ASX Announcement

23 August 2021

Pilbara Lithium Exploration Projects - Update

Highlights

- Kalamazoo has commenced a focused accelerated lithium exploration program to fast-track its DOM's Hill Project and nearby Marble Bar Project to drill-ready status

DOM's Hill Project

- Several priority target areas for potential lithium-caesium-tantalum ("LCT") pegmatite mineralisation have been identified by portable XRF ("pXRF") analyses of historical broad-spaced geochemical soil samples collected within the first (E45/5146) of seven tenements comprising the 122km^2 DOM's Hill Project
- Priority target areas will be subject to upcoming in-fill soil sampling and field validation campaigns
- Newly acquired project-wide high-resolution satellite imagery has further identified sparsely outcropping pegmatites
- Project wide geochemical soil sampling program (~4,600 samples) to commence mid-October 2021

Marble Bar Project

- A technical review of Kalamazoo's Marble Bar tenements (E45/4700 and application E45/5970) 20kms to the south-east of Marble Bar, East Pilbara has also revealed lithium exploration potential
- Kalamazoo's Marble Bar tenements (57km^2) are located immediately to the south of Global Lithiums' (ASX: GL1) 10.5Mt @ 1.0% Li_20 Archer deposit on the prospective margin of the Moolyella tin and tantalum alluvial field and contains known mapped pegmatites and lithium occurrences

Kalamazoo's Director Paul Adams said today, *"Our exploration team has done a terrific job in such a short period of time to advance the lithium exploration potential in the Pilbara, not just at DOM's Hill but at our nearby Marble Bar Project. Our previous exploration on these projects has been primarily focused on gold. To now be presented with the opportunity to investigate the project's exciting lithium potential in one of the world's major lithium provinces is a fantastic free kick for us. These project areas will now be subject by Kalamazoo to an immediate, systematic and well-funded exploration program, to which we look forward to keeping the market informed as we progress."*

Perth
16 Douro Place
West Perth WA 6005
1300 782 988

ASX: KZR
ACN: 150 026 850
admin@kzr.com.au
www.kzr.com.au

Melbourne
Unit 3, 328 Reserve Road
Cheltenham VIC 3192
+61 3 9988 7796

Kalamazoo Resources Limited **(ASX: KZR) ("Kalamazoo"** or the **"Company")** is pleased to advise of its recent significant lithium exploration progress at its DOM's Hill and Marble Bar projects in the East Pilbara region of WA (Figure 1). In particular, highly encouraging pXRF results from soil sample pulps previously collected from E45/5146 at the DOM's Hill Project indicate potential lithium LCT pegmatite mineralisation.

Additionally, there has also been significant lithium potential recently identified at Kalamazoo's 100% owned exploration licence E45/4700 south-east of Marble Bar. Kalamazoo has subsequently made an application for a highly prospective exploration licence (E45/5970) which directly adjoins E45/4700 (Figure 1).

Large, detailed soil sampling programs have now been designed for both the DOM's Hill and Marble Bar projects which are scheduled to commence in mid-October 2021.

