ASX ANNOUNCEMENT **22 February 2022**

Extensive lithium targets identified at Lalla Rookh Project – Pilbara, WA

Heliborne mapping and sampling program set to commence in the coming weeks to evaluate large-scale structures considered prospective for lithium-caesium-tantalum (LCT) pegmatites

Highlights

- **A review of the Lalla Rookh Project has confirmed the presence of large-scale regional structures conducive to the formation of LCT pegmatites in the Pilbara WA.**
- **Helicopter survey planned for the coming weeks as Kairos' 2022 exploration season in the Pilbara ramps up.**
- **The Lalla Rookh Project encompasses a total area of 342km² just 25km north of the world-class Pilgangoora Lithium-Tantalum Project, owned by Pilbara Mineral (ASX: PLS).**
- **Project complements Kairos' other emerging lithium exploration opportunities, both in the Pilbara and at the Roe Hills Project, east of Kalgoorlie (see ASX release, 15 February 2022).**

Kairos' Executive Chairman, Terry Topping, said: *"An ongoing review of the lithium prospectivity of our portfolio has yielded further exciting results, with a detailed review of regional datasets identifying a number of large lithium-caesium-tantalum pegmatite targets at Lalla Rookh. The strategic location of our tenements just 25km from one of the largest lithium deposits in the world at Pilgangoora added further impetus to our review of the lithium potential of this area.*

"We have planned an extensive heli-borne mapping and sampling program that will commence next month to fast-track our evaluation of these extensive targets. Subject to the results, we will move quickly to refine areas for potential drilling as part of our 2022 exploration field season. This adds another exciting dimension to our growing Pilbara lithium portfolio, and we are looking forward to getting on the ground in the near future."

Kairos Minerals Ltd (ASX: KAI; "Kairos" or "the Company") is pleased to advise that it has identified a series of significant large-scale Lithium-Caesium-Tantalum (LCT) pegmatite targets prospective for lithium mineralisation within its 100%-owned Lalla Rookh Project, located in the East Pilbara region of Western Australia.

The targets were identified as part of an ongoing review of the Company's exploration portfolio for lithium exploration opportunities. A review of regional datasets including satellite imagery, aeromagnetics, radiometrics and gravity data has highlighted numerous large-scale regional structures that represent priority targets for follow-up mapping and sampling.

Lalla Rookh Project (EL 45/4741 and ELAs 45/5486, 45/6018, 45/5960)

The Lalla Rookh Project comprises one granted Exploration Licence (E45/4741) and four applications (ELAs 45/5486, 45/6018, 45/5960), covering a total area of 342km^2.

The Project is located 75km south of Port Hedland, south of the Tabba-Tabba tantalum deposit and Strelley pegmatite site (42km), and 25km north of Pilbara Minerals' (ASX: PLS) world-class Pilgangoora Lithium Mining Centre (Figure 1).

