



1 July 2019

## MACAULEY CREEK PORPHYRY PROJECT TENEMENT GRANTED

#### IN THIS ANNOUNCEMENT

- The granting of EPM27124 the first of two EPM's comprising the MaCauley Creek Copper-Gold-Molybdenum Porphyry Project (located in Queensland)
- Brief description of the MaCauley Creek Project (with tier-1 porphyry potential)
- Brief description and assessment of past exploration at MaCauley Creek
- Brief explanation of porphyry deposits and a porphyry analogue for MaCauley Creek
- Planned exploration at MaCauley Creek
- Competent Person Statement, Key Words and ASX JORC 2012 Compliance Statements Appendix 1

#### HIGHLIGHTS

- EPM27124, one of two EPM's comprising the MaCauley Creek Copper-Gold-Molybdenum Porphyry Projects (MaCauley Creek or the Project) is granted
- MaCauley Creek occurs in the Townsville-Mornington Island Porphyry Belt in Queensland
- Past exploration review reveals historic mining activity at MaCauley Creek:
  - Small scale mining in 1900's focussed on supergene enriched copper (Cu)-lead (Pb)-zinc (Zn)-silver (Ag) mineralisation
  - Very small production occurred at four locations with historic grades ranging from 2.45% to 12.50% Cu,
     6.50% to 12.00% Pb, 2.89% to 6.68% Zn and 44g/t to 4,522g/t Ag
- Past exploration at MaCauley Creek includes airborne geophysical, geochemical and drilling programs
- Among best previous drilling¹ results are:
  - o Hole #6: 20m down-hole interval at 0.51% Cu, 2.64% Pb, 1.10% Zn, 85g/t Ag from 10m open ended
  - Hole #69: 17m down-hole interval at 0.65% Cu, 4.17% Pb, 1.18% Zn, 103g/t Ag from 2m
  - o Hole #80: 17m down-hole interval at 0.43% Cu, 1.67% Pb, 2.93% Zn, 84g/t Ag from 108m within 77m down-hole interval at 0.14% Cu, 0.74% Pb, 1.03% Zn, 30g/t Ag from 52m open ended
  - Mineralisation is hosted in altered granite
- Multiple coincident geophysical/geochemical targets identified in past exploration but not tested
- MaCauley Creek is considered highly prospective for tier-1 Cu-Au-Mo porphyry style mineralisation
- First Inca site visit planned for next week

Inca Minerals Limited (Inca or the Company) is pleased to announce that tenement EPM27124, one of two tenements comprising the Company's MaCauley Creek Cu-Au-Mo Porphyry Project located in Queensland is now granted. MaCauley Creek was acquired through open-ground tenement application and MOU (ASX announcements 11 June 2019 and 12 June 2019). A brief site visit is planned to kick-off exploration in July.

<sup>&</sup>lt;sup>1</sup> Drilling: not conducted by the Company. **Please carefully read Appendix 1: JORC Code (2012) exploration reporting requirements for further details.** 



A review of past mining and exploration in the area within EPM27124 reveals three phases of activity:

- 1900's: Historic small-scale mining activities at four principal sites (of a total of 10 mine workings).
- 1990 to 1996: Various programs by unlisted North Queensland Mining Pty Ltd (NQM).
- 2006 to 2015: Various programs by ASX-listed RMA Energy Ltd (RMA).

Despite the attraction of past mining and significant positive results generated in modern exploration, the prospective nature of the area remains poorly examined. The view of the Company is that the porphyry potential of the Project remains untested.

## Overview of the MaCauley Creek Cu-Au-Mo Porphyry Project

MaCauley Creek comprises two tenements, EPM27124 (now granted) and EPM27163 (application) with a total area of 359km². The tenement area hosts multiple indications of a mineralised porphyry system. Broad-scale indicators include porphyritic stocks and dykes, widespread and characteristic porphyry-style alteration, regional structure and large-scale geophysical anomalies. Prospect-scale indicators include localised Cu, Ag, Zn and Pb mineralisation, including bornite and chalcopyrite, and the occurrence of veins, veinlets and stockwork zones. The coincidence of magnetics, radiometrics, mineralisation, alteration, veins/veinlets/stockwork within a suite of granitic intrusions (including porphyritic intrusions) is very positive. Walk-up targets occur on EPM27124.

