STAVELY MINERALS
ASX Code: SVY

**ASX ANNOUNCEMENT** **9 May 2024**

**Stavely Copper-Gold Project, Victoria – Update**

# Stavely Minerals Commences Commercial Viability Study for Development of Cayley Lode Copper-Gold Deposit

***Study to evaluate small-footprint underground production with processing at an existing gold processing plant, modified to produce a copper-gold concentrate***

**Key Points:**

- **Strengthening copper price and robust outlook underpins re-evaluation of the Cayley Lode.**
- **Cayley Lode Mineral Resource: 9.3Mt at 1.23% Cu, 0.23g/t Au and 7g/t Ag.**
- **Experienced consultants to assist with the studies and provide key inputs.**
- **Studies to evaluate viability of a small-footprint underground mine.**
- **Focus on higher-grade, predominantly Indicated material within 300m of surface.**
- **Study will evaluate processing at an existing processing facility in the district.**
- **Study expected to be completed by end of calendar 2024, with results available by January 2025.**
- **Exciting new phase of exploration commencing shortly, including a Cayley Lode 'look-alike' target at Junction.**

Stavely Minerals Limited (ASX Code: **SVY** – "Stavely Minerals") is pleased to advise that it, in light of the recent increase in the copper and gold prices (Figure 1) and the strong outlook for the copper sector, it has commenced a new study to evaluate the commercial viability of developing a small-footprint underground operation at the Company's 100%-owned Cayley Lode copper-gold deposit in Western Victoria.

It is envisaged that the material would be transported, either by road or by rail, to one of the existing gold processing plants in the region, suitably modified (if required) to produce a copper-gold concentrate.

The study will be conducted with collaboration and inputs from RUC Mining and Mincore Engineering. Previous metallurgical test work completed by Strategic Metallurgy and stope optimisation studies completed by Entech Mining will be incorporated in the study. The study will be coordinated by former Stavely Minerals COO Mark Mantle.

As part of the study, the Cayley Lode Mineral Resources estimate will be re-estimated by consultancy ERM (previously CSA Global) based largely on work they have already completed on behalf of Stavely Minerals. The re-estimate is considered to better reflect the continuity of high-grade copper-gold mineralisation in the central portion of the Cayley Lode.

Depending on the various processing options, the study will include cost estimates for process plant modifications to produce a copper-gold concentrate. Stavely Minerals will be inviting potential regional stakeholders to provide technical, mining and processing input data and to review/comment on the study outcomes.

The objective of the study is to establish if a small-footprint underground mining operation, encompassing the transport of copper-gold bearing material to an existing processing facility in the region to produce a saleable copper-gold concentrate, is viable at the current copper price or, if not, at what copper price it does it become viable.

The outcomes of the study will provide the basis for any decision to progress to more detailed studies (Scoping Study leading to a Pre-Feasibility Study) that would be required for the preparation of permit applications. In Victoria, the permitting process is typically much longer than other jurisdictions and it is important to start the process as early as possible.

The Cayley Lode Mineral Resources estimate is **9.3Mt at 1.23% copper, 0.23g/t gold and 7g/t silver**[1] (see Table 1 for Resource category classifications). The focus of the study is the higher-grade copper-gold mineralisation previously captured in an open pit optimisation down to 300m below surface, where the majority of the Mineral Resources are in the higher-confidence Indicated Resource classification.

Stavely Minerals' Chair, Mr Chris Cairns said: *"With copper and gold prices both rising by around 15% in the past 12 months – and abundant market commentary of pending supply shortfalls likely to further drive the copper price – there is a clear opportunity to evaluate the production potential of our high-confidence copper-gold Mineral Resources at the Cayley Lode. We have long said that we believe there are two ways for us to capture the true value of the Cayley Lode: firstly, we could evaluate a low-capital cost and lower permitting risk production scenario utilising existing processing facilities in the region, of which there are a few options; and, secondly, through additional discovery to create critical mass.*

*We are pursuing both strategies and we look forward to updating the market on exciting new and high-conviction exploration targets in the near future."*


**Figure 1. 12-month chart of copper and gold prices.**

[1] Reported in compliance with the JORC Code 2012, see ASX announcement 14 June 2022. Stavely Minerals confirms that there is no new information or data that materially affects the Mineral Resource estimate and that all material assumptions and technical parameters underpinning the estimate in the cited market announcement continue to apply and have not materially changed.

Yours sincerely,

**Chris Cairns**
**Executive Chair and Managing Director**

Authorised for lodgement by Chris Cairns, Executive Chair and Managing Director.

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Chris Cairns, a Competent Person who is a Fellow of the Australian Institute of Geoscientists and a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Cairns is a full-time employee of the Company. Mr Cairns is Executive Chair and Managing Director of Stavely Minerals Limited and is a shareholder and option holder of the Company. Mr Cairns 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 Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cairns consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*Previously Reported Information: The information in this report that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

**For Further Information, please contact:**

**Stavely Minerals Limited**
Phone: 08 9287 7630
Email: info@stavely.com.au

**Media Inquiries:**
Nicholas Read – Read Corporate
Phone: 08 9388 1474

*Table 1. Cayley Lode Initial Mineral Resource estimate*

| Resource Material | Resource Category | Cut-off (Cu %) | Tonnes (Mt) | Grade (Cu %) | Cont. Cu (Mlbs) | Grade (Au g/t) | Cont. Au (oz) | Grade (Ag g/t) | Cont. Ag (oz) |
|---|---|---|---|---|---|---|---|---|---|
| Primary Mineralisation (OP) | Indicated | 0.2 | 5.87 | 1.04 | 134.4 | 0.23 | 43,407 | 7 | 1,321,074 |
| | Inferred | 0.2 | 1.7 | 1.3 | 49 | 0.2 | 10,931 | 9 | 491,907 |
| Sub-Total Primary OP | | | 7.6 | 1.1 | 183 | 0.2 | 54,338 | 7.4 | 1,808,158 |
| Primary Mineralisation (UG) | Indicated | 1.0 | - | - | - | - | | - | |
| | Inferred | 1.0 | 1.7 | 1.8 | 69 | 0.2 | 10,931 | 6 | 327,938 |
| Sub-Total Primary UG | | | 1.7 | 1.8 | 69 | 0.2 | 10,931 | 6 | 327,938 |
| Total Cayley Lode | | | 9.3 | 1.23 | 252 | 0.23 | 65,000 | 7.1 | 2,100,000 |

