

### Company

#### ASX: KZR

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### Capital Structure

**Shares:** 130,941,434

**Unlisted Options:** 43,150,000

**Market Cap (\$0.57):** A\$74.6m

**Cash:** A\$7.7m

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### Projects

#### Western Australia

Ashburton

The Sisters

Dom's Hill

Marble Bar

#### Victoria

Castlemaine

South Muckleford

Tarnagulla



## Quarterly Activities Report

### For the period ending 31 December 2020

### Highlights

#### ASHBURTON GOLD PROJECT

- Maiden drilling program comprising 5,781m completed late December 2020
- Drilling at the Waugh and Connie's Find Prospects has intersected prospective thick quartz-and-ironstone units, characteristic of 'Waugh Type' mineralisation
- At the Peake West Prospect, shallow drilling intersected broad zones of bleached siltstones below anomalous surface rock chip samples in the western extension of the mineralised Peake structure

#### CASTLEMAINE GOLD PROJECT

- Broad epizonal gold-antimony mineralised system discovered at South Muckleford with extensive exploration underway
- Completion of diamond drilling program at the Lightning Prospect
- Lightning Prospect drilling results have confirmed a targeted "Wattle Gully" style structure, demonstrating good widths of quartz veining and alteration typical of the Castlemaine Goldfields

#### PILBARA GOLD PROJECTS

- 5,700m drilling program designed for The Sisters Gold Project
- Five high priority drill targets identified
- Drilling program will commence upon receipt of relevant approvals

## ASHBURTON GOLD PROJECT, WA

The Ashburton Gold Project is located on the southern edge of the Pilbara Craton in Western Australia. The project covers 217km<sup>2</sup>, consisting of Mining Leases 52/639, 52/640, 52/734 and 52/735 and Exploration Licences 52/1941, 52/3024 and 52/3025. The project's historical gold production consisted of **350,000oz Au** in the period 1998-2004 and currently contains a Mineral Resource Estimate (JORC Code (2012)) of **20.8Mt @2.5g/t Au** for **1.65Moz**.

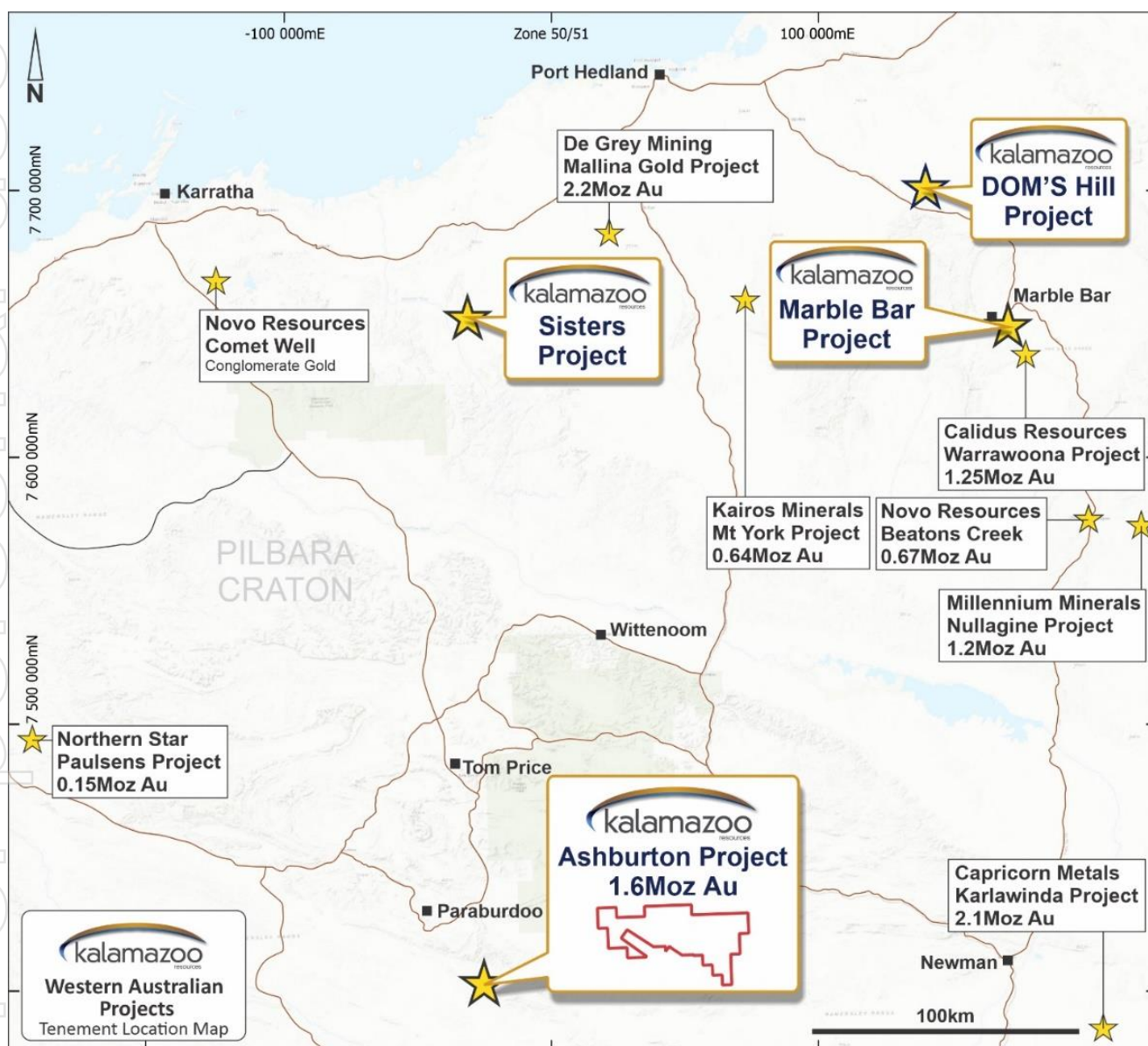


Figure 1: Pilbara Craton Location Map showing Kalamazoo's Pilbara gold projects



Kalamazoo completed its maiden drilling program at the Ashburton Gold Project in late December 2020<sup>1</sup> as reported to the ASX post reporting period. The program consisted of 5,677m Reverse Circulation (RC) and 104m diamond drilling and focused around the Waugh and Connie's Find Prospects on the northern side of the Diligence Dome and at Peake and Peake West on the southern side of the Dome.

