

ASX ANNOUNCEMENT

10 June 2021

Significant New Exploration Target Highlights Strong Potential for Growth and Upside at Mt York Gold Project, WA

Current 20,000m RC drilling program focused on the Exploration Target areas

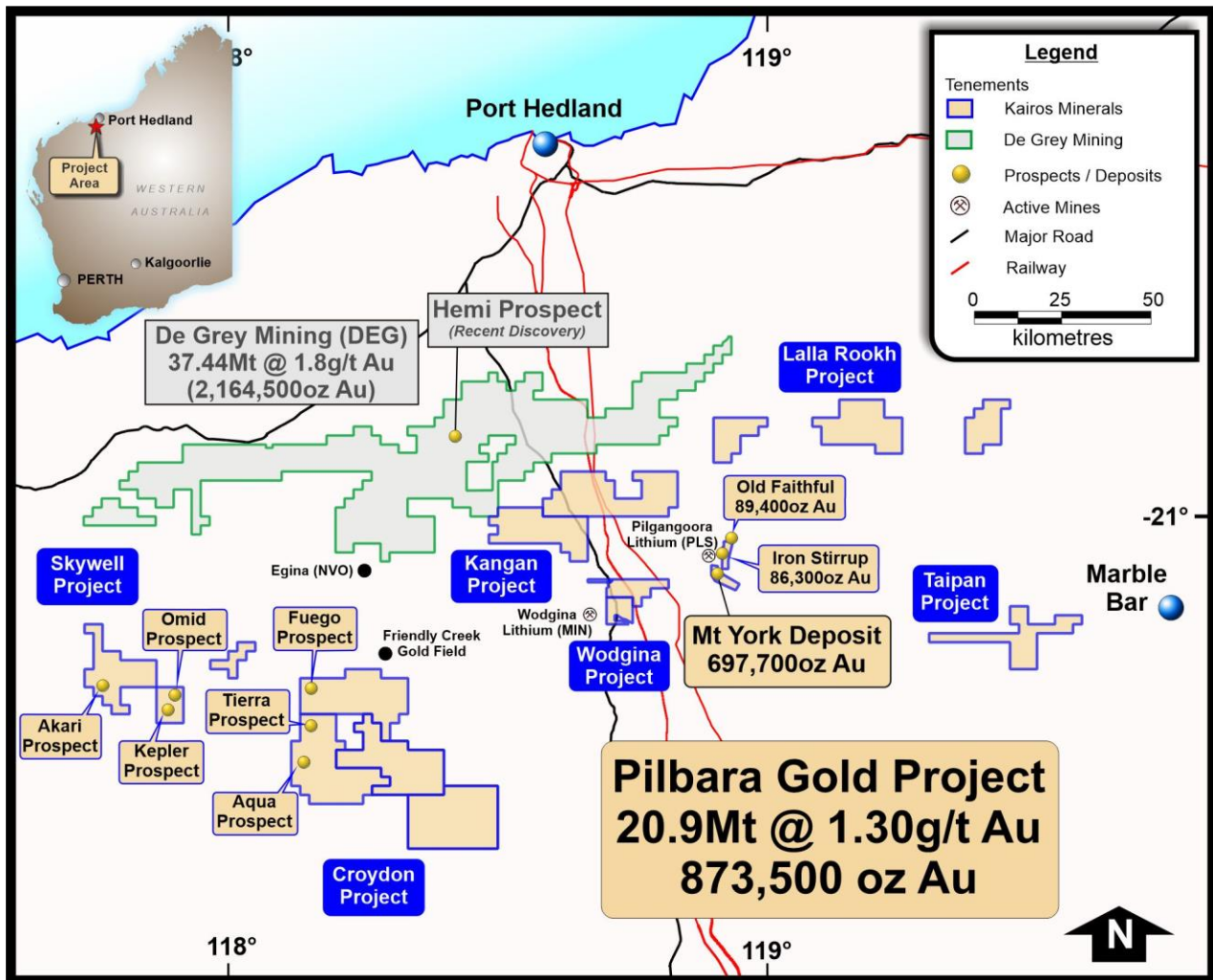
Highlights

- JORC compliant Exploration Target defined for areas close to the existing Mineral Resources at the Mt York and Iron Stirrup deposits and possible extensions of the mineralisation from the Zakanaka historical pits.
- Exploration Target excludes untested greenfield exploration potential and is in addition to the current 873,500oz Indicated and Inferred Mineral Resource¹.
- A geochemical soil sampling program is underway to assist with further target generation.
- Current 20,000m drilling program continues to make excellent progress with two Reverse Circulation (RC) rigs operating.