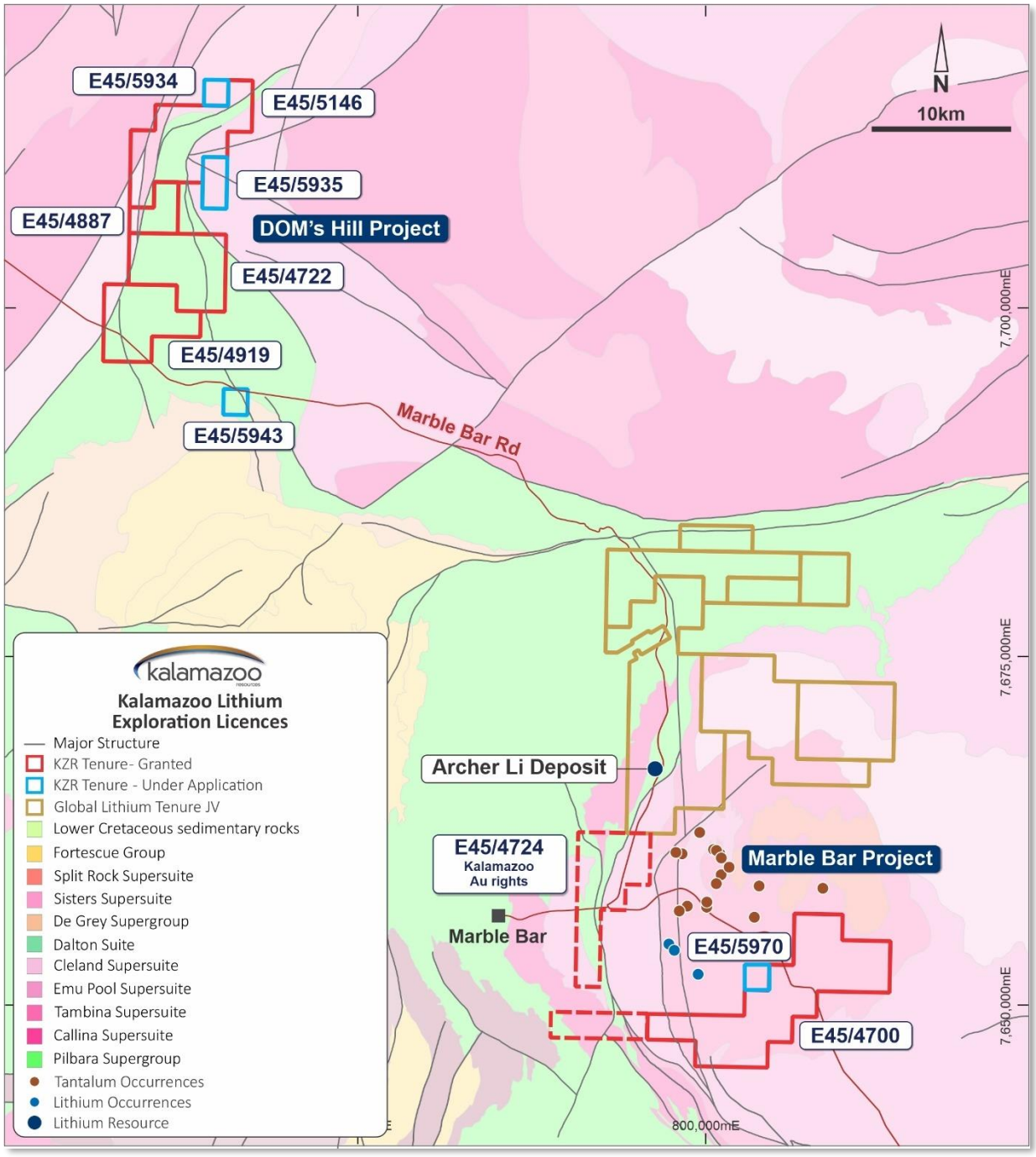

Figure 1: Location of Kalamazoo's lithium exploration projects at DOM's Hill and Marble Bar, East Pilbara Region WA. Note that Kalamazoo has gold rights only in respect to E45/4724

DOM's Hill Project (E45/4722, E45/4887, E45/4919 and E45/5146 and applications E45/5934, E45/5935 and E45/5943)

Kalamazoo's 100% owned DOM's Hill Project, East Pilbara WA, contains a similar geological setting with target host rocks strongly analogous to that of the nearby world class Pilgangoora (Pilbara Minerals ASX: PLS) and Wodgina (Mineral Resources ASX: MIN) pegmatite-hosted lithium deposits. The project geology for the region, and the prospective granite-greenstone contact zone, or "Goldilocks Zone", is clearly shown in the WA regional scale aeromagnetic image (Figure 2).