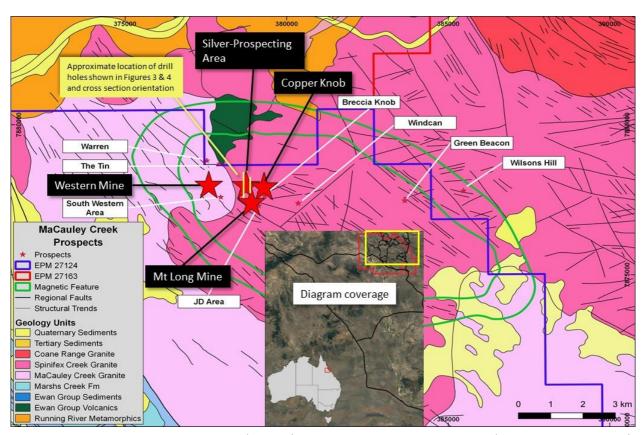


Figure 1 **ABOVE**: Project geology of EPM27124 (blue line) showing the dominant granitic terrain (various pink shaded areas). Four historic mines are highlighted (black call-out boxes) with other old mine workings identified (white call-out boxes). EPM27163 (red line - not granted) adjoins EPM27124 to the north. The apporximate location of drill holes appearing in cross sections (Figures 3 & 4) is indicated (solid yellow lines). **The holes were not drilled by the Company**.



## Past Mining and Exploration at MaCauley Creek

Three phases of mining/exploration were completed within the area which EPM27124 now covers. Historic small-scale mining took place at ten locations, principal among these being Western Mine, Mt Long Mine, Silver-Prospecting Area and Copper Knob (Figure 1). NQM completed several early stage exploration programs including various sample campaigns, trial geophysical surveys and drilling between 1990 and 1996. Most recently, RMA completed remote sensing, geophysical and geochemical programs and drilling between 2006 and 2015. NQM did not assay for gold in its drill sampling and drill sampling by RMA was incomplete.

#### Historic Small-scale Mining (1900's)

Production figures are gleaned from the Queensland Geological Survey reports of 1901 which include tons (not tonnes) and Cu, Pb, Zn and Ag grade (Cameron, 1901) (Table 1). The figures in Table 1 are not JORC 2012 compliant. Please carefully read Appendix 1: JORC Code (2012) exploration reporting requirements for further details.

Location	tons (long)	tonnes	Cu %	Pb %	Zn %	Ag t oz/t	Ag g/tonne
Western Mine	202	205	12.50	12.00	6.68	133	4076
Silver-Prospecting Area	281	285	4.00	8.80	2.60	13	398
Copper-Knob	465	472	3.65	7.17	3.10	26	797
Mt Long Mine	124	126	2.45	6.50	2.89	14	429
Totals	1072	1088	4.26	6.50	2.88	35	1073

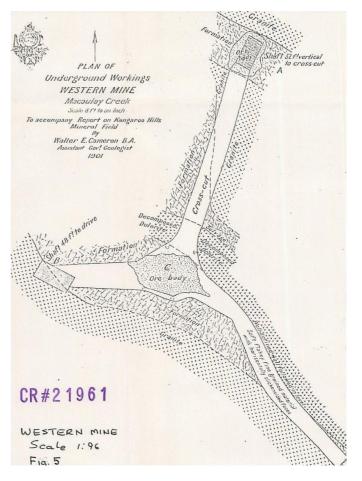
Table 1 **ABOVE**: Queensland Geological Survey data of the principal mines located within EPM27124. The original imperial data is converted to metric data (long tons to tonnes and troy ounces and tonnes. This data is of a historic nature and not JORC 2012 compliant. The inclusion of the data in this announcement is to report past grades and tonnes achieved at various locations within the EPM area.

Figure 2 **RIGHT**: An example of the historic records of the small mining activity that occurred within EPM27124. The mine plan dated 1901 has a scale of 1:96 with no location coordinates. The mine is georeferenced in Figure 1.

Mining was a mix of opencut and underground methods which extended to maximum depths of 35m below surface. The primary focus was on high-grade visible Cu and Ag mineralisation.

## NQM Exploration (1990-1996)

As well as various sampling and research programs, mentioned above, NQM completed a total of 2,746m of drilling that focussed on the Silver-Prospecting area (Figure 1). Most holes were drilled between 10m and 40m depth with selective (incomplete) sampling of high visible mineralisation, disregarding in many instances disseminated mineralisation. NQM did not assay for gold. Drilling did not test for deeper porphyryrelated mineralisation and grade intervals remain open as consequence of incomplete sampling.





The best NQM drilling results were those that examined mineralisation at Silver-Prospecting Area. Results include:

- Hole #6: 20m down-hole interval at 0.51% Cu, 2.64% Pb, 1.10% Zn, 85g/t Ag from 10m open ended (Figure 3)
- Hole #69: 17m down-hole interval at 0.65% Cu, 4.17% Pb, 1.18% Zn, 103g/t Ag from 2m
- Hole #80: 17m down-hole interval at 0.43% Cu, 1.67% Pb, 2.93% Zn, 84g/t Ag from 108m within 77m down-hole interval at 0.14% Cu, 0.74% Pb, 1.03% Zn, 30g/t Ag from 52m open ended (Figure 4)

## RMA Exploration (2006-2015)

RMA completed a multi-stage intermittent 11-year program at MaCauley Creek as part of the regional multi-commodity campaign. As well as sampling and geophysics surveys, the latter of which generated multiple targets that were not followed up, RMA completed two phases of drilling, a 466m Rotary Air Blasting (RAB) focussing on the historic mine sites (Figure 1) and a 1,132m Reverse Circulation (RC) program. The RAB program average hole depth was 8m below surface. Like the deeper holes by NQM, the deeper RC holes of RMA were drilled at the various small mine workings. RMA drill sampling was incomplete leaving some intervals untested.