Figure 1: Drone image from the Iron Stirrup deposit area with the historical pit.

¹ Indicated and Inferred Mineral Resource of 20.93Mt at 1.3g/t for 873,500oz (refer ASX announcement, 4 March 2020).



Kairos Minerals Ltd (ASX: KAI; “Kairos” or “the Company”) is pleased to advise that it has defined an Exploration Target of approximately 4.4 to 7.4 million tonnes at a grade ranging between 1.5 to 1.8 g/t of gold* for areas in close proximity to the Mt York and Iron Stirrup deposits and the Zakanaka prospect at its 100%-owned **Mt York Project in WA.**

**The potential quantity and grade of this exploration target is conceptual in nature, there is currently insufficient exploration completed to support a target of this size and it is uncertain whether continued exploration will result in the estimation of an expanded JORC resource.*

The Exploration Target is in addition to the current JORC compliant Mineral Resource for the Mt York Project of 20.9Mt at 1.3g/t Au for 873,500oz of contained gold (refer KAI ASX announcement, 4 March 2020).

The Exploration Target excludes untested greenfield exploration potential and potential extensions of the Old Faithful deposit.

The current drilling program, comprising approximately 20,000m of RC drilling, is focused on these Exploration Target areas. In addition, a geochemical soil sampling program is underway to provide targets with the potential for additional discoveries within the Mt York Project area.

Kairos' Executive Chairman, Terry Topping, said: "Defining this Exploration Target is an important step towards quantifying the upside potential at Mount York, and to give investors some insights into the opportunities we see to increase both the size and the grade of the current 873,000oz Mineral Resource base. This information is also highly relevant given that we have a major 20,000m drill program currently underway targeting the Exploration Target areas."

"Results from the current drill program will feed into an updated Mineral Resource for Mount York which we are aiming to complete later this year. Against the backdrop of a buoyant gold price and strong outlook for the gold sector generally, the large-scale, high-quality Resource base we have at Mount York provides a strong foundation for Kairos' value proposition – particularly given it's Tier-1 location and high-quality portfolio of exploration opportunities, including numerous intrusive-related gold targets that we aim to drill test this year."

