

# BEAUCHAMP IOCG EXPLORATION UPDATE

## Highlights

- Three holes drilled into the core of the northern magnetic and gravitational high at Beauchamp confirmed the presence of a large, mineralised IOCG (Iron Ore Copper Gold) system.
- Shallow IOCG red rock alteration and veining intercepted over 2.5km from approximately 100m to 130m below surface.
- Assay results returned trace amounts of copper and minor gold and indicate a depleted part of the IOCG system despite visible chalcopyrite and bornite.
- This discovery of a new IOCG domain approx. 100km west of Mt Isa has prompted Aeon to secure three new tenements to the south with coincident magnetic and gravity features.
- Further work, including additional drilling, planned for the 2021 field program.

Aeon Metals Limited (ASX: AML) (**Aeon** or the **Company**) is pleased to advise that assay results have been returned for the three diamond drill holes completed at the Beauchamp Iron-Oxide-Copper-Gold (**IOCG**) target (EPM 18769). The first hole of this program was fully funded by a CEI grant from the Queensland State Government.

The Beauchamp target is a regional scale gravitational and magnetic anomaly located approximately 100km to the west of Mt Isa. It has clear similarities with the geophysical signatures of a number of world-class IOCG deposits (including Olympic Dam, Ernest Henry and Carrapateena). Beauchamp represents a low-cost opportunity for Aeon to leverage its proven exploration discipline into potential large-scale regional exploration upside. The Company's core focus however remains on the advancement of the world-class Walford Creek Project.