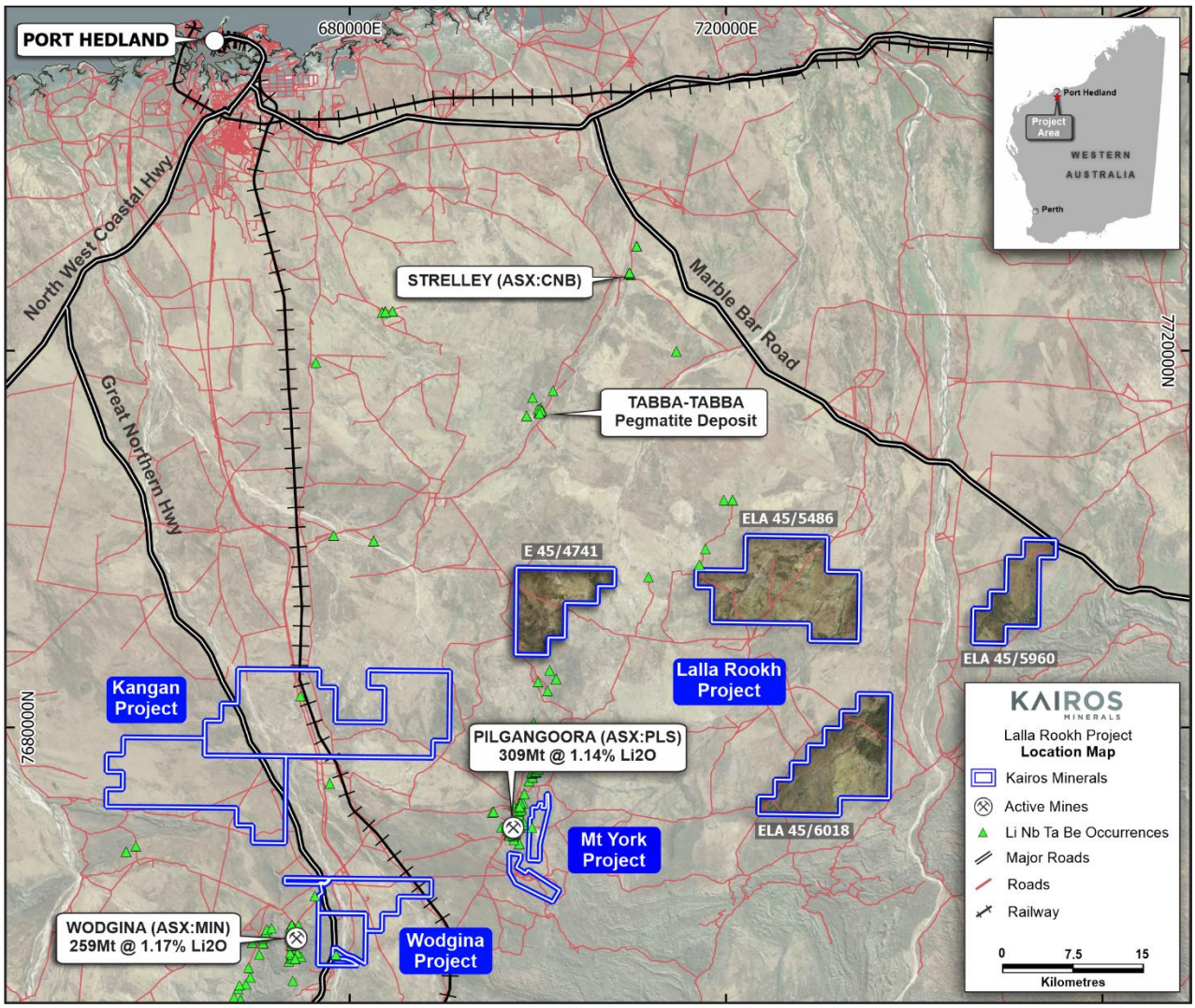

Figure 1. Lalla Rookh Project Location

The Company has identified extensive new Lithium-Caesium-Tantalum (LCT) targets at the 100%-owned Lalla Rookh Project. The tenement E45/4741 is notably prospective for LCT pegmatites.

The major lineaments in the region that extend into the E45/4741 tenement could act as a pathway for mineralised fluids enriched in elements such as lithium, caesium, tantalum, and beryllium, as has occured in pegmatites in the surrounding areas.

This work has identified the extension of the structures observed in the magnetics survey (local and regional) Lalla Rookh associated with the pegmatites at Pilgangoora (~25km) and a historical beryl mine located ~4km to the south (see Figure 2).

