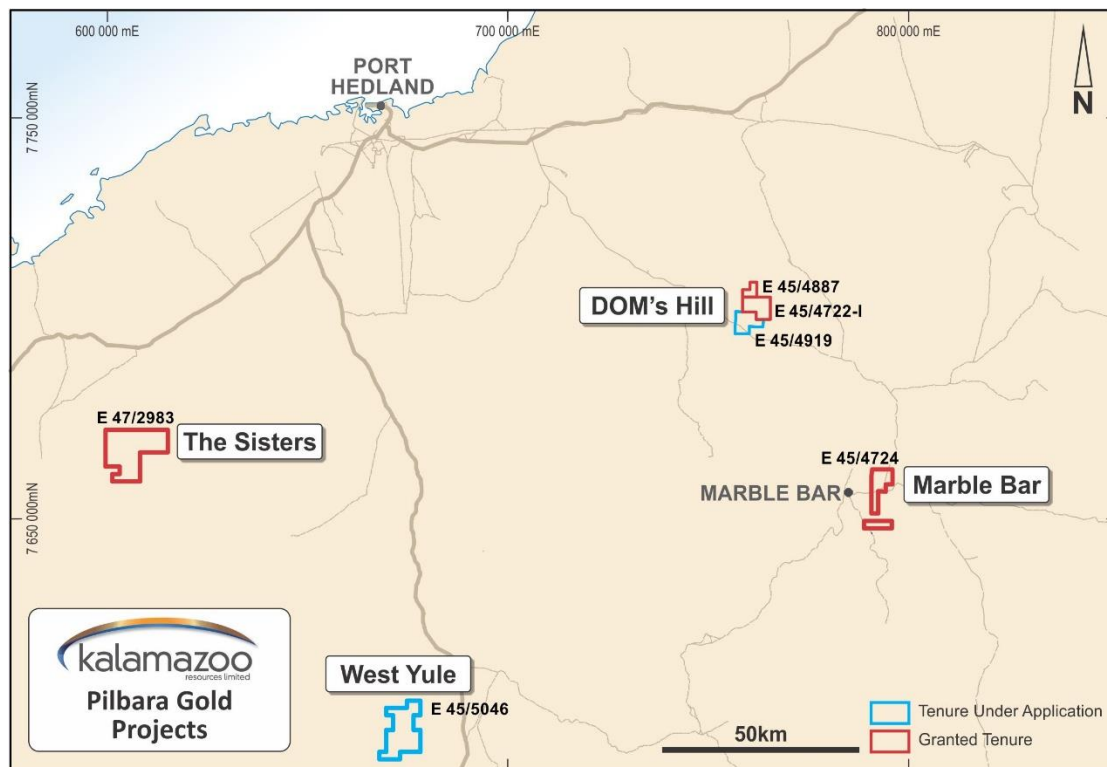


Figure 6: Location of DOM's Hill, The Sisters and Marble Bar Optioned tenements, and the new 100% West Yule application

The DOM's Hill Gold Project is comprised of one granted Exploration Licence and two Exploration Licence Applications covering 68 km<sup>2</sup> and is located 110km south east of Port Hedland in a prospective gold area currently being actively explored.

The DOM's Hill Gold Project tenements contain extensive gold in soil anomalies and numerous historical significant gold drill intercepts. Recent prospecting has recovered an estimated 300 ozs of gold nuggets from poorly explored areas.