These prospect areas were selected as high priority targets due to their current resources, including 3.7Mt @3.4g/t Au for 399,000oz at Peake and 0.59Mt @ 3.6g/t Au for 68,000oz at Waugh (JORC Code (2012)). Importantly, these prospect areas have been sparsely tested along strike or down dip and as such, demonstrate the potential to host new oxide and primary sulphide gold mineralisation.

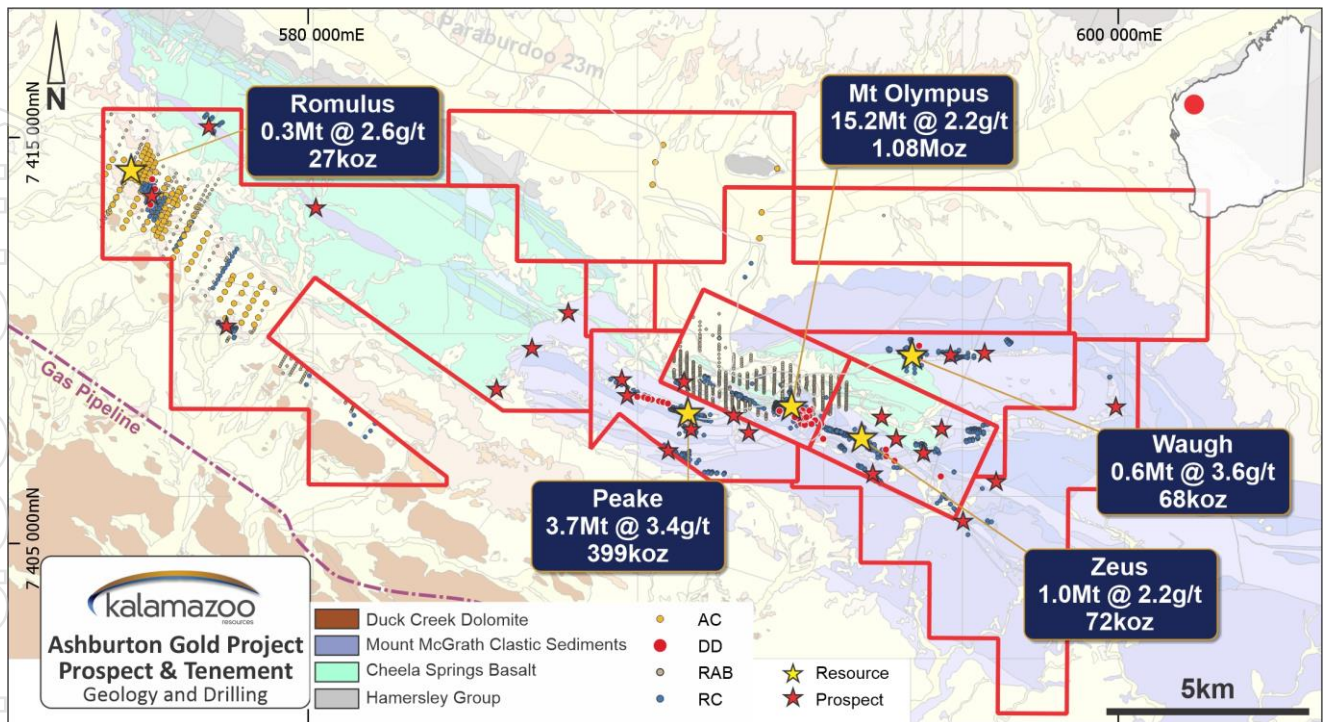
The prospective thick quartz-and-ironstone units intersected at the Waugh and Connie's Find Prospects during Kalamazoo's maiden drilling program are characteristic of 'Waugh Type' mineralisation that is contained in the existing Waugh Resource. Preliminary interpretations suggest these units occur in bedding sub-parallel planes down plunge from the Waugh Pit and within cross-cutting structures at Connie's Find that parallel surface anomalism.



**Figure 2: RC drilling at Connie's Find, approximately 400m to the west of the Waugh Pit shown in the background**

Two RC holes for 348m were drilled to provide material for gold deportment studies and adequate sample material for subsequent metallurgical testwork to be carried out early in 2021.

<sup>1</sup> ASX: KZR 5 January 2021



**Figure 3: Preliminary Exploration targets, historical drilling and identified Mineral Resources**

Over the next 12-24 months, Kalamazoo aims to substantially increase the **1.65Moz** oxide and sulphide gold resource and advance project development at the Ashburton Gold Project.

The material in this announcement that relates to the Mineral Resources for the Ashburton Gold Project is based on information announced to the ASX on 23 June 2020. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements, and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply.