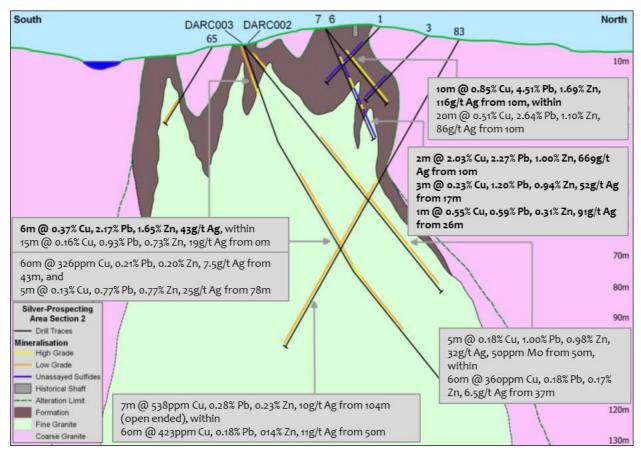


Figure 3 **ABOVE**: Geological cross-section of past drilling by NQM (#1, 3, 6, 7, 65 & 83) and RMA (DARCoo2 & 003) at the Silver-Prospecting Area. This diagram is included in this announcement to schematically represent the nature of past drilling and configuration of drill intervals in relation the geological target and mineralisation. The <u>Formation</u> (brown shaded area) is a mineralised brecciated margin of a <u>Fine</u> [grained] <u>Granite</u> (light green shaded area), which is also mineralised. Several observations pertain to coverage and mineralisation style: i) the large intervals of non-sampling in #1, 3 & 7, despite location mineralisation; ii) the open-ended mineralisation of #6, 65 & 83; iii) the broad mineralisation in the Fine Granite; iv) the repeated mineralisation in the Formation; and v) the spatial relationship between the Formation and the Fine Granite. The Formation is clearly associated with the margin of the granite. Being consistently mineralised, the margin is therefore a strong, largely untested target.



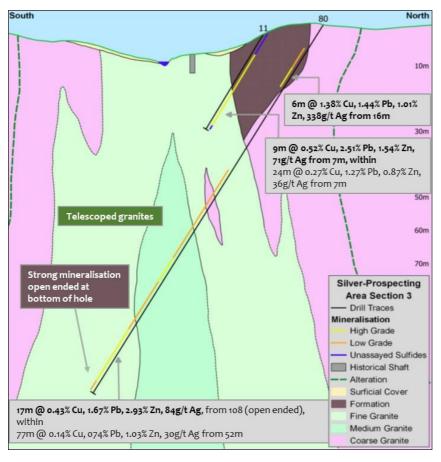


Figure 4 LEFT: Geological crosssection of past drilling by NQM (#11, & 80) at the Silver-Prospecting Area. This diagram is included in this announcement to schematically represent the nature of past drilling and configuration of drill intervals in relation the geological target and mineralisation. The Formation (brown shaded area) is a mineralised brecciated margin of a Fine [grained] Granite (light green shaded area) and coarse country-rock granite (pink shaded area), which is also mineralised. Several observations pertain to coverage and mineralisation style: i) the consistent mineralisation of the Formation and ii) the telescoped nature of mineralised Fine Granite and Medium Granite (darker green shaded area). Telescoped granitic intrusions are characteristic of porphyry systems.

RMA's 11,624 line-kilometre airborne magnetics-radiometrics survey (AMAG-RAD<sup>2</sup>) and sampling surveys generated many subsequent geophysics and geochemistry targets within the area contained within EPM27124, some of which coincide with the locations of the small mines and mine workings (Figure 5).

## **Assessment of Past Exploration**

The Company concludes that past exploration validates and strengthens the porphyry potential of MaCauley Creek. Significant Cu-Pb-Zn-Ag mineralisation has been identified in past drilling at shallow depths (<100m from the surface) below historic mines. Gold was largely not tested for in the past (NQM) but where present (RMA), associated with Cu-Mo-Ag. The style of mineralisation is characteristic of a Cu-Au-Mo±Ag porphyry system. The telescoped nature of mineralised granite intrusions is characteristic of a porphyry system. The geophysics survey conducted by RMA, which produced targets >100m depth below surface remain untested. The geochemical pattern (metal zoning) of various porphyry pathfinder elements (Cu, Ag, Mo) is also reminiscent of porphyry mineralisation.

