



**Si6  
METALS**

6 JANUARY 2021

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## Multiple Significant Anomalies Identified at Maibele Project

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### Highlights

- **20km<sup>2</sup> of detailed Gradient Array Induced Polarisation survey completed**
- **Numerous new, strong chargeability anomalies highlighted**
- **Multiple Cu-Ag and Ni-Cu-PGE targets generated**
- **Follow up geophysics and percussion drilling planned for Q1**

Si6 Metals Limited (ASX: **Si6**, “**Si6 Metals**” or “**Company**”) is pleased to provide an update on exploration activities as its 2021 field season commences on the ground in Botswana. The Company continues to target additional nickel, copper, cobalt, PGE and silver mineralisation at its Maibele Project. During December 2020, Si6 Metals completed 20km<sup>2</sup> of Gradient Array Induced Polarisation (“IP”) surveying at its Airstrip and Dibete Prospects and continued deep drilling at its advanced prospects within the Botswana portfolio (see ASX Announcements 09/12/2020, 29/12/2020). The program has made steady progress, with results from geophysical surveying now available and diamond drilling progressing to over 320m depth.

**Si6 Metals Chairman Patrick Holywell stated,** “*The results achieved from the IP studies carried out over the Airstrip and Dibete Prospects demonstrate that multiple significant anomalies are present and very much put us on the front foot to continue with a successful 2021 program in Botswana.*”

*“Whilst Anomaly 1 at Airstrip demonstrates high chargeability zones extending along strike towards the Maibele North Ni-Cu-PGE orebody, Anomaly 2 is an entirely new exploration target for Si6 Metals representing strong potential to contain both Airstrip-style high grade Cu-Ag mineralisation as well as Maibele North-style Ni-Cu-PGE mineralisation. Both anomalies show much prospectivity and we look forward to providing continual updates as we further progress our 2021 exploration program in Botswana.”*

### Ground Geophysics

The initial results from the Gradient Array IP surveying across the Airstrip Cu-Ag and Dibete Cu-Ag prospects are now available. The survey, which was designed to test for deep sulphide bodies that are potentially ‘feeding’ the high-grade mineralisation observed close to surface, covered over 20 km<sup>2</sup> at 100m line-spacing across the two prospects.

The results from both Airstrip and Dibete are very encouraging and show strong chargeability responses that are often coincident with elevated copper levels in soil sampling and, in some cases, high-grade copper and silver mineralisation in drill holes (for discussion of historic results see ASX Release 12/08/2020).

### Airstrip

At the Airstrip Prospect, several prominent chargeability anomalies have been highlighted in 2D surface imagery of the IP survey results (see Figure 1).

