

ASX ANNOUNCEMENT

29 September 2016

DRILLING COMMENCES AT KEY GOLD AND LITHIUM TARGETS AT MT YORK PROJECT, WA

Initial focus is to evaluate extensions of two key Gold deposits

<u>Highlights:</u>

- Extensive drilling programme underway focusing on exceptional Gold and Lithium-Tantalum targets.
- Phase 1 will evaluate extensions to the Old Faithful and Iron Stirrup gold deposits combined JORC 2012 gold resource of 135,000oz.
- JORC 2012 upgrade for Main Hill and Breccia Hill deposits in progress.
- Kairos well-funded following recent successful ~\$4.7m capital raising.

Kairos Minerals Ltd (ASX: KAI) is pleased to advise that it has commenced an extensive drilling program at its 100 per cent-owned Mt York Lithium-Gold Project in the Pilbara region of WA.

The drilling program will focus initially on testing extensions to known Gold deposits before moving on to test numerous Lithium-Tantalum targets.

The commencement of the program follows an extensive geological, geophysical and geochemical evaluation of the Mt York Project in 2016 by the Kairos technical team in collaboration with the Company's key geoscientific consultants.

The results of this work have identified potential major extensions to the Old Faithful, Iron Stirrup, Main Hill, Breccia Hill and Zakanaka South Gold deposits (see Figure 1).

In addition, several extensive, previously unrecognised and unexplored gold and lithiumtantalum-bearing anomalous trends have been defined as high priority drill targets.

Key targets to be tested over the coming months include:

- Interpreted major extensions at each of the known Gold deposits;
- Initial reconnaissance testing of several unexplored and highly anomalous Gold in soil trends extending over more than 10km of additional strike;



- Initial reconnaissance testing of several unexplored highly anomalous Lithium– Tantalum in soil trends; and
- The southern extension to the Pilgangoora LCT (lithium-caesium-tantalum) pegmatite corridor, which has been outlined as a well-defined, highly anomalous Lithium-Tantalum soil anomaly recognisable for over more than 2km of strike close to the Main Hill-Breccia Hill Gold deposits.



Figure 1 - Mt York Project Location, Tenements and Key Gold-Lithium-Tantalum Targets



Phase 1 Drilling Program

Kairos recently reported an Indicated and Inferred Mineral Resource estimate for the Iron Stirrup deposit of 714,000t grading 1.99g/t Au for 45,000oz of contained Gold and an Indicated and Inferred Mineral Resource estimate for the Old Faithful deposit of 2.069Mt grading 1.37g/t Au for 90,000oz of contained Gold (see ASX Announcement – 1 August 2016). These relatively shallow resources, total 135,000oz.

Table 1 – July 2016 Kairos Minerals JORC 2012 Mineral Resource Table for Iron Stirrup and Old Faithful Prospects (reported at a 0.5g/t cut-off)

Prospect	Material	Category	Tonnes (kt)	Au (g/t)	Ounces (koz)
Iron Stirrup	Fresh	Indicated	421	2.22	30
		Inferred	293	1.67	15
Old Faithful	Transitional	Indicated	325	1.18	12
		Inferred	327	1.37	14
	Fresh	Indicated	609	1.41	27
		Inferred	807	1.41	37
Total Indicated			1,355	1.61	69
Total Inferred			1,427	1.45	66
Total Indicated + Inferred			2,782	1.53	135

Phase 1 of the new drilling programme is designed to evaluate extensions to the Old Faithful and Iron Stirrup Gold deposits both at depth and along strike.



Figure 2 – Mt York, Drill Rig On Site



Figure 3 - Mt York Project Location, Tenements and Key Gold Deposits & Soil Anomalies

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Old Faithful

The Old Faithful Gold deposit is located toward the northern boundary of the Mt York Project tenure. It is one of five key deposits contributing to the maiden JORC 2012 compliant Gold Resource recently reported for the Project by Kairos (see ASX Announcement – 1 August 2016).