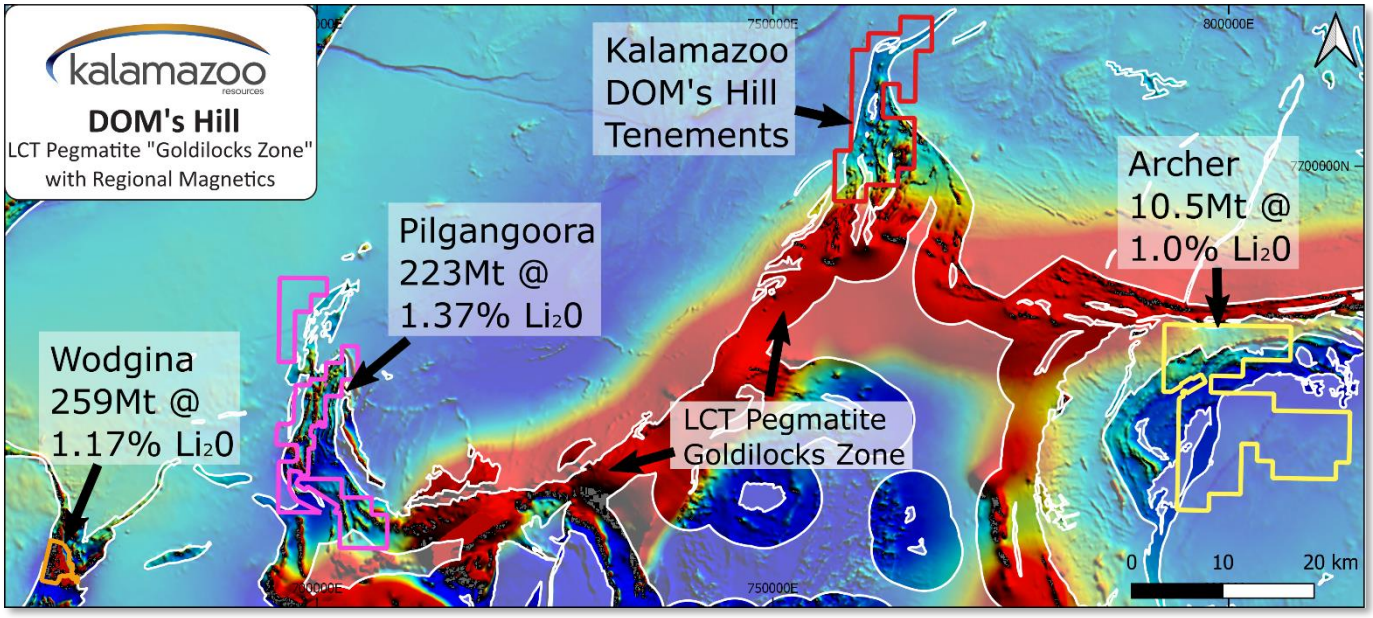

Figure 2: Location of the DOM's Hill Project with respect to the Pilgangoora and Wodgina lithium mines and the Archer lithium deposit on a background WA regional-scale aeromagnetic image[1]. The interpreted "Goldilocks Zone" is defined as a 4km wide zone located along the Archaean granite-greenstone contact area.

The DOM's Hill project area is considered prospective for a range of gold, nickel, cobalt and base metal deposits, with a long and detailed exploration history. Surprisingly, despite its proximity to two of the world's largest hard-rock lithium mines, there has been no previous exploration for lithium undertaken within the project area. This may be partly explained by some of the project area being overlain by a thin veneer of younger sedimentary cover.

As a first pass reconnaissance investigation, Kalamazoo recently completed pXRF analyses of 732 soil sample pulps, previously collected within E45/5146 for gold exploration purposes for indications of potential LCT pegmatite mineralisation. These 732 soil samples were collected in late 2020 as part of a gold-focused exploration program and were originally submitted for Ultrafine+™ multi-element analysis (Figure 3). However, the Ultrafine+™ method utilises an aqua regia digestion which is sub-optimal for the detection of lithium and associated path finder elements. Consequently, these pulps have recently been re-analysed with a pXRF unit involving a specialised "Li Index" function developed by Portable Spectral Services Pty Ltd. The pXRF Li Index provides a proxy for Li content via a correlation with a suite of five elements (Rb, Nb, Ta, Ga, and Cs) that are resolvable by pXRF and calibrated against certified reference materials. Note that these soil samples were collected on a broad 400m x 100m spaced grid, which is considered "regional-scale" for a first pass reconnaissance lithium exploration program.

The results of the pXRF Li Index analyses have identified highly prospective areas-of-interest possibly related to potential LCT pegmatite mineralisation, three of which are considered high priority (Figure 4).

[1] Refer to the Western Australian Department of Mines, Industry Regulation and Safety website: Lithium in Western Australia poster – June 2021