# 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 |
|---|---|---|
| ***Sampling techniques*** | *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* | The Cayley deposit has been predominately evaluated using diamond drilling with a minor component of reverse circulation and sonic drilling. The Thursday's Gossan Chalcocite blanket has been evaluated predominately using diamond and aircore drilling with a minor component of reverse circulation drilling.<br><br>For diamond holes drilled by Stavely Minerals, the entire hole has been sampled. PQ quarter core and HQ half core is submitted for analysis. Pre drill hole SMD069 the sample intervals were based on lithology but in general were 1m. No intervals were less than 0.4m or greater than 1.2m.<br><br>For diamond holes post drill hole SMD069, the maximum sample size is 1.2m and the minimum sample size is 0.6m, unless it is between core-loss. In zones of significant core-loss, sampling of all available core will be taken and a record of lost core will be made. There is no minimum sample size in these zones. Samples are taken every 1m on metre marks except in high grade lodes and massive sulphide within the Cayley Lode. Within the Cayley Lode, the sampling boundaries will reflect the high-grade contacts at beginning and within high grade lodes and massive sulphide within the Cayley Lode whilst honouring the minimum and maximum sample sizes.<br><br>For diamond drill holes SMD183 to SMD188, which were drilled to test the porphyry target at Thursday's Gossan, only selected intervals were sampled.<br><br>For historical diamond drill holes, sub-sampling is not well documented. Holes drilled by BCD, Newcrest, North Limited and CRAE the majority of the hole was sampled in 1-2m intervals, all drill core was ½ core sampled. For Pennzoil holes, samples were only selected where mineralisation was observed, it is unknown whether these were half or full core intervals.<br><br>For the Sonic drilling the entire hole was sampled for analysis. The sample intervals were generally 1m. Sampling of the Sonic core is undertaken by cutting the soft clay material into quarters and bagging the sample. In competent samples, large pieces of core are cut into quarters and sampled along with small pieces to approximate one quarter of the sample present in the interval.<br><br>For reverse circulation holes drilled by Stavely Minerals, a representative 1m split samples (~12.5% or nominally 3kg) were collected using a rotary cone splitter mounted on the cyclone and placed in a calico bag, the 1m samples for the entire hole were submitted for analysis.<br><br>For BCD reverse circulation holes TGRC126-138, 1-2m composite samples were collected through regolith and bedrock except within mineralisation and / or zones of interest where 1m samples were collected from the bulk |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | sample using a riffle splitter to collect a representative sample (of unknown proportion).<br><br>BCD predominantly used Air Core drilling to define the secondary chalcocite resource.<br>For TGAC002-TGAC013 the entire hole was sampled with average 3m length composite samples, the sample collection method is unknown.<br>For TGAC014-TGAC045 often, approximately the top 20-30m of each hole was not sampled. Sampling then occurred every 1m except in oxide zones where 2m composites were taken.<br>For TGAC047-TGAC073, TGAC091-TGAC106, and TGAC112-TGAC125 approximately the top 15 metres were not sampled. Sampling included taking 1-2m composites through regolith and bedrock except within mineralisation and/or zones of interest where 1m samples were requested.<br>For SAC029-SAC031, 1m samples were collected for the entire hole.<br>For TGAC126-TGAC159, 3m composite samples were collected. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance/ testing (QA). Certified standards and blanks were inserted into the assay batches. |
| | *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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | **Diamond Drilling**<br>Stavely Minerals drill sampling techniques are considered industry standard for the Stavely work program.<br>For Stavely Minerals diamond, sonic and reverse circulation drill samples were crush to 70% < 2mm, riffle/rotary split off 1kg, pulverize to >85% passing 75 microns to produce a 30g charge for gold analysis and 0.25g charge for multi-element analysis. |

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Drilling techniques</td><td>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</td><td>A summary of drilling by Company is given below.<br><br>
<table>
<tr><th>Company</th><th>Drill hole type</th><th>Number of holes</th><th>Total metres</th></tr>
<tr><td rowspan="3">Stavely Minerals</td><td>DD</td><td>185</td><td>74,050</td></tr>
<tr><td>Sonic</td><td>12</td><td>961</td></tr>
<tr><td>RC</td><td>20</td><td>2,905</td></tr>
<tr><td rowspan="3">BCD</td><td>DD</td><td>5</td><td>1,277</td></tr>
<tr><td>RC</td><td>14</td><td>688</td></tr>
<tr><td>AC</td><td>138</td><td>8,209</td></tr>
<tr><td rowspan="2">Newcrest</td><td>DD</td><td>5</td><td>2,089</td></tr>
<tr><td>AC</td><td>43</td><td>1,871</td></tr>
<tr><td>CRAE</td><td>DD</td><td>2</td><td>601</td></tr>
<tr><td rowspan="2">North Limited</td><td>DD</td><td>3</td><td>856</td></tr>
<tr><td>AC</td><td>62</td><td>3,677</td></tr>
<tr><td>Pennzoil</td><td>DD</td><td>2</td><td>181</td></tr>
</table>
<br>Diamond core drilled by Titeline Drilling Pty Ltd for Stavely Minerals (SMD prefix holes) was drilled utilising standard wireline drilling mostly using PQ bits but also with some HQ drilling to produce oriented core. Triple tube core barrels were routinely used to maximise drill core recovery. Core diameter is mostly PQ (85mm) or HQ3 (63.5mm). For diamond tails to RC drilling, HQ diameter core is produced.<br><br>
Sonic drilling was conducted by Groundwave Drilling Services for Stavely Minerals. Sonic rigs drill by vibrating the rod string and drill bit to produce high frequency resonant energy at the bit face, which is able to liquefy clay, push through sand, and pulverise solid lithologies. External casing is advanced at the same rate as the drill string in order to stop any material from collapsing into the open hole. The core barrel is retrieved from the drill hole using the conventional method of pulling all of the rods out of the drill hole. The sample is vibrated out of the barrel into metre long plastic bags after removing the drill bit.<br><br>
The Stavely Minerals RC holes were drilled by Budd Exploration Drilling P/L. The RC percussion drilling was conducted using a UDR 1000 truck mounted rig with onboard air. A Sullair 350/1150 auxiliary compressor was used. 4” RC rods were used and $5^1/_4$” to $5^3/_4$” drill bits. A Reflex Digital Ezy-Trac survey camera was used.<br><br>
Historic North Ltd diamond holes VICT1D1 and VICT1D2 were drilled in 1993 by contractor Luhrs Holding using an "Edson 3000 Rig". Diamond hole VICTD4 was drilling in 1993 by Silver City Drilling using a "Warman 1000 Rig". Holes were precollared to the base of weathering at about 50m depth, then HQ and then NQ at about 140-170m depth.<br><br>
Historic diamond holes DD96WL010 and DD96WL011 were drilled for CRAE in 1996 by drill contractor Australian Diamond Drilling Pty Ltd using a UDR650 rig. The holes were pre-collared to 3-5m, then drilled HQ to around 200m, then cased off to NQ.</td></tr>
</table>