**Si6 Metals**

#### Corporate Details

ASX Code: Si6

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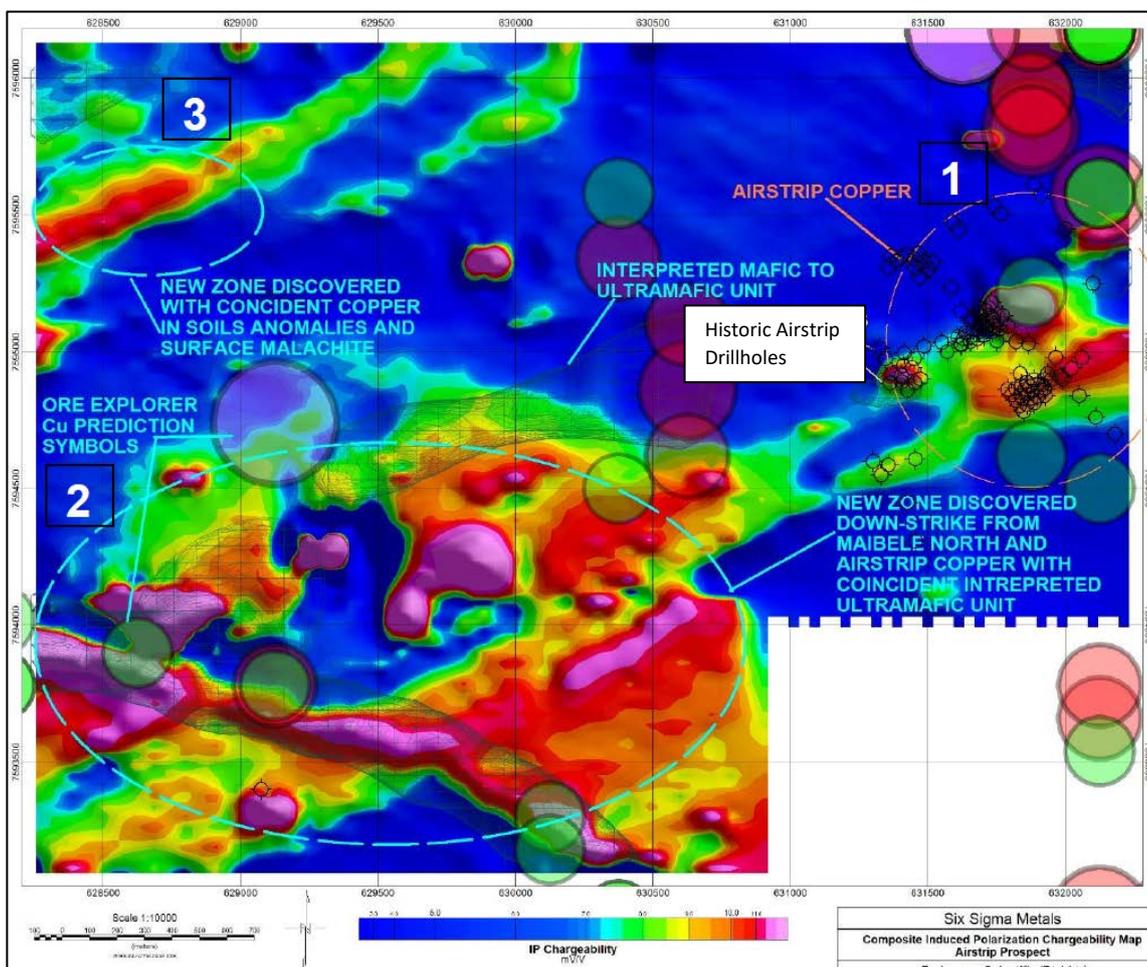
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**Anomaly 1** is located on the NE edge of the survey area and is coincident with historically drilled copper-silver lodes. The high chargeability zones are offset slightly to the east of the main drilled mineralisation at Airstrip and extend along strike towards the Maibele North Ni-Cu-PGE orebody. This anomaly has never been properly drill tested and its proximity to known sulphide mineralisation renders it a very exciting exploration drill target.

**Anomaly 2** presents as a large area of multiple strong chargeability responses in the southwest corner of the survey area (Figure 1). The area displays moderate copper and nickel surface geochemistry but the NW- NE trending structural regime is still evident. The anomaly is also spatially associated with a large NW-trending dolerite dyke, the type of which have been noted to be associated with high grade copper and silver mineralisation in drill holes at Airstrip. This large area also contains a NE-striking magnetic body that potentially represents a mafic-ultramafic body that appears to be the extension of the ultramafic rock types associated with the Maibele North Ni-Cu-PGE orebody.

Anomaly 2 is an exciting new exploration target for Si6 Metals demonstrating strong potential to contain both Airstrip-style high grade Cu-Ag mineralisation as well as Maibele North-style Ni-Cu-PGE mineralisation. Further deep-seeing geophysics such as dipole-dipole IP, or AMT will be required to further investigate these targets at depth at Anomaly 2.

**Anomaly 3** is located in the northern part of the survey area and is a NE-trending, >1km long linear chargeability high, directly associated with a strong NE-trending copper-in-soil anomaly, in an area that has never been drilled previously. Field reconnaissance has shown copper-oxide mineralisation (malachite) to be present at surface. The area shows intersecting NW and NE-trending structural features which are considered important in the potential location of copper-sulphide mineralisation.