## Key outcomes

The results confirm the presence of a large scale IOCG system, containing copper and gold mineralisation. The Aeon geological team is excited by the broad regional alteration observed and that the target stratigraphy is at shallow depths. The Company has subsequently secured three further tenements over associated structures with coincident magnetic and gravity responses. This region west of Mt Isa is seen as a potential new IOCG province and supports the excellent work undertaken by Geoscience Australia and the Geological Survey of Queensland.

The maiden drilling program has also allowed Aeon to collect a large amount of assay, geological, structural, density and magnetic susceptibility data which will be applied to better understand this large, underexplored system – and to plan for further follow up work, including detailed geophysical surveys and further target drilling during the 2021 exploration program.

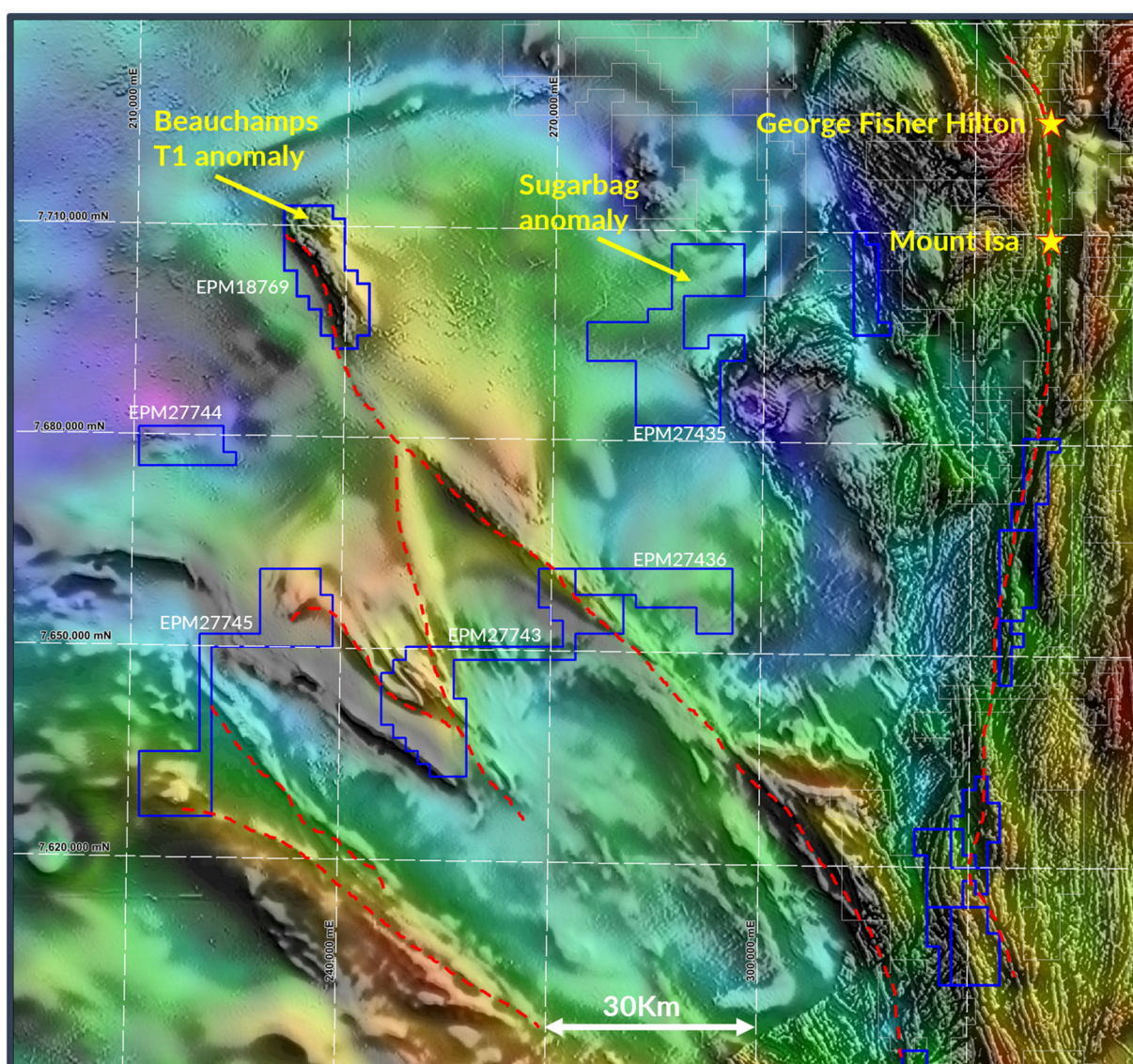
**Commenting on the results, Aeon Managing Director and CEO, Hamish Collins, said:** *"This is an exciting development on the back door to Mt Isa and has prompted us to secure further ground. We were particularly pleased by the shallow cover sequence. We expect this will transform the view of exploration in this area given that it substantially changes the metrics of what might constitute a viable development project. We look forward to advancing our understanding of the area in 2021 and are appreciative of the assistance of the Queensland Government through their CEI funding program."*