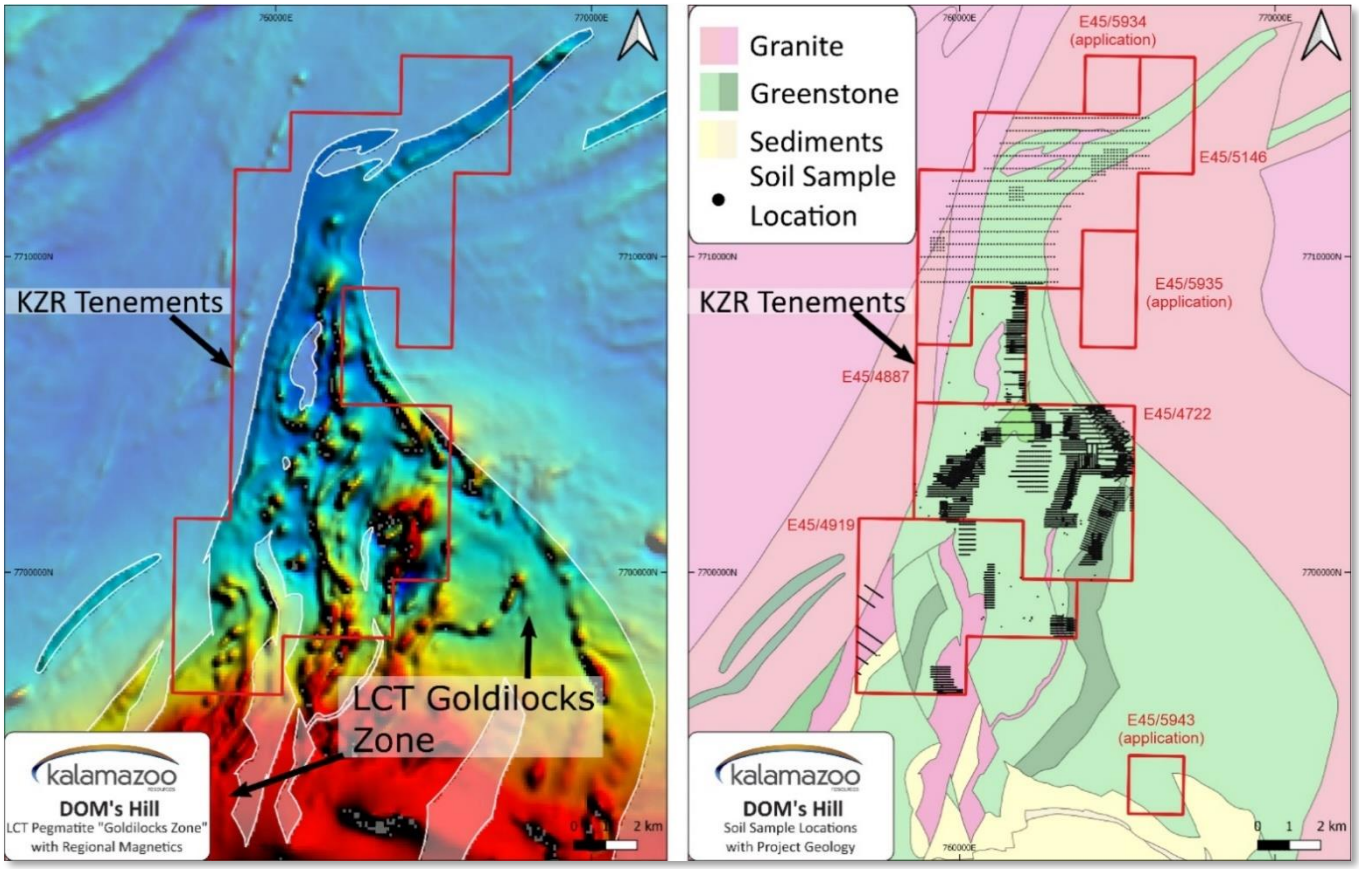

Figure 3: (LHS) Location of Kalamazoo's DOM's Hill Exploration Licences with respect to the interpreted "Goldilocks Zone" for LCT pegmatite mineralisation on a background regional aeromagnetic image; and **(RHS)** distribution of Kalamazoo and historical soil and rock chip sampling across the DOM's Hill Project. Note the location of recent soil samples collected by Kalamazoo in the northern E45/5146 which have been the subject of further pXRF Lithium Index analyses.

