



## ASX Announcement

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## KALAMAZOO INCREASES EXPLORATION TENURE AT SOUTH MUCKLEFORD

### Key Points

- Exploration Licence EL007021 at South Muckleford in the Bendigo Zone, Victoria has been granted
- EL007021 covering 68km<sup>2</sup> lies immediately to the west of Kalamazoo's EL006959 and the project area now collectively comprises **161km<sup>2</sup>** ("**South Muckleford Project**")
- The project area is located just 10km east from Kalamazoo's Castlemaine Gold Project
- Preliminary results from a just completed regional-scale CSIRO led UltraFine+™ multi-element soil geochemistry program at the South Muckleford Project has identified numerous highly encouraging gold and multi-element anomalies
- The South Muckleford Project covers a highly prospective gold field with proven endowment and historical high-grade gold production near the major regional Muckleford Fault
- The project area is vastly under-explored having not been subjected to any systematic modern exploration techniques and only very limited shallow drilling

**Kalamazoo's Chairman and CEO Luke Reinehr said today,** *"The addition of valuable exploration tenure to our South Muckleford Project is another great result for Kalamazoo and our shareholders. We consider the region to be highly prospective particularly as the historical gold production in the area averaged about 27g/t Au."*

*The grant of EL007021 is very timely as we have just received the first batch of multi-element soil geochemistry results taken from the southern part of the adjoining EL006959. The results are preliminary with further CSIRO analysis and multi-element "machine learning" to be completed. However, the early results are very encouraging with 43 highly anomalous assay results reporting greater than 25 ppb Au. As such, we are immediately expanding the soil sampling program to the new tenement as we develop the first targets for our upcoming drill program."*

## Expansion of the South Muckleford Project Area

Kalamazoo Resources Limited (ASX: KZR) (“Kalamazoo” or the “Company”), is pleased to advise that it has been granted Exploration Licence (EL007021) located in the Maldon Goldfield in Central Victoria. The licence has proven gold endowment, contains numerous historical gold mine workings and is relatively under-explored. The South Muckleford Project now comprises two tenures, EL006959 (~93km<sup>2</sup>) and EL007021 (~68km<sup>2</sup>), with the majority located within Crown Land (Figure 1).

The South Muckleford Project covers the highly prospective 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.

The Maldon Goldfield is the 7<sup>th</sup> largest in Victoria with historical production of >1,975,000oz (>56 t) and 317,000oz (9 t) of primary and alluvial gold, respectively (Phillips G N 2010, Geoscience Victoria Special Publication).

The historical gold workings in both tenements reveal linear trends indicative of lines of lodes/reefs similar to that found only 10km away in Kalamazoo’s nearby 100% controlled Castlemaine Gold Project, the 3<sup>rd</sup> largest goldfield in Victoria with ~5.6Moz Au of historical production. A review of historical exploration reports has confirmed the South Muckleford area has not been subjected to any systematic modern exploration techniques and only very limited and localised shallow drilling.

## Surface Geochemistry Sampling Programs – EL006959

In February 2020 Kalamazoo reported the commencement of a major regional-scale soil geochemistry sampling program in collaboration with the CSIRO (KZR: ASX 4 February 2020). Specifically, soil samples are 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 identify and prioritise follow-up drill targets to be tested at both the Castlemaine and South Muckleford Gold Projects later in 2020.

Soil sampling programs have been designed on 200m x 100m grids that cover a large number of high priority prospective target areas with known gold mineralisation across Kalamazoo’s Castlemaine, South Muckleford and Tarnagulla Central Gold Projects. The target areas have been selected utilising a combination of data including the presence of prospective fault/fold structures, gold mineralised reefs, historical workings, low exploration maturity and historical drill hole intersections.

Kalamazoo has received the Ultrafine+™ soil sample assay results for the first batch of samples (978 samples) covering a large proportion of the southern section of EL006959 at the South Muckleford Project (Figure 2). Whilst the CSIRO is yet to report its final analysis of these results, Kalamazoo’s preliminary assessment and initial field validation exercise has confirmed gold plus multi-element anomalies associated with known gold-bearing reefs and a significant alluvial gold field (Figure 3). The results include many highly anomalous assay results, with 43 samples reporting >25 ppb Au (some still requiring field validation). Furthermore, these results have identified several new prospects which were subsequently found associated with significant outcropping quartz veining and in one case, a gossan (rock chip assays pending) (Figure 3). These encouraging results provide ongoing confidence that this soil geochemistry sampling program will greatly assist Kalamazoo’s exploration and drill targeting efforts.

