

22 December 2022

### LCT pegmatites with up to 2,143 ppm Ta confirmed at Lucky Sump

Re-evaluation of soil data reveals multiple lithium targets 1km east of Pilganagoora mine; Systematic mapping planned for pegmatites in 2023

#### <u>Highlights</u>

- Results for all 18 RC holes drilled for 2,613m in September at Lucky Sump
- Lucky Sump Prospect is considered prospective for Lithium-Caesium-Tantalum or LCT pegmatites and gold mineralisation
- Best result of 7m @ 605 ppm Ta, 146 ppm Li, 81 ppm Cs from 49m including 1m @ 2,143 ppm Ta from 53m (KMYC216) in pegmatites below the Lucky Sump prospect where surface spodumene-bearing pegmatites grading up to 1.91% Li<sub>2</sub>O reported<sup>1</sup>
- The results suggest that Lucky Sump comprises highly-fractionated LCT pegmatites with internal mineralogical zonation additional drill holes completed either side of Lucky Sump were successful in tracing pegmatite extensions
- Up to four new, previously unknown gold zones discovered at Lucky Sump including 12m @ 0.46 g/t Au from 140m (KMYC226) require follow-up

Kairos Managing Director, Dr Peter Turner said: **"The Lucky Sump drill results have shown extremely enriched values of tantalum over 7m in drill hole KMYC216 that was targeting surface spodumene (lithium) pegmatites grading up to 1.91% Li<sub>2</sub>O<sup>1</sup>.** 

"We have mapped more pegmatites north-west of Lucky Sump at our Zakanaka Prospect within the fertile LCT-pegmatite zone and will continue to map the northern licence around our Iron Stirrup pit where significant lithium soil anomalies occur 1 km to the east of Pilbara Minerals' Pilgangoora pits.

"While we continue to do the necessary fieldwork at Mt York for lithium, we are also driving forward with lithium exploration at our Roe Hills Project, 100km east of Kalgoorlie in a developing lithium district hosting the significant Manna Li-Ta deposit.

<sup>&</sup>lt;sup>1</sup> See KAI press announcement dated 1 August 2022 entitled 'High-grade lithium assays confirm significance of spodumenebearing pegmatite'



"Kairos has begun extensional and infill deep soil sampling over our Roe Hills North area close to the Manna Li-Ta deposit bordering the Cardunia syenogranite and infilling our numerous surface lithium anomalies including our significant 2,600m long Li-Cs-Be Black Cat anomaly where drilling is expected in H1, 2023".

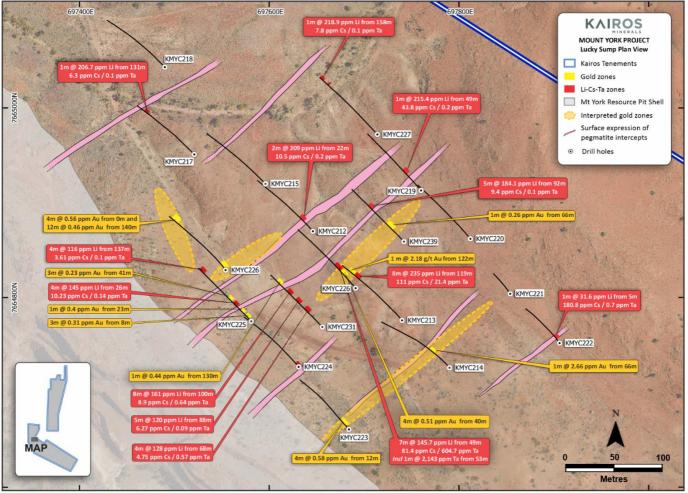
Kairos Minerals Ltd (ASX: KAI) is pleased to advise that it has received multi-element results for all 18 drill holes from its Lucky Sump RC drilling at the 100%-owned Mt York Project in the Pilbara (**Table 1**).

The drilling results from these eighteen holes indicate very high tantalum values in the thickest intersected pegmatite in hole KMYC216 immediately under Lucky Sump where spodumene-bearing pegmatite samples grading up to 1.91% Li<sub>2</sub>O were previously sampled and reported<sup>1</sup> from surface.

