

ASX ANNOUNCEMENT

30 July 2018

## **EXTENSIVE NEW PURDY'S REWARD-STYLE CONGLOMERATE GOLD NUGGET DISCOVERY IN THE PILBARA**

*Widespread visible gold and nuggets hosted in conglomerate identified in a new nugget patch extending over an area of 700m by 200m at the Croydon Project*

### **Highlights**

- 223 gold nuggets totalling 656g / 21.1 ounces of gold recovered from a newly identified area at the Croydon Project in the Pilbara region of WA.
- New area located 2.0 km south of the initial nugget patch discovered in 2018, (ASX Announcements, 13 September 2018, 20 November 2018 and 17 January 2019).
- The newly-discovered nuggets range in weight from 0.5g to 17g and display both flattened "watermelon seed" shapes with pitted texture as well as rounded and irregular forms.
- The new discovery is the first physical evidence of gold hosted in the conglomerate sequence on Kairos' tenements. The nugget patch is located adjacent to a large conglomerate unit.
- The new find is analogous to the basal conglomerate-bearing gold horizon discovered previously by Novo Resources Corp at the Purdy's Reward Project.
- The gold-bearing conglomerate horizon has an irregular shape and been mapped at surface over a strike length of 700m and width of approximately 200m the thickness of the conglomerate unit ranges from 1-5m.



**Plate 1 : Mapped conglomerate unit with metal detector strikes (yellow) Croydon Project**

Kairos' Executive Chairman, Terry Topping, said: "Our 2019 exploration field season in the Pilbara is off to a great start with our field team achieving a significant early breakthrough with the discovery of a large area of visible gold and nuggets hosted in conglomerate sequence. This is the first time that we have found intact gold nuggets hosted directly in rock on our tenements – a really exciting development.

"The gold-bearing conglomerate horizon is located in a valley which lies just 2.0km from the six nugget patches discovered last field season and extends over a strike length of approximately 700m and width 200m. The conglomerate horizon occurs at surface and is therefore easily accessible from the perspective of metal detecting and potential future sampling and trial mining.

"Importantly, the gold-bearing conglomerate appears to be directly analogous to the extensive gold-bearing horizon reported previously by Novo Resources Corp at its Purdy's Reward Project near Karratha – demonstrating just how widespread this style of gold mineralisation is in the Pilbara. Together with the results of previous stream sediment sampling and the extensive program of soil sampling currently underway, this has added significantly to our understanding of the scale of the exploration opportunity at the Croydon Project.

"We have so far identified multiple high-priority gold targets over 22km of strike, established access tracks to facilitate 4WD-assisted exploration and now discovered our seventh significant nugget patch – this time with gold hosted directly in the conglomerate sequence. Field exploration activities are continuing with sampling, mapping and metal detecting, and we are looking forward to reporting further results as they come to hand.