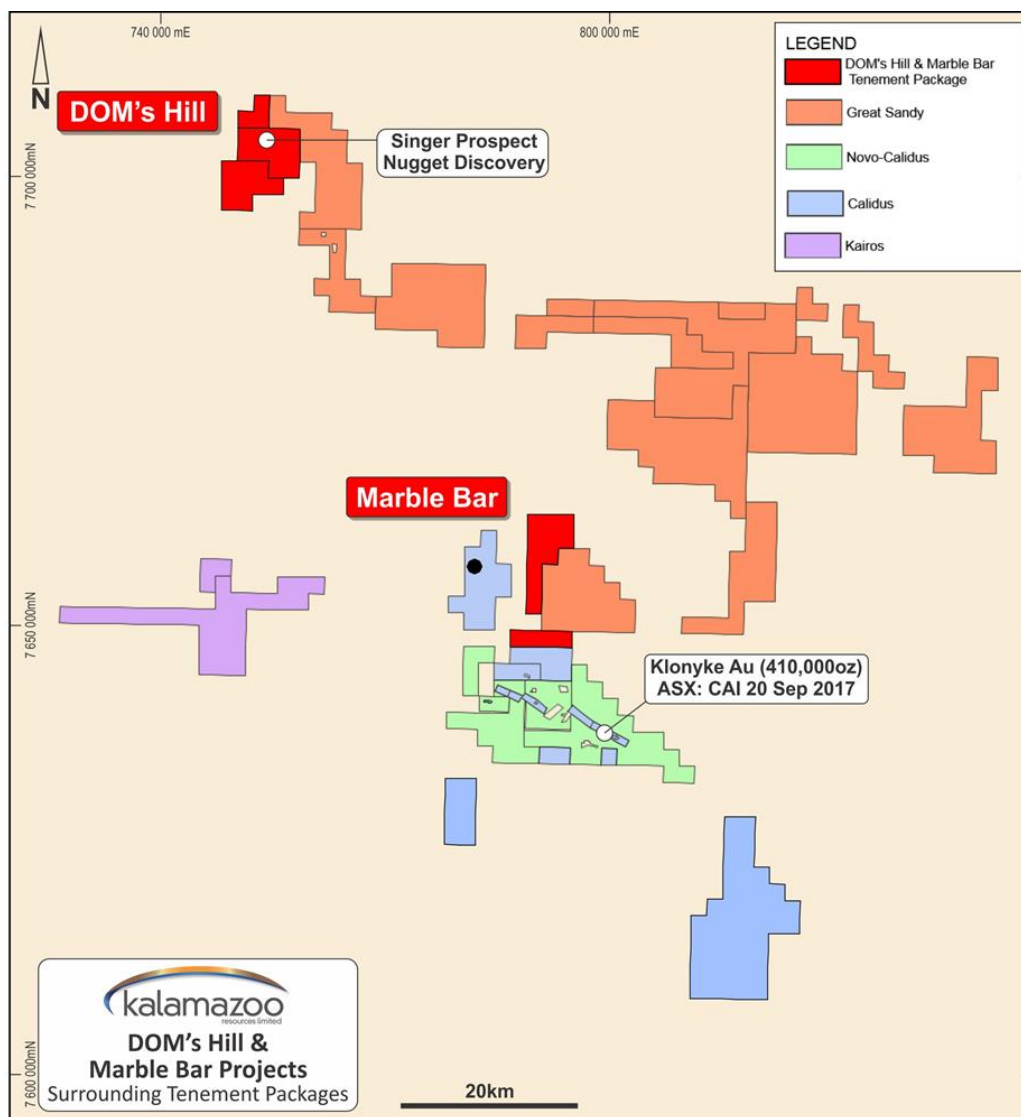


Figure 7: DOM's Hill and Marble Bar Gold Projects and surrounding tenements

The Marble Bar Gold Project is a granted 48 km<sup>2</sup> tenement located 6.5kms east of Marble Bar and 11kms north of the very promising Klondyke Gold Project. It contains 12kms strike of the prospective Archaean Warrawoona Formation. The project also has the potential to contain basal sedimentary units of the Fortescue Formation.

The Sisters Gold Project is a granted tenement of 139 km<sup>2</sup> located 100km south west of Port Hedland. It is centrally situated within one of the most actively explored areas of the Pilbara where recent exploration has discovered significant shear hosted and conglomerate hosted gold mineralisation.