As reported in ASX announcement (11 June 2091), MaCauley Creek hosts multiple porphyry-related features including: Cu, Ag, Zn, Pb mineralisation; quartz-sericite-clay and K-feldspar alteration; veins, veinlets and stockwork zones and several large-scale geophysical targets.

Additional porphyry-related features now include: Telescoped mineralised intrusive granites (Figure 4); Concentric geochemical anomalies which coincide with mineralisation and geophysical anomalies (Figure 5).

<sup>&</sup>lt;sup>2</sup> The AMAG-RAD survey conducted at MaCauley Creek is the same type of survey that was conducted at Riqueza.



Due to a combination of funding difficulties and mandatory tenement relinquishments, RMA did not drill test any of their geophysics and geochemistry targets. Inca's Regional Exploration Manager, Mr Rob Heaslop, has subsequently integrated this RMA data, where available, to verify and geo-locate the targets (Figure 5).

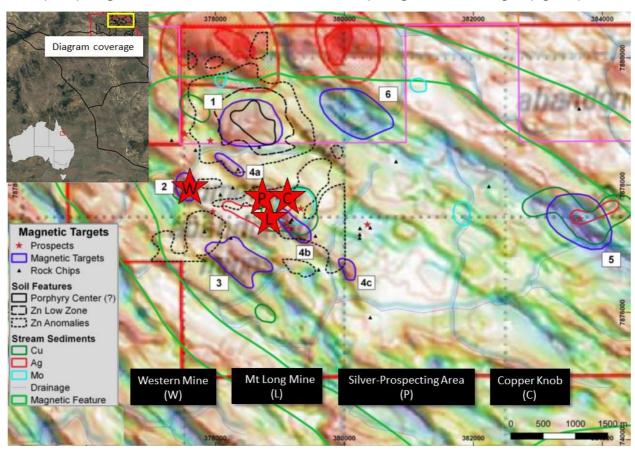


Figure 5 **ABOVE**: Integrated magnetic data image (background blue to red colours) overlain on topography highlighting the multiple coincident geophysics targets (purple line shapes), numbered 1, 2, 3, 4a-b-c, 5 and 6. Also highlighted are geochemical targets (various coloured line shapes) and the old mine workings.

## Brief explanation of porphyry deposits and a porphyry analogue for MaCauley Creek

The formation of mineralised porphyry systems is the result of pervasive and widespread hydrothermal activity associated with igneous intrusions. As rising magma intrudes cooler country-rock, super-heated fluids are flushed upwards and outwards causing alteration and mineralisation. These systems can be very large. Indeed, porphyry deposits are among the largest mineral deposits in the world. The ore-forming minerals that typically occur in porphyry deposits contain such elements as Cu, Au, Mo, Zn and Pb. For these reasons, porphyries are highly sought after by the major mining houses (majors) of the world.

Examples of porphyry deposits in eastern Australia include:

- Cadia (Newcrest): 1.31billion tonnes at 0.31% Cu, 0.74g/t Au (NSW)
- Northparkes (CMOC): 153million tonnes at 1.03% Cu, 0.46g/t Au (NSW)
- Marsden (Evolution Mining): 121million tonnes at 1.0g/t Au (NSW)
- Copper Hill (GCR): 87million tonnes at 0.32% Cu, 0.27g/t Au (NSW)
- Kidston (mined out): 66.3million tonnes (estimated) at 1.66g/t Au (QLD)
- Mt Leyshon (mined out): 48.3million tonnes 2.08g/t Au (QLD)



A "complete" porphyry system includes porphyry mineralisation and porphyry-related mineralisation, the latter relating to mineralisation occurring above and/or lateral to the central porphyry zone. Low, intermediate and high sulphidation epithermal deposits (**LS**, **IS** and **HS** respectively) can all be porphyry-related forms of mineralisation (Figure 6). Inca reported IS epithermal mineralisation recently at its Riqueza Project (now funded by South32). LS, IS and HS epithermal systems can form very large tier-1 deposits.

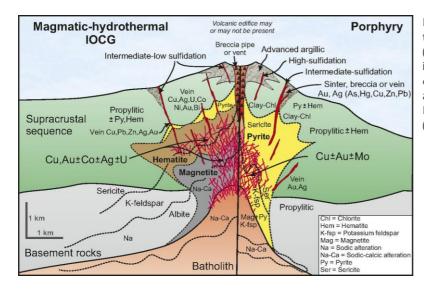


Figure 6 **LEFT**: Schematic model showing the profile of an IOCG (left) and porphyry (right). Both systems are related to intrusive activity but because overall chemistry is different, different alteration and mineralisation patterns are developed. In both deposit types are typically very large (note the scale bar).