ASHBURTON GOLD PROJECT MINERAL RESOURCES										
	INDICATED			INFERRED			TOTAL			
	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Cut off Grade
Mt Olympus	6,038	2.3	448	9,138	2.2	632	15,176	2.2	1,080	0.7 g/t Au
Peake	113	5.2	19	3,544	3.3	380	3,657	3.4	399	0.9 g/t Au
Waugh	347	3.6	40	240	3.6	28	587	3.6	68	0.9 g/t Au
Zeus	508	2.1	34	532	2.2	38	1,040	2.2	72	0.9 g/t Au
Romulus	-	-	-	329	2.6	27	329	2.6	27	0.9 g/t Au
<b>TOTAL RESOURCES</b>	<b>7,006</b>	<b>2.4</b>	<b>541</b>	<b>13,783</b>	<b>2.5</b>	<b>1,105</b>	<b>20,789</b>	<b>2.5</b>	<b>1,646</b>	

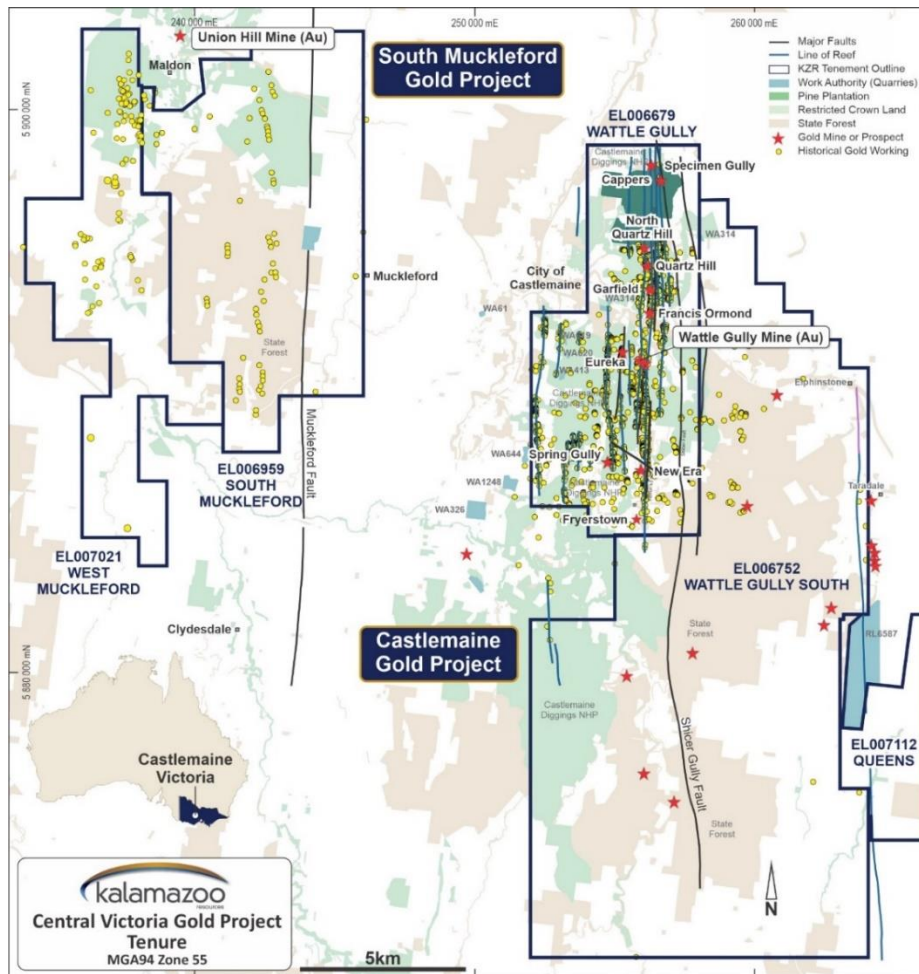
**Table 1: Ashburton Gold Project (JORC Code 2012) Mineral Resources**



## VICTORIAN GOLD PROJECTS

### Castlemaine Gold Project (EL006679, EL006752 and EL007112)

The Castlemaine Gold Project is located in the Bendigo Zone of Central Victoria and comprises three exploration tenements, EL006679 ("**Wattle Gully**", ~70 km<sup>2</sup>), EL006752 ("**Wattle Gully South**", ~218 km<sup>2</sup>) and EL007112 ("**Queens Project**", ~22 km<sup>2</sup>) for a total area of 310 km<sup>2</sup> (Figure 4).



**Figure 4: Location of the Castlemaine and South Muckleford Gold Projects exploration tenements**

In late 2020 Kalamazoo granted Canadian listed gold explorer and developer Novo Resources Corp ("**Novo**") (TSX-V: NVO; OTCQX: NSRPF) an Option over the Queens Project. In exchange for 24,883 Novo shares, Novo has a six-month period in which to exercise the Option and earn a 50% interest by issuing to Kalamazoo additional shares in Novo to the value of \$2 million. Novo can then earn a further 20% interest in the Project by incurring \$5 million of exploration expenditure over a five-year period.<sup>2</sup>

<sup>2</sup> ASX: KZR 23 September 2020

A six-hole diamond drill program (1,819m) at the Lightning Prospect within the Castlemaine Gold Project commenced in early October 2020 and was completed on 6<sup>th</sup> December 2020. The Lightning Prospect is located approximately 2km south of the Mustang Prospect, where Kalamazoo completed its maiden diamond drilling program in April 2020<sup>3</sup>.

Drilling at the Lightning Prospect was conducted in the private Pine Plantation in the northern section of EL006679, primarily to test an interpreted "Wattle Gully" analogue structure near the historic "Nimrod" mining area (Figure 5).