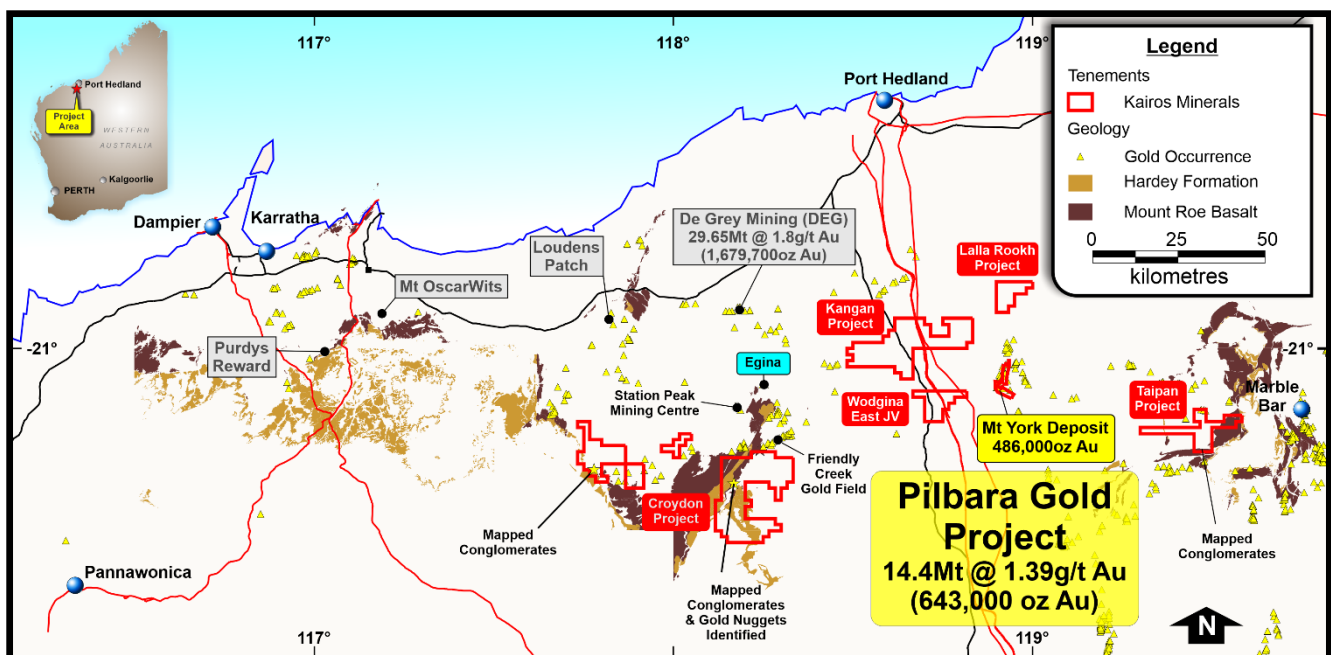


Figure 1: Croydon Project With Regional Geology.

Kairos Minerals Ltd (ASX: KAI; "Kairos" or "the Company") is pleased to advise that it has made a strong start to the 2019 exploration field season its 100%-owned **Pilbara Gold Project in WA** with the discovery of an extensive area of conglomerate-hosted gold nuggets and visible gold during ground-based exploration activities at the Croydon Project.

The Croydon Project is located within the central part of Kairos' Pilbara Gold Project (Figure 1), ~100km to the west of the Mt York Gold-Project.

The new discovery represents a significant advance in Kairos' conglomerate exploration program in the Pilbara. It is the first time the Company has encountered intact gold nuggets hosted directly in a conglomerate unit and is considered to be directly analogous to the Purdy's Reward discovery near Karratha which first sparked interest in conglomerate-hosted gold in the Pilbara.



## New Nugget Patch Discovery

Field exploration commenced at the Croydon Project in May to follow up the outstanding results generated by recent stream sediment programs and the six nugget patches discovered last year.

The Company has upgraded 20km of existing access tracks and also constructed 5km of new 4WD access tracks to facilitate ground-based exploration at the Croydon Project.

During recent ground-based soil sampling, metal detecting and mapping, the Company's exploration team has identified an extensive area of conglomerate-hosted gold nuggets and visible gold.

During the mapping program, Kairos geologists have described a conglomerate unit outcropping approximately 700 meters long and 200 meters wide in the central part of the Croydon Project area (Figure 2). Three stream samples collected downstream from this conglomerate outcrop returned anomalous gold results, with sample 18WCST0123 returning the best result of 838 ppb of gold. It is estimated that this conglomerate unit has a thickness of up to 5 meters.