## Beauchamp drilling results

The first drill hole at Beauchamp BCDH001 (991.2m) was reported in an announcement on 4 November. Holes BCDH002 (723.7m) and BCDH003 (606.8m) were geologically similar to the first hole in that they intersected Proterozoic basement rock at approximately 100m to 125m from surface.

The mafic volcanic host sequence rocks have undergone various amounts of alteration including late-stage minor copper sulphide infill mineralisation which included minor chalcopyrite both as disseminated blebs, rare fracture fill in calcite veining and within late overprinting over the vesicles in the amygdaloidal basalt flow tops.

The three exploration drill holes totalled 2,322m as shown in Figure 2.

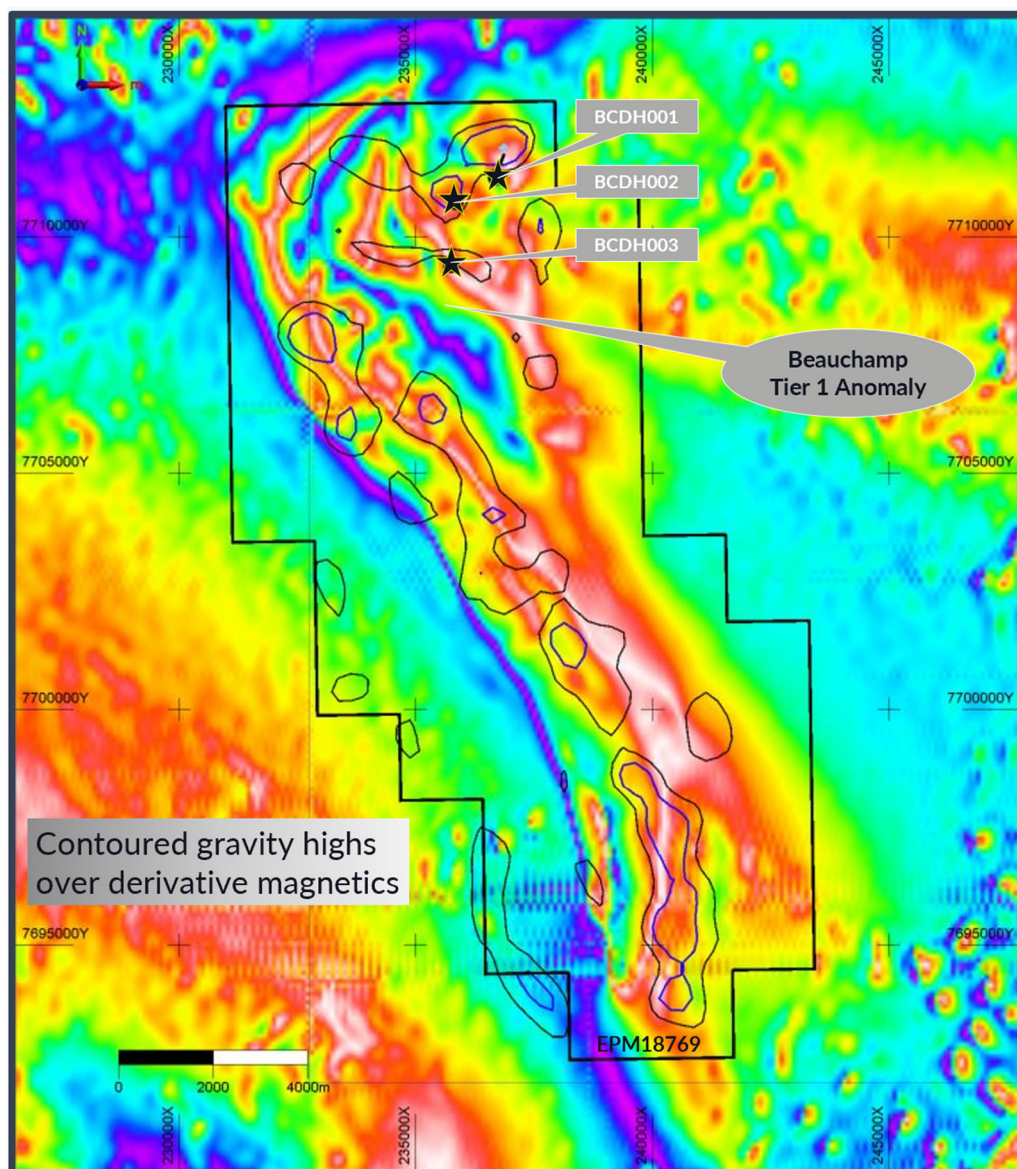


**Figure 1** Map shows the Beauchamp tenement and other recently secured tenure covering magnetic and gravity anomalies on district scale structures west of the Mt Isa Copper-Zinc-Lead mine. All Aeon tenure in blue.

BCDH001 intersected a Cambrian limestone / dolomite unit and then intersected a highly comminuted (rounded) coarse sandstone before intercepting the Proterozoic basement at 137m down hole. A true basement depth of 122m is much shallower than previously estimated. A similar cover sequence was intercepted in the other two holes although at slightly shallower depths.



The basement rock is a heavily hematite altered mafic to intermediate volcanic which has progressed from a hematite calcite dominated domain into a progressively magnetite chlorite epidote part of this large system. It is interpreted that there is a degree of prior oxidation of the upper portion of the Proterozoic basement in the area drilled and that leads to no remaining sulphides instead replaced by hematite and calcite with minor quartz. This however does not preclude the possibility of a supergene blanket of mineralisation existing in such a setting.



**Figure 2 Location of the three drill holes at the northern end of the Beauchamp magnetic and gravity anomaly.**

The geology intercepted in the holes to date confirms the presence of a very altered mafic to intermediate package of rocks showing acicular basalts through to flow top andesites. The alteration and veining is variably intense throughout the three holes drilled. The presence of both chalcopyrite dominant over pyrite and the presence of some blebs of bornite in red rock potassic feldspar, hematite and calcite veins indicates a typical part of a large IOCG system. Its presence around the transition between the hematite dominated upper part of the hole below cover and the lower more magnetite dominated portion of the drill hole is highly encouraging given these are the first drill holes to test this system.