## Planned exploration at MaCauley Creek

The Company intends being pro-active in its approach to forming a partnership at MaCauley Creek by targeting communications with major mining houses (**majors**) actively searching for porphyries in Australia. At the same time, the Company intends implementing an exploration program that immediately investigates the strong porphyry evidence already known in the project area. The 24-month program is as follows:

- Further interpretation and integration of RMA and government geophysical data
- Ground reconnaissance focussing on known target areas and old mine workings
- Detailed mapping and sampling for the purpose of generating prioritised drilling targets
- Drill testing high priority porphyry targets

Inca is planning a site visit to the MaCauley Creek Project in July.

#### **Competent Person Statement**

The information in this report that relates to exploration results and mineralisation for the MaCauley Creek project area, located in Australia, is based on information reviewed and compiled by Mr Ross Brown BSc (Hons), MAusIMM, SEG, MAICD Managing Director, Inca Minerals Limited, who is a Member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience, which is relevant to exploration results, the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, 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". Mr Brown is a fulltime employee of Inca Minerals Limited and consents to the report being issued in the form and context in which it appears.



## **Selected Key Words Used in this Announcement** (order of appearance and cross reference)

<u>Porphyry (Deposit)</u> A type of <u>deposit</u> containing ore-forming minerals occurring as disseminations and veinlets

in a large volume of rock. The rock is typically porphyritic (a texture of large crystals in a

fine groundmass). Porphyry <u>deposits</u> are economically very significant.

<u>Porphyry belt</u> A region, district, specific area which hosts several porphyry deposits. Porphyries tend to

occur in clusters, or concentrations in lines or corridors (hence "belt").

<u>Deposit</u> A [mineral] <u>deposit</u> is a naturally occurring accumulation or concentration of metals or

minerals of sufficient size and concentration that might, under favourable circumstances, have economic value (Geoscience Australia). It is not a defined term in the JORC Code 2012 for Australasian Reporting of Exploration Results, Mineral Resources and Ore Reserves

(JORC 2012).

<u>Tier-1 (Deposit)</u> A broadly used, loosely defined term to describe a large tonnage <u>deposit</u> (or mine) typically

operated by major mining houses with a long life-of-mine. Inca defines a Tier-1 deposit as

one greater than 200million tonnes in size.

<u>IOCG (Deposit)</u> A type of <u>deposit</u> containing <u>ore-forming minerals</u> occurring as <u>disseminations</u> and <u>veinlets</u>

in a large volume of rock. The rock is typically iron rich (a distinction from porphyry

deposits). IOCG deposits are economically very significant.

Mineralisation A general term describing the process or processes by which a mineral or minerals are

introduced into a rock (or geological feature such as a <u>vein</u>, fault, etc...). In the strictest sense, <u>mineralisation</u> does not necessarily involve a process or processes involving <u>oreforming minerals</u>. Nevertheless, <u>mineralisation</u> is very commonly use to describe a process or processes in which <u>ore-forming minerals</u> are introduced into a rock at concentrations that are economically valuable or potentially valuable. The potential <u>mineralisation</u>

occurring at MaCauley Creek is porphyry style.

Geophysics(-ical) An exploration method using instruments to collect and analyse properties as magnetics,

radioactivity, gravity, electronic conductivity, etc. Instruments can be located on surface

(ground survey) or above the ground (airborne survey).

<u>Airborne</u> Said of a <u>geophysical</u> survey in which the <u>geophysical</u> tool is above the ground.

Geochemistry(-ical) The study of the distribution and amounts of the chemical elements in minerals, ores,

rocks, soils, water and the atmosphere.

Open-ended Said of mineralisation recorded in a drill hole (for example) which extends to the limit of

assay (grade) information, either limit of hole or limit of assay data.

Ore-forming Minerals Minerals which are economically desirable, as contrasted to Gangue Minerals.

Gangue Minerals Valueless minerals in ore.

<u>Dyke</u> A tabular igneous <u>intrusion</u> that cuts across the planar structure of the surrounding rock.

<u>Alteration</u> A process that involves the <u>alteration</u> of (change to) a rock, mineral or mineralisation by

processes involving, but not limited to, the presence of *hydrothermal* fluids.

<u>Hydrothermal</u> Of, or pertaining to "hot water" usually used in the context of ore-forming processes.

<u>Structure</u> A very broad and widely used geological term but used at Riqueza to mean a large linear

feature either a geological fault or a lineament.

Bornite Copper iron sulphide with the chemical formula Cu₅FeS₄ with 63.31% Cu by mol. weight.

Chalcopyrite Copper iron sulphide with the chemical formula CuFeS₂ with 34.63% Cu by mol. weight.

Vein A tabular or sheet-like form of mineralisation, often resulting from in-filling a vertical or

near-vertical fracture. They often cut across country rock.

Country Rock Rock that encloses or is cut by *mineralisation*. And more broadly, rock that makes up the

geology of an area.