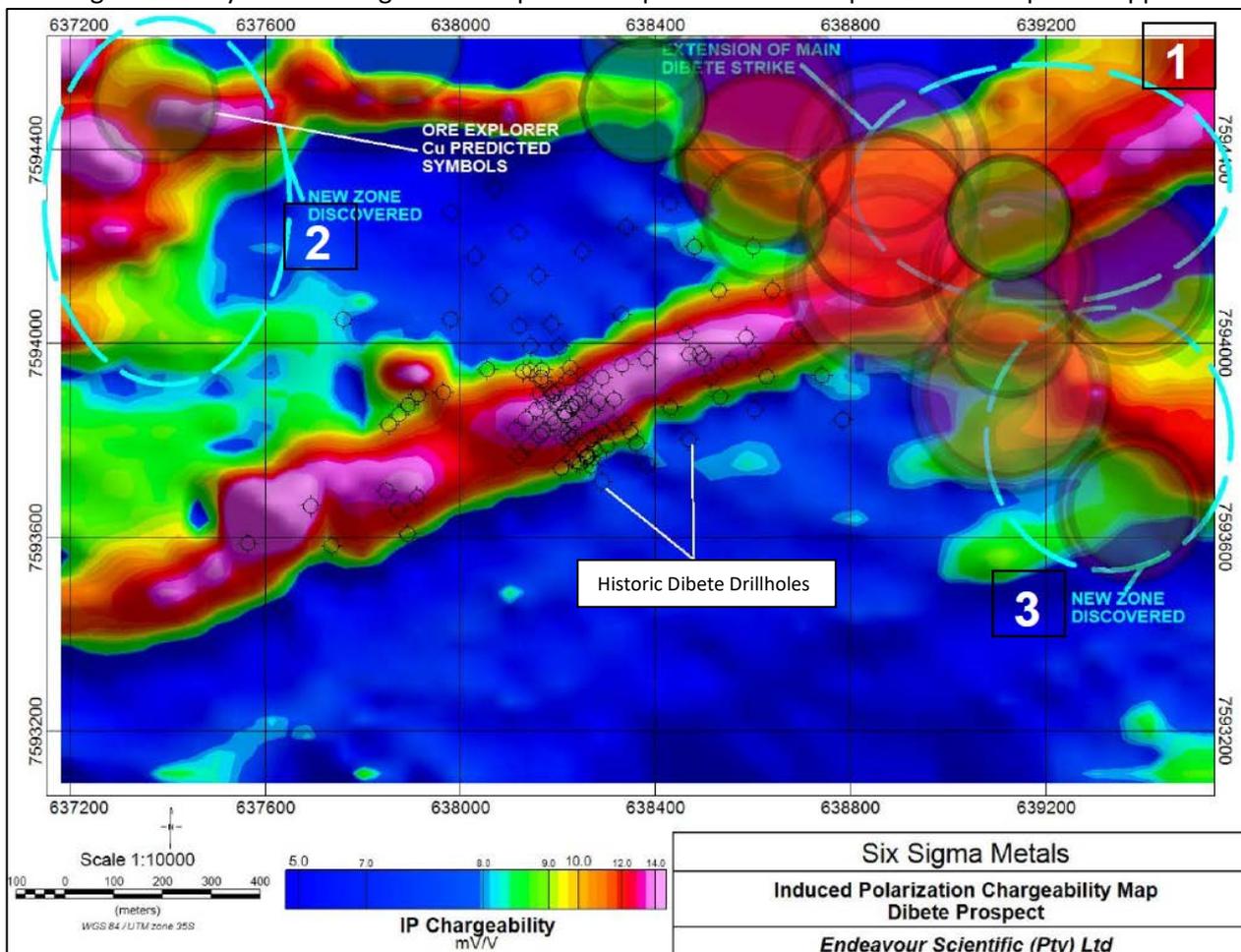
**Figure 1:** Gradient IP map for the Airstrip Prospect and immediate western locality with historic drillholes, ORE Explorer targets and interpreted mafic/ultramafic units.