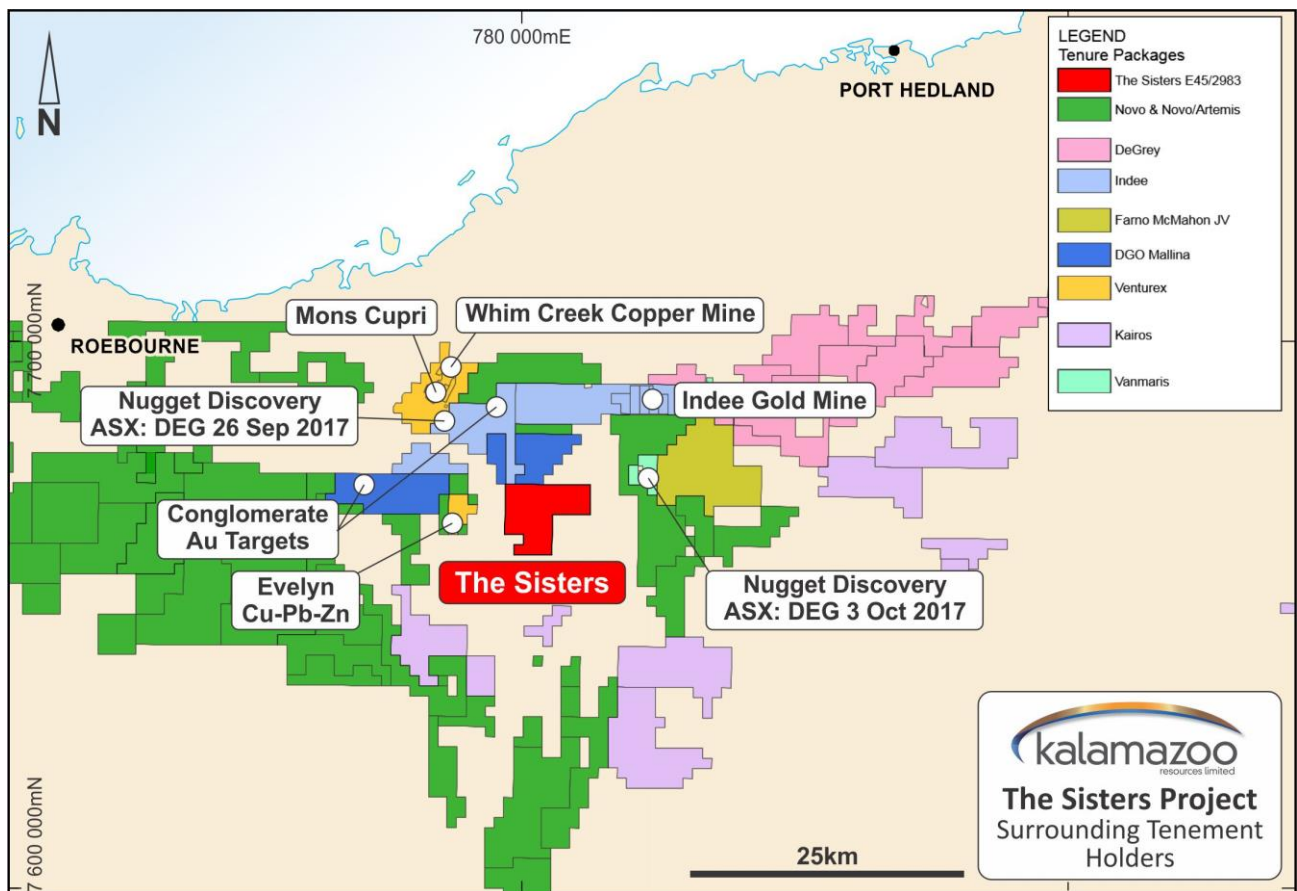


Figure 8: The Sister's Project and surrounding tenements

On signing the Option Agreement, Kalamazoo commenced exploration activities to determine prospectivity in relation to:

- Identification of quality gold prospects based on historic nugget recovery;
- The potential for conglomerate-hosted gold below Mt Roe Basalts (which has been prolific in the region); and
- The potential for other gold occurrences in quartz veins, shears and epithermal zones

Kalamazoo initially acquired a 90-day option across each of the projects for the payment of \$125,000 (made from existing cash reserves) and the issue of shares in Kalamazoo to the value of \$200,000.

Kalamazoo subsequently advised<sup>5</sup> that the parties had agreed that the date by which the Option must be exercised by KZR had been extended from 1 January 2018 to 1 April 2018.

<sup>5</sup> Refer to release ASX: KZR 22 December 2017



In consideration for the Option extension, KZR agreed to pay \$50,000 to the tenement holders - set off against the cash amount payable upon exercise of the Option.

During the quarter, Kalamazoo completed an extensive field exploration investigation of its Option tenement package. Tenement areas – including The Sisters Project – are in a highly prospective and emerging province adjacent to recent nugget discoveries announced by De Grey Mining (ASX: DEG) and Segue Resources (ASX: SEG).

Kalamazoo entered into an agreement with lithium explorer, Sayona Mining (ASX: SYA), to assay for gold from soil pulps previously taken from The Sisters Project (E47/2983).

In addition, local Pilbara prospectors were contracted to search for the presence of gold nuggets on some of the tenements including The Sisters Project. Consequently, several areas<sup>6</sup> with gold nuggets were successfully located by the prospectors.



Figure 9: Selection of nuggets recently discovered at the Singer Prospect, DOM's Hill Gold Project, E45/4722. Note: Plate width is 27cm containing 5ozs gold, nuggets up to 1cm, approximately

A zone of gold nuggets was discovered during early field exploration at DOM's Hill Gold Project (E45/4722), just 4.5km south east of the Singer's Prospect. Six nuggets were recovered from three sites by a short program of metal detecting over a 2km by 1km area - a new identified area largely untested by previous exploration.

Gold prospectivity at DOM's Hill is being enhanced ahead of any decision to acquire the project.