## Next Steps

- Exploration is currently focused on the completion of low impact reconnaissance field mapping, soil sampling and ground geophysical surveys
- These regional-scale soil geochemistry sampling programs are both low cost and low impact with the current proposed program consisting of at least 3,500 - 4,000 samples dependent upon land access and approvals
- Approximately 2,800 samples have already been submitted for analysis with the ongoing delivery of results beginning from mid May 2020
- The UltraFine+™ soil sampling results will be incorporated with planned geophysical surveys and structural geological modelling for the purposes of generating high priority drill targets
- The next drilling program (~6,000m) is proposed for later in 2020 at both the Castlemaine and South Muckleford Gold Projects
- All ground activities are being conducted in accordance with the Company's COVID-19 policies and procedures with the re-commencement of drilling activities dependent upon State and Federal COVID-19 health guidelines and ERR permitting

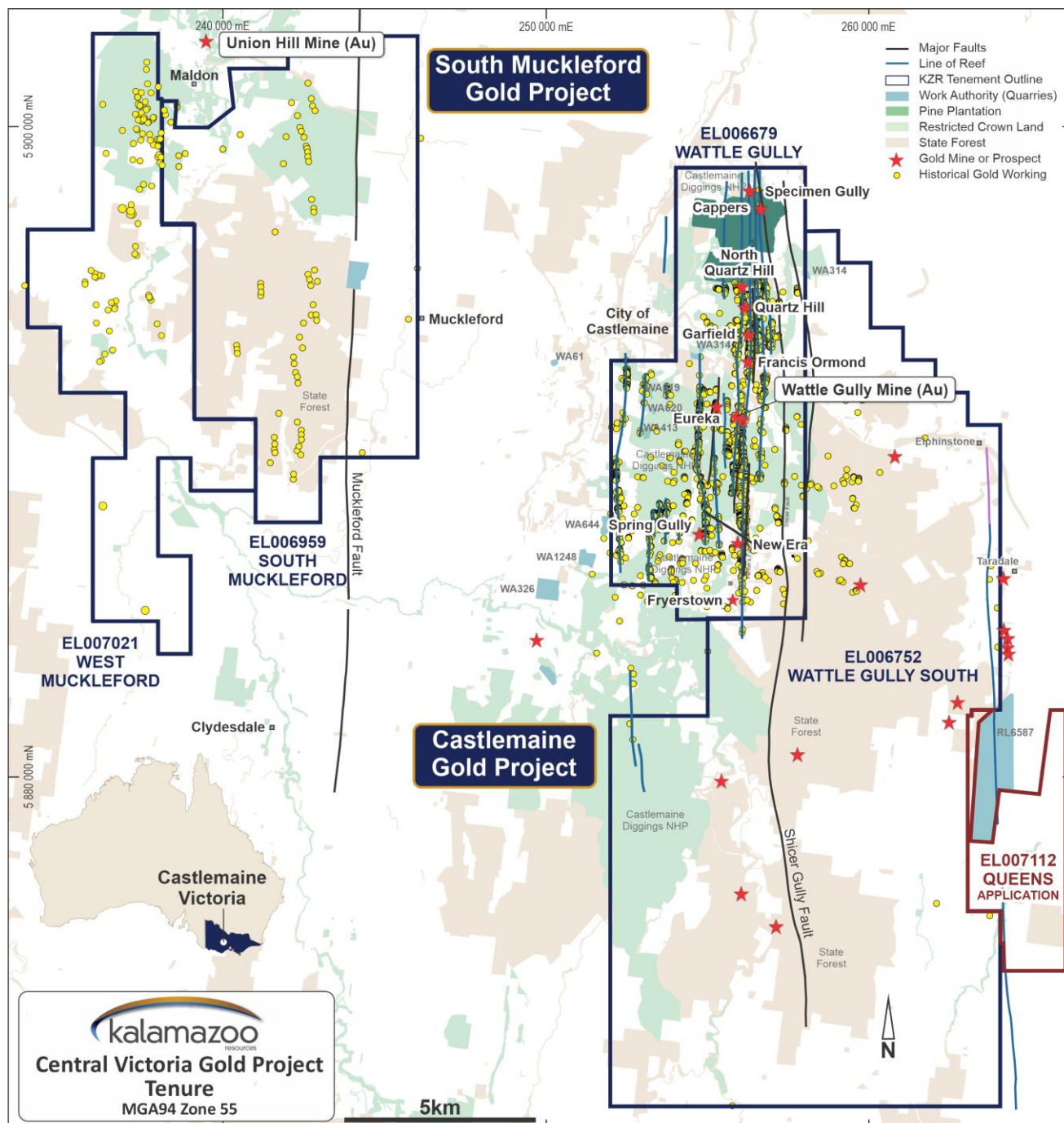


Figure 1: Location of the Castlemaine and South Muckleford Project exploration tenements