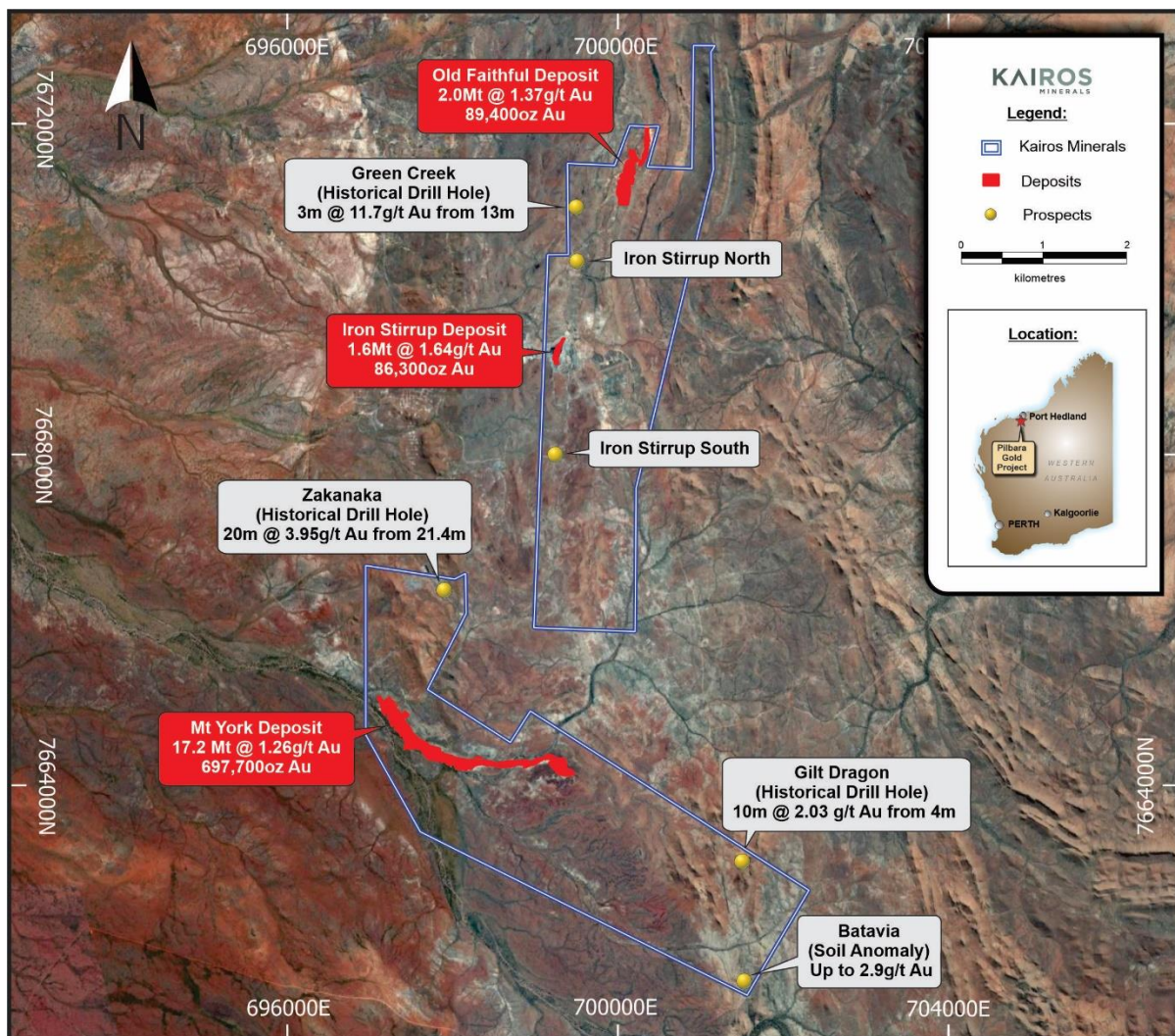


Figure 3: Current deposits and prospects location within the Mt York Project area.

Exploration Target

The Mount York Exploration Target was calculated for three areas: Mt York north-west extension, Zakanaka extensions and Iron Stirrup south-east extension. Utilising a large amount of historical data combined with recent Kairos exploration results, the Exploration Target was calculated by a proper scientific method and used a variety of assumptions, interpolations and visual estimations. The Exploration Target meets the requirements of JORC 2012, note 17 on pages 9 and 10 of the JORC Code 2012 edition.

All the available drilling data, geochemistry and geophysics data, topographic surfaces and the resources block models were used to produce this Exploration Target. Each individual section was reviewed for each area, and the down-dip extension of the mineralisation was measured from the topographic surface to a maximum of 200m vertical depth.

The thickness of the mineralisation was estimated for each area using the existing drill data from both mined and unmined portions of the nearby resource to be extended and a rough interpretation of mineralisation down-dip. The grade was conservatively estimated from the calculated resources and by looking at the common grades within the resources and assuming that similar grades continue into undrilled areas.

The specific gravity was obtained from an average of the oxidised, transitional and fresh ore values from historical data, except for Iron Stirrup – where the ore is fresh near the surface. These Exploration Targets represent areas which have had minimum or ineffective historical drilling.

Mt York Deposit NW Extension

Only one historical drill hole was found within this target area. This hole returned 1m @ 2.85 g/t Au from 73m. About 1km to the north-west, outside of Kairos property, Pilbara Minerals RC drilling program returned 16m @ 2.43g/t Au from 16m (PLS-ASX announcement 28 April 2020).

Most importantly, the significant gold results returned from strongly oxidised BIF, the same lithological unit that host the mineralisation at the Mt York deposit.

- This Exploration Target is designed to test the Mt York Deposit extension to the north-west, about 370m.
- The Mt York Deposit contains an estimated global mineral resource of 17.2Mt @ 1.26g/t for 698,000 ounces of gold, reported at a 0.5g/t Au cut-off to a maximum vertical depth of 195m (KAI-ASX announcement 4 March 2020).