## Dibete

The IP survey at Dibete revealed three zones of significant chargeability response.

**Zone 1** is a prominent, >2km long NE-trending linear chargeability high occurring coincident with previously drilled shallow high grade copper-silver mineralisation, extending along strike to the NE and SW (see Figure 2). The position and strength of the anomaly is highly encouraging and if the response can be shown to have a source deeper than previous drilling (very few holes at Dibete have extended beyond 100m) then it presents as an exciting deep drill target.

The survey also revealed two additional zones of high chargeability responses at Dibete. **Zone 2** is located to the NW of Dibete and **Zone 3** is to the ESE of the main Dibete prospect. Both anomalies are spatially associated with a NW-trending dolerite dyke which might have important implications for the presence of sulphide copper mineralisation.



**Figure 2:** Gradient IP map for the Dibete Prospect and immediate western locality with historic drillholes, ORE Explorer targets and interpreted mafic/ultramafic units.

A follow up survey of a series of Audio-magnetic Tellurics (“AMT”) or dipole-dipole IP traverses at each prospect is planned to resolve accurate depth to chargeability targets. Once the targets are finalised, Si6 Metals intends to mobilise a Reverse Circulation rig to site to test the chargeability anomalies. The high-grade copper and silver mineralisation at both Airstrip and Dibete appears to be very similar in style and geology to the historically significant Messina Copper Deposits located approximately 230km to the south-east in South Africa.



## Drilling update

The ~550m deep hole targeting deep nickel sulphide mineralisation has progressed to approximately 320m prior to Christmas. The drill crew has re-mobilised to site and will continue on a 24-hour, double shift roster to ensure a timely completion of the hole. The main target in this hole is expected at around 400m to 500m down hole.

The Maibele North nickel sulphide mineralisation is related to ultramafic intrusions within mobile belt rocks and is broadly similar in style to other ultramafic intrusion-related mobile belt nickel discoveries such as Nova-Bollinger (ASX:IGO) and Julimar (ASX:CHN).

**This announcement has been approved by the Board of Si6.**

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### Competent Persons Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on historical and recent exploration information compiled by Mr Steven Groves, who is a Competent Person and a Member of the Australian Institute of Geoscientists. Mr Groves is a Director of Six Sigma Metals Limited. Mr Groves has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Groves consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Appendix 1: JORC Code, 2012 Edition Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Nature &amp; 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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity &amp; the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) &amp; details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented &amp; if so, by what method, etc.).</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording &amp; assessing core &amp; chip sample recoveries &amp; results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery &amp; ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery &amp; grade &amp; whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core &amp; chip samples have been geologically &amp; geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies &amp; metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length &amp; percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Sub-sampling techniques &amp; sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn &amp; whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. &amp; whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality &amp; appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Quality of assay data &amp; laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality &amp; appropriateness of the assaying &amp; laboratory procedures used &amp; whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make &amp; model, reading times, calibrations factors applied &amp; their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) &amp; whether acceptable levels of accuracy (i.e. lack of bias) &amp; precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling & 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 &amp; electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy &amp; quality of surveys used to locate drill holes (collar &amp; down-hole surveys), trenches, mine workings &amp; other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality &amp; adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>A handheld GPS was used to locate each sample point. Accuracy of +/- 5m is considered reasonable</li> <li>WGS 84 / UTM zone 35S</li> </ul>
Data spacing & distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing &amp; distribution is sufficient to establish the degree of geological &amp; grade continuity appropriate for the Mineral Resource &amp; Ore Reserve estimation procedure(s) &amp; classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</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 &amp; the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation &amp; the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed &amp; reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Sample lines are oriented perpendicular to the general strike of the geology.</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>N/A</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques &amp; data.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>