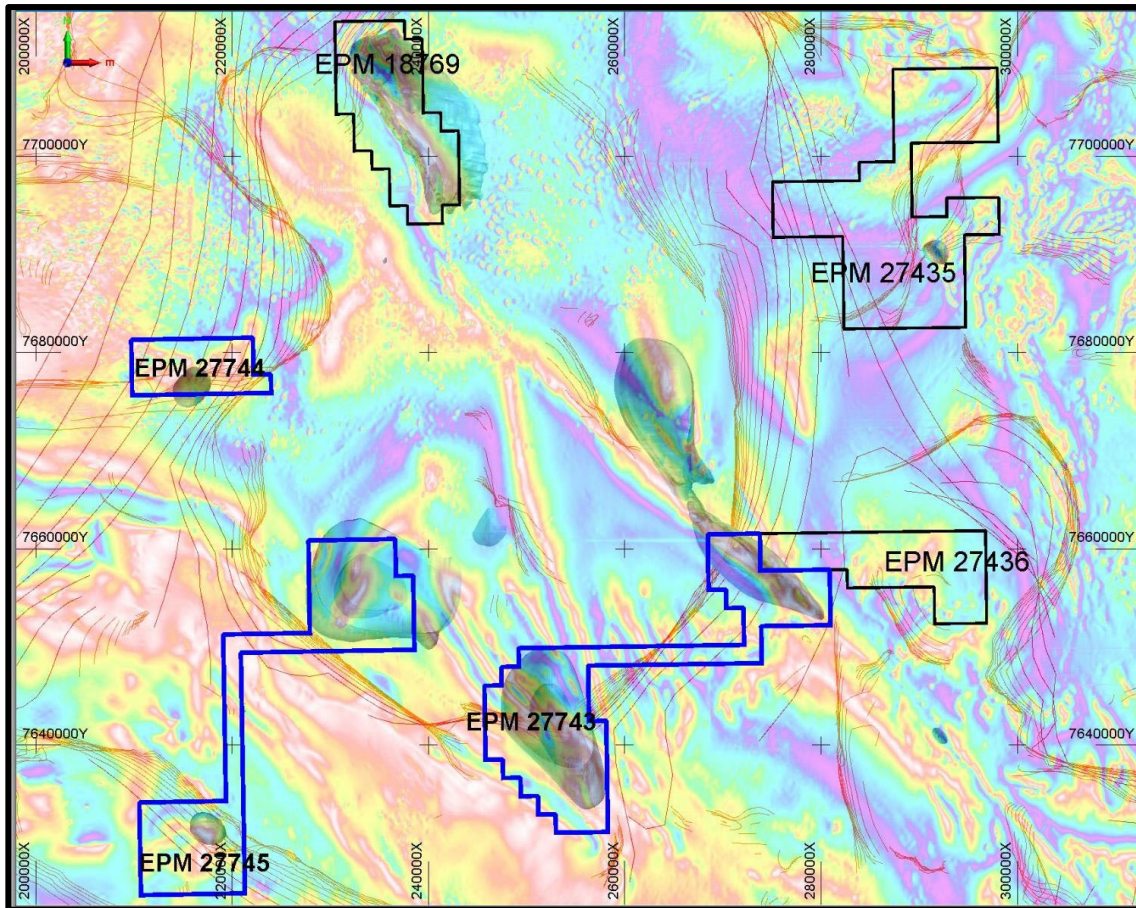


**Figure 3 Shows alteration of clasts within the hematitic red rock and calcite altered protolith with minor chalcopyrite within the clasts**