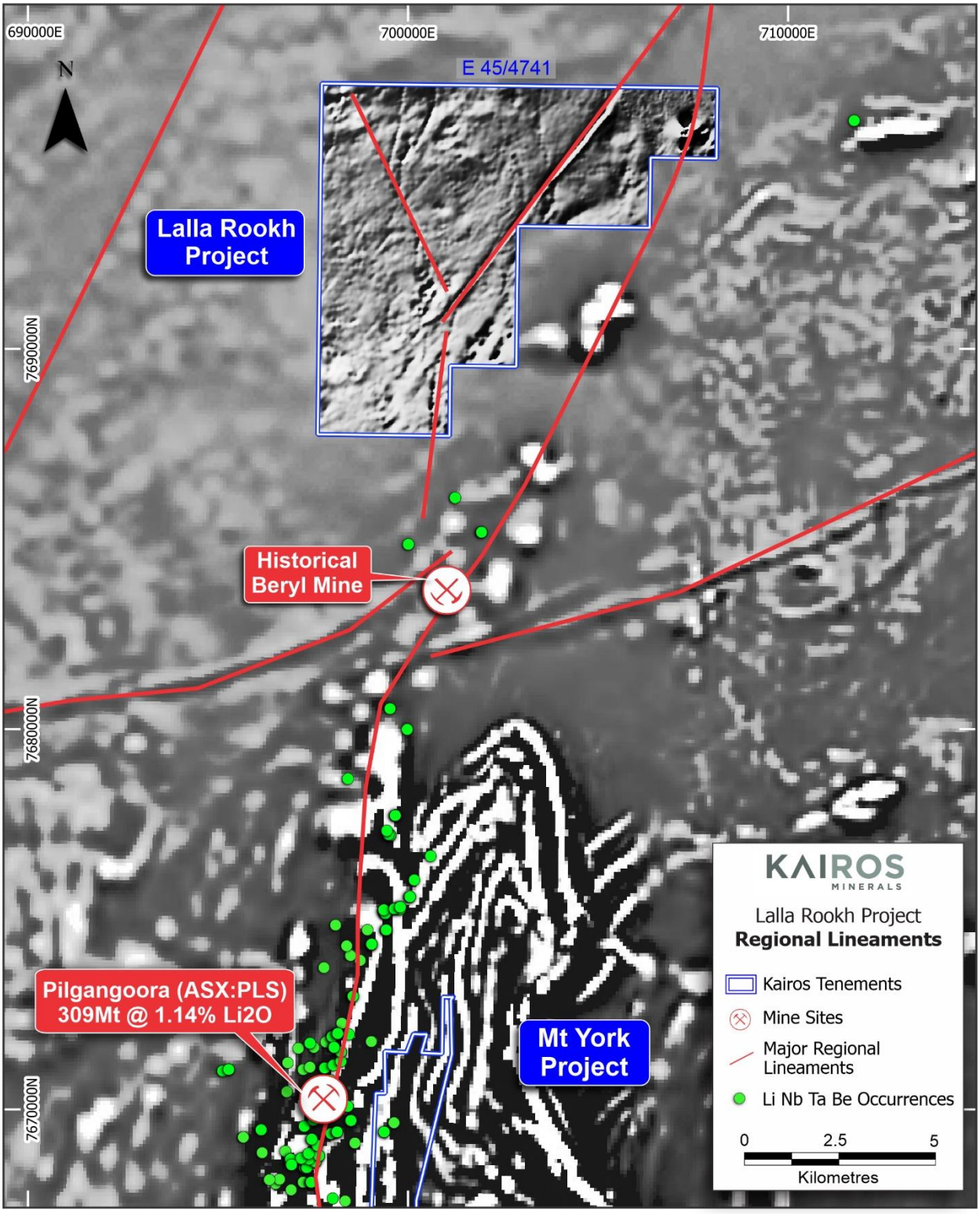

Figure 2. Pegmatites-geochemistry over aeromagnetics

E45/4741 is mapped as predominantly granites of the Split Rock and Sisters Supersuite intrusions. The Split Rock Supersuite rocks in the area mainly consist of monzogranites that intrude older units of the Sisters Supersuite. The Split Rock unit is prospective for LCT pegmatites and intrusion-related gold mineralisation.

A review of satellite imagery has highlighted several regional scale structural targets and local offset features, which are extensions of major structures that host a historical beryl mine.

Pegmatite rock chip samples analysis from this site returned impressive results for Li_2O (0.57% and 0.30%) and pathfinder elements for LCT pegmatites' pathfinder elements (Rb, Cs, Be).