**Selected Key Words Used in this Announcement** (order of appearance and cross reference) continued...

<u>Veinlets</u> A small and narrow mineral filling of a fracture in country rock that is tabular or sheet-like

in shape. Veinlets are narrow versions of veins.

Stockwork A mineral <u>deposit</u> in the form of a network of <u>veinlets</u> diffused in the <u>country rock</u>.

Magnetics A measurement of the intensity of the earth's magnetic field caused by the contrasting

content of rock-forming magnetic minerals in the Earth's crust. This allows sub-surface mapping of geology, including <u>structures</u>. An <u>airborne</u> survey is flown either by plane or

helicopter with the magnetometer kept at a constant height above the surface.

Radiometrics A measurement of the intensity of radio-elements potassium (K), uranium (U) and thorium

(Th), specifically the gamma rays emitted by isotopes of these elements. All rocks and soils contain radioactive isotopes and almost all gamma-rays detected at surface are the result of radioactive decay of K, U and Th. Radiometrics is therefore capable of directly detecting potassic alteration which is associated with <u>hydrothermal</u> processing and formation of

<u>deposits</u>

<u>Intrusion</u> The process of emplacement of <u>magma</u> in pre-existing <u>country rock</u>.

Granite/granitic A plutonic rock in which quartz constitutes 1- to 50% of the felsic component and in which

the alkali feldspar/total feldspar ratio is generally restricted to 65% to 90%.

<u>Remote sensing</u> A general term that includes the interpretation of various satellite imagery.

<u>Disseminated</u> Descriptor of <u>mineralisation</u> said to be fine grained and generally evenly distributed.

RAB A technique of drilling in which air with the drill cuttings are returned to the surface on the

outside of the drill stem.

<u>RC</u> A technique of drilling in which air with the drill cuttings are returned to the surface on the

inside of the drill stem. RC is considered better than RAB in terms of providing

uncontaminated sample and therefore reliable geochemical data.

<u>Breccia</u> Broken or fragmented rock. <u>Breccia veins</u> are narrow fissures containing numerous rock

fragments. The rock fragments are called clasts and the space between the clasts is called the matrix. In <u>Porphyry</u> and <u>IOCG</u> <u>deposits</u> mineralised <u>breccias</u> can often form a large

percentage of the ore.

Magma Molten rock that can be extrusive (occurs at the Earth's surface) and intrusive (occurs

below the Earth's surface).

Sericite A group of white/colourless clay minerals. The presence of sericite can indicate the

occurrence of <u>hydrothermal</u> <u>alteration</u>.

<u>K-Feldspar Alteration</u> Potassic <u>alteration</u> is characterised by the formation of new <u>K-feldspar</u> and/or biotite

minerals. It typically represents the highest temperature form of <u>alteration</u> within <u>porphyry deposits</u>, forming in the core of the system and often within the <u>granite intrusion</u>

itself.





## Appendix 1

The following information is provided to comply with the JORC Code (2012) exploration reporting requirements.

## **SECTION 1 SAMPLING TECHNIQUES AND DATA**

#### **Criteria: Sampling techniques**

#### **JORC CODE Explanation**

Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or hand-held XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Sample results referred to in this announcement pertain to i) historic mining activities obtained from the Queensland Geological Survey database, ii) past rockchip sampling and iii) past drilling programs obtained from open file records. The results are presented as tonnage and grade values (tabulated), graphic representation of assay results (diagrams), down-hole intervals (in text best intervals list and diagrams), respectively. The Company cannot confirm the quality of these sample results. However, the methods deployed by the previous explorers to obtain the sample results are considered "industry standard".

No sampling and/or sampling results generated by the Company are included in this announcement.

#### **JORC CODE Explanation**

Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.

### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The Company cannot confirm sample representivity nor whether appropriate calibration of any measurement tools or systems used.

#### **JORC CODE Explanation**

Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is a coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Whilst the Company cannot confirm the quality of the exploration results data included in this announcement, the methods deployed by the previous explorers and reported in this announcement are considered appropriate for reporting mineralisation.

## Criteria: Drilling techniques

#### **JORC CODE Explanation**

Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. No other parameters are known by the Company (drill bit type, sample recovery method(s), orientation surveys.





#### Criteria: Drill sample recovery

#### **JORC CODE Explanation**

Method of recording and assessing core and chip sample recoveries and results assessed.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The sample recovery method(s) are not known by the Company.

#### **JORC CODE Explanation**

Measures taken to maximise sample recovery and ensure representative nature of the samples.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. Measures taken to maximise sample recovery and ensure representative nature of the samples are not known by the Company.

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. 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 are not known by the Company.

## Criteria: Logging

#### **JORC CODE Explanation**

Whether core and chip samples have been geologically and geo-technically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. No Mineral Resource estimation from previous exploration has been included in this announcement.