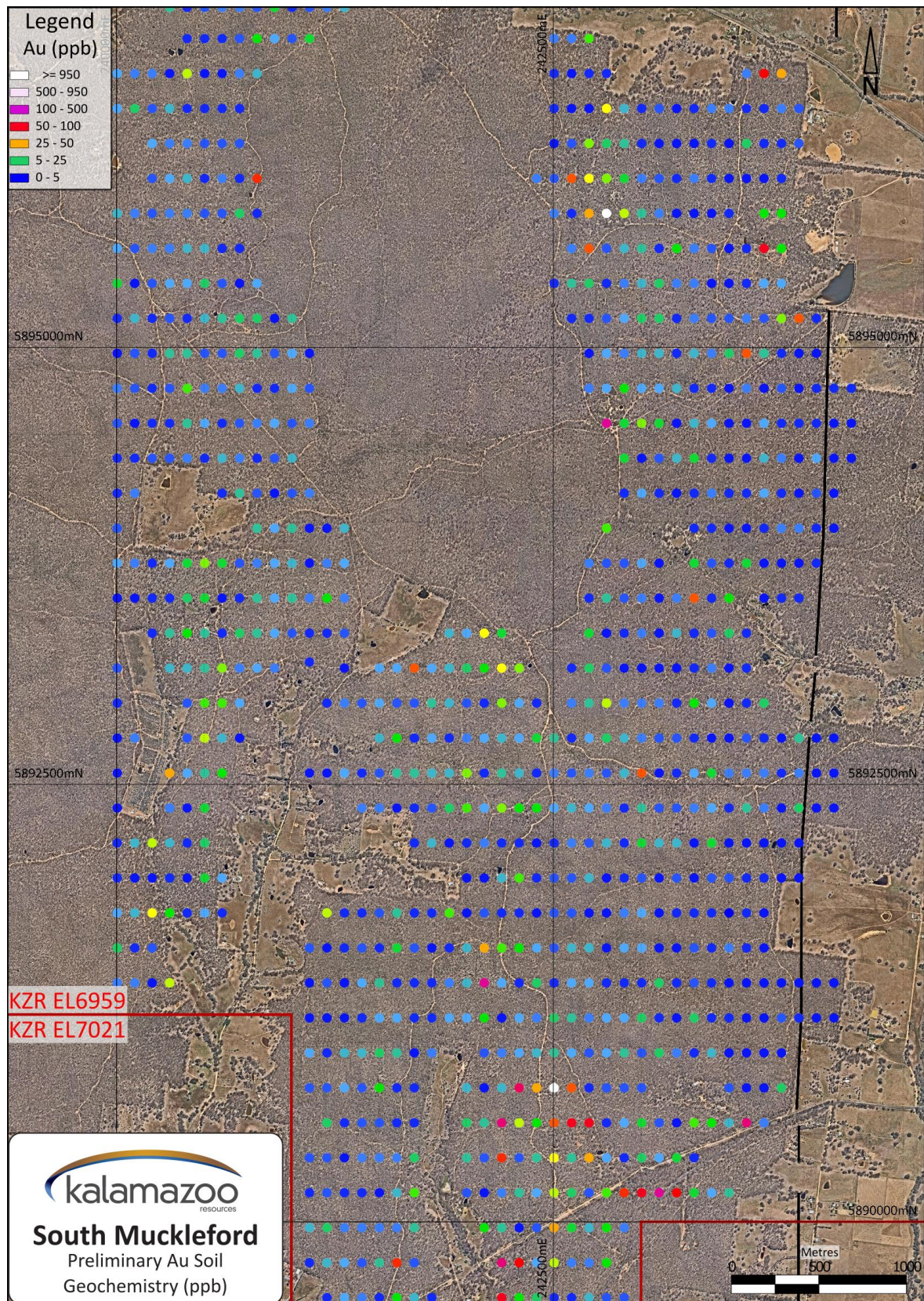