The Lightning Prospect was identified in 2019 as one of Kalamazoo's top ten prospects located within the Castlemaine Gold Project. This assessment is based on historical gold production and records, historic drilling and the results from recent groundwork, geophysical and geochemical surveys and 3D structural modelling carried out by Kalamazoo. The Lightning Prospect is located less than 5km north of the Wattle Gully Gold Mine, which operated between 1934 and 1969 and produced 1.1Mt for 411,000oz of gold at 11.1g/t Au.

The target model for the Lightning Prospect is similar to both the nearby Fosterville and Wattle Gully Mines, which contain high grade mineralisation associated with shallow-dipping fault ramp structures that cross-cut anticline-syncline folds. Initial geological interpretations of the drilling results confirm a "Wattle Gully" analogue structure at the Lightning Prospect that is associated with quartz veining and alteration typical of the Castlemaine Goldfields. Final drill core assays are pending and will be reported in due course.



**Figure 5: Diamond drill rig in operation at the Lightning Prospect, Castlemaine Gold Project (EL006679)**

<sup>3</sup> ASX: KZR 4 February 2020

## South Muckleford Gold Project (EL006959 and EL007021)

The South Muckleford Gold Project (161km<sup>2</sup>) is located just 10km west of Kalamazoo's Castlemaine Gold Project and contains a highly prospective goldfield with proven endowment and historical high-grade gold production. In particular, it covers the regional Muckleford Fault and adjacent historical workings to the west (i.e. hanging-wall position), numerous historical alluvial and hard rock gold mines and the southern strike extent of the Union Hill Gold Mine, at Maldon.

In February 2020, Kalamazoo reported the commencement of a major regional-scale soil geochemistry sampling program in collaboration with the CSIRO<sup>3</sup>. Specifically, soil samples have been subjected to Ultrafine+™ multi-element analysis for major and trace elements in a CSIRO-led collaborative leading-edge research project. This program is being undertaken in conjunction with a separate CSIRO Innovations Connections research project that uses the latest advanced technologies to map and detect broad mineral alteration haloes within soil samples. These combined surface geochemistry sampling programs are using the latest advanced technologies and research capabilities to assist Kalamazoo in identifying and prioritising drill targets to be tested at both the Castlemaine and South Muckleford Gold Projects.

During the Quarter, the Ultrafine+™ soil geochemistry analyses over the northern part of the South Muckleford Gold Project (EL006959) revealed significant gold + antimony + arsenic anomalies coincident with historical mining areas at Fentiman's Reef and Smith's Reef (Figures 6 and 7)<sup>4</sup>. The Ultrafine+™ soil assays have revealed distinct NNW-trending features coincident with the historical mine workings and included up to 53 ppb Au, 167 ppm Sb and 1,740 ppm As.

### Field Mapping and Rock Chip Sampling

A program of historical research, field mapping and rock chip sampling at the Fentiman's and Smith's Reefs Prospects has confirmed the existence of a broad epizonal, high grade gold + antimony + arsenic mineralised system over at least two parallel lines of lode with significant strike extents. The largest of these lodges is at Smith's Reef which has historical surface/shaft mine workings extending for ~1.2km consistent with a coincident Au-Sb-As soil anomaly.

The Fentiman's Reef and the newly identified Fentiman's South prospect are along a semi-continuous line of historical surface/shaft mine workings that extends for at least 750m with the soil geochemistry indicating this mineralised trend extends beyond >1km long.

A third nearby prospect, located to the west of Smith's Reef, referred to as "Charcoal Gully", has also been identified from the Ultrafine+™ soil sampling survey (up to 13.8 ppb Au and 146 ppm Sb) (Figures 6 & 7). At this location, there is less rock outcrop and limited historic mine workings and its evaluation is ongoing.

The style of mineralisation observed from rock samples collected from historical mine waste dumps along the Fentiman's Reef/Fentiman's South trend includes quartz veins containing strongly mineralised stibnite and breccias with disseminated stibnite, arsenopyrite, pyrite (Figure 8). Furthermore, these veins contain vugs and colloform textures indicative of deposition at shallow ("epizonal") crustal depths.

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<sup>4</sup> ASX: KZR 22 December 2020



A preliminary examination of these rock samples by Dr Chris Voisey, a leading academic expert in this style of deposit<sup>5</sup>, concluded that this style of Au-Sb-As mineralisation is closely akin to that observed at the nearby Fosterville and Costerfield mines. This mineralisation is distinctly different to the typical "Bendigo-Ballarat" style of gold mineralisation, which is older and forms at deeper "mesozonal" levels.