Kairos has planned nine RC holes for a total of 1,200m for this target area along the strike length of 370m. The holes are planned to depths of between 70m and 200m.

Table 1 shows the expected gold resource for this target:

Table 1: Mt York Northwest Exploration Target

Strike length	Depth	Width	Volume m ³	SG estimate	Tonnes	Grade	Au oz	
370m	150m	10m	555,000	2.5 t/m ³	1,387,500	1.2 g/t	53,000	Lower
370m	200m	10m	740,000	2.5 t/m ³	1,850,000	1.6 g/t	95,000	Upper

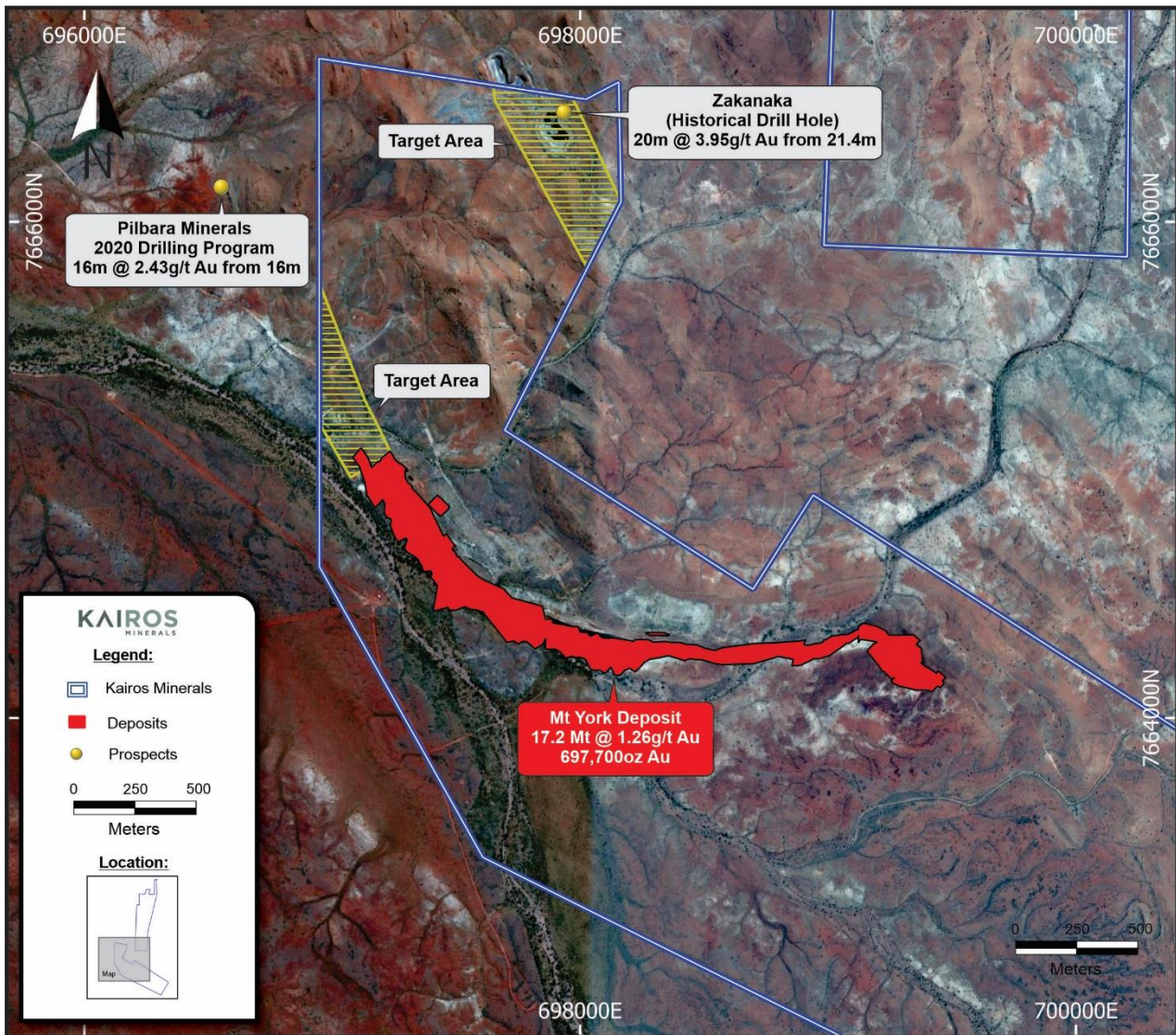


Figure 4: Mt York north-west extension and Zakanaka target areas.