#### **JORC CODE Explanation**

 $Whether \ logging \ is \ qualitative \ or \ quantitative \ in \ nature. \ Core \ (or \ costean, \ channel, \ etc.) \ photography.$ 

## **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. Whether logging is qualitative or quantitative in nature (core or costean, channel, etc.) photography is not known by the Company.

### **JORC CODE Explanation**

The total length and percentage of the relevant intersections logged.



#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The total length and percentage of the relevant intersections logged are not known by the Company.

#### Criteria: Sub-sampling techniques and sample preparation

#### **JORC CODE Explanation**

If core, whether cut or sawn and whether quarter, half or all core taken.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. These drilling techniques do not produce drill core.

#### **JORC CODE Explanation**

If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. Drill sample techniques (riffled, tube sampled, rotary split, etc. and whether sampled wet or dry) re not known by the Company.

#### **JORC CODE Explanation**

For all sample types, the nature, quality and appropriateness of the sample preparation technique.

### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. Sample preparation techniques are not known by the Company.

#### **JORC CODE Explanation**

Quality control procedures adopted for all sub-sampling stages to maximise "representivity" of samples.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. Quality control procedures adopted, or whether subsampling stages to maximise "representivity" of samples occurred, are not known by the Company.

## **JORC CODE Explanation**

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.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. 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 are not known by the Company.

#### **JORC CODE Explanation**

Whether sample sizes are appropriate to the grain size of the material being sampled.





#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. Whether sample sizes are appropriate to the grain size of the material being sampled are not known by the Company.

#### Criteria: Quality of assay data and laboratory tests

#### **JORC CODE Explanation**

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The Company cannot confirm the quality of the exploration results data included in this announcement including the quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

#### **JORC CODE Explanation**

For geophysical tools, spectrometers, hand-held XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Whilst the Company can confirm airborne magnetics and radiometric geophysical tools were used to generate results reported in this announcement (in certain diagrams), the Company cannot verify specific instrumentation used.

#### **JORC CODE Explanation**

Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Whilst the Company can confirm sampling techniques were used to generate assay results reported in this announcement (in certain diagrams), the Company cannot verify quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.

#### Criteria: Verification of sampling and assaying

#### **JORC CODE Explanation**

The verification of significant intersections by either independent or alternative company personnel.

## **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The exploration results referred to in this announcement include down-hole intervals of significant mineralisation (provided in text and in certain diagrams). The Company has not sought to confirm these significant intersections by either independent or alternative company personnel at this time.

#### **JORC CODE Explanation**

The use of twinned holes.



#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The Company confirms that there are two sets of twinned holes in drill results reported in this announcement. These holes are clearly presented in adequate diagrams in this announcement.

#### **JORC CODE Explanation**

Documentation of primary data, data entry procedures, date verification, data storage (physical and electronic) protocols.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The exploration results referred to in this announcement include historic mining tonnage and grade values, sampling assay results (contained in certain diagrams), drilling down-hole intervals (provided in text and in certain diagrams) and geophysical results (also contained in certain diagrams). The Company cannot confirm documentation of primary data, data entry procedures, date verification, data storage (physical and electronic) protocols.

#### **JORC CODE Explanation**

Discuss any adjustment to assay data.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The exploration results referred to in this announcement include assay data, by way of drill intersections and geochemical heat maps. The Company cannot confirm if any adjustment to assay data was carried out of the previous explorers.

#### Criteria: Location of data points

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The exploration results referred to in this announcement include historic mining tonnage and grade values, sampling assay results (contained in certain diagrams), drilling down-hole intervals (provided in text and in certain diagrams) and geophysical results (also contained in certain diagrams). The Company cannot confirm the accuracy and quality of surveys used to locate drill holes, sampling and geophysics locations. Wherever possible, past exploration results are annotated onto to QLD's grid system GDAA94, zones 55.

#### **JORC CODE Explanation**

Specification of the grid system used.

#### **Company Commentary**

Refer also above. GDAA94, zone 55.

#### JORC CODE Explanation

Quality and adequacy of topographic control.

### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The exploration results referred to in this announcement include historic mining tonnage and grade values, sampling assay results (contained in certain diagrams), drilling down-hole intervals (provided in text and in certain diagrams) and geophysical results (also contained in certain diagrams). The Company believes the reported exploration results have adequate topographic control.

#### Criteria: Data spacing and distribution

### **JORC CODE Explanation**

Data spacing for reporting of Exploration Results.



#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The exploration results referred to in this announcement include historic mining tonnage and grade values, sampling assay results (contained in certain diagrams), drilling down-hole intervals (provided in text and in certain diagrams) and geophysical results (also contained in certain diagrams). The Company believes that the data spacing of past exploration results (reported in this announcement) are appropriate for the exploration tool and exploration objective.

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

N/A – No Mineral Resource or Ore Reserve estimations are referred to in this announcement.

#### **JORC CODE Explanation**

Whether sample compositing has been applied.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Whilst the Company can confirm sampling techniques were used to generate assay results reported in this announcement (in certain diagrams), the Company cannot verify whether sample compositing was used in the generation of drilling intervals.