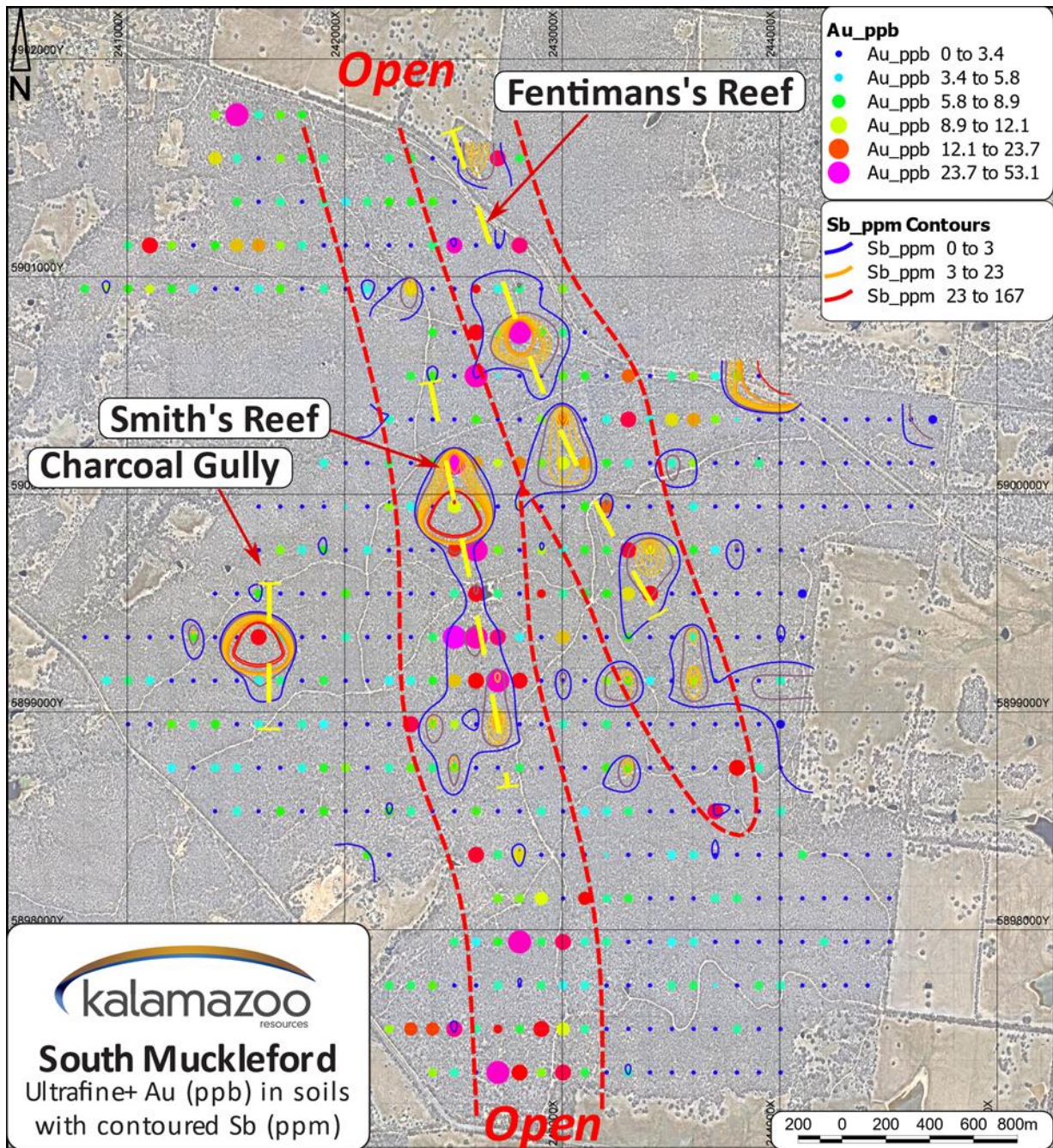


Figure 6: Ultrafine+™ gold (ppb) with contoured Sb (ppm) in soil assays

<sup>5</sup> Analysis of a Telescoped Orogenic Gold System: Insights from the Fosterville Deposit, Christopher Voisey, Andrew Tomkins and Yanlu Xing, April 25, 2020, Society of Economic Geologists, Inc.