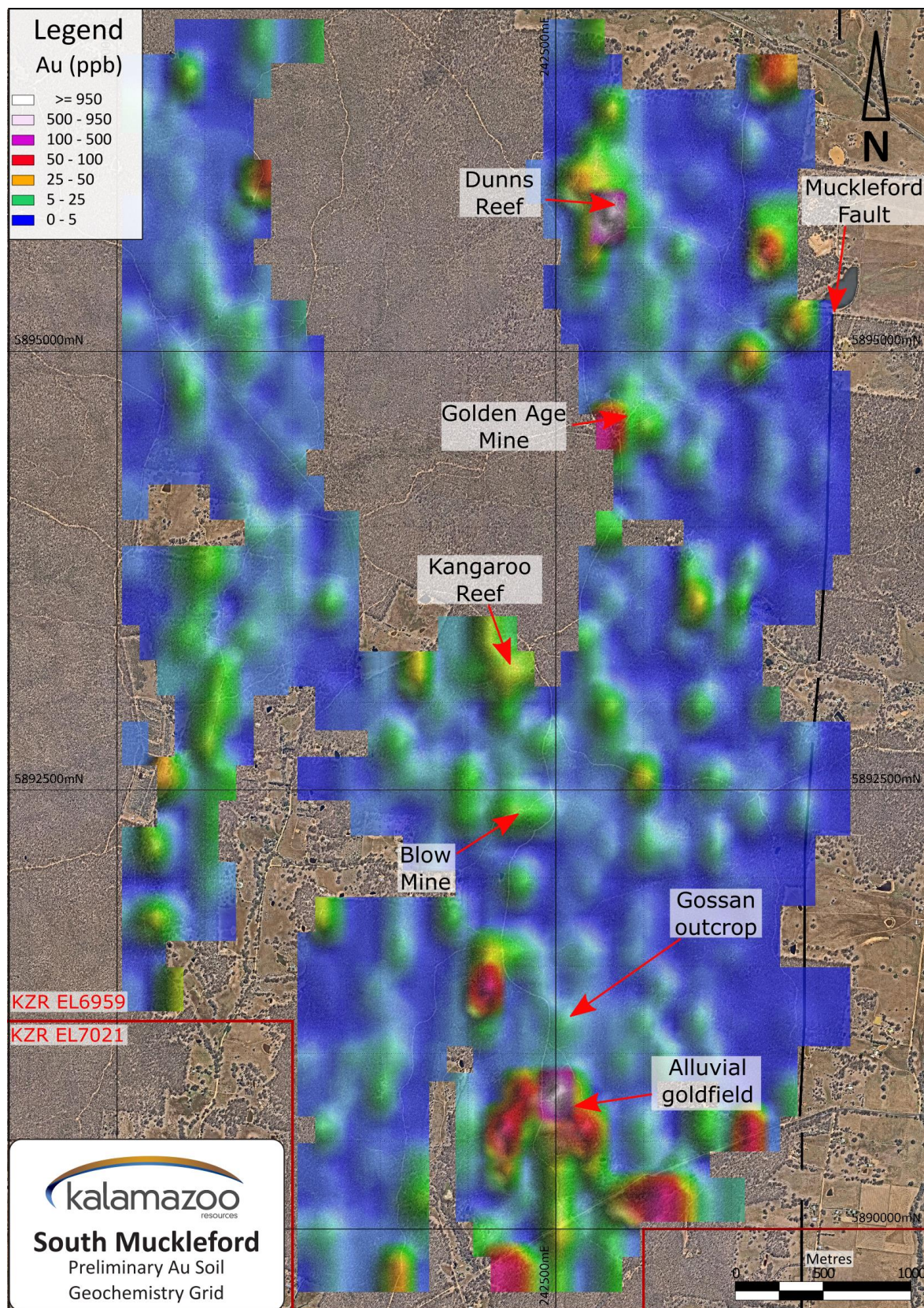