Zakanaka Extensions

The Zakanaka Prospect contains two historical pits, Zakanaka-North and Zakanaka-South, separated by 135m of poorly tested ground. Only very shallow drilling was conducted between the two pits and to the south of the pits.

At the northern end of this target and just south of the Zakanaka-North pit, a 2m composite sample from a historical hole returned a grade of 6.85g/t Au from 8m. Historical drilling below the pit floor returned exceptional hits such as 20m @ 3.95g/t Au from 21.4m and 14m @ 5.2g/t Au from 16m.

- This Exploration Target is designed to test the deep extensions of the mineralisation, mineralisation between the two Zakanaka historical pits, and to test soil anomalies to the south-east of the pits.
- This target ends at the northern boundary of P45/2996 tenement.

Kairos has planned 11 holes for 1,360m for this target area along the strike length of 600 meters. The holes are planned for depths between 60 and 260 meters.

Table 2 shows the Exploration Target for Zakanaka Extension.

Table 2: Zakanaka Extension Exploration Target

Strike	Depth	Width	Volume m ³	SG estim.	Tonnes	Grade	Au oz	
600m	150m	5m	450,000	2.5 t/m ³	1,125,000	1.6 g/t	57,000	Lower
600m	200m	10m	1,200,000	2.5 t/m ³	3,000,000	1.8 g/t	173,000	Upper

Iron Stirrup South-East Extension – “The Kink”

Historical data shows that the Iron Stirrup south extension was explored by following up the geophysical anomalies returned from an aeromagnetic survey, and several holes were drilled directly south of the pit.

However, an extensive analysis conducted by Kairos assessing geophysics and geochemical data concluded that there is a possible offset of the mineralised trend due to cross-cutting west-northwest to east-southeast structures.

Kairos conducted a Sub-Audio Magnetic (SAM) survey over the target area and a central low and residually magnetised unit returned on a structural position that also correlates with a total field electro-magnetic anomaly (TFEM).

- The Iron Stirrup Gold Deposit contains an estimated global Mineral Resource of 1.6Mt @ 1.64g/t for 86,487 ounces of gold, reported at 0.5 g/t cut-off to a maximum vertical depth of 175m (KAI-ASX announcement 4 March 2020).
- Despite its proximity to an existing pit, there is no historical drilling within this target area. Only four shallow holes, to a maximum depth of 39m, were drilled to the south of this target.
- This target is based on combined geochemistry and geophysics analysis.

Kairos has planned 21 holes for 2,980m for this target area over the strike length of 600m.

Table 3 shows the Exploration Target for Iron Stirrup.

Table 3: Iron Stirrup South-east Extension Target estimate

Strike	Depth	Width	Volume m ³	SG estimate	Tonnes	Grade	Au oz	
450m	150m	10m	675,000	2.9 t/m ³	1,957,500	1.6 g/t	100,000	Lower
450m	200m	10m	900,000	2.9 t/m ³	2,610,000	2 g/t	167,000	Upper

Kairos has previously drilled two holes within this target. Hole KMYC094 returned a best result of 2m @ 0.26g/t Au from a composite sample at the bottom of the hole.

It is interpreted that these two holes just missed the main mineralised extension, and follow-up deep extensional drilling and step-out drilling will be conducted during the current drilling program.