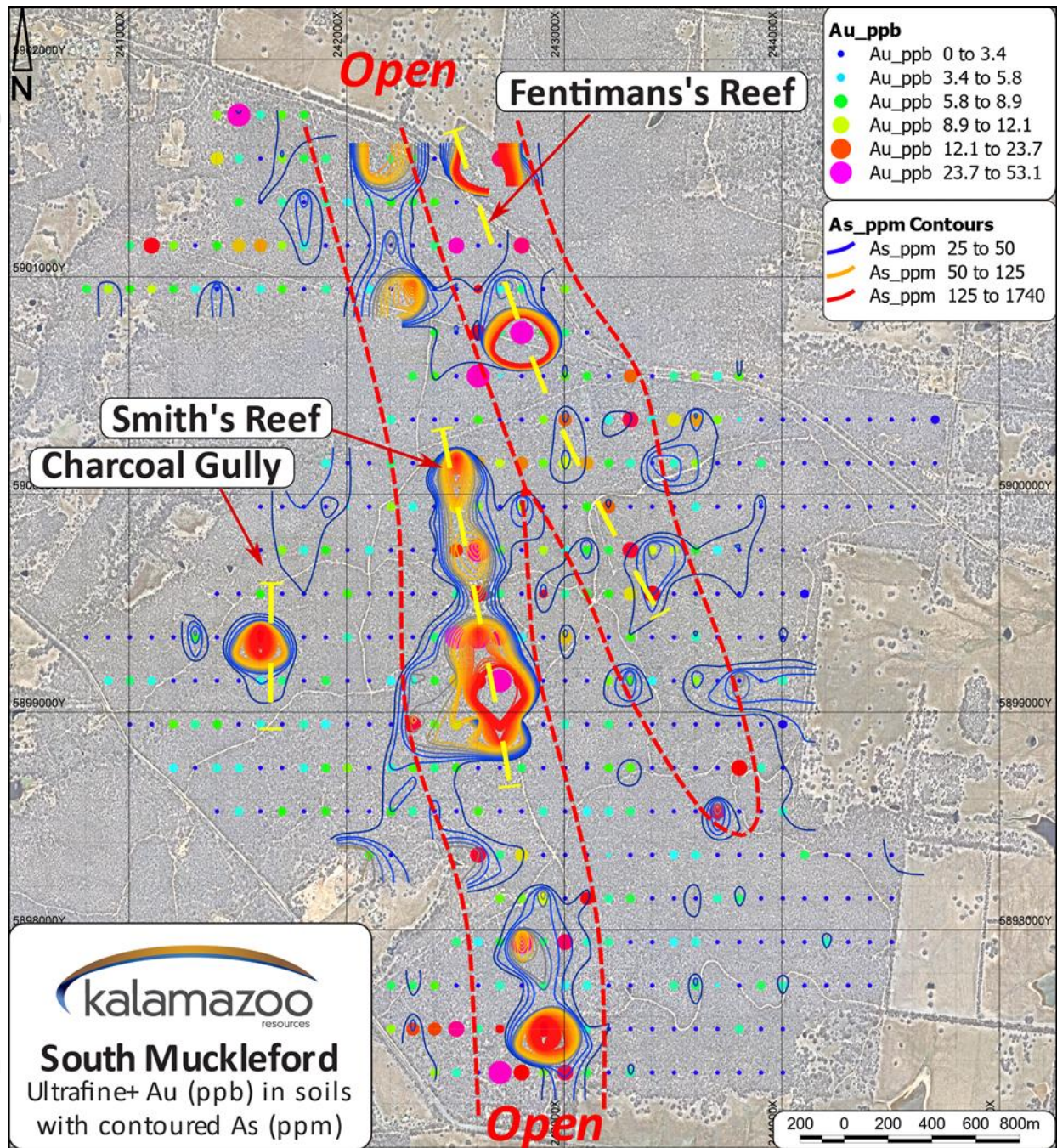


Figure 7: Ultrafine+™ gold (ppb) with contoured As (ppm) in soil assays





**Figure 8: Rock samples collected from the Fentiman's South historic mine waste dump (scale ruler in cm): (a) mineralised quartz vein with abundant stylonite and breccia textures; (b) disseminated sulphides (arsenopyrite, stibnite and pyrite) within a stylonitic and brecciated quartz vein; and (c) coarse stibnite ( $\text{Sb}_2\text{S}_3$ ) crystals and thin stylonites within a mineralised quartz vein**

Ground geophysical (Induced Polarisation or "IP") surveys, 3D structural geology modelling and the design of diamond drill programs are currently underway with the goal of testing several coincident surface geochemistry anomalies associated with highly prospective structures and significant historical workings. An aerial LiDAR survey of the northern portion of EL006959 will be undertaken in early 2021 to assist with the mapping of geological structures and identification of historic mine workings.

A proposed diamond drilling program is awaiting final Government approval.



## PILBARA GOLD PROJECTS, WA

### The Sisters Gold Project

(E47/2983, 80% interest in mineral rights other than lithium) and ELA47/4342

The Sisters Gold Project (E47/2983 and ELA47/4342) covers 136km<sup>2</sup> in the Pilbara region of WA<sup>6</sup> and is considered prospective for epigenetic gold mineralisation associated with the Wohler Shear Zone (a prospective splay from the Tabba, Mallina, Withnell and Berghaus Shear Zone complex).