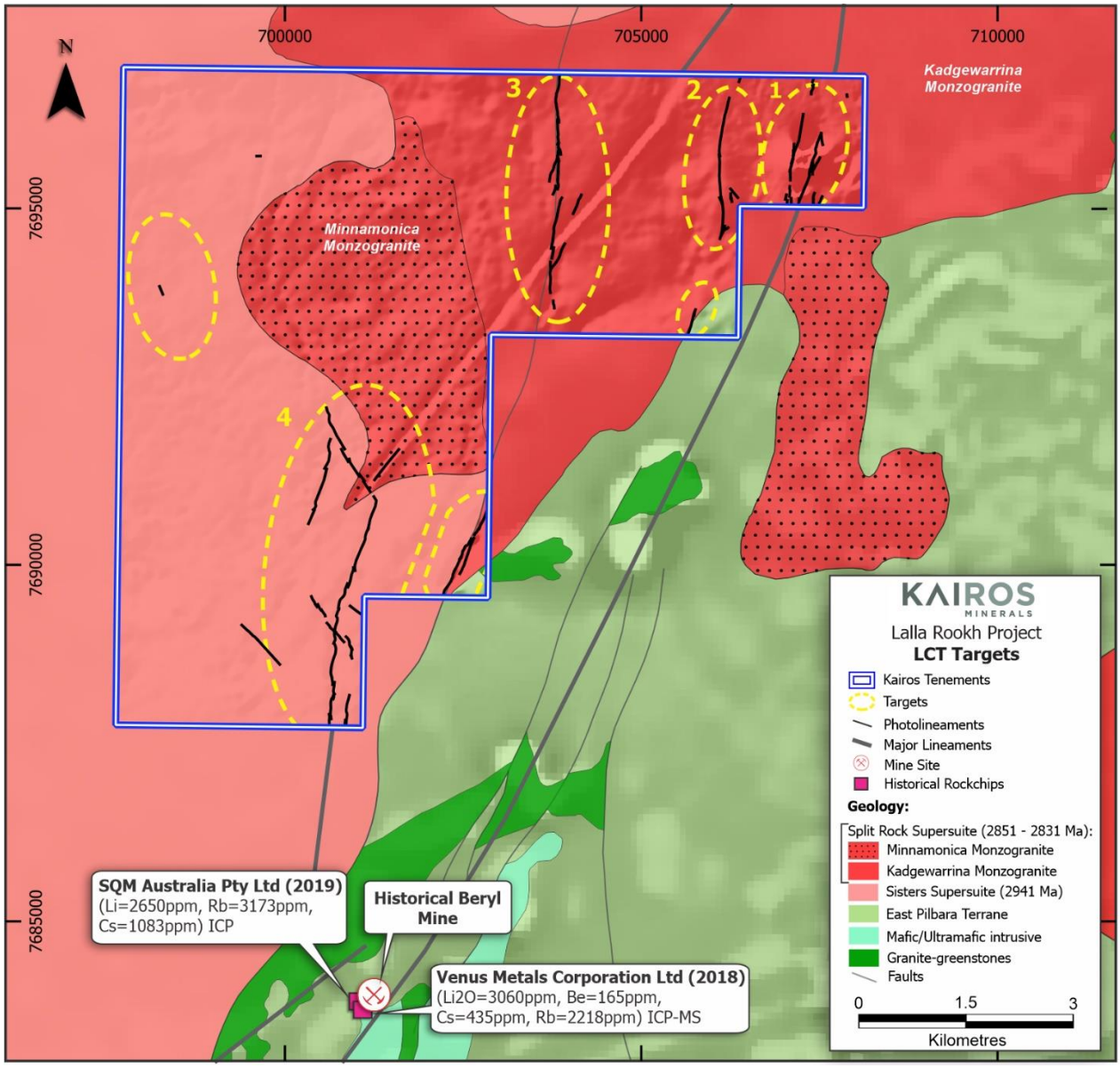

Figure 3. Previous exploration and LCT pegmatites target area.

Four high-priority LCT targets defined in the tenement EL 45/4741 are extensions of major lineaments observed in aerial satellite images with up to ~4 km strike and trend N-NNE.

Figures 4 to 6 display aerial satellite images with the main targets in Lalla Rookh consisting of major regional structures and associated structural features.