The tantalum values were extraordinarily high (**Figure 1**). The best result was **7m @ 605 ppm Ta from 49m** including **1m @ 2,143 ppm Ta** from 53m in KMYC216 with corresponding lithium values of 7m @ 146 ppm Li (0.03% Li<sub>2</sub>O). KMYC216 was drilled below Lucky Sump where the discovery was made of five surface rock chip samples that returned values of 1.91%, 1.56%, 0.58%, 0.16% and 0.04% Li<sub>2</sub>O<sup>1</sup>. The relatively low lithium values in KMYC216 can be explained by internal zonation within the LCT pegmatite(s) that have been intersected at depth.

Further pegmatites have been mapped northwest of Lucky Sump towards Zakanaka and the northern licence will be mapped in the 2023 field season where the re-processed soil geochemistry shows a number of high-priority lithium targets which may correspond to spodumene-bearing pegmatites only 1km to the east of the Pilgangoora Lithium Mine (**see Figure 2**). Drill-testing of any new pegmatites is envisaged at the end of H1, 2023.

Interestingly, several significant gold values (**1m @ 2.18 g/t Au** from 122m in KMYC213; **1m @ 2.66 g/t Au** from 66m in KMYC214 & **12m @ 0.46 g/t Au** from 140m in KMYC226) (see **Table 2**) were reported adjacent to pegmatites raising the possibility that Lucky Sump is not only prospective for Lithium-Caesium-Tantalum (LCT) pegmatites but also gold in extensional zones close to the Mt York Gold Project that is close by (**Figure 1**).



**Figure 1.** Lucky Sump best drill results on a plan map showing lithium-tantalum and gold intercepts from all 18 RC drill holes.

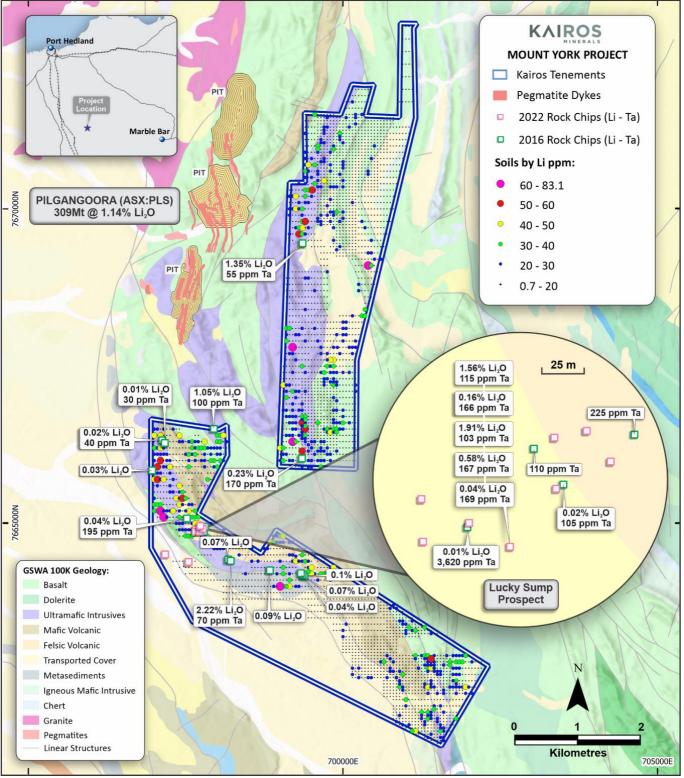
A full set of results for lithium, caesium and tantalum can be found in **Table 1** and for gold in **Table 2**.