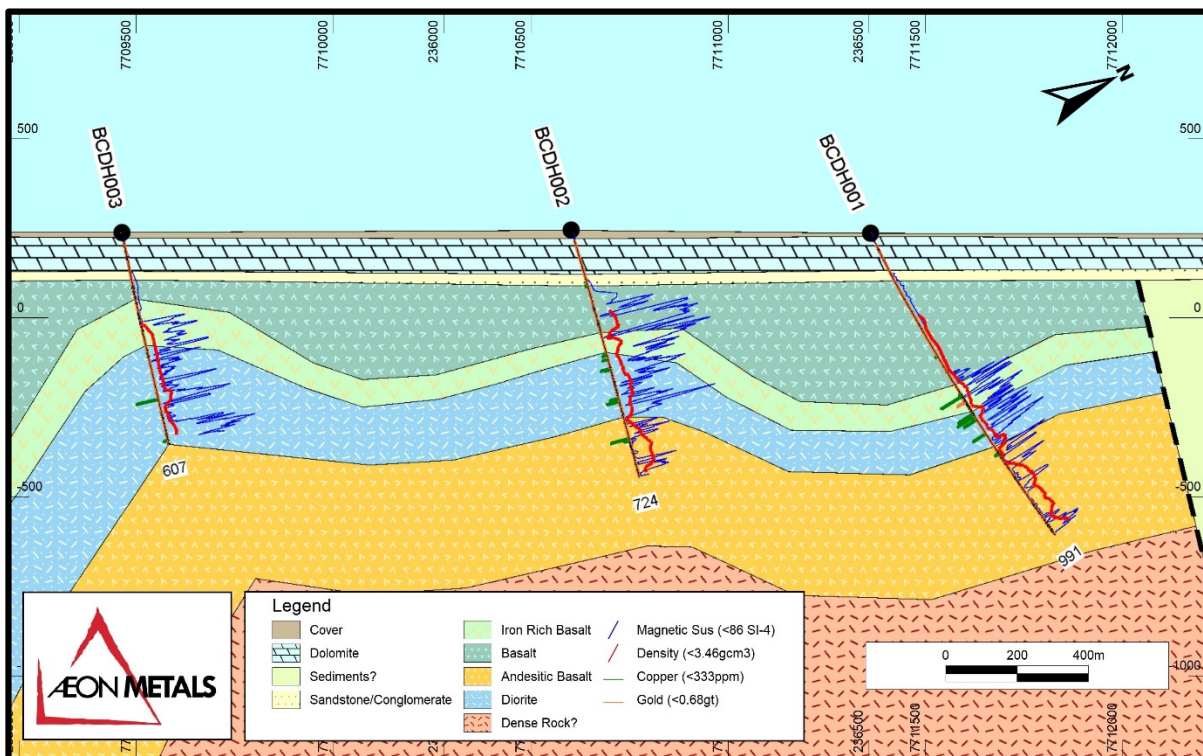


**Figure 4 Shows the amygdaloidal nature with alteration assemblages of actinolite, epidote, potassium (K) feldspar with quartz, calcite and minor chalcopyrite.**





**Figure 5** Map shows the granted and recently applied for tenements west of Mt Isa over magnetics and modelled gravity shells in light grey.



**Figure 6** Cross section looking WNW of three holes drilled at Beauchamps.

Detailed geophysical surveys are planned to be conducted to define structural settings that could potentially be favourable for concentrating mineralised fluids. The current magnetic and gravity surveys are relatively coarse, with station spacing ranging from 500 to 1,000 metres. These previous surveys have accurately outlined the regional anomalies over tens of kilometres, but more detailed gravity and magnetic data is required to identify the hydrothermal structural pathways for the next stage of drill testing.

**Table 1: Drill Hole Details**

Hole ID	Easting	Northing	RL	Azimuth	Dip	Total Depth
BCDH001	236700	7711270	236	010	-65	991.2m
BCDH002	235835	7710750	242	350	-70	723.7m
BCDH003	235747	7709406	238	000	-76	606.8m

**This ASX release has been authorised for and on behalf of the Aeon Board by:**

Hamish Collins, Managing Director and CEO

For more information, please contact:

#### **Investors**

Hamish Collins  
**Managing Director**

+61 2 9232 2298

[info@aeonmetals.com.au](mailto:info@aeonmetals.com.au)  
[www.aeonmetals.com.au](http://www.aeonmetals.com.au)

#### **Media**

Michael Vaughan  
**Fivemark Partners**

+61 422 602 720

## **ABOUT AEON METALS**

Aeon Metals Limited (**Aeon**) is an Australian based mineral exploration and development company listed on the Australian Securities Exchange (ASX: AML). Aeon holds a 100% ownership interest in the Walford Creek Copper-Cobalt Project (**Walford Creek Project**) located in north-west Queensland, approximately 340km to the north north-west of Mount Isa.

Aeon completed a Scoping Study on the Walford Creek Project in October 2019. A Pre-Feasibility Study is targeted for completion in 1Q 2021.

## Appendix 3 - JORC Code, 2012 Edition – Table 1 Beauchamps

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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 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 a representative sample 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Aeon 2020: ALS Technique employs 4-acid digest with ICP finish.</li> <li>Where RC sampling has been undertaken, mostly for pre-collars, Aeon has utilised riffle splitting of 1m bagged sample passed through a cyclone. These samples were then speared and composited into 5m samples.</li> <li>HQ core was half sawn in 1m intervals and submitted for analysis.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>2020 Aeon Metals Limited; Reverse Circulation (5.5 inch Hammer bit) and Diamond Drilling (HQ Triple tube). Core oriented, where possible, by Reflex ACT 111 tool and structural data recorded in the database.</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> </ul>	<ul style="list-style-type: none"> <li>Recoveries of samples in the 2020 have been considered good with greater than 98% of all drilling. The homogenous nature of the lithology with little foliation or late fracturing led to good recovery.</li> </ul>