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | Historic diamond holes VSTD001 - VSTD004 and VSTD006 were drilled for Newcrest in 2002-2003 by Silver City Drilling with a modified UDR600 (? multipurpose) rig.<br><br>Historic diamond holes SNDD001-SNDD005 were drilled for BCD during 2008-2009 by Silver City Drilling using a Wallis Mantis 700 Rig for SNDD001-004 and Titeline Drilling for SNDD005. Holes were collared HQ and cased off to NQ when drill conditions were favourable.<br>Historical aircore holes TGAC002 to TGAC125 were drilled vertically by Beaconsfield Gold Mines Pty Ltd in 2008 and 2009 by Wallis Drilling.<br>Historical aircore holes with the prefix SAC were drilled by BCD in 2009. The holes were drilled vertically by Blacklaws Drilling Services.<br>Historical reverse circulation holes TGRC082 to TGRC143 were drilled by BCD in 2009. Drilling was conducted by Budd Exploration Drilling P/L using a Universal drill rig. TGRC138 was oriented at -60° towards magnetic azimuth 55°.<br>Historical aircore holes TGAC126 to TGAC159 were drilled by BCD in 2012. The holes were drilled vertically by Broken Hill Exploration using a 700psi/300cfm aircore rig. |
| ***Drill sample recovery*** | *Method of recording and assessing core and chip sample recoveries and results assessed.* | Diamond core recoveries for Stavely Minerals holes were logged and recorded in the database.<br>Unless specifically mentioned, the core recovery for all diamond holes was on average greater than 90%.<br>Core recovery for SMD050 averaged 82% with an average recovery of 76% in the mineralised zone between 79m and 93m.<br>Core recovery for SMD051 averaged 86%. For the mineralised zone between 97m and 182m recovery averaged 76%, however between 98m and 127.7m the recovery only averaged 55%.<br>Core recovery for SMD053 was on average 87%, however the in the final metre of the mineralised zone there was only 46% recovery.<br>Core recovery for SMD054 averaged 87%.<br>Core recovery for SMD060 averaged 85%. However, core recovery between 104m and 116m was very poor at less than 50% and between 119.9m and 126.2m there was 100% core loss.<br>Core recovery for SMD074 averaged 93%, but a portion of the mineralised zone between 181.6m and 195.7m only averaged 76%.<br>While the overall recovery for SMD093 and SMD094 was 94% and 96%, respectively, there was core loss through the Cayley Lode and hence a wedge – SMD093W1 and SMD094W1 was drilled for each hole. There was still some core loss in the Cayley Lode in the wedges.<br>Core recovery for SMD096 averaged 90%, however for the Cayley Lode recovery was 99%, but 0.3m of core was lost from the bottom of the mineralised zone. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | Core recovery for SMD104 averaged 89%, however in the high-grade zone the core recovery averaged 96%.<br>Core recovery for SMD106 averaged 89%.<br>Overall core recovery for SMD108 averaged 88%, however within the Cayley Lode it dropped to an average of 76%.<br>Overall core recovery for SMD134 averaged 92%, however there was 4.6m core loss in the Cayley Lode.<br>Overall core recovery for SMD135 averaged 95%, however there was 0.5m core loss in the Cayley Lode.<br>Overall core recovery for SMD156 averaged 90%, however core recovery was only 46% in the Cayley Lode between 262.4m to 269.4m.<br>Overall core recovery for SMD156W1 averaged 91%, however core recovery was only 87% in the Cayley Lode between 246m to 270m.<br>Overall core recovery for SMD184W1 averaged 86%.<br>Recoveries for BCD diamond holes (SNDD001-SNDD004) averaged 85%, with a high degree of core loss in the weathered profile, serpentinite and through zones of high sulphide content. North Ltd holes VICTD1 and VICTD2 averaged 87% recovery and Newcrest hole VSTD averaged 93%.<br>Recoveries were not documented for Pennzoil holes, Newcrest holes VSTD001-004 or BCD hole SNDD005.<br>Sonic core recoveries were logged and recorded in the database.<br>Core recovery for SMS001D averaged 97%.<br>Core recovery for SMS002AD averaged 78%.<br>Core recovery for SMS003 to SMS011 averaged between 89% and 98%.<br>Core recovery for SMS012 averaged 86%.<br>Core recovery for SMS013 averaged 84%.<br>RC sample recovery for holes drilled by Stavely Minerals was good. Booster air pressure was used to keep the samples dry despite the hole producing a significant quantity of water. RC sample recovery was visually checked during drilling for moisture or contamination.<br>For BCD percussion drilling, wet drilling and sampling conditions is often mentioned and is likely to have affected all drill holes. However, data and information is not available. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | Stavely Minerals diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the driller. Triple tube core barrels were routinely used to maximise drill core recovery.<br>Sonic drilling was used by Stavely Minerals in difficult ground conditions, due to its ability to drill a wide range of material types and recover the sample. A wide variety of drill bits and barrels are available for use in different types of ground on the Sonic drill rig. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | The RC samples for drilling conducted by Stavely Minerals was collected by plastic bag directly from the rig-mounted cyclone and laid directly on the ground in rows of 10. The drill cyclone and sample buckets are cleaned between rod-changes and after each hole to minimise down-hole and/or cross contamination. Booster air pressure was used to keep the samples dry despite the hole producing a significant quantity of water. When samples could no longer be kept dry, RC drilling stopped and diamond tails were drilled. RC sample recovery was visually checked during drilling for moisture or contamination.<br>No details are available for the historical drill holes. |
| | *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.* | There are some issues with Stavely Minerals diamond core sample recovery within the mineralised zone. This includes the loss of material which is likely to have carried grade.<br>For the RC drilling by Stavely Minerals, no analysis has been undertaken as yet regarding whether sample bias may have occurred due to preferential loss/gain of fine/coarse material and is not considered to have a material effect given the good sample recovery.<br>For BCD drilling, wet drilling and sampling conditions is often mentioned and is likely to have affected all drill holes. However, data and information is not available for assessing the effect these conditions have on grade.<br>No details are available for the other historical drill holes. |
| ***Logging*** | *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.* | For Stavely Minerals drilling geological logging of samples followed Company and industry common practice. Qualitative logging of samples including, but not limited to, lithology, mineralogy, alteration, veining and weathering. Diamond core logging included additional fields such as structure and geotechnical parameters.<br>Magnetic Susceptibility measurements were taken for each 1m diamond core interval.<br>All historical drill holes were geologically logged. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* | For all diamond and sonic drilling by Stavely Minerals, logging is quantitative, based on visual field estimates. Systematic photography of the core in the wet and dry form was completed.<br>For all RC drilling by Stavely Minerals, logging is quantitative, based on visual field estimates. Chip trays with representative 1m RC samples were collected and photographed then stored for future reference.<br>For all historic drilling logging is quantitative, based on visual field estimates. |
| | *The total length and percentage of the relevant intersections logged.* | For Stavely Minerals diamond and Sonic Drilling, detailed core logging, with digital capture, was conducted for 100% of the core by Stavely Minerals' on-site geologist at the Company's core shed near Glenthompson.<br>For Stavely Minerals RC drilling, all chip samples were geologically logged by Stavely Minerals' on-site geologist on a 1m basis, with digital capture in the field.<br>Historical holes have been logged in their entirety. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sub-sampling techniques and sample preparation*** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | For Stavely Minerals diamond drilling quarter core for the PQ diameter diamond core and half core for the HQ diameter core was sampled on site using a core saw.<br>Sampling of the Sonic core is undertaken by cutting the soft clay material into quarters and bagging the sample. In competent samples, large pieces of core will be cut into quarters and sampled along with small pieces to approximate one quarter of the sample present in the interval. Mining Plus have confirmed that this sampling procedure is acceptable.<br>For historical holes, sub-sampling is not well documented. Holes drilled by BCD, Newcrest, North Limited and CRAE the majority of the hole was sampled in 1-2m intervals, all drill core was ½ core sampled. For Pennzoil holes, samples were only selected where mineralisation was observed, it is unknown whether these were half or full core intervals. |
| | *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* | Splitting of samples for RC drilling conducted by Stavely Minerals occurred via a rotary cone splitter by the RC drill rig operators. Cone splitting of RC drill samples occurred regardless of whether the sample was wet or dry.<br>For BCD holes TGRC126-138, 1-2m composite samples were collected through regolith and bedrock except within mineralisation and / or zones of interest where 1m samples were collected from the bulk sample using a riffle splitter to collect a representative sample (of unknown proportion). In the 2006 program (TGRC001) it was noted that the rig did not have the capacity to keep the sample dry, a 3m composite was collected for each 3m rod run with the rods flushed at the end of each run to limit contamination, the ample collection method was not recorded. |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | Company procedures were followed to ensure sub-sampling adequacy and consistency. These included, but were not limited to, daily work place inspections of sampling equipment and practices.<br>The sampling practices followed for the diamond drilling were audited by Mining Plus in December 2019 and found to be appropriate. In February 2020, Cube Consulting conducted a site visit and audit of sampling procedures. Recommendations made have been implemented.<br>No details of sample preparation are given for the historical drilling. |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | For diamond, Sonic and RC drilling by Stavely Minerals, blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures. Blanks were inserted – 1 per 40 samples outside the strongly mineralised zone and 1 in 10 samples within the strongly mineralised zone. Standards were inserted – 1 per 20 samples outside the strongly mineralised zone and 1 in 10 samples within the strongly mineralised zone.<br>For historical holes, only BCD AC holes TGAC126-TGAC159 had any field QA/QC with roughly one duplicate was speared for each hole and one standard inserted for each hole. These do not include analysis for gold. |