Figure 2: Soil geochemistry sample locations with preliminary gold (ppb) assay results in the southern portion of EL006959





**Figure 3: Preliminary gold (ppb) soil geochemistry grid with key known geological features in the southern portion of EL006959**

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## **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.

## **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.

Table 1. JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Samples referred to in this report are obtained from in situ soil samples overlying Palaeozoic sedimentary basement rocks of the Castlemaine Group.</li> <li>Soil sampling was conducted along 200m spaced E-W lines with a sample station every 100m i.e. a 200m x 100m grid pattern.</li> <li>The sampling interval was selected based upon previous studies which ascertained the alteration signature footprint associated with gold mineralisation in this region is &gt;100m.</li> <li>Sampling practice is appropriate to the generally residual soil profile of the area sampled and complies with industry best practice.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
Sub-sampling techniques	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Soil samples were collected in dry conditions and placed in numbered calico bags and grouped in poly-weave bags for dispatch to the laboratory.</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>and sample preparation</i>	<ul style="list-style-type: none"> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sample size was generally 0.3-0.4 kg.</li> <li>Samples were directly delivered to the laboratory via tracked TOLL freight consignment.</li> <li>Sample preparation was conducted at the LabWest Laboratory, Perth, including sample sorting, drying, crushing and milling.</li> <li>Sample sorting: samples are weighed, and respective weights recorded. Any reconciliation (extra samples, insufficient sample, missing samples) is noted at this stage.</li> <li>Sample Drying (only required if wet samples): Samples are dried in calico bags in ovens at 105 deg C.</li> <li>Field duplicate samples were collected at a rate of 1:50. Duplicate results show an acceptable level of variability for the material sampled and style of mineralisation.</li> <li>Sample weights are recorded and provided by the laboratory.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Assaying of the soil samples were conducted by LabWest, Perth.</li> <li>The Ultrafine+™ methodology utilises a &lt;2µm size fraction. LabWest use a propriety hydraulic settlement procedure to collect the &lt;2µm size fraction.</li> <li>A sub-sample of &lt;2µm material is taken for analysis.</li> <li>All samples were assayed for Au plus 44 elements using a microwave aqua regia digestion followed by ICPMS/OES determination.</li> <li>Sampling and assaying quality control procedures consisted of the inclusion of Certified Reference Materials (CRMs) at a rate of 1:30.</li> <li>Analysis of the available QC sample assay results for gold indicates that an acceptable level of accuracy and precision has been achieved and the database contains no analytical data that has been numerically manipulated.</li> <li>QC of the remaining multi-element data is ongoing.</li> <li>The assaying techniques and quality control protocols used are considered appropriate for the data to be used for reporting exploration soil geochemistry results.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li>All sampling and assay information were stored in a secure database with restricted access.</li> <li>Digital sample submission forms provided the sample identification numbers accompanying each submission to the laboratory.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>All sampling and assaying documentation are validated and stored off-site with an independent third party.</li> <li>Assay results from the laboratory with corresponding sample identification are loaded directly into the database.</li> <li>No assay adjustments have been applied.</li> <li>Verification of the soil sample assay results has been completed by company personnel and the Competent Person.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All soil sample locations (x-y) have been recorded with a 64s Garmin Handheld GPS with 3-5m accuracy and height (z) relative to AHD.</li> <li>All sample location coordinates are provided in the Geocentric Datum of Australia (GDA94 Zone 55S).</li> <li>RL data is verified utilising publicly available SRTM-derived (~30m pixel) Digital Elevation Model.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Sample spacing: 100m along east west lines; lines spaced 200m north-south (MGA94).</li> <li>No sample compositing is applied to samples.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The strike of the geology is approximately north-south with slight variation dependent upon the location within the exploration licence.</li> <li>Sample spacing and orientation is reconnaissance in nature and not targeted at specific structures or known trends of mineralisation.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were secured in closed polyweave sacks and stored at company premises.</li> <li>All samples have been delivered direct to the laboratory via tracked TOLL freight consignment.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Due to the limited duration of the program, no external audits or reviews have been undertaken.</li> </ul>



## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• EL006959 is 100% owned by Kalamazoo Resources Ltd and is in good standing with no known impediments.</li> <li>• A proportion of EL006959 consists of the Muckleford Conservation Reserve and Maldon Historic Reserve which are both classified as Restricted Crown Land although that does not prohibit gold exploration and mining.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The project area has been explored and mined for both alluvial and quartz-vein gold mineralisation by numerous previous parties since the mid-1800s.</li> <li>• The results of this work including past production is described in numerous publicly available Geological Survey of Victoria publications.</li> <li>• Appraisal of the substantial volume of historical exploration and mine production records occurred during the due diligence period and is ongoing.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The South Muckleford Gold Project contains known gold deposits/occurrences typical of the Bendigo Zone of Central Victoria.</li> <li>• Primary gold mineralisation is described as orogenic in nature, structurally controlled, and associated with quartz-veining and lesser sulphide mineralisation.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Significant soil anomalies &gt;25ppb are reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The exact relationship of results reported to any mineralisation present is unknown at the time of reporting although as described some soil gold anomalies are coincident with known historic gold mine workings. This relationship is still to be fully evaluated.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>As provided.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Only significant assay results (&gt;25 ppb Au) have been reported.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No other exploration data to report.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Field validation of significant soil geochemistry anomalies is ongoing. This practice involves physically observing each gold anomalous soil sample site to verify its validity and to ascertain whether it is in-situ material, alluvial deposit, or otherwise contaminated site.</li> </ul>