	<ul style="list-style-type: none"> <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>	
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>Aeon: Detailed digital geological logging of all holes with a full set of logging codes transcribed into an Access digital database; full set of core photographs.</li> <li>All logging has been converted to quantitative codes in the Access database.</li> <li>All relevant intersections were logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 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>Aeon: Dry RC samples were riffle split and wet samples speared; 1m samples (of approximately 2kg) sent to commercial laboratory with appropriate sample prep process.</li> <li>Company procedures for core handling documented in a flow sheet; sawn half core under geological control; 1m samples sent to commercial laboratory with appropriate sample prep. Company procedure for RC sample handling documented in flow-sheet; bulk 1m samples in most cases rotary split from rig with only some riffle split; sample dried, crushed and pulverised to appropriate levels; use of field duplicates and quarter core checks were completed and indicated comparable results with the original samples.</li> <li>All sampling methods and sample sizes are deemed appropriate.</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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have</li> </ul>	<ul style="list-style-type: none"> <li>Aeon: Appropriate analytical method using a 4-acid digest with ICP finish. Assaying was carried out by ALS, an accredited laboratory.</li> <li>Aeon: Extensive QA/QC programme with standards, blanks, laboratory duplicates. No secondary lab checks for Beauchamp.</li> <li>The following QAQC was used for samples; Standard 1 in 25, Blank 1 in 33, and Duplicate 1 in 50.</li> <li>No obvious bias was encountered in laboratory tests.</li> </ul>



	been established.	
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>No twin holes or need at this point to verify current three drill holes</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>Aeon: Down hole surveys were generally taken every 30m by REFLEX (ACT 111) EZI-SHOT or as ground conditions permitted.</li> <li>Location of holes currently only by handheld GPS. No DGPS used to date.</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 applied.</li> </ul>	<ul style="list-style-type: none"> <li>Only three holes drilled and currently spaced at greater than 1000m (1Km)</li> <li>No sample compositing undertaken.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drilling generally achieved acceptable angles to the lithology intercepted.</li> <li>Any disseminated mineralisation intersected at a moderate angle.</li> <li>Drilling orientations are considered appropriate with no obvious bias.</li> <li>Holes have been tended to flatten rather than steepen</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All drill core is stored in core trays and transported from site at Beauchamp to Mt Isa by Aeon personnel in appropriate vehicles. This transport of core is considered satisfactory.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>QA/QC work continues to be undertaken as previous with check analysis undertaken a different laboratory.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<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>The Beauchamps tenement EPM 18769</li> <li>The tenement currently consists of 50 sub-blocks. The tenement is a granted Exploration Permit for Minerals and no known impediments exist.</li> <li>The Native Title claim is in existence over EPM 18769, and is with the Indjalandji-Dhidhanu Aboriginal Corporation RNTBC.</li> <li>The tenement is located on Barkly Downs station.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Several companies have explored within the broader area, largely concentrating on the discovery of a significant stratabound lead-zinc system along with consideration for phosphate deposits.</li> <li>All exploration is considered to have been completed to a reasonable standard by experienced companies in a professional manner and has provided some evidence for the ongoing work of Aeon Metals.</li> <li>Exploration by MM Mining, Aston Metals and Aeon Metals (2010-2019) since the tenement was applied for in 2010 has included general limited reconnaissance and in 2015, a broad spaced detailed ground gravity survey.</li> </ul>
Geology	<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 area is covered by recent sediments covering Cambrian age rocks.</li> <li>The mineralisation seen to date is considered of an IOCG style with disseminated chalcopyrite, rare bornite and rare gold in assays.</li> <li>Mineralisation shows affinities to distal parts of other IOCG systems both within Queensland and further afield.</li> </ul>



Drill hole Information	<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>These are the first holes drilled into the main northern coincident gravity and magnetic feature</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</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 style="list-style-type: none"> <li>Not applicable at this stage in the project life</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable at this stage in the project life</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps and sections showing the nature and extent of the geology and mineralisation are included in the ASX report.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

	practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The target being tested was defined from modelling of broad gravity data collected at 500m or greater spacing across the tenement and the reprocessing of historical magnetic data.</li> <li>An earlier AEM survey undertaken by Summit Resources was also remodelled in its entirety and formed another part of the targeting information used to position the first three holes. The anomaly area is large.</li> </ul>
Further work	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Aeon's future exploration will focus on further refining the geophysical anomalies and in particular the magnetics which are on broad spaced collection lines and the gravity data. Further surveys will be processed and will aim to define likely structures controlling mineralisation.</li> </ul>