Hole ID	Easting	Northing	RL	Azi	Dip	Total Depth (m)	From (m)	To (m)	Interval	Li (ppm)	Cs (ppm)	Ta (ppm)	Comment
KMYC212	697646	7664870	184	315	-60	154	22	24	2	209	10.5	0.2	Partially weathered aplite
KMYC213	697740	7664776	184	315	-60	154	119	127	8	235	111	21.4	Pegmatite chips 120-122m
KMYC214	697790	7664726	183	315	-60	150							No Significant Li-Cs-Ta
KMYC215	697596	7664920	183	315	-60	154							No Significant Li-Cs-Ta
KMYC216	697691	7664810	184	315	-60	154	49	56	7	145.7	81.4	604.7	Coarse feldspar pegmatite
including							53	54	1	64.3	15.9	2,143	
KMYC217	697521	7664951	181	315	-60	154	131	132	1	206.7	6.3	0.1	Minor pegmatite chips
KMYC218	697490	7665043	180	315	-60	154							No Significant Li-Cs-Ta
KMYC219	697760	7664913	190	315	-60	154	49	50	1	215.4	43.8	0.2	
КМҮС220	697812	7664862	194	315	-60	154							No Significant Li-Cs-Ta
KMYC221	697854	7664804	192	315	-60	55							No Significant Li-Cs-Ta
КМҮС222	697906	7664752	190	315	-60	98	5	6	1	31.6	180.8	0.7	
KMYC223	697684	7664661	191	315	-60	148							No Significant Li-Cs-Ta
KMYC224	697631	7664727	193	315	-60	154							No Significant Li-Cs-Ta
KMYC225	697581	7664775	194	315	-60	154	26	30	4	145	10.23	0.14	
and	697581	7664775	194	315	-60	154	137	141	4	116	3.61	0.1	
KMYC226	697554	7664829	196	315	-60	154							No Significant Li-Cs-Ta
KMYC227	697714	7664972	186	315	-60	160	158	159	1	218.9	7.8	0.1	Possible thin pegmatite
KMYC231	697656	7664769	183	315	-60	154	68	72	4	128	4.75	0.57	
and	697656	7664769	183	315	-60	154	88	93	5	120	6.27	0.09	
and	697656	7664769	183	315	-60	154	100	108	8	161	8.9	0.64	
КМҮС239	697742	7664859	187	315	-60	154	92	97	5	184.1	9.4	0.1	No pegmatites

**Table 1**. Results for **lithium**, **caesium & tantalum** for all 18 drill holes at Lucky Sump targeting spodumene pegmatites. See **Figure 1** for drill hole locations and results. **Grey shading** denotes no significant results for Li, Cs or Ta. Li, Cs, Ta results above 100, 100 and 100 ppm respectively are considered anomalous and reported here.

Hole ID	Easting	Northing	RL	Azi	Dip	Total Depth (m)	From (m)	To (m)	Interval	Au (ppm)	Comment
KMYC212	697646	7664870	184	315	-60	154					No Significant Au values
KMYC213	697740	7664776	184	315	-60	154	122	123	1	2.18	Sulphides in vein quartz
KMYC214	697790	7664726	183	315	-60	150	66	67	1	2.66	Quartz veing & trace pyrite
KMYC215	697596	7664920	183	315	-60	154					No Significant Au values
KMYC216	697691	7664810	184	315	-60	154	40	44	4	0.51	No quartz veing or sulphides
KMYC217	697521	7664951	181	315	-60	154					No Significant Au values
KMYC218	697490	7665043	180	315	-60	154					No Significant Au values
KMYC219	697760	7664913	190	315	-60	154					No Significant Au values
КМҮС220	697812	7664862	194	315	-60	154					No Significant Au values
KMYC221	697854	7664804	192	315	-60	55					No Significant Au values
KMYC222	697906	7664752	190	315	-60	98					No Significant Au values
KMYC223	697684	7664661	191	315	-60	148	12	16	4	0.58	Biotite & Silica alteration
KMYC224	697631	7664727	193	315	-60	154					No Significant Au values
KMYC225	697581	7664775	194	315	-60	154	8	11	3	0.31	
and							23	24	1	0.4	
and							32	33	1	0.22	
and							35	36	1	0.38	
and							41	44	3	0.23	
KMYC226	697554	7664829	196	315	-60	154	0	4	4	0.56	No quartz veing or sulphides
and							140	152	12	0.46	Silica alteration/quartz veining
KMYC227	697714	7664972	186	315	-60	160					No Significant Au values
KMYC231	697656	7664769	183	315	-60	154	130	131	1	0.44	
КМҮС239	697742	7664859	187	315	-60	154	66	67	1	0.26	Pegmatite logged