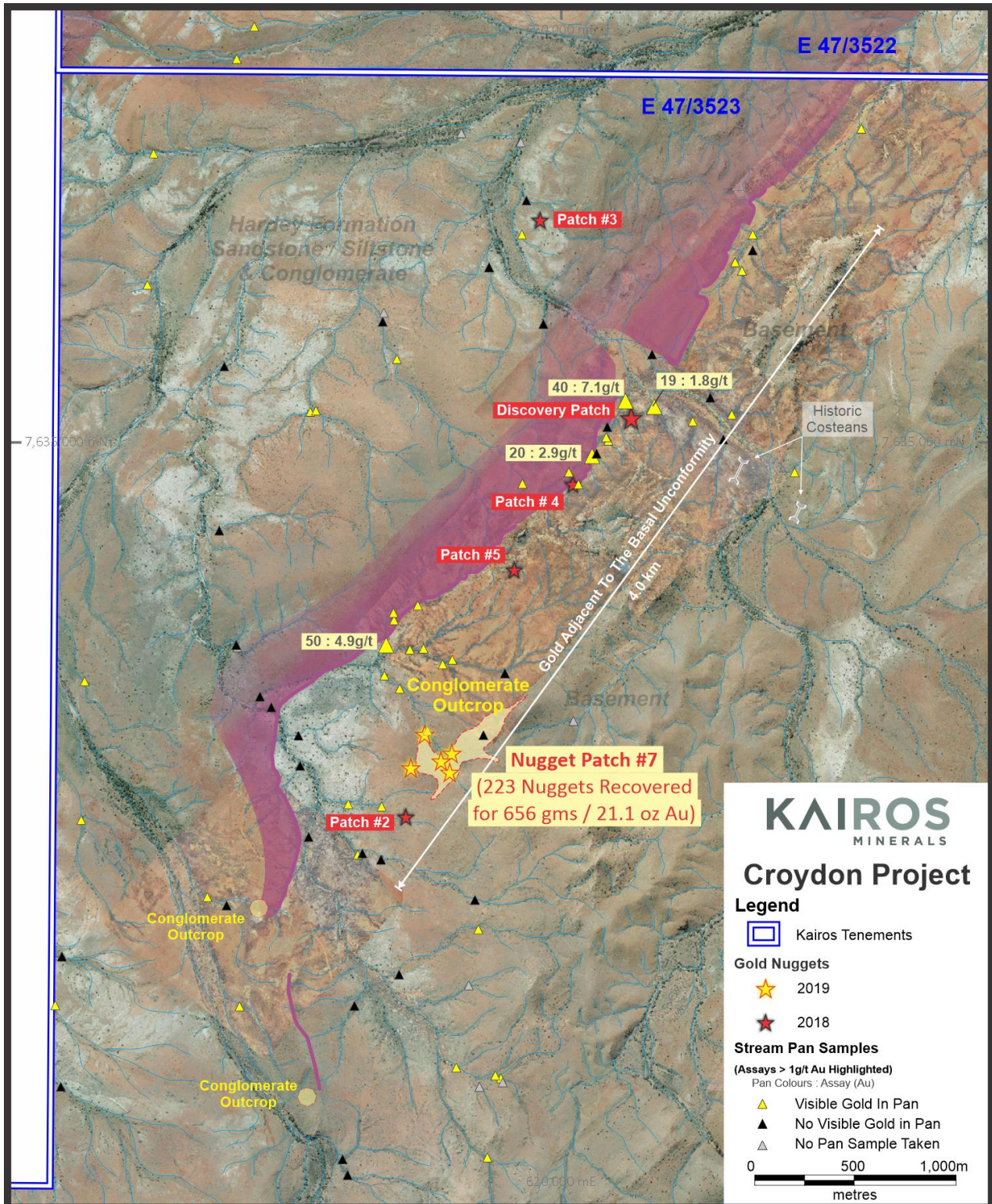
There is a granulometric variation of the clasts and matrix of the conglomerate. Coarse sandstone with rare angular clasts was also mapped at some parts of the unit. Polymictic conglomerate with sub-angular to sub-rounded clasts of mafic rock and quartzite, up to 20 cm in diameter, is the dominant lithology of this unit.

To date, a total of 223 nuggets have been recovered for 656/ 21.1 oz at the base of the conglomerate outcrop near the contact with the granitic rocks of the Archean basement. In addition, the metal detector is also indicating that there is gold in five different locations insitu. A more detailed mapping program is being conducted to define the mineralised horizon within the conglomerate unit.



**Plate 2: Outlier of conglomerate with nugget patch located through metal detecting**





**Figure 2 : Nugget Patch #7 Location**

**Next Steps**

- Additional mapping, stream sediment sampling and metal detecting (ongoing).
- Compile and evaluate assay results from major soil sampling programs.
- Evaluate optimum forward exploration pathways.

## **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 rapidly established a JORC Indicated 6.84Mt at 1.3 g/t for 285,000oz and Inferred 7.53Mt at 1.47 g/t for 358,000oz for a Total Mineral Resource of 14.4Mt @ 1.39g/t Au for 643,000oz (ASX announcement, 23 April 2018) by re-evaluating the previously known resources from the historical Lynas Find gold project, which produced over 125,000oz of gold between 1994 and 1998 and by executing highly focussed, cost effective exploration in its own right.

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 1,158 square kilometres of tenure which is highly prospective for conglomerate-hosted gold discoveries. The Company's portfolio includes ~100 strike kilometres of prospective lower Fortescue Group rocks including both the base of the Hardey Formation and the basal sequence of the Mount Roe Basalt. Major exploration programs are underway targeting these highly prospective stratigraphic horizons, which have been associated with a number of recent high-profile gold discoveries in the Pilbara.

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:**

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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.*



**Appendix 1 – Kairos Minerals – Croyden Project**  
**JORC Code, 2012 Edition – Table 1**  
**Section 1 Sampling Techniques and Data**

| Criteria                    | JORC Code explanation   | Commentary  |
|-----------------------------|---|---|
| Sampling techniques         | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Gold collected via metal detecting and panning.</li> <li>The gold samples remain to be tested for purity.</li> </ul>   |
| Drilling techniques         | <ul style="list-style-type: none"> <li>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).</li> </ul>   | <ul style="list-style-type: none"> <li>No drilling has been undertaken.</li> </ul>  |
| Drill sample recovery       | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No drilling has been undertaken.</li> </ul>  |
| Logging                     | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The gold found is only qualitative and must be interpreted in combination with geological mapping of the target area based on a prospective geological unit being mapped in the vicinity.</li> </ul> |
| Sub-sampling techniques and | <ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>   | <ul style="list-style-type: none"> <li>The gold is not considered to be representative as it was found in loose soil</li> </ul>   |