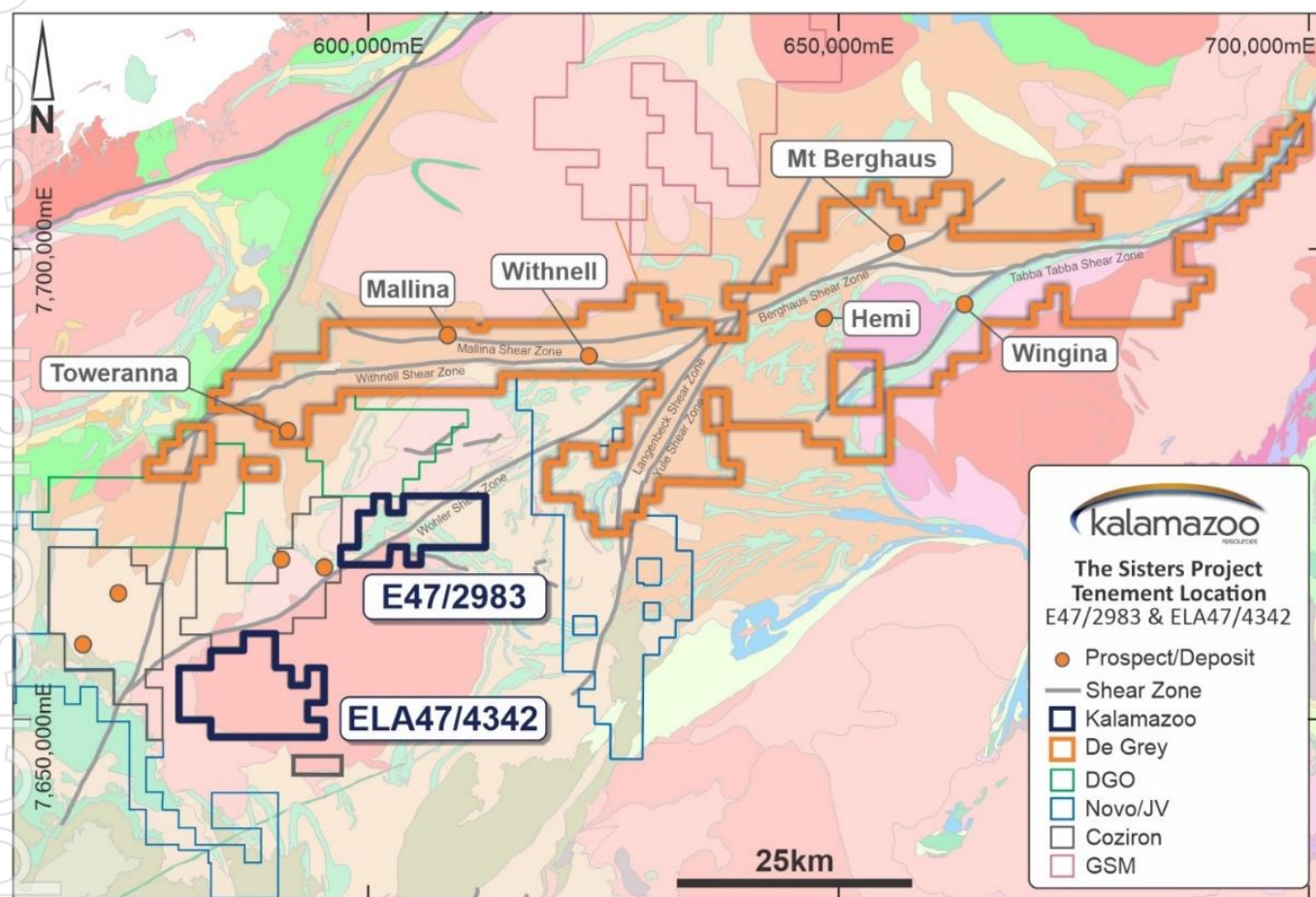


Figure 9: The Sisters location

A ~4,900m RC and ~800m diamond drilling campaign (~5,700m in total) has been designed for The Sisters Gold Project ("The Sisters"). The Pilbara region has witnessed a renewed focus on gold exploration due to the recent world-class Hemi oxide/sulphide gold discovery by De Grey Mining Limited (ASX: DEG).

Kalamazoo's drill program has been designed to explore five high priority drill targets at The Sisters, which were identified following a soil sampling program, airborne magnetics survey and interpretation, hyperspectral imagery analysis, high resolution satellite photography and ground traverses. The Wattle Plains and Satirist target zones have been selected for initial drilling as soon as the final approvals are granted.

<sup>6</sup> ASX: KZR 5 November 2020

The Wattle Plains prospect covers the most extensive and highest intensity Au in soil anomaly at The Sisters, consisting of a 1.2km long zone (diagonally across 5 lines of sampling 200m apart) in the 98th percentile for gold in soil (>20.2 ppb Au). This prospect is proposed to be tested by 11 lines ("fences") of RC drilling comprising ~49 drillholes ~100m deep each, for 4,900m.

The Satirist Prospect is the largest discreet magnetic anomaly in the survey and is considered highly prospective as an intrusion-related gold target. The magnetic high is coincident with the highest and most extensive Ag in soil anomalism in the project area. Inversion modelling of the magnetics suggests a target buried at less than 200m depth. This target is proposed to be drilled with two deep RC or diamond holes to reach the target whilst allowing for uncertainty in the specific shape of the magnetic unit.

The remaining three targets were selected as anomalous Au in soils and either magnetic signatures indicative of buried intrusions or because they are located along prospective structures and contacts with multi-element anomalies. They will potentially be tested in a future drilling campaign.

The program has been finalised and will commence as soon as approvals have been received.

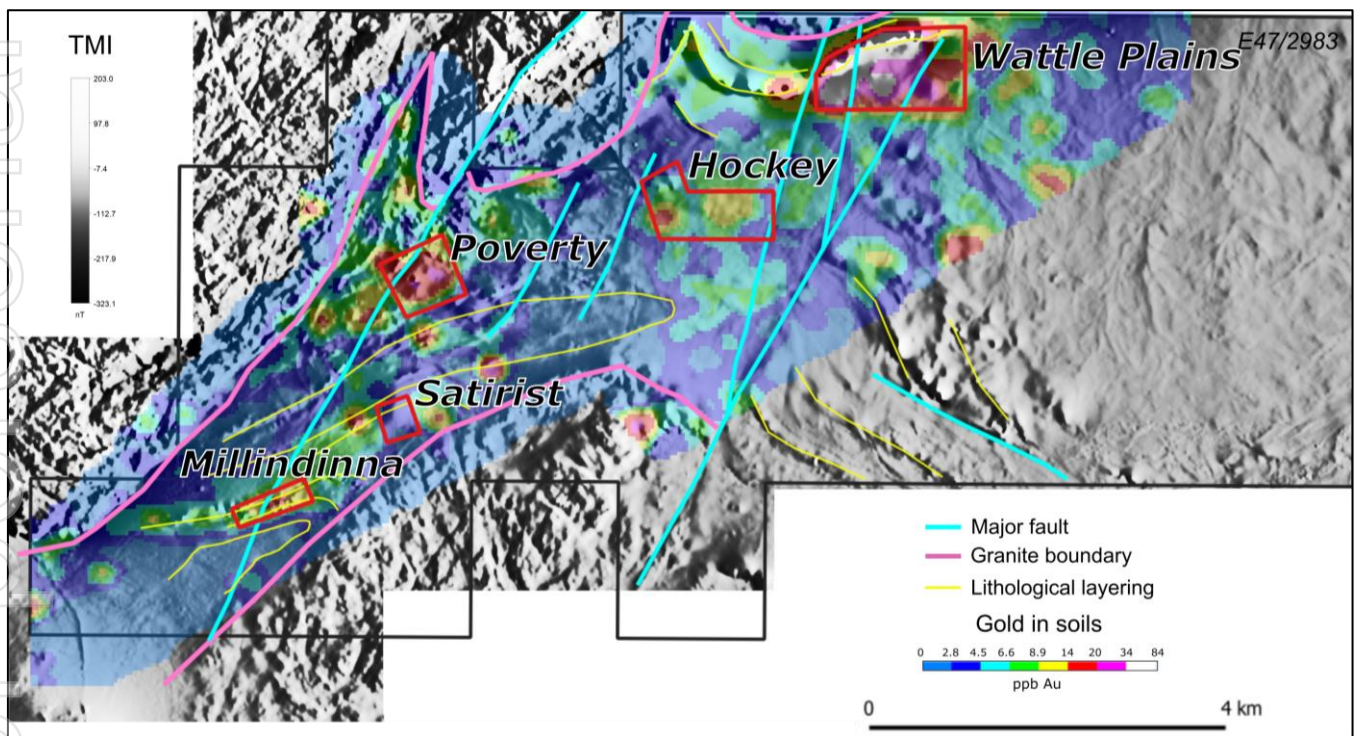


Figure 10: The Sisters tenement E47/2983 identifying high priority drilling targets with gridded Au in soils over total magnetic intensity (TMI) and interpretation



## CORPORATE

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Kalamazoo had cash of \$7.7m as at 31 December 2020.