**Table 2**. Results for **gold** for all 18 drill holes at Lucky Sump targeting alteration, sulphidic and/or silicified rocks associated with potentially gold bearing zones. See **Figure 1** for drill hole locations and results. **Grey shading** denotes no significant results for gold. Au results above 0.2 ppm Au are considered anomalous and reported here.



**Figure 2**. Lithium soil sample results from Kairos 2021 regional sampling program that were previously released for gold only (see release dated 24 September 2021). Rock chip sample results for Lucky Sump (inset) were previously reported to the ASX on 01 August 2022. Regional rock chip sample results were previously reported to the ASX on 07 June 2017.

Kairos has selected intervals for multi-element analysis including lithium and associated elements plus gold and has selected other single metre or 4m-composite intervals for gold



only (no multi-elements). The rationale behind this is that there is the possibility of drilling rare metal pegmatites that may contain lithium, tantalum and other valuable elements and also the possibility of drilling gold zones that may be characterised by high sulphide contents, alteration minerals and/or quartz veing as Lucky Sump is so close to the Mt York Gold Project. For both targets (lithium + associated; gold) different sample intervals are likely to be selected. **Table 3** highlights lithological observations that may be relevant to lithium and gold mineralisation for each hole. **Table 3** shows the sample intervals selected for the multi-element analysis plus gold and **Table 4** shows the intervals selected for gold analysis.

	Lithium, Caesium-Tantalum		Gold & Associate		
HoleID	Visible Pegmatites (from-to) (m)	Pegmatite Interval (m)	Sulphides (from-to) (m)	Sulphide Interval (m)	Comments
KMYC212	6-7	1	21-23, 65-66, 72-73, 113-117	2, 1, 1, 4	Aplite, partially weathered 6-7m. 40-50% pyrite 21-23m
KMYC213	120-122	2	35-38, 79-80, 111-112, 121-124	3, 1, 1, 3	Quartz vein with disseminated pyrite. Pegmatite chips 121-122m
KMYC214	48-50	2	34-37, 58-59, 64-67, 74-75	3, 2, 3, 1	Thin feldspar pegmatite. Logged as vein. Resubmitted for Li assay
KMYC215	-	-	-	-	No significant intervals noted, not sampled
KMYC216	51-56	5	88-90	2	Coarse quartz-feldspar pegmatite 51-56m
KMYC217	132-133	1	63-64, 133-135	1, 2	Some chips of pegmatite
KMYC218	-	-	115-116	1	Minor quartz veining with pyrite
KMYC219	-	-	10-12, 49-50	2, 1	Minor pyrite in mafic
KMYC220	-	-	89-92	3	Disseminated pyrite in silicified mafic.
KMYC221	-	-	49-50	1	Silicified mafic into felsic rocks 30-55m
KMYC222	-	-	38-39, 44-45, 94-95	1, 1, 1	Trace disseminated pyrite - arsenopyrite in rhyolite felsics
KMYC223	-	-	27-50	23	Trace disseminated pyrite, biotite alteration
KMYC224	4-5	1	21-28	7	Thin aplite 4-5m. Quartz veining with disseminated pyrite
KMYC225	31-33, 64-65	2, 1	15-16, 36-37, 91-92, 139-140	1, 1, 1, 1	Potential thin pegmatite at 64m. Aplite from 31-33m
KMYC226	-	-	44-45	1	Minor quartz veining with pyrite
KMYC227	154-155	1			Potential thin pegmatite
KMYC231*	-	-	40-43, 69-70, 91-92, 99-100, 104-105, 132-143	3, 1, 1, 1, 1, 11	Quartz veining with disseminated pyrite
KMYC239*	30-33, 64-69, 86-87	3, 5, 1	56-58	2	Quartz-felspar pegmatites with minor mafic