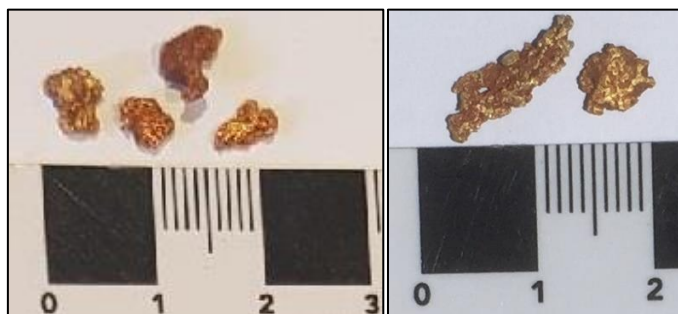


Figure 10 a&b: Six nuggets from the eastern zone, E45/4722 (left, Site B, total weight 1.7g, right Sites D & F, total weight 1.0g). Photo scale is cm/mm

<sup>6</sup> Refer to releases ASX: KZR 6 October, 17 & 23 November 2017

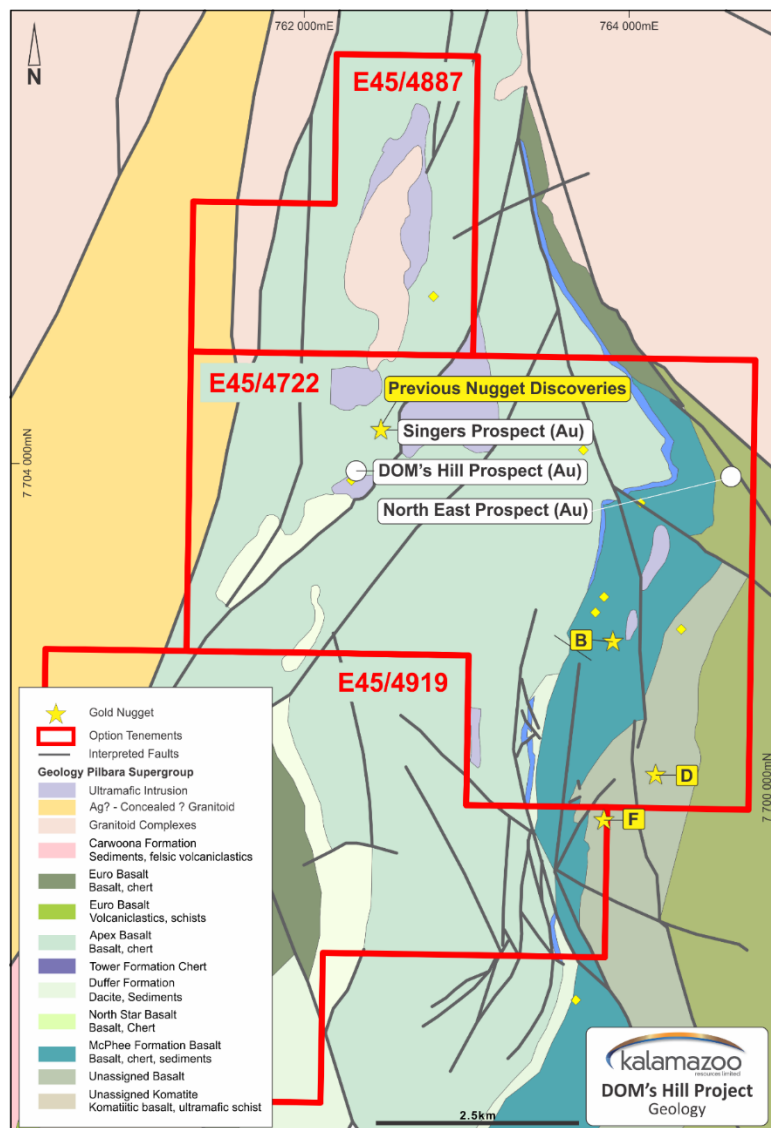


Figure 11. Location of new nugget zone at DOM's Hill.

Further gold nugget discoveries occurred for Kalamazoo – this time at The Sisters Gold Project in WA's West Pilbara. Gold nuggets were discovered during early metal detecting program at the project, 110km south west of Port Hedland.

Following the resampling of the pulps from the Sayona Lithium geochemical program, a gold-in-soil anomaly<sup>7</sup> was defined over 3km along the Wohler Shear Zone corridor and open to the north east and south west. Gold nuggets were discovered south west along strike from the gold soil anomaly and outside the area of soil sampling.

<sup>7</sup> Refer to release ASX: KZR 30 November 2017

Nugget locations are in proximity to mafic intrusions and north-east structures indicating similarities to recent discoveries reported by ASX-listed De Grey Mining at Blue Moon, refer to ASX: DEG 3 October 2017.

The project is partly underlain by Mallina Formation sediments, host to recent nugget discoveries by Segue Resources Limited (ASX: SEG) in the immediately adjacent E47/3476 (refer to ASX announcement by SEG dated 7 November 2017).

An orientation program was also completed to follow up the “gold-in-soil anomaly” which defined a 3km zone along the Wohler Shear Zone corridor, open to the north east and south west. The aim of the program was to determine the optimal soil fraction for detecting the gold anomalism and thereafter test new areas within The Sisters tenement.