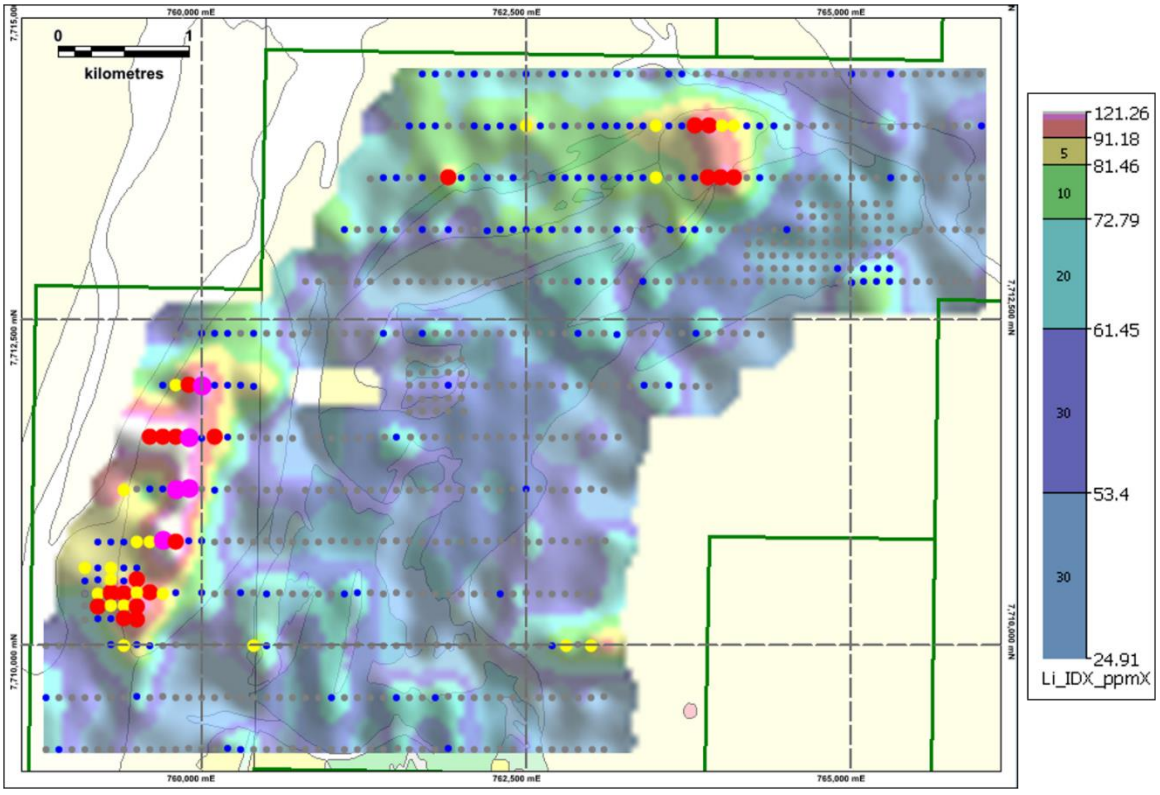

Figure 4: Soil pulp sample locations (nominal 400m x 100m grid sample spacing) and pXRF Lithium Index (image and dot plot) results within E45/5146, DOM's Hill Project

Importantly, the highest priority targets are spatially associated with prospective geological features/settings identified in recently acquired high resolution WorldView-3 satellite imagery (Figures 5 and 6). These identified areas-of-interest will now be the focus of follow-up field and laboratory verification including a subset of 167 soil samples recently submitted for four-acid multi-element analysis. If warranted, more detailed infill soil sampling will be completed across these priority areas.

Kalamazoo is very encouraged by these early soil sampling results, especially as E45/5146 is just one (northern) of four granted tenements, with another three exploration tenements under application. As a result, Kalamazoo has recently engaged surface sampling contractors to complete a project-wide soil sampling program on a more detailed 200m x 100m grid. This geochemical sampling program will include a minimum of 4,600 samples, is scheduled to commence mid-October 2021 and is expected to be completed within 1-2 months. All soil samples will be the subject of initial pXRF Lithium Index analysis before select subsets being submitted for laboratory assay analysis. This methodology will ensure that the exploration program can be accelerated and completed cost efficiently.