| | *Measures taken to ensure that the sampling is* | For diamond drilling by Stavely Minerals, quarter core sampling of the diamond PQ core and Sonic core is |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* | conducted to provide a field duplicate from hole SMD067 to SMD097 and all Sonic holes. |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | The sample sizes are considered to be appropriate to correctly represent the sought mineralisation. |
| ***Quality of assay data and laboratory tests*** | *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* | Stavely Minerals core and 1m RC split samples were analysed by multielement ICPAES Analysis - Method ME-ICP61. A 0.25g sample is pre-digested for 10-15 minutes in a mixture of nitric and perchloric acids, then hydrofluoric acid is added and the mixture is evaporated to dense fumes of perchloric (incipient dryness). The residue is leached in a mixture of nitric and hydrochloric acids, the solution is then cooled and diluted to a final volume of 12.5mls. Elemental concentrations are measured simultaneously by ICP Atomic Emission Spectrometry. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for porphyry copper-gold systems.<br><br>This technique is a four- acid digest with ICP-AES or AAS finish.<br><br>The drill core and 1m grab splits were also analysed for gold using Method Au-AA23. Up to a 30g sample is fused at approximately 1,100$^{o}$C with alkaline fluxes including lead oxide. During the fusion process lead oxide is reduced to molten lead which acts as a collector for gold. When the fused mass is cooled the lead separates from the impurities (slag) and is placed in a cupel in a furnace at approximately 900$^{o}$C. The lead oxidizes to lead oxide, being absorbed by the cupel, leaving a bead (prill) of gold, silver (which is added as a collector) and other precious metals. The prill is dissolved in aqua regia with a reduced final volume. Gold content is determined by flame AAS using matrix matched standards. For samples which are difficult to fuse a reduced charge may be used to yield full recovery of gold. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for detecting gold mineralisation.<br><br>Information on assaying details for historic holes are not well documented, the following information was gathered from previous annual technical reports:<br>• Pennzoil: A base metal suite was assayed via AAS (digestion not specified) and Au was assayed via fire assay.<br>• North, CRAE and Newcrest: A base metal suite was assayed via Mixed Acid digest, AAS detection (ICP-OES for CRAE) and Au was assayed via fire assay.<br>• BCN: A base metal suite by aqua regia digest ICP-OES methods and repeated assays for samples returning greater than 5000ppm Cu by Mixed Acid Digest ICP-OES detection. Au was assayed via fire assay. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *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.* | Not applicable to this report. |
| | *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | Laboratory QAQC for Stavely Minerals drilling involved insertion of CRM (Certified Reference Materials), duplicates and blanks.<br>The analytical laboratory provides their own routine quality controls within their own practices. The results from their own validations were provided to Stavely Minerals.<br>Results from the CRM standards and the blanks gives confidence in the accuracy and precision of the assay data returned from ALS.<br>For historical holes, only BCD AC holes TGAC126-TGAC159 had any field QA/QC with roughly one duplicate was speared for each hole and one standard inserted for each hole. These do not include analysis for gold. |
| ***Verification of sampling and assaying*** | *The verification of significant intersections by either independent or alternative company personnel.* | Stavely Minerals' Managing Director, the Technical Director or the Geology Manager – Victoria have visually verified significant intersections in the diamond core and percussion chips. |
| | *The use of twinned holes.* | No twinned holes have been drilled. |
| | *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | For Stavely Minerals drilling primary data was collected for drill holes using the OCRIS logging template on Panasonic Toughbook laptop computers using lookup codes. The information was sent to a database consultant for validation and compilation into a SQL database.<br>All primary assay data is received from the laboratory as electronic data files that are imported into the sampling database with verification procedures in place.<br>Digital copies of Certificates of Analysis are stored on the server which is backed up daily.<br>Data is also verified on import into mining related software.<br>No details are available for historical drilling. |
| | *Discuss any adjustment to assay data.* | No adjustments or calibrations were made to any assay data used in this report. |
| ***Location of data points*** | *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.* | The drill collar location was pegged before drilling and surveyed using Garmin handheld GPS to accuracy of +/- 3m. Collar surveying was performed by Stavely Minerals' personnel. Subsequent to drilling, the collar locations have been surveyed using a DGPS.<br>There is no location metadata for historic Pennzoil, North Ltd, CRAE or Newcrest holes. |
| | *Specification of the grid system used.* | The grid system used is GDA94, zone 54. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *Quality and adequacy of topographic control.* | For Stavely Minerals' exploration, the RL was recorded for each drill hole location from the DGPS. Accuracy of the DGPS is considered to be within 1m. |
| ***Data spacing and distribution*** | *Data spacing for reporting of Exploration Results.* | The drill hole spacing is predominantly 40m by 40m but in places is 60m by 60m.<br>The data spacing is deemed to be sufficient in reporting a Mineral Resource. |
| | *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.* | The drill hole spacing has been shown to be appropriate by variography. |
| | *Whether sample compositing has been applied.* | For Stavely Minerals diamond and sonic core the entire hole is sampled. For diamond core PQ quarter core and HQ half core was submitted for analysis. Sample intervals were based on lithology but in general were 1m. No intervals were less than 0.4m or greater than 1.2m.<br>For Stavely Minerals RC, percussion drilling was used to produce a 1m bulk sample (~25kg) which was collected in plastic bags and representative 1m split samples (12.5% or nominally 3kg) were collected using a cone splitter and placed in a calico bag. The cyclone was cleaned out with compressed air at the end of each hole and periodically during the drilling. The 1m split samples were submitted for analysis.<br><br>Historical diamond hole PEND1T was drilled by Pennzoil of Australia and only portions of the hole were sampled, with composite samples varying from 1 to 8m.<br>Historical RAB drill holes with the prefix PENR were drilled by Pennzoil of Australia and alternate two metre composite samples were assayed for Ag, Cu, Pb and Zn.<br>Historical aircore drill holes with the prefix STAVRA were drilled by North Limited and three metre composite samples were assayed for Au, Cu, Pb and Zn.<br>Historical diamond holes VICT1D2 and VICT1D4 were drilled by North Limited. For VICT1D2 the top 28 metres was not sampled, there after one metre or two metre composite samples were assayed for Au, Ag, Co and Mo. For VICT1D4 the top 27m was not sampled, there after one metre samples were assayed for Au, As, Cu, Mo, Pb and Zn.<br>For historical aircore holes TGAC002 to TGAC125 approximately the top 15 to 16 metres was not sampled, after that one metre intervals samples were taken for the remainder of the holes.<br>For aircore holes TGAC126 to TGAC159 no samples were taken for the top 9 metres, after which three metre composite samples were collected for the remainder of the holes. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | For aircore holes SAC001 to SAC031 the top approximately 5 to 30m were not sampled, after which three metre composite samples were assayed for Au, Ag, As, Bi, Cu, Hg, Pb, S and Zn.<br>For historical holes with the prefix TGRC one metre samples were assayed for Au, Ag, As, Co, Cu, Fe, Ni, Pb, S and Zn. |
| ***Orientation of data in relation to geological structure*** | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* | As best as practicable, drill holes are designed to intercept targets and structures at a high angle. |
| | *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.* | The majority of the drilling has intersected the Cayley Lode mineralisation approximately perpendicularly except where limitations relating to surface access has resulted in the Cayley Lode mineralisation being intersected sub optimally. |
| ***Sample security*** | *The measures taken to ensure sample security.* | Drill samples in closed poly-weave bags are delivered by Stavely personnel to Ballarat from where the samples are couriered by a reputable transport company to ALS Laboratory in Adelaide, SA. At the laboratory, samples are stored in a locked yard before being processed and tracked through sample preparation and analysis. |
| ***Audits or reviews*** | *The results of any audits or reviews of sampling techniques and data.* | An audit of the sampling techniques, QAQC and the database was conducted by Mining Plus in November 2019 and by Cube Consulting in February 2020. The majority of the recommendations of the audit have been implemented. In particular there were slight adjustments to the sampling interval, frequency of QAQC samples and a minor update to the database. |