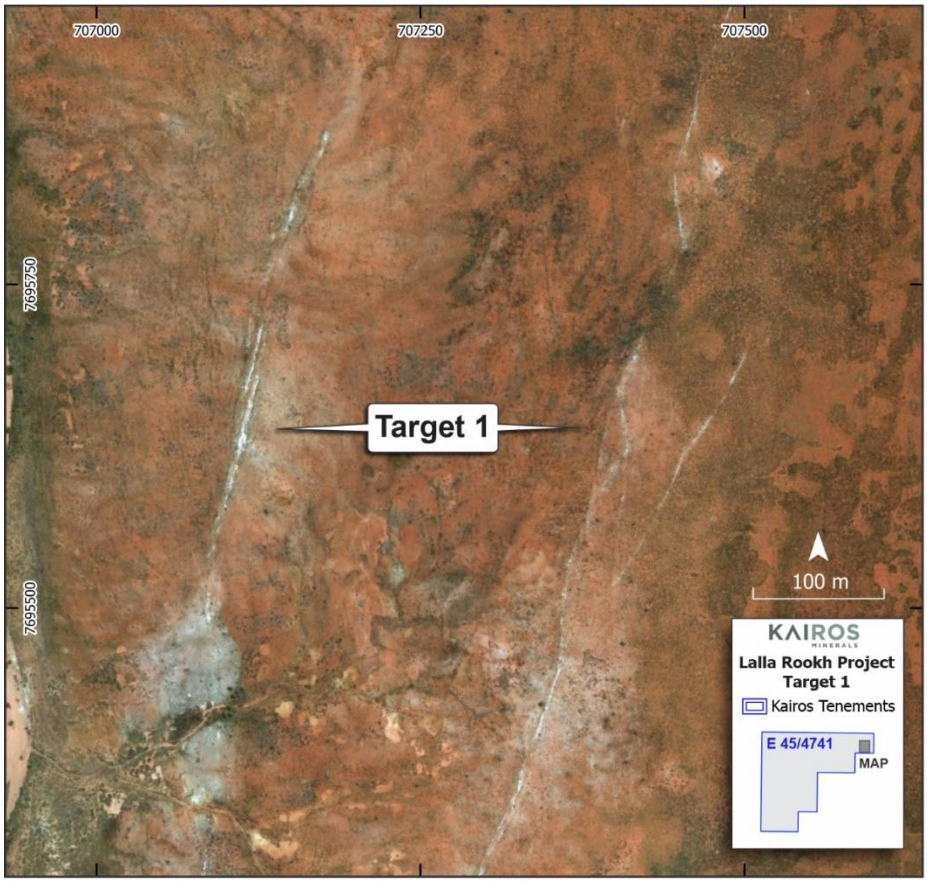

Figure 4. Large regional structural LCT pegmatite target 1.