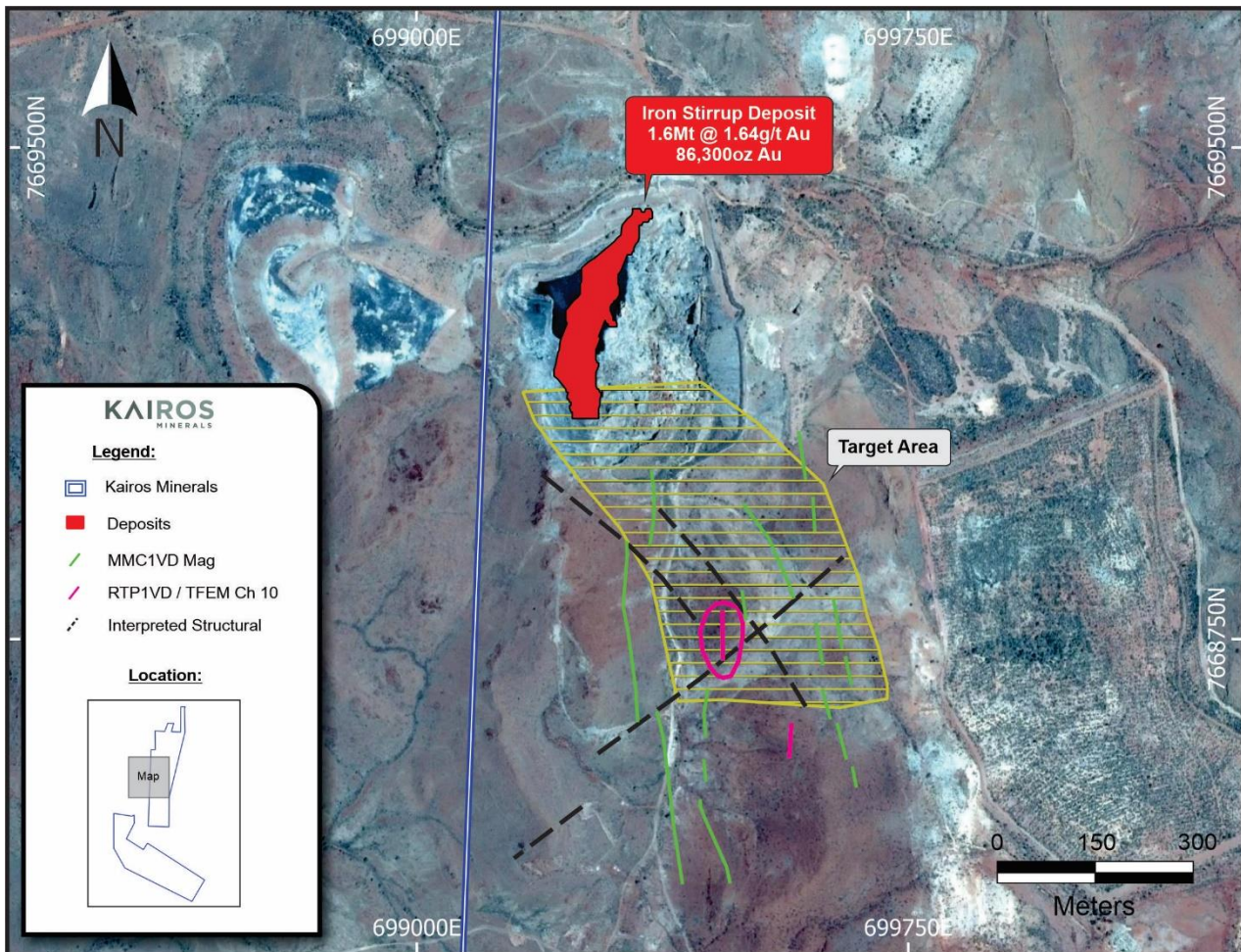


Figure 5: Iron Stirrup south-east extension target area and SAM survey results.

These Exploration Targets represent areas which have had minimal or ineffective historical drilling.

The current drill program, designed concurrently with the calculation of this Exploration Target, was considered a suitable program to convert the Exploration Target to an Inferred Resource if the results from the drilling are favourable.

New Targets from Geochemical Sampling Program

An assessment of the other areas within the Mt York Project area and outside of the current gold resources has returned a number of potential new targets for drill testing.

The combination of utilising modern exploration tools and leveraging off the extensive knowledge base built up for the Mount York Project in the past few years has opened up a significant opportunity to make new discoveries.

Kairos is currently undertaking a large geochemical sampling program and is planning further exploration to refine these target areas and prepare new drill targets.

Approximately 1,000 soil samples have been collected at the Mt York Project, covering the bottom-half of the project area (see Figure 6).

The program was conducted on a 100m line spacing and 50m sample spacing. The top-half of the project area will be sampled following completion of the current program.