## 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*** | *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.* | **Stavely Project**<br>The Stavely Project comprises RL2017, EL6870, EL7347, EL7921, EL7922, EL7923 and EL7924. Stavely Minerals hold 100% ownership of the Stavely Project tenements.<br>The mineralisation at Thursday's Gossan is situated within retention licence RL2017.<br>EL4556, which was largely replaced by RL2017 was purchased by Stavely Minerals (formerly Northern Platinum) from BCD Resources Limited in May 2013. RL2017 was granted on the 8th May 2020 and expires on the 7th May 2030. A Section 31 Deed and a Project Consent Deed has been signed between Stavely Minerals Limited and the Eastern Maar Native Title Claim Group for RL2017.<br>EL6870 was granted on the 30 August 2021 and expires on the 29 August 2026. A Section 31 Deed and a Project Consent Deed has been signed between Stavely Minerals Limited and the Eastern Maar Native Title Claim Group for EL6870.<br>EL7347 was granted on the 17th June 2022 for a period of 5 years. EL7921 was granted on the 15th September 2022 for a period of 5 years. EL7922, EL7923 and EL7924 were granted on the 29th September 2022 for a period of 5 years. These 5 tenements do not cover crown land and are not subject to Native Title.<br>**Black Range Joint Venture**<br>The Black Range Joint Venture comprises exploration licence 5425 and is an earn-in and joint venture agreement with Navarre Minerals Limited. Stavely Minerals earned 83% equity in EL5425 in December 2022. EL5425 was granted on 18 December 2021 and expires on the 17 December 2027. |
| | *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.* | All the exploration licences and the retention licence are in good standing and no known impediments exist. |
| ***Exploration done by other parties*** | *Acknowledgment and appraisal of exploration by other parties.* | **Stavely Project & Black Range Joint Venture**<br>The Mt Stavely belt has been explored since the late 1960's, including programmes undertaken by mineral exploration companies including WMC, Duval, CRA Exploration, BHP, and North.<br>Exploration activity became focused on Thursday's Gossan and the Junction prospects following their discovery by Pennzoil of Australia Ltd in the late 1970s. North Limited continued to focus on Thursday's Gossan in the 1990s. North's best drill result at Thursday's Gossan came from VICT1D1 which gave 161m of 0.26% Cu from 43m, |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | including 10m of 0.74% Cu from 43m from a supergene-enriched zone containing chalcocite.<br>The tenement was optioned to CRA Exploration between 1995 and 1997. CRAE drilled several deep diamond drill holes into Thursday's Gossan, including DD96WL10, which intersected 186m from 41m of 0.15% Cu and DD96WL11, which intersected 261.7m from 38.3m of 0.13% Cu.<br>EL4556 was further explored by Newcrest Operations Limited under option from New Challenge Resources Ltd between 2002 and 2004. Their main focus was Thursday's Gossan in order to assess its potential as a porphyry copper deposit. One of their better intersections came from drill hole VSTD01 on the northern edge of the deposit which gave 32m at 0.41 g/t Au and 0.73% Cu from 22m in supergene-enriched material.<br>The Stavely Project was optioned to Beaconsfield Gold Mines Pty Ltd in 2006 who flew an airborne survey and undertook an extensive drilling programme focused on several prospects including Thursday's Gossan. One of their diamond drill holes at Thursday's Gossan, SNDD001, encountered zones with quartz-sulphide veins assaying 7.7m at 1.08 g/t Au and 4.14% Cu from 95.3m and 9.5m at 0.44 g/t Au and 2.93% Cu from 154.6m along silicified and sheared contacts between serpentinite and porphyritic intrusive rocks.<br>Once Beaconsfield Gold Mines Pty Ltd had fulfilled their option requirements, title of EL4556 passed to their subsidiary company, BCD Metals Pty Ltd, who undertook a gravity survey and extensive drilling at prospects including Thursday's Gossan. They also commissioned a maiden Mineral Resource estimate for Thursday's Gossan.<br>All work conducted by previous operators at Thursday's Gossan is considered to be of a reasonably high quality. |
| ***Geology*** | *Deposit type, geological setting and style of mineralisation.* | **Stavely Project & Black Range Joint Venture**<br>The Stavely Project and Black Range JV are located in the Mount Stavely Volcanic Complex (MSVC). Intrusion of volcanic arc rocks, such at the Mount Stavely Volcanic Complex, by shallow level porphyries can lead to the formation of porphyry copper ± gold ± molybdenum deposits.<br>EL6870 is interpreted by Cayley et al. (2017) to host structurally dislocated and rotated segments of both the Stavely Belt and the Bunnugal Belt.<br>**Stavely Project**<br>**Thursday's Gossan Prospect**<br>The Thursday's Gossan prospect is located in the Mount Stavely Volcanic Complex (MSVC). Intrusion of volcanic arc rocks, such at the Mount Stavely Volcanic Complex, by shallow level porphyries can lead to the formation of porphyry copper ± gold ± molybdenum deposits.<br>The Thursday's Gossan Chalcocite deposit (TGC) is considered to be a supergene enrichment of primary porphyry-style copper mineralisation. Mineralisation is characterised by chalcopyrite, covellite and chalcocite copper sulphide mineralisation within a sericite, illite and |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | kaolin clay alteration assemblage. Copper mineralisation is within a flat lying enriched 'blanket' of overall dimensions of 4 kilometres north-south by up to 1.5 kilometres east-west by up to 60 metres thick with an average thickness of approximately 20 metres commencing at an average depth below surface of approximately 30 metres. The majority (circa 60%) of the Mineral Resources reside within a higher-grade zone of approximate dimensions of 1 kilometre x 300 metres by 35 metres thick.<br>The mineralisation at the Cayley Lode at the Thursday's Gossan prospect is associated with high-grade, structurally controlled copper-gold-silver mineralisation along the ultramafic contact fault.<br>The Thursday's Gossan area hosts a major hydrothermal alteration system with copper-gold mineralisation over a 10 kilometre long corridor. The Junction porphyry target is defined by a coincident magnetic high, strong soil copper geochemistry, RAB drilling copper anomalism. Stavely Minerals believes the technical evidence indicates there is significant porphyry copper-gold mineralisation potential at depth at Thursday's Gossan. |
| ***Drill hole Information*** | *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:*<br>*easting and northing of the drill hole collar*<br>*elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>*dip and azimuth of the hole*<br>*down hole length and interception depth*<br>*hole length.* | All exploration results used in the Mineral Resource estimate have previously been reported. |
| | *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.* | No material drill hole information has been excluded. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Data aggregation methods*** | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* | High-grade mineralisation exploration all copper/ and or gold intervals considered to be significant have been reported with subjective discretion.<br>No top-cutting of high-grade assay results have been applied, nor was it deemed necessary for the reporting of significant intersections. |
| | *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.* | In reporting exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval grade %) divided by sum of interval length. |
| | *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | Assumptions used for reporting of metal equivalent values are clearly stated. |
| ***Relationship between mineralisation widths and intercept lengths*** | *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* | **Stavely Project**<br>**Thursday's Gossan Prospect**<br>The vast majority of the diamond drill holes used in the resource estimation were oriented to intercept the steeply dipping mineralisation at a high angle. As a rule, drill holes had a -60 degree dip to azimuth 070 and the mineralisation averaged a dip of -80 degrees to azimuth 250. The average angle of interception was 40 degrees and the true width is ~65% of the intercept length.<br>In a small percentage of holes due to constraints on drill hole location the holes were oriented oblique to known mineralisation orientations and therefore the intercepts are considered greater than the true widths of mineralisation. |
| | *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | |
| ***Diagrams*** | *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole* | Cross sections and a plan of collar locations were included with previously reported exploration results. Relevant diagrams have been included within the Mineral Resource report main body of text. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *collar locations and appropriate sectional views.* | |
| ***Balanced reporting*** | *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | Exploration results are not being reported. |
| ***Other substantive exploration data*** | *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | No additional or new drilling results are being reported at this time. |
| ***Further work*** | *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>*Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | **Stavely Project**<br>**Thursday's Gossan Deposit**<br>A commercial viability study for the development of the Cayley Lode Copper-Gold Deposit is expected to commence in the near future. |