Old Faithful is an unmined resource extending from surface to a maximum drilled depth of about 120m. It remains open at depth and along strike to the north and south. Gold mineralisation at Old Faithful is hosted mainly in or adjacent to talc-chlorite-carbonate altered ultramafics. These are interpreted as strongly folded metamorphosed ultramafic volcanic units within interflow sediments and cherts.

The main structural control is a strongly asymmetric synform with a steeply east-dipping east limb and a west limb which, in the central area, dips gently east but in the northern and southern area, dips more steeply. The mineralisation shows a gradual plunge to the north of 10 degrees. In Area C the primary mineralisation is thrust downwards (inferred faults) another 20-30m before continuing its gradual plunge of 10 degrees to the north.

Secondary mineralisation occurs below the primary mineralisation as a number of flanking gently to steeply dipping moderate grade lenses and as a series of east dipping en-echelon shears within the talc-carbonate-chlorite-schist.

The potential for significant extensions to occur beyond the current drill limits at Old Faithful is considered to be high.



Figure 4- Mt York Project, Old Faithful Deposit



Iron Stirrup

The Iron Stirrup Gold deposit is centrally located within Kairos' Mt York Project tenure. The deposit was the flagship of the Lynas Find Project (Lynas Exploration) mined via open pit methods during the period 1994 to 1998 to a maximum depth of about 100 vertical metres.

The pit was abandoned prematurely due to a failure of the eastern pit wall during a protracted period of historically low gold prices.

Gold mineralisation is contained within the regionally recognised and locally important "Lynas Shear Zone", a well foliated talc-carbonate-magnetite-serpentinite rock with associated pyrite and pyrrhotite. Gold is generally evenly distributed throughout the defined mineralised zone, and mineralised studies suggest a relatively fine-grained particle size distribution.

The mineralisation is well defined striking N-S and dipping steeply west at about 70-80 degrees. It extends to a vertically drilled depth of at least 150m and remains open at depth over most of the plus 500 metre indicated strike length. The potential to identify significant extensions to the Iron Stirrup deposit is considered to be high.









Figure 6 – Mt York Project, Iron Stirrup Deposit

Management Comment

Kairos' Managing Director, Joshua Wellisch, said the Company was delighted to announce the start of its maiden drill program at Mt York, marking the culmination of months of diligent preparatory work by its technical team.

"This is the start of a very busy and exciting time for Kairos as we begin to test some of the many Gold and Lithium-Tantalum targets we have identified in recent months," he said.

"Our approach has always been to apply a strong, methodical and multi-disciplinary approach – and we now believe we have worked up an impressive suite of targets which will be systematically tested over the coming months.

"We have identified clear potential to grow our existing Gold inventory by extending the known deposits at Old Faithful and Iron Stirrup, and that will be the initial focus of our drilling. We will then move on to test some of our attractive Lithium-Tantalum targets, before returning to target extensions of the other advanced Gold deposits.

"In parallel, work is continuing to complete the JORC 2012 resource upgrades for the Main Hill and Breccia Hill Gold deposits, and we look forward to announcing the results of that work in the near future."



"This marks the start of a period of significant activity and strong news-flow for Kairos on a number of fronts as we ramp up exploration at Mt York and prepare to start drilling at the Roe Hills Gold Project," he added.

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For further information, please contact:

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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 Steve Vallance, who is a the Technical Manager for Kairos Minerals Ltd and who is a Member of The Australian Institute of Geoscientists. Mr Vallance has sufficient experience which is relevant to the style of mineralisation and type of deposits 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.' (the JORC Code 2012). Mr Vallance has consented to the inclusion in the report of the matters based on his 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.

Contributing Technical Team: Dr Nigel Brand Mr Neil Hutchison Mr Adrian Black Mr Ian Finch Mr Brian Naylor

Reference	ASX Announcement		
1	Pilbara Minerals Limited (ASX: PLS) March Quarterly Report 2016		
2	Altura Mining Limited (ASX: AJM) March Quarterly Report 2016		