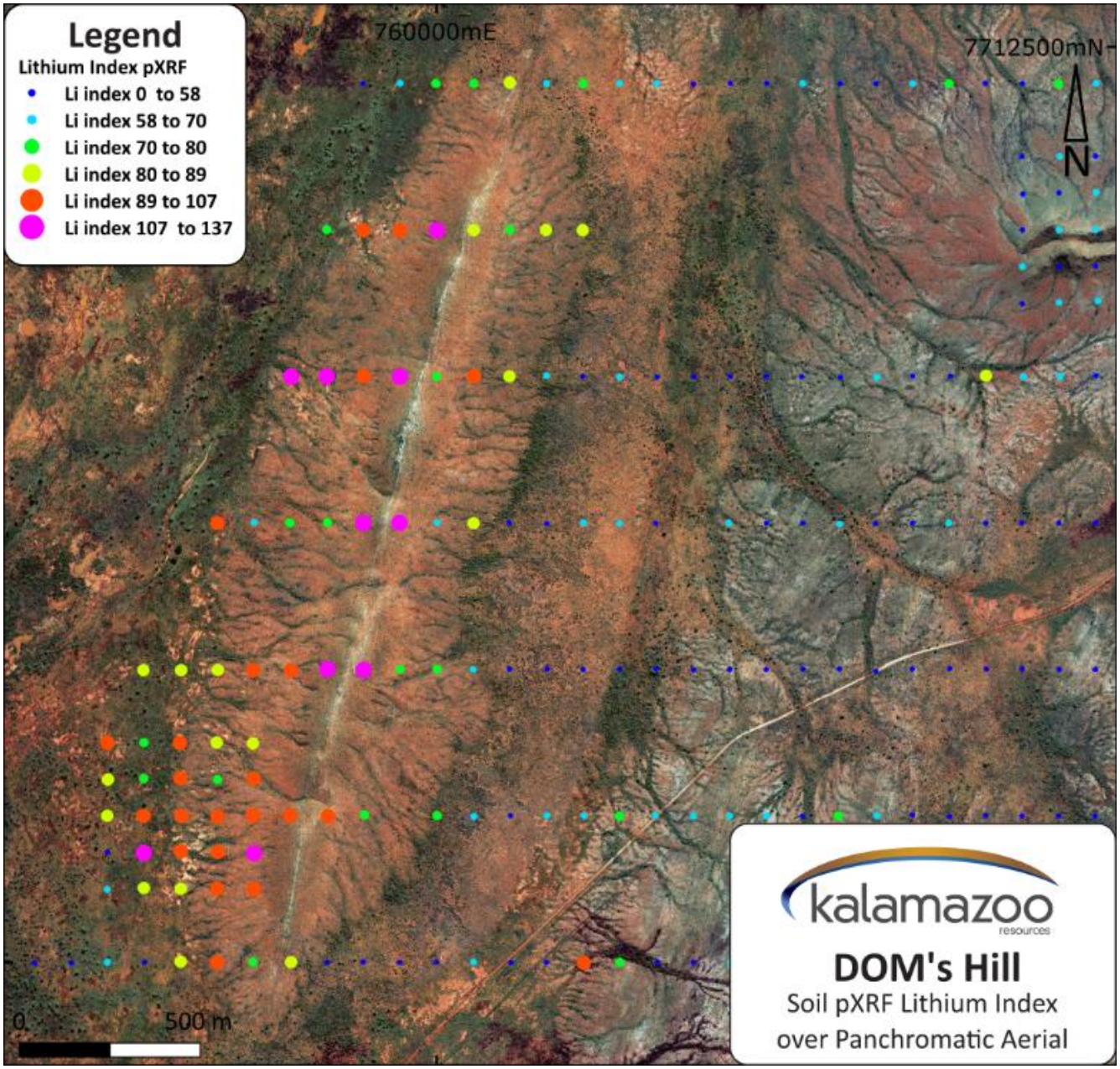

Figure 5: ~2km long linear pXRF Li-Index anomaly spatially associated with a mapped quartz filled shear zone in close proximity to the (covered) granite-greenstone contact (on background WorldView-3 panchromatic image). Note exposed granite and greenstone units are shown in the western and eastern parts of this image, respectively, whilst the central contact position is obscured by thin cover.