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Database integrity* | *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*<br><br>*Data validation procedures used.* | Relational and spatial integrity assessed and considered acceptable.<br>The CP has verified the findings of Hackman (2015) with respect to a discrepancy between some Stavely and historical drill hole collar elevations. This is detailed in the Mineral Resource report, along with the actions taken, and the recommendation is that a high-resolution topographic survey is undertaken to both provide for an accurate surface model and resolve the collar discrepancy.<br>A QAQC review has been undertaken for Stavely sampling. A number of validation checks have also been undertaken:<br>• Sample data exceeding the recorded depth of hole.<br>• Checking for sample overlaps.<br>• Reporting missing assay intervals.<br>• Visual validation of co-ordinates of collar drill holes following adjustments.<br>• Visual validation of downhole survey data.<br>**Historical Drilling**<br>Data management protocols and provenance unknown for historical drilling.<br>Limited cross checks with paper records of drill hole and assay data for historical drilling.<br>Field verification of 9 hole collar locations. |
| *Site visits* | *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br><br>*If no site visits have been undertaken indicate why this is the case.* | Not undertaken by CP due to COVID 19 travel restrictions.<br>Stavely Minerals' personnel verify existence of core. CP has viewed photos of drill core with mineralisation taken by Stavely Minerals' Personnel. |
| *Geological interpretation* | *Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.*<br><br>*Nature of the data used and of any assumptions made.*<br><br>*The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br><br>*The use of geology in guiding and controlling Mineral Resource estimation.* | Single planar mineralised massive sulphide and weathered body interpreted and modelled for grade interpolation.<br>Oxide state modelled and utilised for generation and reporting of resource estimate. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *The factors affecting continuity both of grade and geology.* | |
| *Dimensions* | *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.* | Massive sulphide mineralisation extends for a strike length of 850 m (towards 335deg), vertically for 250 m and ranges mostly between 1 m and 3 m thick. The broader package inclusive of disseminated and stringer mineralisation extends several metres either side of the massive sulphide horizon. The mineralisation is modelled up to 16m thick in the upper, weathered zone (this may be real, due to supergene actions or introduced due to the suspected wet/difficult RC drilling conditions or a combination of both).<br><br>A nominal grade cut-off of 0.1% Cu was applied to guide the delineation of the mineralisation/estimation domain.<br><br>The block model and grade estimate encompasses the extent of the mineralisation. |
| *Estimation and modelling techniques* | *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*<br><br>*The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br><br>*The assumptions made regarding recovery of by-products.*<br><br>*Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*<br><br>*In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br><br>*Any assumptions behind modelling of selective mining units.* | Copper, gold, silver and zinc grades were interpolated into a block model with parent blocks of 2.5 mE x 10 mN x 10 mRL. Sub-blocks of 0.625 mE x 2.5 mN x 2.5 mRL were used to accurately model the volume of the mineralisation and other features.<br><br>1m composite intervals were utilised for grade interpolation, and these were weighted by density due to the strong correlation between density and grade (dense massive sulphides typically represent high-grade material). Modest grade caps were applied to each of the four grade variables in order to mitigate against the undue spread of outlier grade values.<br><br>A two-pass Inverse Distance Squared ($ID^2$) interpolator was ultimately chosen for reporting of the resource, but Ordinary Kriging (OK) and Categorical Indicator Kriging (CIK) estimates were also run as candidates and all three methods were carefully compared before the final selection of the $ID^2$ method was made.<br><br>In the first $ID^2$ pass, a sample search distance within the plane of mineralisation (i.e. the major/semi-major plane) was set at 60 m, with 15 m in the perpendicular minor direction. This is designed to allow for more local influence in the block estimates for the first pass. The second pass utilised a major/semi search radius of 180 m in the weathered and 360 m in the fresh part of the estimation domain, in order to fill all blocks with grade estimates.<br><br>A minimum of 6 and maximum of 16 samples were allowed for grade interpolation for all four elemental variables. The search neighbourhood was divided into four quadrants with a maximum of 4 samples per quadrant allowed in order to ensure a spatial spread of informing samples, and to limit the number of samples sourced from any single drill hole. Anisotropic distances were used in the search for sample selection.<br><br>A set of modest high-grade distance limiting parameters were set to prevent the propagation of upper tail grades into poorly informed areas as laid out in the Table below. |