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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement &amp; land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location &amp; 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 &amp; environmental settings.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The results reported in this announcement are located in PL110/94 and PL111/94 which are granted Exploration Licences held by African Metals Limited, a 100% owned subsidiary of Six Sigma Metals Limited.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment &amp; appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Interpretations and conclusions in this announcement refer in part to results generated by historic exploration work conducted by Roan Selection Trust, Falconbridge, Cardia Mining and Botswana Metals.</li> <li>• Six Sigma Metals considers all previous exploration work to have been undertaken to an appropriate professional standard.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting &amp; style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Airstrip and Dibete projects are hosted within the Magogaphate Shear Zone - a major geological structural feature, generally considered to mark the boundary between the Archaean aged (&gt;2.5 billion year old) Zimbabwean Craton and the Limpopo Belt or Limpopo Mobile Zone (LMZ). . The nickel-copper deposits of Selebi Phikwe lie within the northern part of the Central Zone of the Limpopo Mobile Belt, whilst the nickel copper deposits of Phoenix, Selkirk and Tekwane lie in the Zimbabwean Craton. The Central Zone of the LMZ comprises variably deformed banded gneisses and granitic gneisses, infolded amphibolites and ultramafic intrusions that that have the potential to host Ni-Cu sulphide mineralization. Ni-Cu-PGE mineralization at Maibele North is spatially associated with an ultramafic intrusion.</li> <li>• Copper and Silver mineralisation at Airstrip copper and Dibete is spatially associated with Karoo-aged dolerite dykes</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>Easting &amp; northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip &amp; azimuth of the hole</i></li> <li>○ <i>down hole length &amp; interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material &amp; this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades)&amp;cut-off grades are usually Material &amp; should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results &amp; longer lengths of low grade results, the procedure used for such aggregation should be stated &amp; 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>• N/A</li> </ul>
<i>Relationship between mineralisation widths &amp; intercept lengths</i>	<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 &amp; 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’).</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps &amp; sections (with scales)&amp;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 &amp; appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See maps and figures accompanying this ASX release.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low &amp; 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>• Reference has been made to anomalous levels of geochemical pathfinder elements in the document. This interpretation has been determined by experienced Si6 geologists using the Micromine mining and exploration software package. It is impractical to present every result for all 33 elements across the sample population in this document. A map showing the distribution of anomalous Ni has been included for reference.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful &amp; material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size&amp;method of treatment; metallurgical test results; bulk density, groundwater, geotechnical &amp; rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The document refers to a Gradient Array Induced Polarisation survey undertaken during November and December 2020. The induced polarization method is a contact electrical technique that responds to the quantity of disseminated metallic minerals in the ground. When current flows in the host environment it is partly electrolytic and partly electronic with a chemical reaction occurring at the interface of the metallic minerals and the electrolyte in the media, in the presence of an inducing current. The produced ions diffuse back to their original equilibrium when the incident current is interrupted. This process takes a finite amount of time which allows the induced polarization effect to be measured. The quantity of disseminated metallic minerals in the ground affects the magnitude of the induced polarization bulk effect which always includes membrane polarization. It was highly recommended to carry out a gradient IP survey over the vein sulphides target areas at Airstrip Copper and Dibete using a close station spacing. Whilst not providing good depth resolution, the gradient method would provide good depth penetration and the close spacing and rapid coverage will make it effective in detecting narrower mineralized zones over a large area, making it a great follow up tool.</li> <li>• The survey specifications were: <ul style="list-style-type: none"> <li>• Line Spacing: 100m</li> <li>• Station Spacing: 25m</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Pulse Duration: 2s</li> <li>• Array: Gradient</li> <li>• A-B: 1500m Airstrip, 2000m Dibete</li> </ul> <p>Processing and interpretation of the results was undertaken in Botswana by Brian Nyangu BSc. (Hon), MSc. Of Endeavour Scientific</p>
<p><i>Further work</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature &amp; scale of planned further work (e.g. 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 &amp; future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The focus on future work will be to ultimately generate targets for drilling. Work to enable this will include further soil sampling programs, mapping and trenching coupled with ground geophysics to locate bodies of sulphides beneath the surface. If sufficient encouragement is gained from this work, then deeper RC or diamond drilling is anticipated.</li> </ul>