#### Criteria: Orientation of data in relation to geological structure

#### **JORC CODE Explanation**

Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.

#### **Company Commentary**

N/A – No sampling or assay results are referred to in this announcement.

#### **JORC CODE Explanation**

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.

## **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The Company includes in this announcement drill cross sections with assay results that show the relationship between the drill orientation and the key mineralised structures.

## Criteria: Sample security

#### **JORC CODE Explanation**

The measures taken to ensure sample security.

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The Company cannot confirm measures taken to ensure sample security.

#### Criteria: Audits and reviews

#### **JORC CODE Explanation**

The results of any audits or reviews of sampling techniques and data.



#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Assay results are derived from past sampling and drilling programs. The company has not sought to conduct audits or reviews of sampling techniques and data.

#### SECTION 2 REPORTING OF EXPLORATION RESULTS

#### Criteria: Mineral tenement and land tenure status

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

Tenement Type: One Queensland Exploration Permit for Minerals (EPM): EPM 27124 - now granted.

Ownership: EPM 27124: Inca to acquire 90% through an executed MOU. 1.5% NSR payable to MRG.

#### **JORC CODE Explanation**

The security of the land tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.

#### **Company Commentary**

The MOU and tenement are in good standing at the time of writing.

#### Criteria: Exploration done by other parties

#### **JORC CODE Explanation**

Acknowledgement and appraisal of exploration by other parties.

#### **Company Commentary**

This announcement refers to exploration conducted by previous parties recorded in Mines Department databanks which was reviewed by MRG Resources Pty Ltd (MRG).

#### Criteria: Geology

## **JORC CODE Explanation**

Deposit type, geological setting and style of mineralisation.

#### **Company Commentary**

MaCauley Creek: The geological setting is dominated by well exposed Carboniferous aged granitic rocks that have intruded older Devonian-Carboniferous metamorphic lithologies. Minor sedimentary and volcanic unit overlie the prospective granitic rocks in portions of the project area. The project area is prospective for porphyry style mineralisation.

#### Criteria: Drill hole information

#### **JORC CODE Explanation**

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:

- Easting and northing of the drill hole collar
- Elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar.
- Dip and azimuth of the hole.
- Down hole length and interception depth.
- Hole length.

## **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. The Company refers to down hole mineralised intervals in rotary air blasting and reverse circulation drill holes. The easting, northing, elevation, dip and azimuths of the holes mentioned are not known in detail. Nevertheless, drill hole locations are georeferenced to QLD's grid system GDAA94, zones 55 diagrams.



#### **JORC CODE Explanation**

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.

#### **Company Commentary**

With drill hole locations georeferenced to QLD's grid system GDAA94, zones 55 diagrams, the

#### Criteria: Data aggregation methods

#### **JORC CODE Explanation**

In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 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 shown in detail

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Whilst the Company can confirm drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation, the Company cannot confirm if maximum and/or minimum grade truncations, or other data averaging techniques were used in the generation of mineralised intervals reported in this announcement.

#### **JORC CODE Explanation**

The assumptions used for any reporting of metal equivalent values should be clearly stated.

#### **Company Commentary**

N/A - In drilling results referred to in this announcement, no metal equivalents were used.

#### Criteria: Relationship between mineralisation widths and intercept lengths

## JORC CODE Explanation

These relationships are particularly important in the reporting of Exploration Results.

If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.

If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known.')

#### **Company Commentary**

This announcement refers to exploration conducted by previous holders of mining and exploration rights for areas within the Company's recently granted EPM27124. Whilst the Company cannot confirm the quality of the exploration results data included in this announcement, the drilling methods deployed by the previous explorers and reported in this announcement include rotary air blasting and reverse circulation. The Company includes in this announcement drill cross sections with assay results that show the relationship between the drill orientation and the key mineralised structures.

## Criteria: Diagrams

## **JORC CODE Explanation**

Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not limited to a plan view of drill hole collar locations and appropriate sectional views

### **Company Commentary**

Several diagrams are provided that show locations of previous exploration results included in this announcement.

## Criteria: Balanced reporting

#### **JORC CODE Explanation**

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.

### Company Commentary

The Company believes this ASX announcement provides a balanced report of the past exploration results referred to in this announcement.





#### Criteria: Other substantive exploration data

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

This announcement makes no reference to two previous ASX announcements, dated 11 June 2019 and 12 June 2019.

#### Criteria: Further work

#### **JORC CODE Explanation**

The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).

#### **Company Commentary**

This announcement presents a review of past exploration results conducted on the Company's newly granted EPM27124 tenement. Exploration work conducted by the Company is necessary to progress the understanding of the economic potential of both projects.

#### **JORC CODE Explanation**

Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

#### **Company Commentary**

Refer above.

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