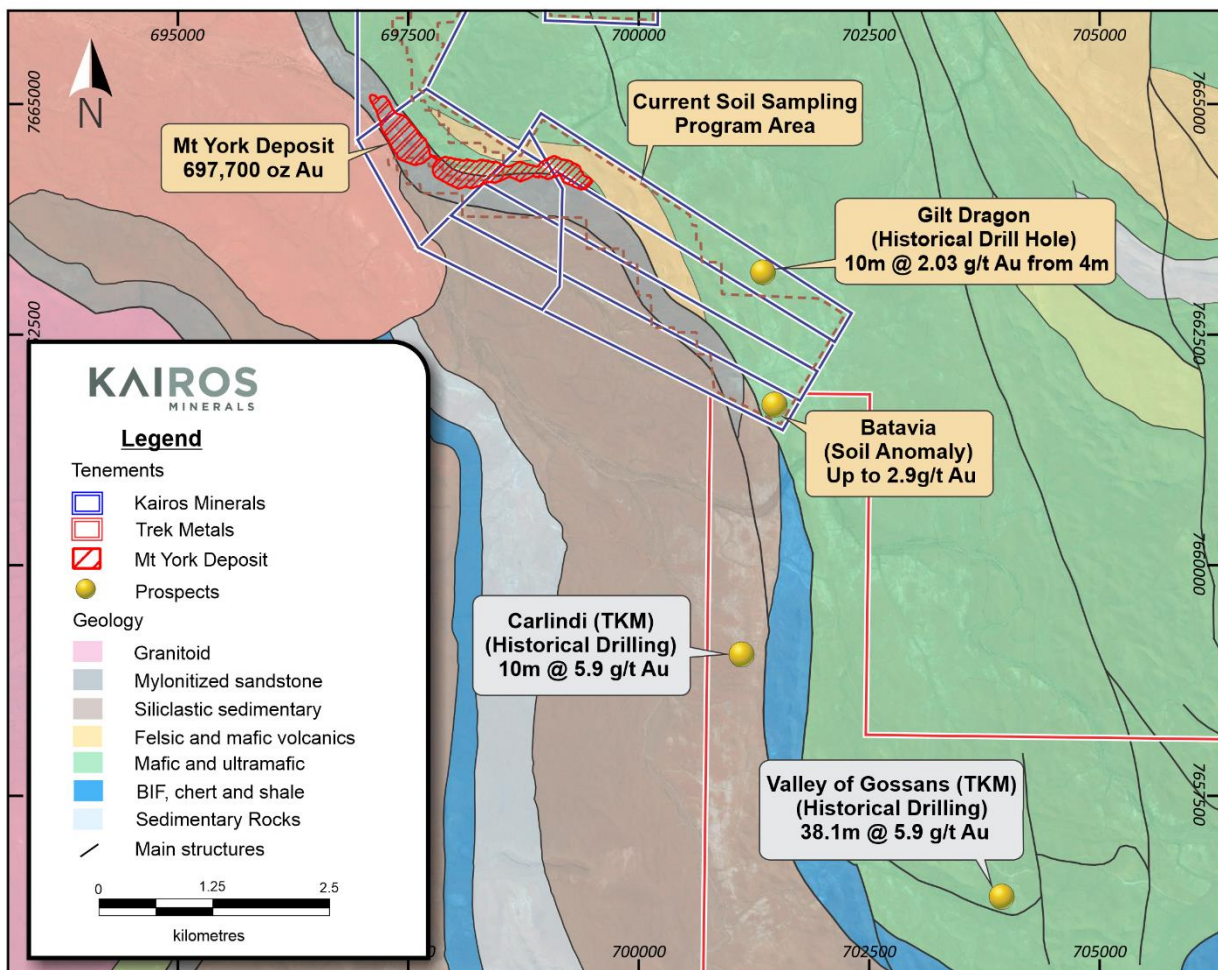


Figure 6: Area of the current soil geochemistry program.

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 and Altura Mining, which are both 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 873,000oz (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 high-grade gold, 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 1,547 square kilometres of tenure (granted and applications) which is highly prospective for gold 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.

With the authority of the Board.

For further information, please contact:

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COMPETENT PERSON STATEMENT:

Competent Person: The information in this report that relates to Exploration Targets 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.