| Criteria                                   | JORC Code explanation  | Commentary   |
|--|--|--|
| sample preparation                         | <ul style="list-style-type: none"> <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 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 style="list-style-type: none"> <li>and colluvium near the prospective geological units. The geological units remain to be sampled in detail.</li> <li>The proximity of the gold near the prospective geological units is a positive indication the prospective units is the source of the gold.</li> </ul>   |
| Quality of assay data and laboratory tests | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Au_CN2000_MS: Twenty four hour Bulk Cyanide Leach (2kg sample). Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>AR_25: Aqua-Regia digest. Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>Repeats - LW400/MS and LW1000/MS: LeachWell for rockchips, 400g and 1000g.</li> <li>Repeats - Au_CN2000_MS: Twenty four hour Bulk Cyanide Leach (2kg sample). Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>AR_25: Aqua-Regia digest. Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> </ul> |
| Verification of sampling and assaying      | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Due to the early stage of exploration and type of work completed to date, no verification nor assaying has been undertaken to date.</li> </ul>  |
| Location of data points                    | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Sample collected were surveyed by GPS with an accuracy of +/- 5m.</li> <li>All samples are in MGA94 Zone 50 (GDA94).</li> <li>There are no historic workings or drill hole in the area.</li> </ul>  |
| Data spacing and distribution              | <ul style="list-style-type: none"> <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</li> </ul>  | <ul style="list-style-type: none"> <li>Due to the early stage of exploration and type of work completed to date, the sampling is non-systematic nor representative for any future resource estimate</li> </ul>   |

| Criteria   | JORC Code explanation  | Commentary   |
|--|--|--|
|  | <i>applied.</i>  |  |
| <i>Orientation of data in relation to geological structure</i> | <ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul> | <ul style="list-style-type: none"> <li>The sampling concentrated on areas below the mapped and interpreted conglomerates to test if the conglomerate horizons were mineralised.</li> </ul> |
| <i>Sample security</i>   | <ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>   | <ul style="list-style-type: none"> <li>All samples were collected in the field at the project site by Kairos personnel.</li> </ul>   |
| <i>Audits or reviews</i>                                       | <ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>   | <ul style="list-style-type: none"> <li>No audits have been completed</li> </ul>  |



## Section 2 Reporting of Exploration Results

| Criteria                                       | JORC Code explanation   | Commentary  |
|--|---|---|
| <b>Mineral tenement and land tenure status</b> | <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Kairos Minerals owns the Tenements 100%</li> <li>The Croyden Project has 5 Exploration Licences 47/3519 to 47/3523</li> <li>The Tenements have been granted</li> </ul> |
| <b>Exploration done by other parties</b>       | <ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>   | <ul style="list-style-type: none"> <li>No significant past work has been carried out by other parties.</li> </ul>   |
| <b>Geology</b>                                 | <ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>   | <ul style="list-style-type: none"> <li>The target is conglomerate hosted gold mineralisation.</li> </ul>  |
| <b>Drill hole Information</b>                  | <ul style="list-style-type: none"> <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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <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> </ul> </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> | <ul style="list-style-type: none"> <li>No drilling was completed.</li> </ul>  |

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
| <b>Data aggregation methods</b>   | <ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul> | <ul style="list-style-type: none"> <li>Due to the early stage of exploration and type of work completed to date, the sampling is non-systematic nor representative.</li> </ul> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>   | <ul style="list-style-type: none"> <li>No drilling was completed.</li> </ul>   |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li><i>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.</i></li> </ul>   | <ul style="list-style-type: none"> <li>Suitable summary plans have been included in the body of the report.</li> </ul>   |
| <b>Balanced reporting</b>   | <ul style="list-style-type: none"> <li><i>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</i></li> </ul>  | <ul style="list-style-type: none"> <li>All relevant results have been reported</li> </ul>  |
| <b>Other substantive</b>  | <ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including</i></li> </ul>  | <ul style="list-style-type: none"> <li>All relevant and meaningful data has been reported.</li> </ul>  |



| Criteria                | JORC Code explanation   | Commentary  |
|-------------------------|---|---|
| <b>exploration data</b> | <i>(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.</i>   |   |
| <b>Further work</b>     | <ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul> | <ul style="list-style-type: none"> <li>Further mapping, panning, metal detecting, geochemistry and rock chip sampling is planned</li> <li>Refer to diagrams in the body of the release</li> </ul> |