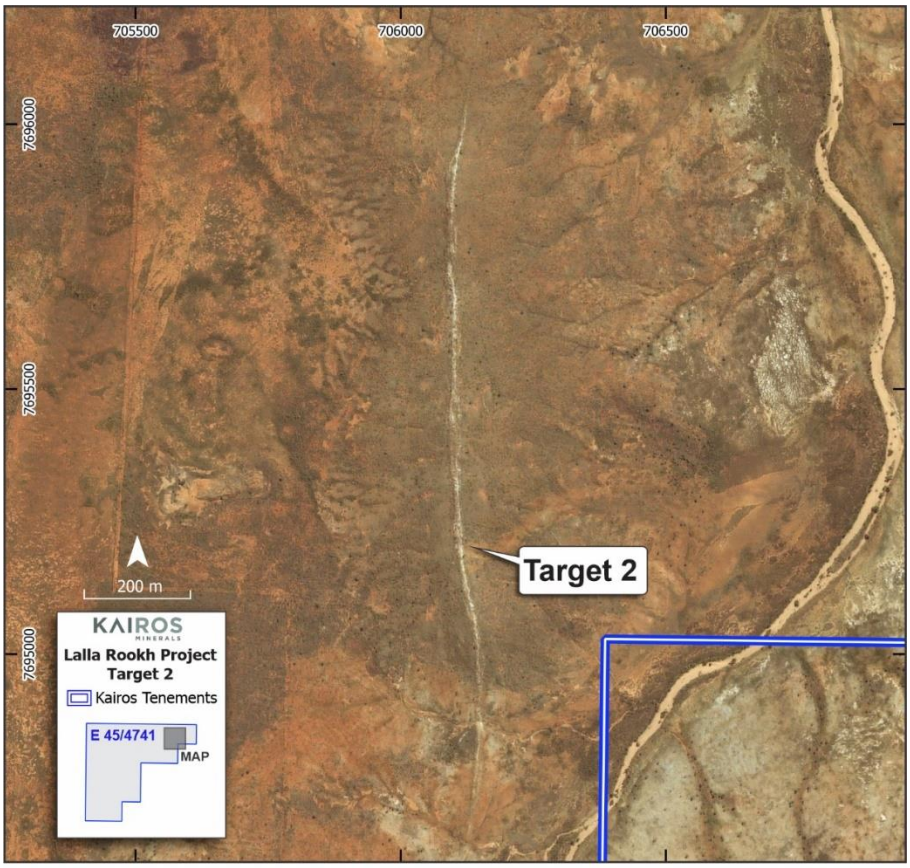

Figure 5. Large regional structural LCT pegmatite target 2.