Kalamazoo is also embarking on a mapping program to better understand the range of gold and base metal opportunities within The Sisters, DOM’s Hill and Marble Bar tenements.



Figure 12 Aerial view of The Sisters Gold Project, Pilbara

Kalamazoo considers that as a result of the discovery of nuggets and the gold in soil anomaly, gold prospectivity at the project is being enhanced ahead of any decision to acquire it.

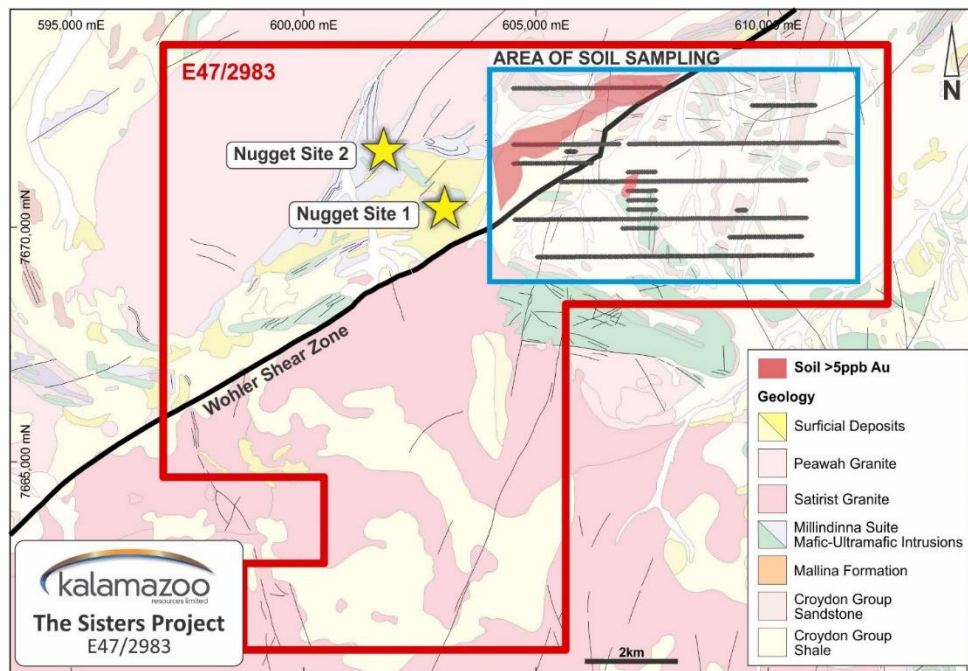


Figure 13. Geology, soil sampling coverage and location of nuggets

Further, an application<sup>8</sup> was made for another highly prospective tenement (E45/5046, “West Yule”) in the Pilbara.

<sup>8</sup> Refer to ASX announcement dated 10 November 2017



## HIGHLIGHTS – BASE METALS

### ▪ Snake Well Base Metals Project

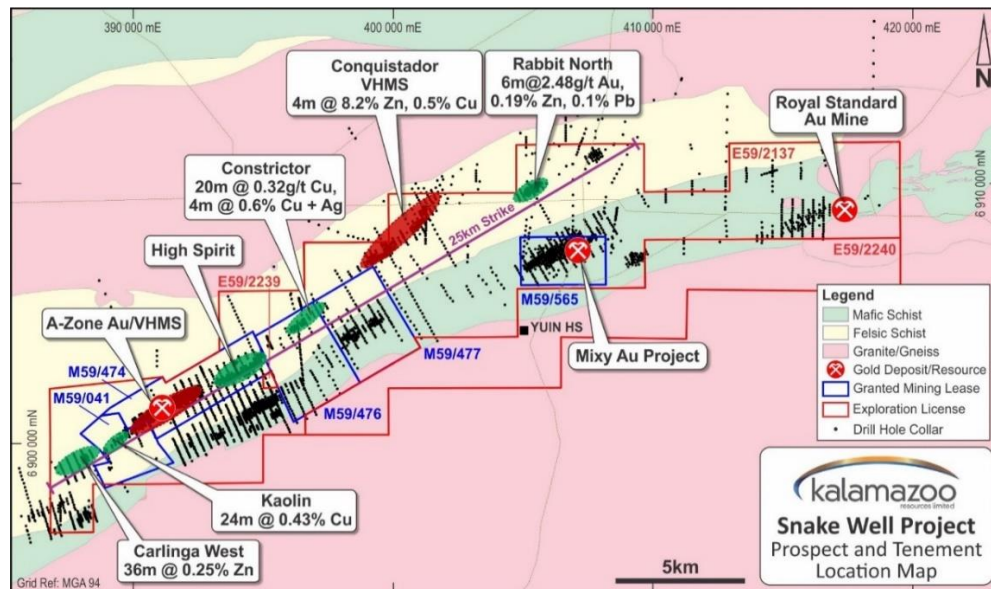


Figure 14: Snake Well Location Plan of Base Metal (VHMS) Projects and selected significant results.  
(Refer to KZR ASX announcement dated 23 June 2017)