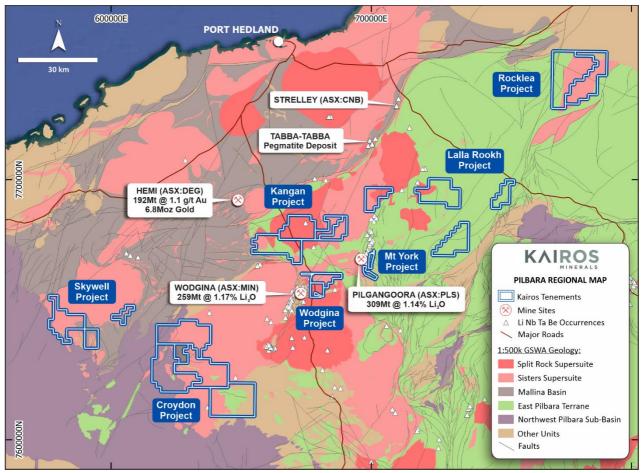
\*Infill drilling

**Table 3.** Summary lithological observations relevant to pegmatite occurrences and/or possible gold occurrences from drill hole logs in the Lucky Sump drilling. The lithological and alteration observations drive the sampling protocol for both lithium & associated and gold. Intervals for 4m-composites for gold are not shown.



#### Next Steps

- Mapping of pegmatites at lithium soil anomalies in northernmost licence, Mt York
- Reporting of new results for gold for extensional resource drilling at Mt York
- Deep soil sampling at Roe Hills lithium project 100 km east of Kalgoorlie
- Heritage agreement negotiations at Roe Hills to allow RC drilling of lithium targets



**Figure 3**. Kairos' Gold & Lithium Projects over the central Pilbara regional geology showing the position of the Mt York Project and nearby Pilgangoora Lithium-Tantalum mine.

#### About Kairos Minerals

Kairos Minerals (ASX:KAI) owns 100% of the flagship 1.1 Mozs **Mt York Gold Project** that was partially mined by Lynas Gold NL between 1994 and 1998. Pre-feasibility work is progressing rapidly underpinned by a +20,000m diamond and RC drilling campaign to collect important information for further resource expansion, metallurgical testwork, mining and process engineering to determine viability and optimal pathway to develop a sustainable, long-lived mining project. Current resources at a 0.7 g/t Au cutoff grade are shown in the table below.

	Indicated			Inferred			Total		
Deposit	Tonnes	Au	Ounces	Tonnes	Au	Ounces	Tonnes	Au	Ounces
	(MT)	(g/t)	(kozs)	(MT)	(g/t)	(kozs)	(MT)	(g/t)	(kozs)
Main Trend	11.02	1.26	446	12.26	1.15	452	23.27	1.20	899
Iron Stirrup	1.18	1.81	69	0.63	1.66	34	1.81	1.76	102
Old Faithful	1.73	1.19	66	1.19	0.96	38	2.93	1.1	103
Total	13.93	1.30	581	14.08	1.15	523	28.01	1.23	1,104

Kairos has recently discovered spodumene-bearing pegmatites adjacent to the Mt York Gold Project and is evaluating their potential to become part of a value-adding lithium project into the future.

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 exploration work has confirmed the potential for significant discoveries of high-grade gold, nickel and cobalt mineralization. Kaiors has also discovered a 2,400m long Li-Cs-Rb soil anomaly in an exciting and emerging lithium province that will be drill-tested.

This announcement has been authorised for release by the Board.