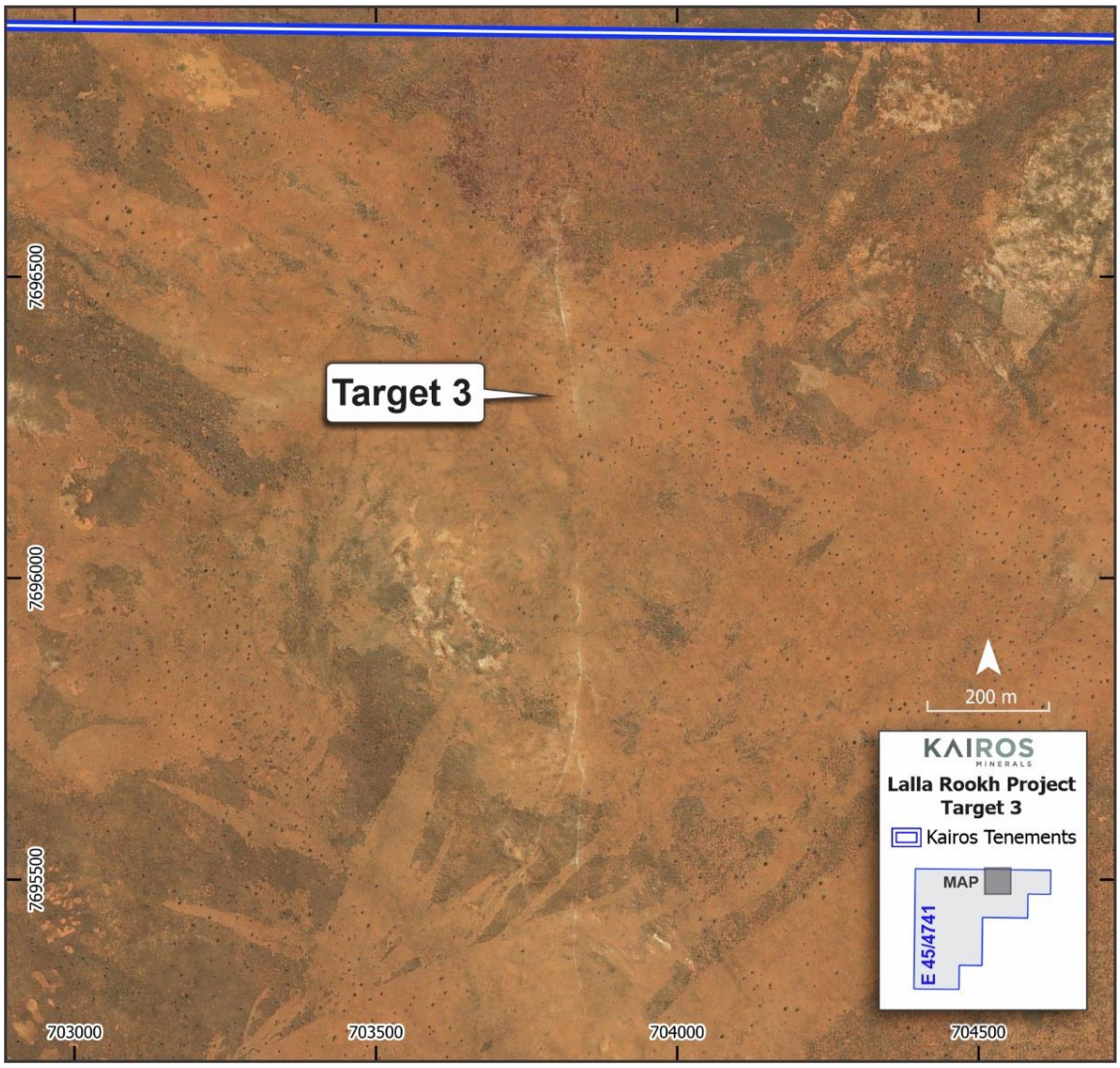

Figure 6. Large regional structural LCT pegmatite target 3.

Soil Geochemistry Program in Target 1

As part of the regional gold exploration program in the Pilbara tenements, Kairos Minerals carried out a soil geochem survey in 2020 in structures identified in an airborne magnetic survey situated in the extreme north-east of the Lalla Rookh tenement (E45/4741).

A total of 175 soil samples were collected and submitted to Intertek Minerals Laboratory in Perth WA to be analysed using Aqua Regia 52 Elements method. Soil sampling was conducted on a 100m line spacing by 80m sample intervals to assess structures identified in the airborne magnetic survey.

A caesium grid image overlapped by lithium anomalies that extend over the elongated structures with a strike length of 1.3km. The highest lithium and caesium values are spatially related and aligned to the N-NNE features.