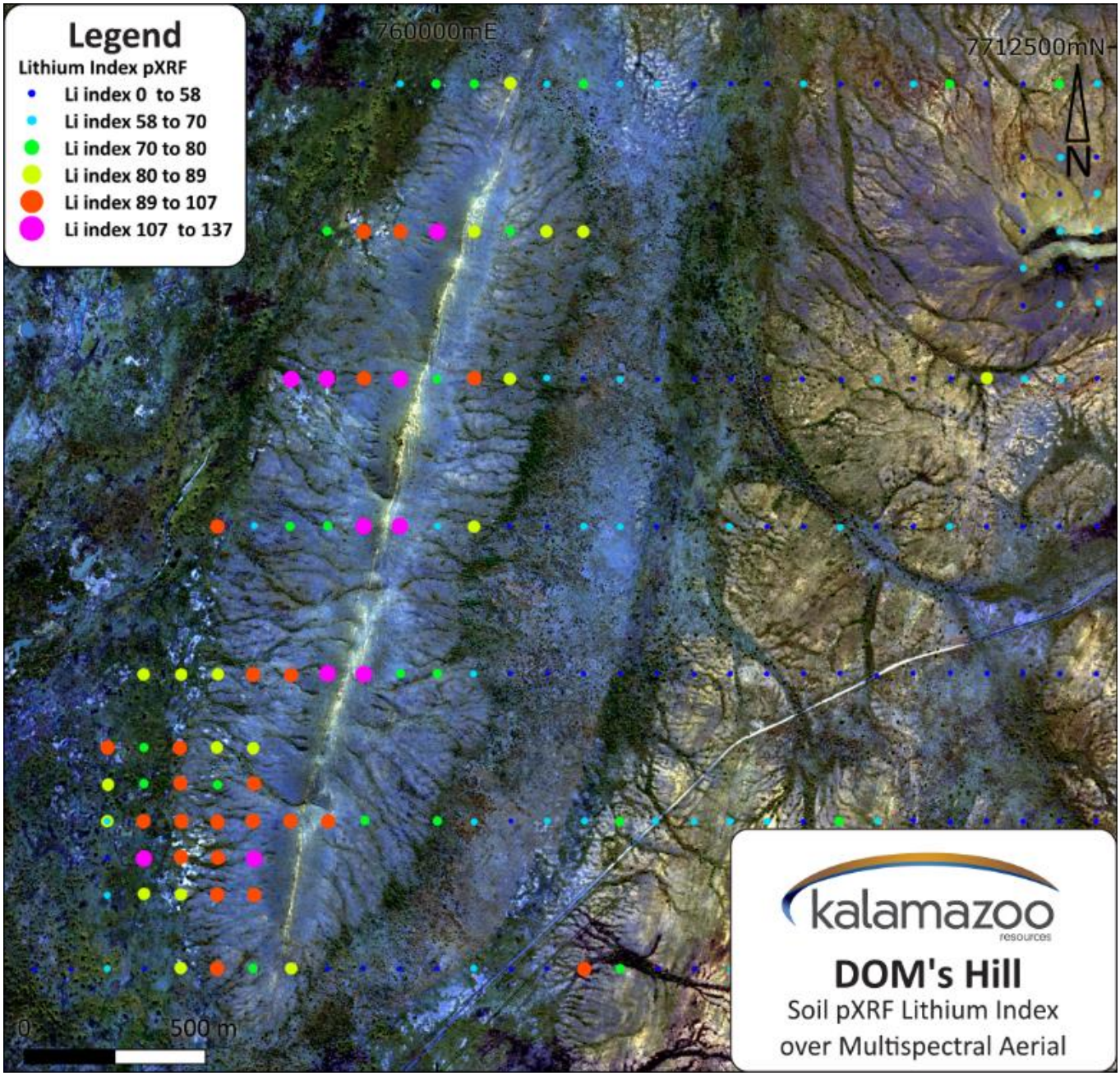

Figure 6: ~2km long linear pXRF Li-Index anomaly spatially associated with a mapped quartz filled shear zone in close proximity to the (covered) granite-greenstone contact (on background WorldView-3 multi-spectral image). Note exposed granite and greenstone units are shown in the western and eastern parts of this image, respectively, whilst the central contact position is obscured by thin cover.

Marble Bar Project (E45/4700 and application E45/5970)

The Company has recently completed a technical review of its Marble Bar tenements, which pleasingly has also revealed further lithium exploration potential. This review was focused on Kalamazoo's 100% owned granted tenement E45/4700, as well as on exploration licence application E45/5970 (Figure 7).

Kalamazoo considers this area to be highly prospective for lithium mineralisation due to its favourable proximity to the margin of the Moolyella tin and tantalum alluvial field, which includes known cassiterite-bearing pegmatites. In addition, within these tenements, there are historical reports of mapped pegmatites and lithium occurrences. Whilst the known lithium occurrences are largely comprised of lithium micas (i.e., lepidolite) this area demonstrates the positive characteristics and empirical evidence favourable for the presence of spodumene-bearing pegmatites. Kalamazoo's Marble Bar Project has not been the subject of any modern exploration for lithium, although encouragingly, Global Lithium recently announced a maiden Inferred Resource for the nearby 10.5Mt @ 1.0% Li_20 Archer deposit on the margin of the Moolyella tin and tantalum field, approximately 25kms to the north[2].

Similar to the DOM's Hill Project, Kalamazoo intends to undertake lithium exploration across this project area through a systematic process of large, detailed soil sampling programs and field reconnaissance to identify high priority targets for follow-up drill testing.