Peter Turner	Zane Lewis
Managing Director	Non Executive Director

#### For Investor Information please contact:

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#### **COMPETENT PERSON STATEMENT:**

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled and reviewed by Mr Eduardo Ruaro, who is a consultant to Kairos Minerals Ltd and who is also a Member of the Australian Institute of Geoscientists (AIG). Mr Ruaro 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 Ruaro 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 Mineral Resources were first reported in the announcement date 30 August 2022 (Announcement). The Company confirms that it is not aware of any new information or data that materially affects the information included in the Announcement and, in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

## KAIROS

### Appendix A - JORC Code, 2012 Edition – Table 1

#### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse Circulation Drilling - Intertek Genalysis Laboratory:</li> <li>Samples from RC drilling were split on a single metre sample interval at the rig cyclone.</li> <li>Four types of sample categories were selected based on 1) gold analysis on individual 1m intervals to test gold values; 2) gold analysis on 4m-composites that are considered mineralised with gold; 3) multi- element analysis on individual 1m samples that are prospective or lithium-caesium- tantalum (LCT) mineralisation and 4) general multi-element analysis of selected 1m intervals for lith-geochemical characterisation of the host-rocks.</li> <li>All samples were bagged and delivered by Kairos personnel to RGR Road Haulage in Port Hedland for transport to Intertek Genalysis Laboratory in Perth WA for final analysis.</li> <li>All composite and split samples from RC drilling are submitted for Four Acid digest with a 50g Fire-Assay for Gold (FA-50/ICP- OES).</li> <li>Specific zones of interest with regards to Lithium were selected for further analysis by Four Acid digest with Lithium focused ICP/MS for Lithium analysis (4A-Li/MS48)</li> <li>For general multi-element analysis, four acid digest with ICP/MS finish (4A-MS48) was selected because it is considered to be a near-complete dissolution of all minerals</li> <li>Soil Sampling - Mt York Regional Results</li> <li>Lithium values in 2,541 soil samples shown on Figure 2 are from a sampling programme undertaken in 2021 and reported to the ASX for gold on 24 September 2021. The reader is referred to that ASX announcement for further information on the sample treatment and analysis.</li> <li>Of relevance is that the 2,541 samples were collected on a 100m x 50m grid over most of the Mt York tenements, sieved to -80 mesh</li> </ul>