Following the discovery of significant base metals at the A-Zone, Kalamazoo completed a lease wide review<sup>9</sup> of the base metal potential. As a consequence of this review, multiple new base metal target horizons (currently seven) have been defined at A-Zone, including:

- A Zone anomaly extends 3.5km by 1km highlighting VHMS deposit potential;
- Additional zone of base metal anomalism defined in hanging wall 'B-Zone';
- A substantial anomalous zone ('C Horizon') is defined and is open for 5km along strike; and
- Five additional anomalous horizons require follow-up.

<sup>9</sup> Refer to ASX announcement dated 23 October 2017

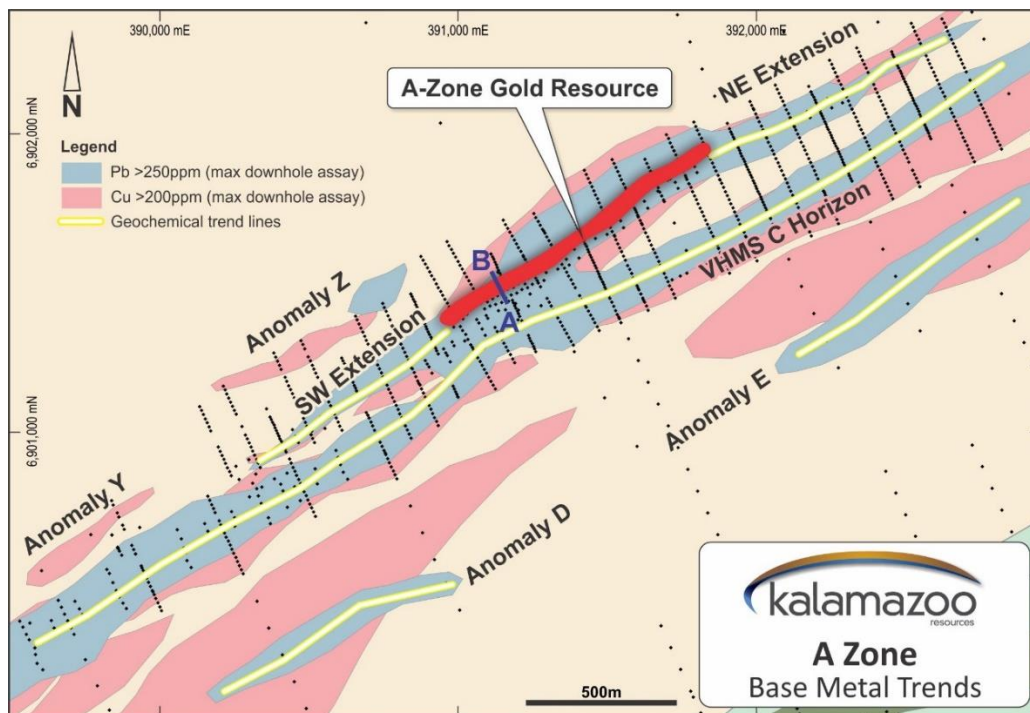


Figure 15. Interpreted base metal distribution trends near A-Zone gold resource

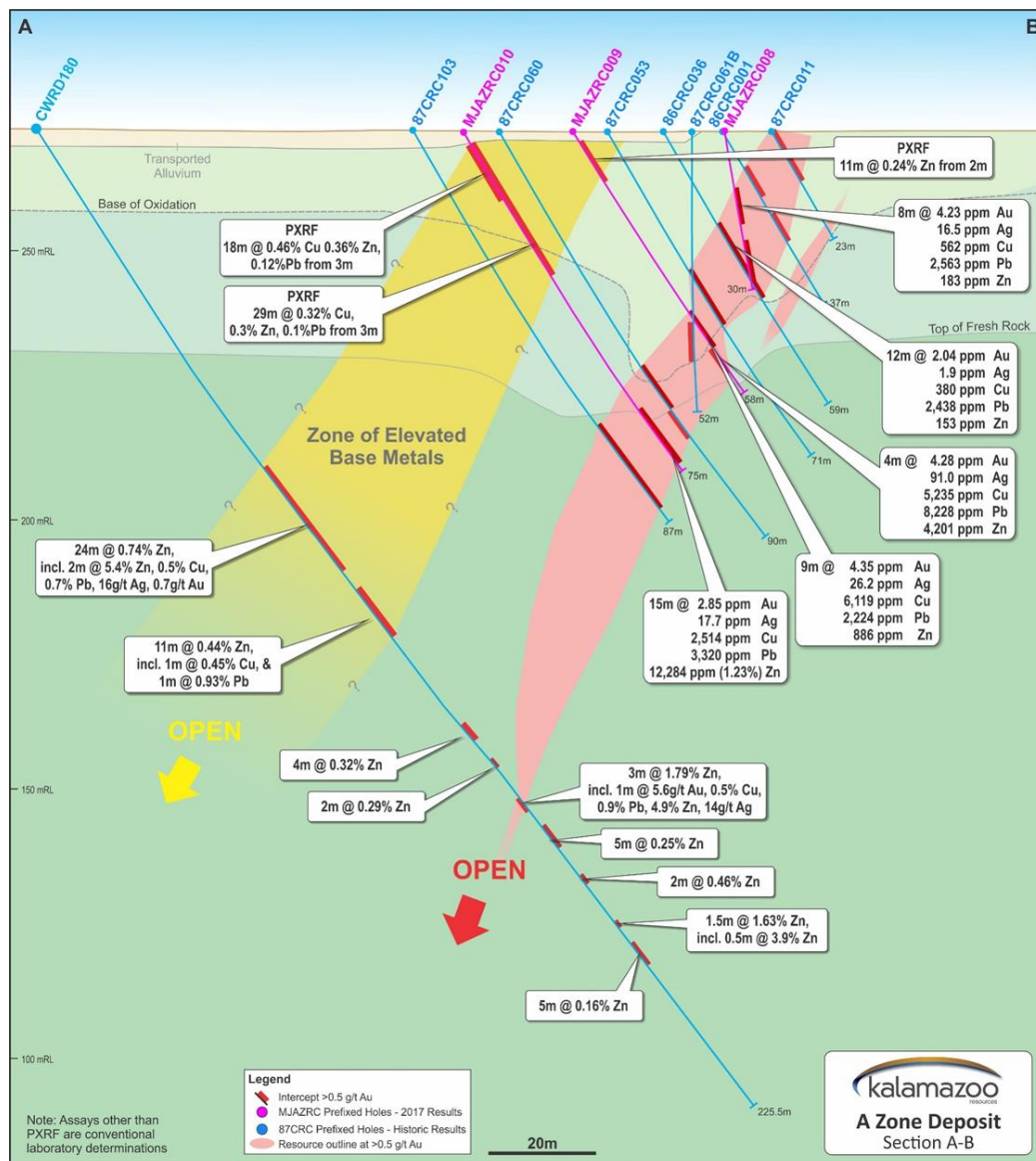
Strong levels of copper, zinc and lead reported in re-assaying<sup>10</sup> of RC samples for base metals using a portable XRF instrument:

- MJAZRC009: 11m @ 0.24% Zn from 2m
- MJAZRC010: 18m @ 0.46% Cu, 0.36% Zn, 0.12% Pb from 3m
- MJAZRC013: 13m @ 0.36% Pb, 0.41% Zn, 0.22% Cu from 50m
- MJAZRC018: 2m @ 4.4% Zn, 2.9% Pb from 54m
- MJAZRC019: 14m @ 0.87% Zn, 0.36% Cu, 0.76% Pb from 4m
- MJAZRC061: 11m @ 0.39% Zn, 0.30% Cu, 0.30% Pb from 49m
- MJAZRC073: 31m @ 0.21% Zn from 22m

Also, anomalous base metals identified in fresh bedrock in an historic diamond hole<sup>9</sup>, (Figure 16) supports interpreted oxide geochemical trends;

- CWRD180: 24m @ 0.74% Zn from 76m, including 2m @ 5.4%Zn, 0.5%Cu, 0.7%Pb and 16g/t Ag from 87m

<sup>9</sup> Refer to ASX announcement dated 23 October 2017



Follow-up exploration for base metal VHMS potential is to focus on a 25 kilometre underexplored corridor to test for the potential to host a world-class VHMS camp.

Given the strong high-grade coincident zinc and silver, and significant copper and lead mineralisation returned from a selective re-assay program at A-Zone by Kalamazoo, the company considers the project area from Carlinga West to Rabbit Well North, remains largely underexplored, a distance of over 25 kms for VHMS mineralisation of a similar style to Golden Grove deposits (Figure 17).