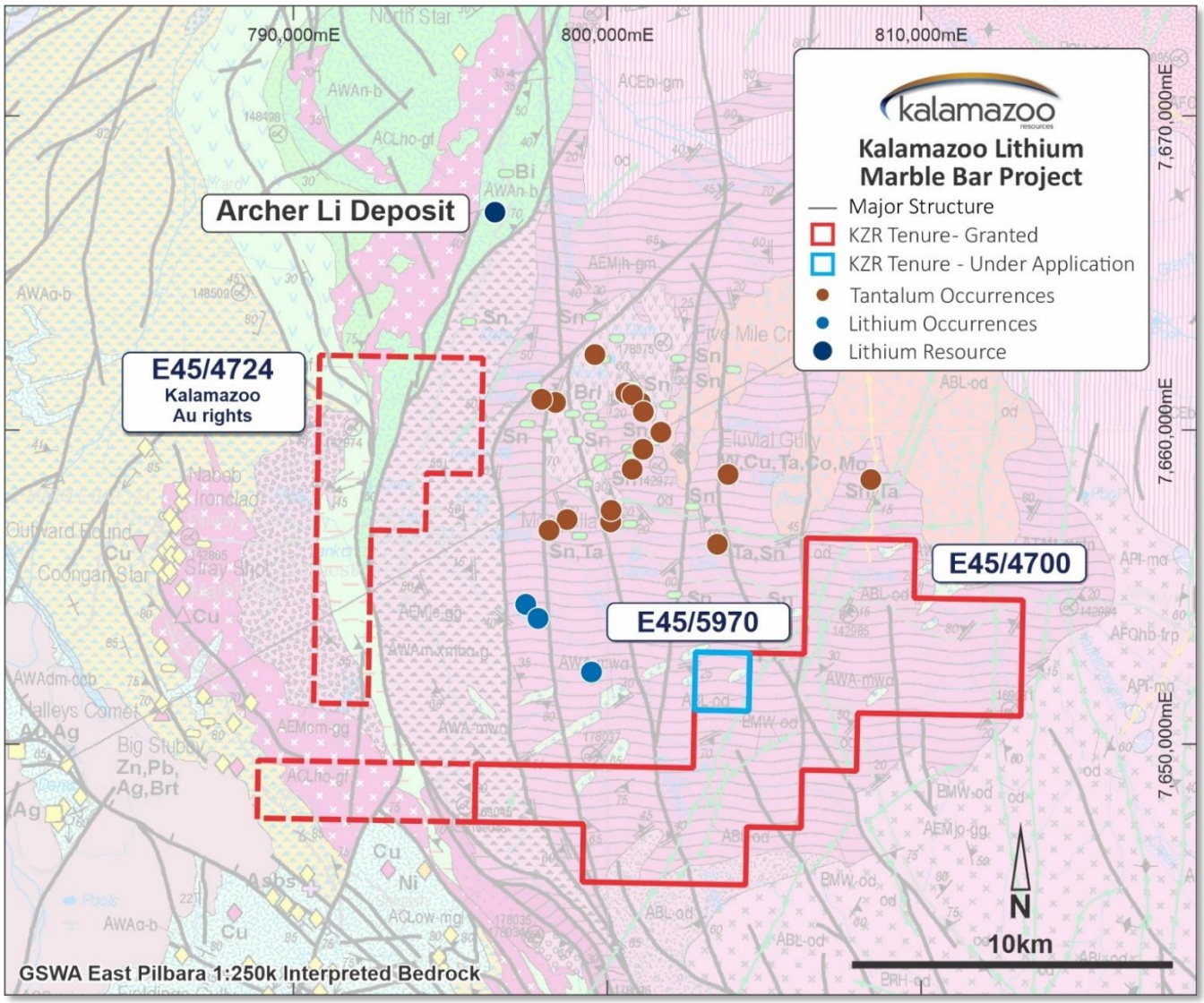

Figure 7: Location of E45/4700 and application E45/5970 on a background GSWA East Pilbara 1:250k Interpreted Bedrock Map Sheet. Note the location of these two tenements on the southern margin of the Moolyella tin and tantalum alluvial field.

[2] Refer Global Lithium Resources prospectus dated 22 March 2021

Next Steps

Kalamazoo's priority at the DOM's Hill and Marble Bar Projects is to now focus on advancing towards a drill-ready status, which will include the following:

- Completion of large, project-scale soil sampling programs on 200m x 100m spaced sampling grids with initial pXRF Lithium Index evaluation
- Follow-up laboratory assay analyses and field reconnaissance/mapping campaigns
- Target identification and infill soils sampling

For further information, please contact:

Luke Reinehr
Chairman/CEO
luke.reinehr@kzr.com.au

Media & Investor Relations (Australia)
Victoria Humphries
victoria@nwrcommunications.com.au

Media & Investor Relations (Canada)
Leo Karabelas: leo@fcr.ca
Tom Panoulias: tom@fcr.ca

Previously Released ASX Material References

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

ASX: KZR 6 October 2017
ASX: KZR 2 December 2019
ASX: KZR 8 July 2021

Cautionary Statement

It should be noted that the information in this announcement is based only on visual field observations and soil geochemistry analyses that were less then optimal. Assay results for the rock chip samples collected from the outcropping pegmatites and the re-assaying of the Kalamazoo soil samples are yet to be received. The Company has not yet confirmed whether lithium mineralisation is present, given that this can only be determined through laboratory analysis.

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 DOM's Hill and Marble Bar Project 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.