Criteria	JORC Code explanation	Commentary
		and submitted to the Intertek Genalysis Laboratory for multi-element analysis using Aqua Regia digest followed by Inductively Coupled Mass Spectrometry (ICPMS) finish for lithium and associated elements.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	<ul> <li>Reverse Circulation drilling was carried out by Orlando Drilling, initially using a track- mounted rig, transitioning to a truck- mounted rig for the remainder of the programme. RC samples are recovered from the on-rig cyclone as pulverised rock powder and rock chip samples.</li> <li>All the holes are surveyed by the drilling supervisor/senior driller at regular intervals downhole, approximately 5 metres, using a Reflex Sprint IQ Gyroscope survey instrument</li> </ul>
Drill sample recovery	<ul> <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> <li>RC samples were logged in detail on-site by supervising geologists and recorded in the Company's database.</li> <li>Overall recoveries were excellent and there were no significant sample recovery problems.</li> <li>Sample depths are continually checked against the rod string depth during the drilling process by the senior driller.</li> </ul>
Logging	<ul> <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> <li>Detailed geological logging of the entirety of each hole by Kairos geologists was carried out on the RC chips and recorded as a qualitative description of colour, lithological type, grain size, structures, minerals, alteration, and various other features.</li> <li>Representative material was sieved and collected as 1m individual samples in number-coded plastic chip trays and stored securely on-site and subsequently transferred to the Company's site storage facility in Perth for future reference.</li> <li>Lithology description is also cross-checked, applying ioGas geochemical analysis over the multi-element data received from the laboratory against the logged geology.</li> <li>Photography of chips trays is routinely done for future reference.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and</li> </ul>	<ul> <li>Most RC samples were dry due to the use of an on-rig auxillary air-compressor. Minor water ingress occurred during rod/bit changes however samples were generally dry once active drilling recommenced, any</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>change to moisture levels of sample was noted in sample register.</li> <li>Samples were collected at 1m intervals via on-board cyclone with attached cone splitter then laid out on the ground in the case of RC work collected in large, numbered calico bags. Bulk samples were collected in green plastic bags.</li> <li>Sample quality was ensured by monitoring sample volume and by regularly cleaning the rig cyclone &amp; sample splitters (RC).</li> <li>Sampling sheets were prepared and checked by Kairos' site geologists and field technicians to ensure correct sample representation.</li> <li>For RC drilling, QAQC samples are included at the following ratios:</li> </ul>
		<ul> <li>1:42 Certified Reference Material (Standards)</li> <li>1:49 Certified Blanks (Blanks)</li> <li>1:125 Duplicate Samples</li> <li>This resulted in a total QA/QC density of 5.23% of total samples (1:19).</li> <li>The QAQC sample results are routinely analysed and compared with the certified values and/or original sample to provide an assessment of the accuracy and precision of</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Selected RC drilling samples are submitted to Intertek Genalysis laboratory in Perth for fire assay of a 50g charge, followed by ICPOES finish with code FA50/OE04 and quoted detection limit 0.005ppm Au (5 ppb Au)</li> <li>Fire Assay is an industry-standard for gold, and it is considered appropriate.</li> <li>Select intervals are submitted for four acid digest and multi-element analysis by Inductively Coupled Mass Spectrometry (ICP- MS) using code 4A/MS48 or code 4A-Li/MS48.</li> <li>Certified Reference Materials (CRM or standards) are inserted at appropriate levels (see above) to assess the accuracy of the assay method and duplicate samples entered to assess sampling procedure and repeatability.</li> <li>No laboratory audits were undertaken.</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Primary data (geological) was collected using previously defined standard lithology codes and the information uploaded into Excel by the Supervising Geologist.</li> <li>No twin holes were drilled.</li> <li>All data is received and stored securely in digital format in the Company's database.</li> <li>Final data is rigorously interpreted by Kairos' geoscientific personnel.</li> <li>All RC holes were surveyed down-hole with north-seeking gyroscopic survey instruments by the supervising/senior driller.</li> </ul>
Location of data points	<ul> <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> <li>All location data are in MGA94 Zone 50 (GDA94).</li> <li>Kairos collars surveyed initially by handheld GPS with an accuracy of +/- 5m.</li> <li>Final collars were surveyed by an external survey contractor using Trimble R10 RKT, Differential GPS (DGPS).</li> <li>Accuracy for DGPS survey given as +/-20mm in the horizontal and +/- in the vertical.</li> </ul>
Data spacing and distribution	<ul> <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> <li>Minimum sample spacing for assay samples is 1m and maximum composite sample spacing is 4m.</li> <li>In RC drilling at Mount York Project, the hole spacing varies according to the target and geological setting along section lines.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <li>RC holes in this phase of drilling were drilled at -60° planned dip and 315° planned azimuth to provide true width intersections of the targeted horizon in a top to bottom pattern, ensuring full area coverage. Downhole surveys were routinely checked against planned dip and azimuth.</li> <li>Holes are designed to probe specific hypothesised horizon orientations at as close to perpendicular as possible, to provide approximate true width intercepts, and to assess true orientation of units.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>The sample chain of custody is managed by Kairos.</li> <li>All samples were collected in the field at the project site in number-coded calico bags and placed within secure labelled poly weave sacks by Kairos' geological and field</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>personnel.</li> <li>All samples were delivered directly to RGR Road Haulage in Port Hedland by Kairos personnel for secure transport to the allocated laboratory in Perth, for final analysis.</li> <li>The sample chain of custody is managed by Kairos.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No review or audits have been conducted

#### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The project comprises 12 Prospecting Licences P45/2987 - 2998 inclusive</li> <li>Kairos Minerals Limited owns 100% of the 12 Prospecting Licences that define the Mt York Gold Project through its wholly- owned subsidiary Mount York Operations Pty Ltd</li> <li>The project is located on Wallareenya and Strelley Pastoral Co Leases.</li> <li>Kairos is not aware of any existing impediments nor of any potential impediments which may impact ongoing exploration and development activities at the project site.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Significant past work has been carried out by other parties including open pit mining of previously defined gold resources.</li> <li>During the early to mid-1970's, the Lynas Find project area was part of a large area held and explored for volcanogenic base metal deposits, initially by McIntyre Mines Pty Ltd, and then by Esso Minerals. Esso completed some induced polarization and ground magnetic geophysical surveys, and some diamond drilling over the area including Main Trend.</li> <li>The Main Trend Gold Deposit was discovered by Carpentaria Exploration Company Pty Ltd in 1986. Lynas Gold NL acquired the project in the early 1990's and mined a number of deposits as a successful open pit operation by that company between 1994 – 1998. Other companies to have explored the area include Austamax, MIM and Trafford</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Resources.</li> <li>The Old Faithful area was initially drilled by AMAX with one hole to test geochemical high and small workings. Lynas followed up with several programs of RAB, RC and diamond drilling from 1987 through to 1996.</li> <li>Significant historical Au exploration including, surface geochemical sampling, airborne and ground electromagnetic geophysical surveys, RAB, AC, RC, and DD drilling. This is acknowledged in past ASX announcements and Company reports.</li> <li>No exploration drilling has been done for lithium over the exploration licences although some rock chip sampling near Zakanaka and Lucky Sump was completed and released to the market on 7 June 2016</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Regional Geology</li> <li>The Pilbara Gold Project lies within the Pilgangoora Greenstone Belt of the Archaean Pilbara Craton. The Pilbara Craton is composed of greenstone and sediment units which have been deformed by tight isoclinal folds during the intrusion of diapiric granites.</li> <li>The Pilgangoora Greenstone Belt is dominated by the Pilgangoora Syncline, which contains a sequence of steep dipping, inward younging volcano- sedimentary rocks belonging to the two lower groups of the Pilbara Supergroup, the Warrawoona, and Gorge Creek Groups.</li> <li>Local Geology</li> <li>The Lucky Sump and Main Trend geology comprises (from NE to SW) - Cherts, mafic- ultramafic volcanics, Grunneritic BIF, fine to coarse-grained sediments</li> <li>Lucky Sump Prospect occurs exclusively in the Chert and mafic-ultramafic volcanic domain with cross-cutting D3/D4(?) LCT pegmatites</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	• Tables 1, 2 & 3 contain all relevant information pertinent to the 18 drillholes completed at Lucky Sump

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Criteria	JORC Code explanation	Commentary
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <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>	<ul> <li>No top-cuts or low-cuts have been used for the drill results</li> <li>All intercept values are reported using industry best practice and include using simple averaging of grades over intercepts of the lengths.</li> <li>'Anomalous' grades used are ≥100, 100, 100 for Li, Cs, Ta respectively.</li> <li>Grades above 0.2 g/t Au are reported for gold intercepts</li> <li>All mineralised intervals have less than 2m of internal dilution (values lower than the 'anomalous' grades indicated</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <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 (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All intercepts reported are down-hole lengths and may not represent actual or true widths of mineralisation</li> <li>Drill holes were drilled -60° dip towards the northwest (azimuth 315°) to intercept what was interpreted to be pegmatites striking approximately 045° (NE-SW) and dipping moderately to the SE</li> <li>Pegmatite intervals and hence Li-Cs-Ta intercepts are interpreted to be close to true thickness</li> <li>Gold intercepts may not be true thicknesses – the orientation of gold mineralisation is not known as no structural information is available with RC drilling</li> </ul>
Diagrams	• 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.	Figure 1 includes all relevant drill     intersections at Lucky Sump
Balanced reporting	• 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.	All exploration results have been reported without grade cuts



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• 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.	<ul> <li>All relevant and meaningful geological observations have been reported in Table 3 including all lithological, alteration and mineralogical observations that may be associated with the style of mineralisation</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg 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> <li>Mapping of pegmatites will continue on the northern Mt York licence especially around zones of high lithium soil anomalies, in the pursuit of lithium- tantalum mineralisation</li> <li>The gold results reported here are considered new zones of mineralisation to the Mt York Gold Project and their assessment with regards a new mineral resource estimate will be considered once the results from a recent 11,039m RC and RC-DDH drilling programme at Mt York are received in Q1, 2023.</li> </ul>