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>Any assumptions about correlation between variables.<br><br>Description of how the geological interpretation was used to control the resource estimates.<br><br>Discussion of basis for using or not using grade cutting or capping.<br><br>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</td><td>Mineral resource estimate validation, for the grade estimates, has been undertaken by the following means:<br><br>• Global statistical comparisons of mean estimated block grades to mean composite grades.<br><br>• Using swath plots to compare estimated block grades to the informing composite grades.<br><br>• By visual validation, both in cross-section and 3D isometric views, of the estimated block grades overlaid on drill assay data.<br><br>
<table>
<tr><th>Variable</th><th>Sub-domain</th><th>HG Threshold</th><th>Distance Limit (m)</th></tr>
<tr><td rowspan="2">Ag g/t</td><td>Weathered</td><td>18</td><td rowspan="8">30</td></tr>
<tr><td>Fresh</td><td>18</td></tr>
<tr><td rowspan="2">Au g/t</td><td>Weathered</td><td>1</td></tr>
<tr><td>Fresh</td><td>2</td></tr>
<tr><td rowspan="2">Cu %</td><td>Weathered</td><td>9</td></tr>
<tr><td>Fresh</td><td>9</td></tr>
<tr><td rowspan="2">Zn %</td><td>Weathered</td><td>0.5</td></tr>
<tr><td>Fresh</td><td>0.5</td></tr>
</table>
</td></tr>
<tr><td>Moisture</td><td>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content</td><td>Tonnage and density is estimated on a dry basis.</td></tr>
<tr><td>Cut-off parameters</td><td>The basis of the adopted cut-off grade(s) or quality parameters applied.</td><td>The Mineral Resource is reported a grade cut-off of 1.0% Cu by oxidation state.</td></tr>
<tr><td>Mining factors or assumptions</td><td>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</td><td>Underground methods of extraction for the fresh component of the mineralisation have been considered using Stope Optimisation studies. While the oxide portion of the resource has not had any mining studies undertaken, it is considered a possibility that it could be extracted by open pit mining methods.</td></tr>
<tr><td>Metallurgical factors or assumptions</td><td>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential</td><td>Burnie Research Laboratory undertook flotation testing of Carroll’s oxide and sulphide ore types on behalf of BCD Resources Ltd in 2010. The summary pf findings are presented verbatim below:<br>“Two copper ore types (Oxide and Sulphide) were received for preliminary flotation and mineralogical assessments. Analyses indicate composite grades of 1.0% Cu, 1.0 ppm</td></tr>
</table>