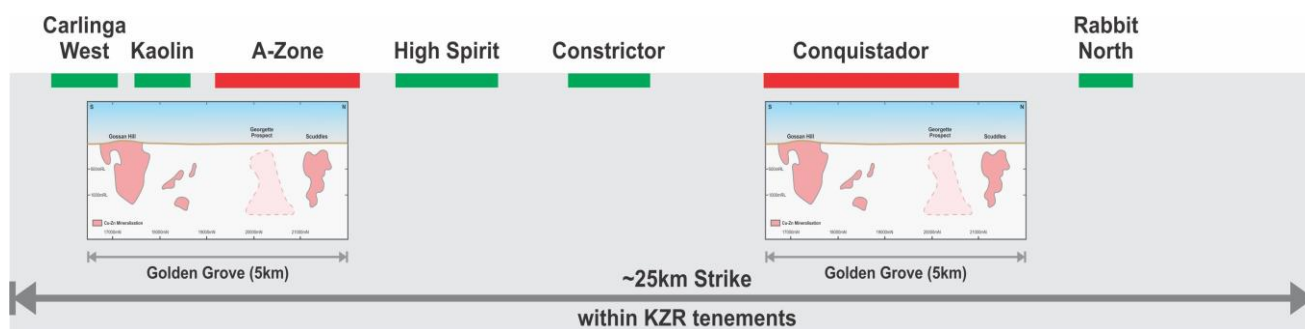


Figure 17: Idealised and Interpreted Longitudinal Section Superimposing the Golden Grove VHMS camp relative to Kalamazoo's 25 km long, Snake Well base metals prospects and anomalies. (Refer to ASX announcement dated 21 July 21)

A geophysical review of the historical exploration of the belt identified several major opportunities due mainly to significant improvements in modern geophysical techniques and more sophisticated modelling and limited follow up of existing anomalies.

Kalamazoo believes the Snake Well felsic rock succession has the potential to host a world-class VHMS camp, as only as little as 500m of strike is required to form an economically attractive massive sulphide deposit (Figure 17) of a style interpreted to be similar to the important Golden Grove deposits.

The results of the first phase of base metal prospectivity study and re-assay program at A-Zone has provided confidence in the VHMS base metal potential of the project area. It has warranted a significant expansion of the exploration work program in the wider project area along the full 25 km corridor.

## CORPORATE

Kalamazoo received a refund of \$702,000 under the Federal Government's Research and Development Tax Incentive Scheme which significantly increases the Company's cash position and allows for funding of the planned exploration for the Pilbara and Mixy projects.



**TABLE 1 TENEMENT INFORMATION IN ACCORDANCE WITH LISTING RULE 5.3.3**

Project / Tenement ID	State	Status	KZR Interest at start of quarter	KZR Interest at end of quarter	Notes
<b>Cork Tree Project</b>					
E52/2056	WA	Granted	51%	51%	49% held by Giralia Resources Pty Ltd.
E52/2057	WA	Granted	51%	51%	49% held by Giralia Resources Pty Ltd.
E52/3042	WA	Granted	100%	100%	
E52/3514	WA	Application	-	-	
E52/3515	WA	Application	-	-	
E52/3540	WA	Application	-	-	
<b>Snake Well Project</b>					
E59/2137	WA	Granted	100%	100%	
E59/2239	WA	Granted	0%	100%	
E59/2240	WA	Granted	0%	100%	
M59/0041	WA	Granted	100%	100%	
M59/0474	WA	Granted	100%	100%	
M59/0476	WA	Granted	100%	100%	
M59/0477	WA	Granted	100%	100%	
M59/0565	WA	Granted	100%	100%	
<b>Pilbara Project</b>					
E45/5046	WA	Application	0%	0%	
E45/5146	WA	Application	0%	0%	

Giralia Resources Pty Ltd is a wholly owned subsidiary of Atlas Iron Ltd.

### About Snake Well Project

Kalamazoo's flagship gold asset is the Snake Well Project, which is located 450km north of Perth in the Mid-West region. It consists of five granted mining leases, one granted exploration licence and two exploration licence applications. The Snake Well Project covers Archaean rocks over an area of approximately 263km<sup>2</sup> and a 45km prospective strike length of the Talling greenstone belt, in the western portion of the Murchison Domain that hosts a number of significant mineral deposits including Golden Grove (Cu-Zn), Big Bell (Au), Cue (Au), Deflector (Cu-Au) and Mt Magnet (Au).

### About Pilbara Tenement Package Option

Copper-gold exploration company, Kalamazoo Resources Limited (ASX: KZR) ("Kalamazoo"), announced to the ASX on 6 October 2017 that it has secured an Option to acquire between 80% and 100% equity in three highly prospective gold projects in the Pilbara from companies associated with WA resources industry stalwart, Denis O'Meara. The tenements have the potential to host significant gold mineralisation and are located in highly prospective locations within close proximity to some of the Pilbara's most exciting developing gold projects.

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### **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.

The information in this report that relates to the accumulation modelling of the Company is based on information compiled by Mr David Reid, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Reid is an employee of Ravensgate Mining Industry Consultants (**Ravensgate**) who is engaged as the Independent Geologist of the Company. Mr Reid 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 Reid 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, including the JORC 2012 Minerals Resource Estimates, 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 forward-looking 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.

### **For further information, please contact:**

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