Kalamazoo held its Annual General Meeting on 18 November 2020 and all Resolutions were passed on a poll called by the Chairman.

Following a successful application to participate in the Federal Government's Junior Mineral Exploration Incentive, Kalamazoo issued Eligible Shareholders' with \$825,000 worth of JMEI tax credits in November 2020.

The Quarterly Cashflow Report (Appendix 5B) for the current period provides an overview of the Company's financial activities.

Cash exploration expenditure for the current period was \$2m. Corporate and other expenditure amounted to \$259k. The total amount paid to directors of the entity and their associates in the period (item 6.1 of the Appendix 5B) was \$132k and includes salary, directors' fees and superannuation.

This announcement has been approved for release to the ASX by Luke Reinehr, Chairman and CEO, Kalamazoo Resources Limited.

### For further information, please contact:

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### TENEMENT INFORMATION IN ACCORDANCE WITH LISTING RULE 5.3.3

Project / Tenement ID	State	Status	Interest at start of quarter	Interest at end of quarter	Notes
<b>PILBARA PROJECT</b>					
E47/2983	WA	Granted	80%	80%	80% interest in minerals other than lithium.
E47/4342	WA	Application	-	-	
E45/4700	WA	Granted	100%	100%	
E45/4722	WA	Granted	100%	100%	
E45/4724	WA	Granted	100%	100%	100% interest in minerals other than lithium.
E45/4887	WA	Granted	100%	100%	
E45/4919	WA	Granted	100%	100%	
E45/5146	WA	Granted	100%	100%	
<b>ASHBURTON PROJECT</b>					
M52/639	WA	Granted	100%	100%	
M52/640	WA	Granted	100%	100%	
M52/734	WA	Granted	100%	100%	
M52/735	WA	Granted	100%	100%	
E52/1941	WA	Granted	100%	100%	
E52/3024	WA	Granted	100%	100%	
E52/3025	WA	Granted	100%	100%	
<b>CASTLEMAINE PROJECT</b>					
EL006679	VIC	Granted	100%	100%	
EL006752	VIC	Granted	100%	100%	
EL007112	VIC	Granted	100%	100%	
<b>TARNAGULLA PROJECT</b>					
EL006780	VIC	Granted	100%	100%	
<b>SOUTH MUCKLEFORD PROJECT</b>					
EL006959	VIC	Granted	100%	100%	
EL007021	VIC	Granted	100%	100%	



## Previously Released ASX Material References

For further details relating to information in this announcement please refer to the following ASX announcements:

1. ASX: KZR 4 February 2020
2. ASX: KZR 23 June 2020
3. ASX: KZR 27 October 2020
4. ASX: KZR 5 November 2020
5. ASX: KZR 22 December 2020
6. ASX: KZR 30 December 2020
7. ASX: KZR 5 January 2021

## Response to COVID-19

Kalamazoo has been proactively managing the potential impact of COVID-19 and has developed systems and policies to ensure the health and safety of its employees and contractors, and of limiting risk to its operations. These systems and policies have been developed in line with the formal guidance of State and Federal health authorities and with the assistance of its contractors and will be updated should the formal guidance change. Kalamazoo's first and foremost priority is the health and wellbeing of its employees and contractors.

To ensure the health and wellbeing of its employees and contractors, Kalamazoo has implemented a range of measures to minimise the risk of infection and rate of transmission to COVID-19 whilst continuing to operate. All operations and activities have been minimised only to what is deemed essential. Implemented measures include employees and contractors completing COVID-19 risk monitoring, increased hygiene practices, the banning of non-essential travel for the foreseeable future, establishing strong infection control systems and protocols across the business and facilitating remote working arrangements, where practicable and requested. Kalamazoo will continue to monitor the formal requirements and guidance of State and Federal health authorities and act accordingly.

## Competent Persons Statement

The information for the Victorian Projects is based on information compiled by Dr Luke Mortimer, a competent person who is a Member of The Australian Institute of Geoscientists. Dr Mortimer is an employee engaged as the Exploration Manager Eastern Australia for the Company and 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'. Dr Mortimer 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 release relating to the exploration data for the Western Australian Pilbara projects 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 WA 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 release relating to the exploration data for the Western Australian Ashburton Gold Project is based on information compiled by Mr Matthew Rolfe, a competent person who is a Member of The Australasian Institute of Geoscientists. Mr Rolfe is an employee of Kalamazoo Resources Ltd and is engaged as a Senior Exploration Geologist for the Company. Mr Rolfe 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 Rolfe 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 announcement that relates to the estimation and reporting of mineral resources at the Ashburton Project is based on information compiled by Dr Damien Keys, a competent person who is a Member of Australian Institute of Geoscientists. Dr Keys is an employee of Complete Target Pty Ltd who is engaged as a consultant to Kalamazoo Resources Limited. Dr Keys 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'. Dr Keys consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

## Forward Looking Statements

Statements regarding Kalamazoo's plans with respect to its mineral properties and programs 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.