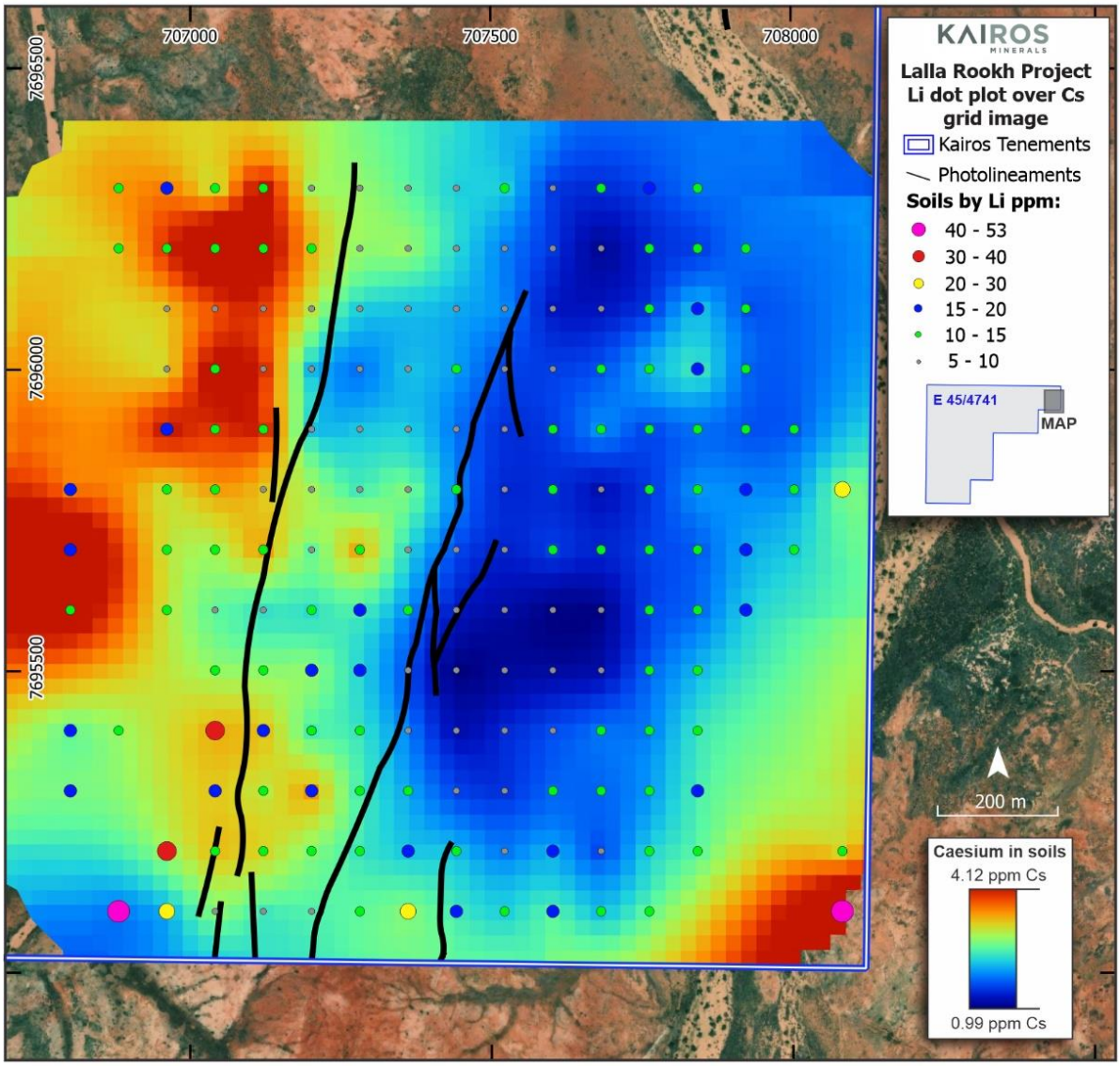

Figure 8. Lithium and caesium anomalies grid.

The soil samples were submitted to re-assay using the Four Acid Lithium Package analysis for lithium-bearing lithologies with superior recovery for Li, Cs, Ta, Sn, and Nb. This previous work has highlighted broad regional anomalism which will require further detailed mapping and geochemistry.

Next Steps

- Field exploration at Roe Hills Project.
- Soil geochemistry sampling results from the Mt York, Kangan, Skywell and Croydon Projects.
- Additional heritage surveys at Kangan and Skywell Projects.
- Assay results from the Mt York RC drilling.
- Assay results from the Kangan AC in-fill drilling.
- Field exploration of regional LCT pegmatite targets

With the authority of the Board.

About Kairos Minerals

Kairos Minerals (ASX: KAI) is a diversified West Australian-based exploration company which is focused on the exploration and development of two key project hubs located in WA's premier mining districts.

The Company's 100%-owned Pilbara Gold-Project has its central "hub" located ~100km south of Port Hedland in the world-class Pilgangoora district immediately adjacent to the major lithium-tantalum projects owned by Pilbara Minerals, which is currently in production.

Since acquiring the Project in early 2016, Kairos has established a JORC Indicated 8.56Mt at 1.3 g/t for 366,000oz and Inferred 12.36Mt at 1.28 g/t for 507,000oz for a Total Mineral Resource of 20.93Mt @ 1.3g/t Au for 873,500oz (ASX announcement, 4 March 2020). The Project encompasses the historical Lynas Find gold project, which produced over 125,000oz of gold between 1994 and 1998.

Kairos's 100%-owned Roe Hills Project, located 120km east of Kalgoorlie in WA's Eastern Goldfields, comprises an extensive tenement portfolio where the Company's recent exploration work has confirmed the potential for significant discoveries of gold, lithium, nickel and cobalt mineralisation. Kairos' tenure adjoins the emerging Lake Roe gold discovery, owned by Breaker Resources (ASX: BRB).

In the Pilbara, Kairos also holds 2,026 square kilometres of tenure (granted and applications) which is highly prospective for gold and lithium-caesium-tantalum pegmatite discoveries.

Kairos has been well recognised for its industry leading technical team that includes its Chairman Terry Topping (Taipan Resources NL, Cauldron Energy Ltd), Technical Director Neil Hutchison (Poseidon Nickel, Jubilee Mines) and consulting specialists.

For further information, please contact:

Investors:
Mr Terry Topping
Executive Chairman
Kairos Minerals Limited

Media:
Nicholas Read/Paul Armstrong
Read Corporate
Ph: 08 9388 1474

COMPETENT PERSON STATEMENT:

Competent Person: The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled and reviewed by Mr Terry Topping, who is a Director of Kairos Minerals Ltd and who is also a Member of AusIMM. Mr Topping has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' (the JORC Code 2012). Mr Topping has consented to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.