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.* | *Au for the Oxide and 2.8% Cu and 2.7 ppm Au for the Sulphide composites respectively.*<br>*Mineralogical assessment of the Oxide composite indicate copper oxides of malachite /azurite contain some 55% of copper with the remaining copper in iron oxides, clays and mica. Oxide composite gold analyses indicate that gold is quite coarse.*<br>*Sulphide ore contains a simple gangue suite of quartz and amphiboles with minor pyrite, sphalerite and pyrrhotite. Copper is exclusively present in chalcopyrite.*<br>*Oxide copper flotation was performed with conventional sulphide activation and xanthate and yielded around 35% copper recovery to a 34% copper grade concentrate. Remaining copper is mainly resident in goethite. Further assessment of cleaning routines should improve recovery to around 50%. Gold is also recovered and reported to concentrate at around 50ppm at 85% recovery from feed. ICP analyses of concentrate do not indicate any smelter penalty constituents.*<br>*Sulphide ore copper flotation response was excellent with conventional roughing, rougher regrind and cleaning. A primary grind of 75 µm, dithiocarbamate collector and organic pyrite depression in cleaning yields a 27% Cu grade concentrate at 89% overall recovery. Gold is also recovered to concentrate at 20 ppm and 85% recovery. ICP analyses of concentrate do not indicate any penalty constituents."* |
| *Environmental factors or assumptions* | *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.* | A scoping level study for underground mining of the Carroll's deposit has recently been completed using the updated resource model (work undertaken by Entech Mining Consultants – November 2021). The following statements in the Entech report are germane:<br>*"The mine plan is at a scoping study level of analysis. Further work will be required on increasing the confidence of inputs to the mine plan, including:*<br>• *Geotechnical analysis,*<br>• *Hydrogeological analysis,*<br>• *Input into boxcut location, design, and size constraints,*<br>• *Waste rock management and dump size constraints, and*<br>• *Confirmation of marketing and metallurgical inputs for cut-off grade determination.*<br>*The MRE indicates that the orebody is located close to the surface. Stavely indicated that an open pit option analysis was not required due to concerns regarding surface disturbance footprints. However, the boxcut could be relocated to capture some of the ore material located in the weathered zone that was excluded in this analysis."*<br>Studies around environmental impacts are therefore at an early, scoping level stage. |
| *Bulk density* | *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the* | A regression equation of density on copper grade was used both to produce the density weights for samples in the fresh zone and to assign density values to individual fresh blocks in the estimation domain based on their estimated $ID^2$ copper grade. An elevation-based regression equation was used in the oxidised mineralised |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *measurements, the nature, size and representativeness of the samples.*<br><br>*The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*<br><br>*Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | zone. A constant value of 2.7t/$m^3$ was assigned to rock outside of the mineralised domain. |
| *Classification* | *The basis for the classification of the Mineral Resources into varying confidence categories.*<br><br>*Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*<br><br>*Whether the result appropriately reflects the Competent Person's view of the deposit.* | The estimate is classified as Indicated and Inferred under the JORC Code (2012 Edition). The absence of QA/QC for historical data, the probable issues of downhole contamination and poor recovery in the oxidised zone have meant that Indicated resources were only defined in the fresh zone where the drill spacing is 50 m or tighter. The Inferred resource is only extended out to the limit of the drill pattern, with the volume previously reported as Inferred beyond the drilling now not considered to be Mineral Resources. |
| *Audits or reviews* | *The results of any audits or reviews of Mineral Resource estimates.* | No Audit or Review of estimate undertaken, however, the MRE was completed by Cube Consulting, an independent consulting group with their own internal review processes. |
| *Discussion of relative accuracy/ confidence* | *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* | Not undertaken other than that stated under the classification section. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br><br>*These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | |