MYANMAR METALS LTD

ASX ANNOUNCEMENT

Date: 8 August 2019
ASX Code: **MYL**

**BOARD OF DIRECTORS**

Mr John Lamb
Executive Chairman, CEO

Mr Rowan Caren
Executive Director

Mr Jeff Moore
Non-Executive Director

Mr Paul Arndt
Non-Executive Director

Mr Bruce Goulds
Non-Executive Director

**ISSUED CAPITAL**

| | |
|---|---|
| Shares | 1,603 m. |
| Listed options | 175 m. |
| Unlisted Options | 49 m. |

# 100Mt MINERAL RESOURCE FOR BAWDWIN

## Highlights

- **Indicated and Inferred Mineral Resource estimate rises to 100.6Mt at 4.0% Pb, 3.1 Oz/t (97 g/t) Ag, 1.9% Zn and 0.2% Cu**
- **Confidence in Bawdwin Mineral Resources grows with 14% increase in Indicated Mineral Resources to 42.4Mt at 4.0% Pb, 3.2 Oz/t (99 g/t) Ag, 2.0% Zn and 0.2% Cu – now 42% of total resources**
- **Global significance of Bawdwin reinforced – Bawdwin is the largest primary lead resource globally and hosts a top 10 silver resource[1], and remains open in all directions**
- **In-fill drilling delivers outstanding growth in Mineral Resources within the Meingtha Lode where:**
  - **Indicated Resources have increased by 222%, and**
  - **Total Resources have increased by 13%**
- **High-grade core of 47.0Mt at 7.4% Pb, 5.2 Oz/t (163 g/t) Ag, 2.8% Zn, and 0.2% Cu at 2% Pb cut-off**
- **Future resource drilling will look to extend newly discovered zones at Shan North, Yegon Ridge and ER Valley**

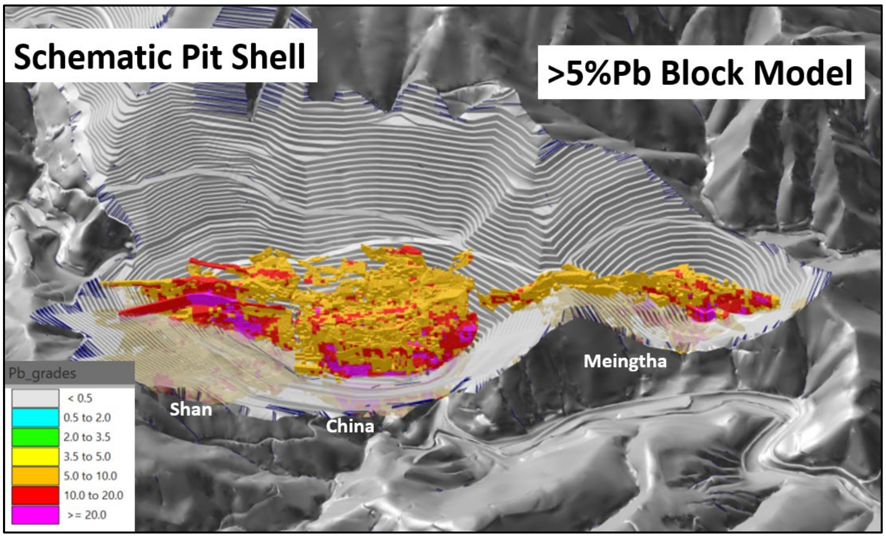



*Figure 1. Bawdwin Open Pit looking East.*

[1] S&P Global Market Intelligence (2 August 2019). Includes contained reserves and resources. Analysis on primary silver and primary lead projects.

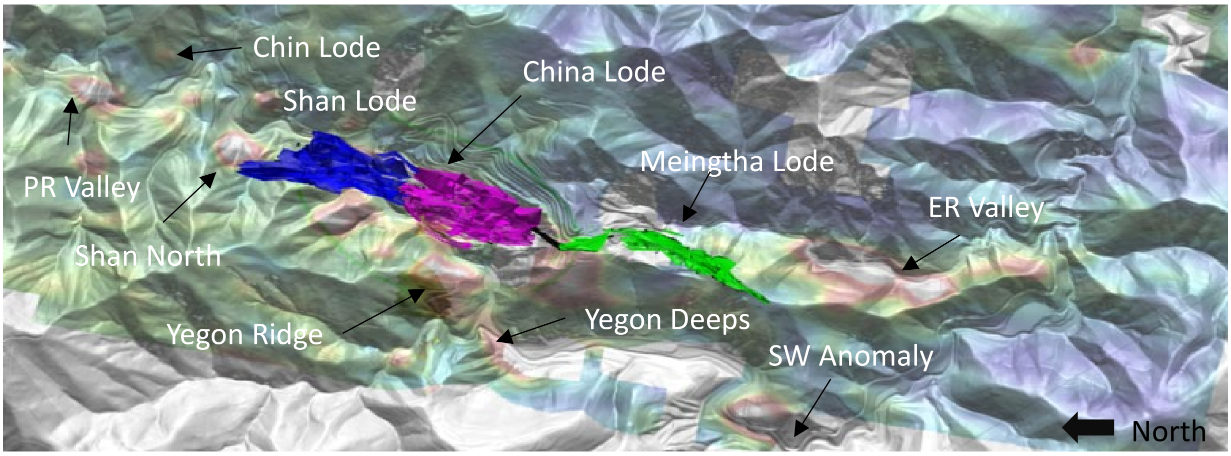
John Lamb, Chairman and CEO said:

*"Bawdwin is once again distinguished by its size and grade. A resource of 100Mt is indeed a significant milestone but we don't believe we are close to defining the true mineral endowment of the Bawdwin mineral province.*

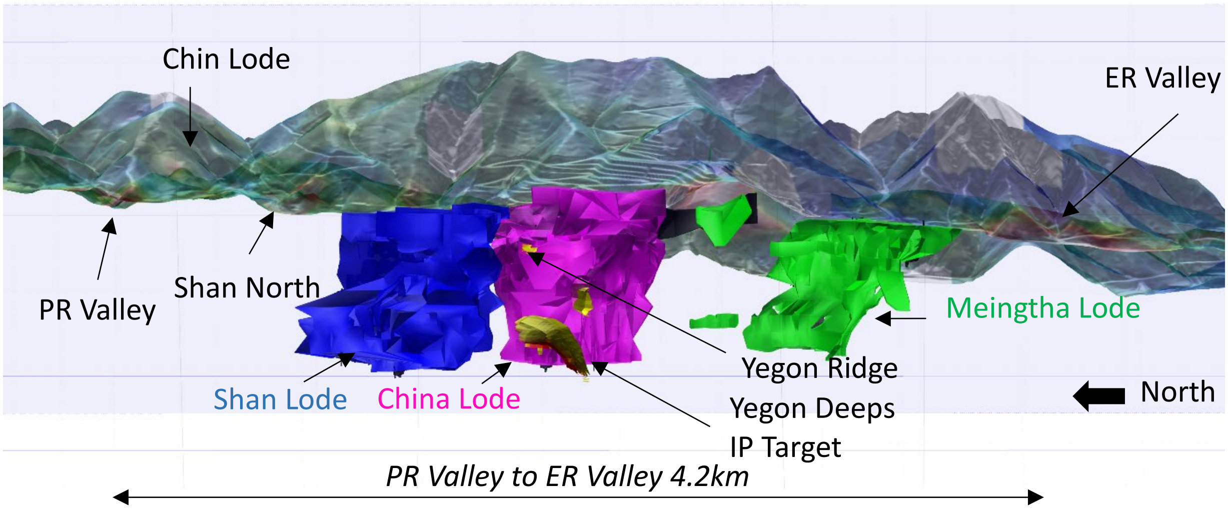
*Our Mineral Resource Estimates are largely comprised from mineralisation within the historical mining envelope, with modest additions from stepping out along strike and parallel to strike, we have yet to drill to the bottom of the historical mine workings, let alone beneath them.*

*The recent discoveries at Yegon Ridge, Shan North and ER Valley could add material project resources and we have a further 4 high priority exploration targets which look very promising."*

*Plan view of lodes and targets*




*Longitudinal section of lodes and targets*




*Figures 2 and 3. Overview of the Bawdwin Mineral Field.*

## Resource Update

Myanmar Metals Limited ("MYL" or "the Company") together with its partners in the Bawdwin Joint Venture ("BJV") is pleased to announce an updated Mineral Resource Estimate for the Bawdwin Project. The Mineral Resource Estimate incorporates an additional 7,897 metres of drilling results since the prior estimate was undertaken in December 2018 (as announced February 13 2019). The new ore block model which underpins the updated Mineral Resource Estimate has also been converted to a uniform mine grid parallel to the generalised strike of the mineralisation which is expected to result in reduced mining dilution and allow for more representative modelling of both grade and lithology.

The cut-off date for this Mineral Resource Estimate was mid-July 2019. Drilling has continued since this time at Yegon Ridge with a further two diamond holes completed, and results from these holes, will be used to update the resource for the Definitive Feasibility Study (DFS) due in the first quarter of 2020.

| Oxidation | Class | Tonnage ('000t) | Pb (%) | Ag (Oz/t) | Zn (%) | Cu (%) |
|---|---|---|---|---|---|---|
| **Oxide** | Indicated | 2,310 | 1.9 | 2.6 | 0.2 | 0.0 |
| | Inferred | 990 | 2.5 | 3.2 | 0.3 | 0.1 |
| | **Total** | **3,300** | **2.1** | **2.8** | **0.2** | **0.1** |
| **Transition** | Indicated | 3,214 | 3.0 | 2.2 | 0.8 | 0.2 |
| | Inferred | 4,928 | 2.5 | 1.6 | 1.5 | 0.1 |
| | **Total** | **8,142** | **2.7** | **1.9** | **1.3** | **0.1** |
| **Deep Transition** | Indicated | 1,582 | 3.4 | 3.2 | 2.1 | 0.1 |
| | Inferred | 180 | 1.5 | 0.7 | 0.2 | 0.0 |
| | **Total** | **1,762** | **3.2** | **2.9** | **1.9** | **0.1** |
| **Fresh** | Indicated | 35,249 | 4.3 | 3.3 | 2.2 | 0.2 |
| | Inferred | 52,121 | 4.2 | 3.2 | 1.9 | 0.2 |
| | **Total** | **87,370** | **4.3** | **3.2** | **2.0** | **0.2** |
| **Total** | Indicated | 42,356 | 4.0 | 3.2 | 2.0 | 0.2 |
| | Inferred | 58,219 | 4.1 | 3.1 | 1.8 | 0.2 |
| | **Total** | **100,575** | **4.0** | **3.1** | **1.9** | **0.2** |

*Table 1. Bawdwin Indicated and Inferred Global Mineralisation Mineral Resource Estimate summary table.*

| Oxidation | Class | Tonnage ('000 t) | Pb (%) | Ag (Oz/t) | Zn (%) | Cu (%) |
|---|---|---|---|---|---|---|
| **Oxide** | Indicated | 526 | 4.1 | 3.9 | 0.3 | 0.1 |
| | Inferred | 318 | 5.1 | 4.1 | 0.6 | 0.1 |
| | **Total** | **843** | **4.5** | **4.0** | **0.4** | **0.1** |
| **Transition** | Indicated | 1,509 | 4.9 | 2.7 | 1.2 | 0.2 |
| | Inferred | 1,393 | 5.9 | 3.6 | 1.0 | 0.1 |
| | **Total** | **2,902** | **5.4** | **3.1** | **1.1** | **0.2** |
| **Deep Transition** | Indicated | 620 | 7.0 | 5.1 | 4.7 | 0.2 |
| | Inferred | 16 | 6.0 | 2.2 | 0.8 | 0.1 |
| | **Total** | **636** | **6.9** | **5.0** | **4.6** | **0.2** |
| **Fresh** | Indicated | 17,247 | 7.5 | 5.6 | 3.2 | 0.3 |
| | Inferred | 25,322 | 7.6 | 5.3 | 2.8 | 0.2 |
| | **Total** | **42,569** | **7.5** | **5.4** | **2.9** | **0.2** |
| **Total** | Indicated | 19,902 | 7.2 | 5.3 | 3.0 | 0.3 |
| | Inferred | 27,049 | 7.5 | 5.2 | 2.6 | 0.2 |
| | **Total** | **46,951** | **7.4** | **5.3** | **2.8** | **0.2** |

*Table 2. High-Grade Core: Bawdwin Indicated and Inferred Mineralisation Mineral Resource Estimate using a 2% lead cut-off summary table.*

## Geology and Mineral Resource Estimates

The updated Mineral Resource Estimate calculated by CSA Global is provided in Table 3, indicating five domains and the relevant cut-off grade parameters applied in each case.

## Drilling and Sampling Techniques

The drilling and sampling techniques, geological interpretation and Mineral Resource model parameters are listed in Appendix 1 Table 1 at the end of this announcement. The change from the previous estimate is based on the additional information from 7,987m of drilling. The Mineral Resource model now includes 23,027m of drilling including geotechnical and metallurgical holes within the planned starter pit area, up from 15,040m previously. All data relevant to the resource estimate was converted from UTM to the newly created Bawdwin Mine Grid (BMG) where the generalised strike of the lodes is towards grid north.

## Resource Model

The estimate is based on separate Pb, Zn and Cu wireframes and cut-off grades. Grades have been interpolated into a block model using Indicator Kriging, a change from the previously used Ordinary Kriging. Both methods were trialled in this resource update, however analysis of both methods showed that Indicator Kriging was more effective at modelling the lower grade “Halo” zone which surrounds the higher grade lodes, reducing dilution via the inclusion of sub-grade material.

The cut-off grades were based on the results of statistical analysis, pit optimisation and Pre-Feasibility Study completed in September 2018 by CSA Global that identified that the low-grade material has potential for eventual economic extraction via open pit mining methods, and that material above a 2% cut-off grade may be amenable to extraction via underground methods.

The mineralised envelope was based on a 0.5% Pb cut-off grade. Within this envelope, the Mineral Resource estimate is reported in three domains; at a 0.5% Pb cut-off grade above the 750m RL and a 2% Pb cut-off grade below the 750m RL.

The Zn and Cu mineralisation envelopes have been modelled above a 1% Zn and 0.5% Cu cut-off grade and are included in the global resource totals. These envelopes are largely contained within the 0.5% Pb envelope but do extend outside it. Grade has been interpolated separately into the blocks within the Zn and Cu envelopes.
The new resource is reported separately for five mineralisation domains (Figure 3):

1. *Resources above the 750m RL, using a 0.5% Pb cut-off grade.*
2. *Resources below 750m RL using a 2% Pb cut-off grade.*
3. *Cu mineralisation within Pb Halo using a 0.5% Cu cut-off grade*
4. *Cu mineralisation outside Pb Halo using a 0.5% Cu cut-off grade*
5. *Zn mineralisation outside Pb Halo using a 1.0% Zn cut-off grade*

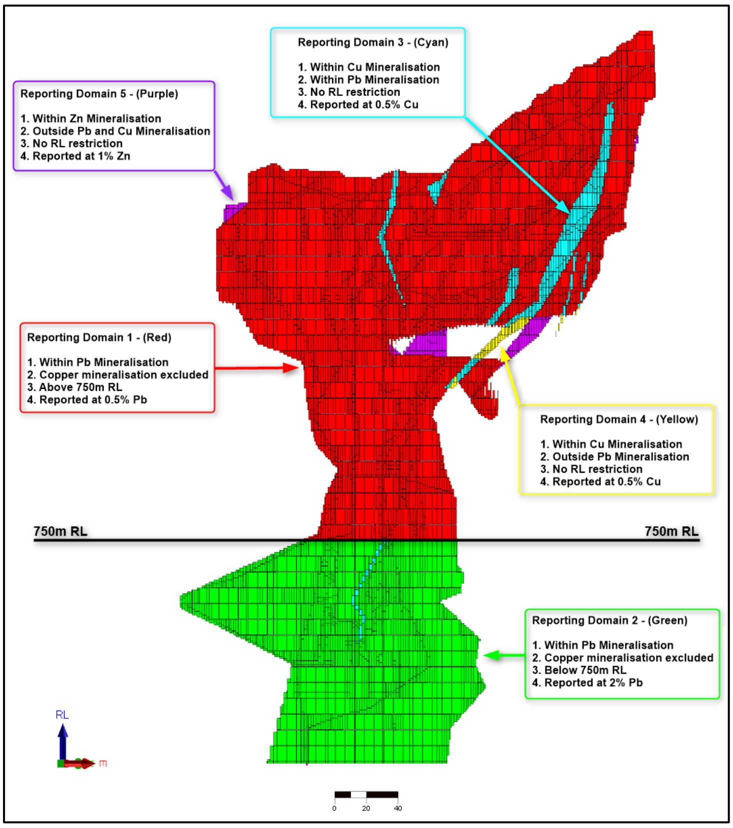



*Figure 3: Bawdwin block-model cross section showing the 750m RL boundary for reporting and the Domains used in the Resource Model. Source: CSA Global*

Density data was used to develop a regression between the density and Pb, Zn, Cu and Ag grades for samples within the mineralised envelopes. Separate regression formulas were derived for fresh and oxide/transitional zones. Statistical analysis to determine top cut grade values was carried out separately for each element (Pb, Zn, Cu, Ag) and separately for high grade lodes and the "Halo" zone.

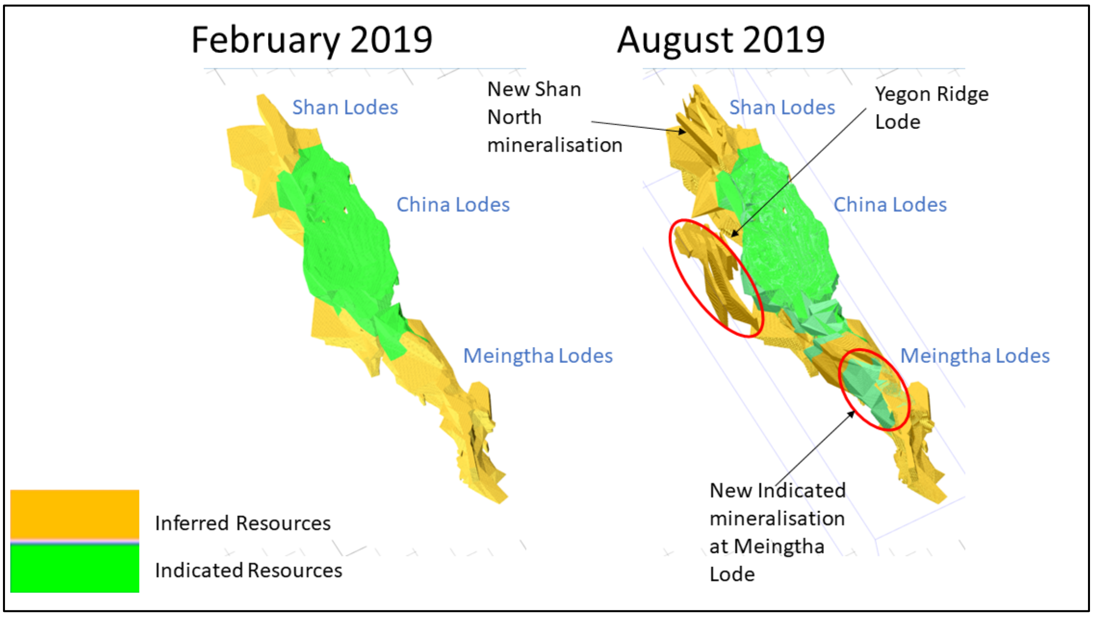



*Figure 4: Oblique image (looking northeast) comparison between proportions of Indicated versus Inferred resources in the February 2019 and new August 2019 Resource models.*

| Oxidation | Class | Tonnage ('000t) | Pb (%) | Ag (Oz/t) | Zn (%) | Cu (%) |
|---|---|---|---|---|---|---|
| **Domain 1: Mineral Resources above 750m RL > 0.5% Pb** | | | | | | |
| **Oxide** | Indicated | 2,308 | 1.9 | 2.6 | 0.2 | 0.0 |
| | Inferred | 989 | 2.5 | 3.2 | 0.3 | 0.1 |
| | **Total** | **3,297** | **2.1** | **2.8** | **0.2** | **0.1** |
| **Transition** | Indicated | 3,116 | 3.0 | 2.2 | 0.8 | 0.1 |
| | Inferred | 4,582 | 2.6 | 1.7 | 0.5 | 0.1 |
| | **Total** | **7,698** | **2.8** | **1.9** | **0.6** | **0.1** |
| **Deep Transition** | Indicated | 1,542 | 3.4 | 3.1 | 2.0 | 0.1 |
| | Inferred | 177 | 1.5 | 0.7 | 0.2 | 0.0 |
| | **Total** | **1,720** | **3.2** | **2.8** | **1.8** | **0.1** |
| **Fresh** | Indicated | 33,566 | 4.3 | 3.2 | 2.2 | 0.1 |
| | Inferred | 38,738 | 3.4 | 2.7 | 1.6 | 0.1 |
| | **Total** | **72,304** | **3.8** | **2.9** | **1.9** | **0.1** |
| **Total** | Indicated | 40,532 | 4.0 | 3.1 | 1.9 | 0.1 |
| | Inferred | 44,486 | 3.3 | 2.6 | 1.5 | 0.1 |
| | **Total** | **85,018** | **3.6** | **2.8** | **1.7** | **0.1** |
| **Domain 2: Mineral Resources below 750m RL > 2% Pb** | | | | | | |
| **Fresh** | Inferred | 9,683 | 7.8 | 5.2 | 2.8 | 0.1 |
| **Total** | | **9,683** | **7.8** | **5.2** | **2.8** | **0.1** |
| **Domain 3: Copper Mineralisation within Pb Halo > 0.5% Cu** | | | | | | |
| **Oxide** | Indicated | 2.7 | 5.5 | 6.6 | 0.8 | 1.7 |
| | **Total** | **2.7** | **5.5** | **6.6** | **0.8** | **1.7** |
| **Transition** | Indicated | 95 | 3.3 | 2.5 | 1.5 | 1.6 |
| | Inferred | 20 | 7.6 | 6.9 | 3.4 | 3.3 |
| | **Total** | **115** | **4.0** | **3.3** | **1.8** | **1.9** |
| **Deep Transition** | Indicated | 39 | 5.4 | 7.1 | 4.0 | 2.4 |
| | Inferred | 0.3 | 5.4 | 2.8 | 1.7 | 1.1 |
| | **Total** | **39.6** | **5.4** | **7.1** | **4.0** | **2.4** |
| **Fresh** | Indicated | 1,338 | 5.4 | 5.5 | 3.0 | 3.2 |
| | Inferred | 2,243 | 5.8 | 5.8 | 2.3 | 3.0 |
| | **Total** | **3,581** | **5.6** | **5.7** | **2.6** | **3.1** |
| **Total** | Indicated | 1,475 | 5.3 | 5.4 | 3.0 | 3.1 |
| | Inferred | 2,263 | 5.8 | 5.8 | 2.3 | 3.0 |
| | **Total** | **3,738** | **5.6** | **5.6** | **2.6** | **3.0** |
| **Domain 4: Copper Mineralisation outside of Pb Halo > 0.5% Cu** | | | | | | |
| **Transition** | Inferred | 6 | 0.1 | 1.8 | 0.1 | 1.64 |
| | **Total** | **6** | **0.1** | **1.8** | **0.1** | **1.64** |
| **Deep Transition** | Inferred | 3 | 0.2 | 1.4 | 0.0 | 1.62 |
| | **Total** | **3** | **0.2** | **1.4** | **0.0** | **1.62** |
| **Fresh** | Inferred | 644 | 0.1 | 1.3 | 0.5 | 2.35 |
| | **Total** | **644** | **0.1** | **1.3** | **0.5** | **2.35** |
| **Total** | Inferred | 652 | 0.1 | 1.3 | 0.5 | 2.34 |
| | **Total** | **652** | **0.1** | **1.3** | **0.5** | **2.34** |
| **Domain 5: Zinc Mineralisation outside of Pb Halo and Cu Mineralisation > 1% Zn** | | | | | | |
| **Oxide** | Inferred | 1 | 0.1 | 0.1 | 5.3 | 0.1 |
| | **Total** | **1** | **0.1** | **0.1** | **5.3** | **0.1** |
| **Transition** | Indicated | 4 | 1.4 | 0.5 | 1.8 | 0.0 |
| | Inferred | 320 | 0.0 | 0.7 | 17.0 | 0.0 |
| | **Total** | **323** | **0.0** | **0.7** | **16.8** | **0.0** |
| **Deep Transition** | Indicated | 0.4 | 0.7 | 0.3 | 7.0 | 0.0 |
| | **Total** | **0.4** | **0.7** | **0.3** | **7.0** | **0.0** |
| **Fresh** | Indicated | 345 | 0.4 | 0.6 | 4.7 | 0.0 |
| | Inferred | 814 | 0.3 | 0.4 | 2.8 | 0.0 |
| | **Total** | **1,159** | **0.3** | **0.5** | **3.4** | **0.0** |
| **Total** | Indicated | 349 | 0.4 | 0.6 | 4.7 | 0.0 |
| | Inferred | 1,134 | 0.2 | 0.5 | 6.8 | 0.0 |
| | **Total** | **1,483** | **0.2** | **0.5** | **6.3** | **0.0** |
| **Total** | | | | | | |
| **Oxide** | Indicated | 2,310 | 1.9 | 2.6 | 0.2 | 0.05 |
| | Inferred | 990 | 2.5 | 3.2 | 0.3 | 0.08 |
| | **Total** | **3,300** | **2.1** | **2.8** | **0.2** | **0.05** |
| **Transition** | Indicated | 3,214 | 3.0 | 2.2 | 0.8 | 0.17 |
| | Inferred | 4,928 | 2.5 | 1.6 | 1.5 | 0.07 |
| | **Total** | **8,142** | **2.7** | **1.9** | **1.3** | **0.11** |
| **Deep Transition** | Indicated | 1,582 | 3.4 | 3.2 | 2.1 | 0.13 |
| | Inferred | 180 | 1.5 | 0.7 | 0.2 | 0.05 |
| | **Total** | **1,762** | **3.2** | **2.9** | **1.9** | **0.12** |
| **Fresh** | Indicated | 35,249 | 4.3 | 3.3 | 2.2 | 0.20 |
| | Inferred | 52,121 | 4.2 | 3.2 | 1.9 | 0.22 |
| | **Total** | **87,370** | **4.3** | **3.2** | **2.0** | **0.21** |
| **Total** | Indicated | 42,356 | 4.0 | 3.2 | 2.0 | 0.19 |
| | Inferred | 58,219 | 4.1 | 3.1 | 1.8 | 0.20 |
| | **Total** | **100,575** | **4.0** | **3.1** | **1.9** | **0.20** |

*Table 3 Bawdwin Global Indicated and Inferred Mineral Resource Estimate*

Validation of the block model included comparison of the block model volume to the wireframe volume. Grade estimates were validated by statistical comparison with the drill data, visual comparison of grade trends in the model with the drill data trends, and by using a second interpolation technique.

The reported Mineral Resource Estimate is based on depletion of historically mined stopes with stope volume derived from the scanning and georeferencing of almost 900 historic mining floor and level plans, completed in mid-2018. Drilling has typically shown very good correlation between digitised stopes and stopes intersected in drill holes.

At Meingtha, some newly identified cross sections which contained some details of the stopes mined prior to World War II were identified. These new stope shapes were incorporated into the master Stope wireframe and used to deplete the resources. Whilst not removing a large volume of material, the high grade nature of the old underground mining has resulted in some reduction in overall grade for Meingtha.

Slight reductions in grade were also noted for other lode areas, primarily as a result of drilling expanding the "Halo" zone of lower grade mineralisation on the periphery of the Shan-China and Meingtha systems.

The topography over the deposit is constrained by a high-resolution DTM derived from a satellite-based survey acquired in 2018.

The Mineral Resource Estimate has been reported in Fresh, Transitional, Deep Transitional and Oxide zones modelled using a combination of multi-element geochemical data and geological observations (Table 1). Drill hole logging indicates that the Transitional material is characterised by mixed domains of fresh and oxidized rock, with oxidation strongest in zones of fracturing. The Deep Transitional material surrounds major fault zones and deep fractures. The Oxide domain is restricted to the upper parts of the Meingtha Lodes where no previous open pit mining has been conducted (unlike the China Lodes). Table 2 contains details of the high grade "core" mineralisation reported at a global 2% Pb cut-off.

Metallurgical test work has shown recoveries of lead and silver in fresh material to be good, with recoveries decreasing as proportions of oxidised lead (anglesite and to a lesser degree cerussite) and zinc species (mostly smithsonite) increases (Transition Material). The Oxide material, restricted to the shallow portion of Meingtha, has shown poor recoveries using the planned sulphide floatation process, and as a result this material, around 3.3 Mt or 3% of the total project resources, will either be stockpiled for possible later processing or sold to a third party for treatment at a specialised process plant. Metallurgical testing is continuing to further refine planned treatment methods.

The Mineral Resource is quoted at a cut-off grade of 0.5% Pb above 750mRL (considered to be the open pittable zone) and 2.0% Pb below 750mRL (the underground mining zone) plus zinc and copper resources outside of the lead envelope.

## Resource Classification

The Inferred Mineral Resource classification is based on the evidence from the available drill hole and channel sampling where this evidence is sufficient to imply but not verify geological and grade continuity. Areas with denser drilling and robust continuation of the mineralised zones were classified as Indicated.

The open pit mapping, RC and diamond drilling all have been carried out in accordance with modern industry best practice standards and have QA/QC data to support the assay data. Whilst the historical underground sampling has no assay QA/QC, the data quality is considered acceptable to support classification of Indicated Mineral Resource in the areas with adequate supporting drilling data. The overall structure of the major lodes is well understood from the underground data and open pit mapping.

The Inferred and Indicated classification has considered all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project.

Additional information regarding sampling and analysis is provided in JORC Table 1 which is attached to this ASX release (Appendix 1).

## Ongoing Program

Drilling activities continue on site with a current focus on completing 11 geotechnical holes to provide additional information for the DFS pit design.

Assay results from two diamond holes drilled by the man-portable rig into the Yegon Ridge Lode are awaited and are expected towards the end of the month.

Once the wet season begins to wind down in the last quarter of the calendar year, a high impact exploration program is scheduled to commence with a focus on ER Valley, Shan North, Chin lode, Yegon Deeps and Yegon Ridge.

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John Lamb, Chairman and CEO commented:

*"We have a very detailed resource model which is supported by modern drilling, a vast volume of historic assays and a large collection of geoscience surveys. Our maiden JORC Ore Reserve was declared in May 2019.*

*With a 14% increase in Indicated Mineral Resources resulting from this updated Mineral Resource estimate, our confidence in the Bawdwin resource model continues to grow which positions the BJV well to deliver a robust DFS."*

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John Lamb

Executive Chairman and CEO

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## About Myanmar Metals Limited

Myanmar Metals Limited (ASX: MYL) is an explorer and mine developer listed on the Australian Securities Exchange. MYL intends to become a leading regional base metals producer and is well positioned to realise this goal, based on the Tier 1 Bawdwin project resources, world class exploration potential, strategically advantageous project location, management team with experience and depth, highly capable local partners and a strong balance sheet with supportive institutional shareholders.

The company holds a majority 51% participating interest in the Bawdwin Project in joint venture with its two local project partners, Win Myint Mo Industries Co. Ltd. (WMM) and EAP Global Co. Ltd. (EAP).

The Bawdwin Joint Venture (BJV) intends to redevelop the world class Bawdwin Mineral Field, held under a Production Sharing Agreement (PSA) between WMM and Mining Enterprise No. 1, a Myanmar Government business entity within the Ministry of Natural Resources and Environmental Conservation.

## Forward Looking Statements

The announcement contains certain statements, which may constitute “forward – looking statements”. Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

## Competent Person Statements

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the ‘JORC Code’) sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The Information contained in this announcement has been presented in accordance with the JORC Code.

The information in this report that relates to Geology and Exploration Results is based, and fairly reflects, information compiled by Mr Andrew Ford, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Ford is a full-time employee of Myanmar Metals Limited. Mr Ford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Ford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based, and fairly reflects, information compiled by Serikjan Urbisinov, who is a Member of the Australian Institute of Geoscientists. Mr Urbisinov is employed by CSA Global Pty Ltd, independent resource industry consultants. Mr Urbisinov has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Urbisinov 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 | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | • *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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 30g 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.* | • The evaluation program at Bawdwin includes diamond core drilling and RC drilling from August 2017 to July 2019.<br>• The diamond drilling was completed from August to July 2019 using PQ, HQ and NQ triple tube diameter coring. A total of 57 diamond core drill holes, and 34 diamond core drill-tail holes were completed, for a total of 14,726m (including RC pre-collars). Additional drilling is ongoing.<br>• Drill core was geologically logged, cut and then ½ core samples sent to Intertek Laboratories for sample preparation in Yangon, Myanmar and then analysis in Manila, Philippines. The sample interval was nominally 1m or to geological and mineralisation boundaries.<br>• RC Drilling commenced in January 2018 and has continued with minor breaks until May 2019 with 93 RC holes completed, for a total of 9,975m.<br>• RC Chips collected using a face sampling hammer and samples were split into a bulk sample and a sub-sample collected in plastic bags at 1m intervals. Samples were split using a riffle splitter, the bulk sample being stored on site, and an approximately 2kg sub sample was sent to Intertek Laboratories for sample preparation in Yangon, Myanmar and then analysis in Manila, Philippines.<br>• Channel sampling in the open pit sampling was completed as part of a surface geological mapping program in late 2016. Systematic channel sampling was completed by a team of Valentis Resources (Valentis)and Win Myint Mo Industrial Co Ltd (WMM) geologists over most of the available open pit area wherever clean exposure was accessible. A total of 435 samples were collected from 47 channels totalling 1,790.8 m.<br>• Samples were typically 1.5 m in length or to geological and mineralisation boundaries. Approximately 3 kg of representative sample was systematically chipped from cleaned faces. Samples were despatched to Intertek Laboratories for sample preparation in Yangon, Myanmar and then analysis in Manila, Philippines.<br>• The underground sampling data is an extensive historical data set that was completed as part of mine development activities. The data set comprises systematic sampling from development drives, crosscuts, ore drives and exploration drives. This data date largely from the 1930s until the 1980s and utilised consistent sampling and analytical protocols through the mine history. Sampling consisted of 2-inch (5 cm) hammer/chisel cut continuous channels sampled at 5 feet (1.5 m) intervals at waist-height along both walls of across-strike drives and across the backs of strike drives. Sample weights were around 5 pounds (2.3 kg) were analysed at the Bawdwin Mine |

| Criteria | JORC Code explanation | Commentary |
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| | | site laboratory using chemical titration methods. Results were recorded in ledgers. Averaged results from each wall of the exploration cross-cuts were recorded on the level plans. |
| **Drilling techniques** | • *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | • Drilling in both 2017, 2018 and 2019 was completed by Titeline Valentis Drilling Myanmar (TVDM) using two Elton 500 drill rigs. Drilling is a combination of triple tubed PQ, HQ and NQ diameter diamond coring. Holes were typically collared in PQ, then reduced to HQ around 50 m, and later to NQ if drilling conditions dictated. Holes ranged from 63.4 m to 260.1 m depth.<br>• Attempts were made to orientate the core, but the ground was highly fractured and broken with short drilling runs. Obtaining consistently meaningful orientation data was very difficult.<br>• Titeline Valentis Drilling Myanmar ('TVDM') subcontracted a Hanjin DB30 multi-purpose drill rig for the RC drilling of nominal six-inch diameter holes. |
| **Drill sample recovery** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • To maximise core recovery, triple tube PQ, HQ and NQ core drilling was used, with the drilling utilising TVDM drillers experienced in drilling difficult ground conditions. Drill penetration rates and water pressure were closely monitored to maximise recovery.<br>• During the diamond drilling the length of each drill run and the length of sample recovered was recorded by the driller (driller's recovery). The recovered sample length was cross checked by the geologists logging the drill core and recorded as the final recovery.<br>• Core recoveries were variable and often poor with a mean of 80% and a median of 87%, with lowest recoveries in the 10% to 30% range. Low recoveries reflect poor ground conditions and previously mined areas. Core recoveries were reviewed, and two intervals were excluded due to very poor recovery.<br>• At present, no relationships between sample recovery and grade bias due to loss/gain of fines or washing away of clay material has been identified. It is assumed that the grade of lost material is similar to the grade of the recovered core.<br>• RC Drilling was conducted to maintain sample recoveries. Where voids or stopes were intersected recoveries were reduced, and such occurrences were recorded by the supervising geologist.<br>• For channel chip sampling, every effort was made to sample systematically across each sample interval with sampling completed by trained geologists. |
| **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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • All diamond core samples were geologically logged in a high level of detail down to a centimetre scale. Quantitative logging for lithology, stratigraphy, texture, hardness, RQD and defects was conducted using defined logging codes. Colour and any other additional qualitative comments are also recorded.<br>• All RC samples were geologically logged for lithology, alteration and weathering by Geologists. A small sub sample was collected for each metre and placed into plastic |

| Criteria | JORC Code explanation | Commentary |
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| | | chip tray for future reference.<br>• The 2016 open pit channel rock samples were systematically geologically logged and recorded on sample traverse sheets.<br>• All drill core and open pit sampling locations were digitally photographed.<br>• The underground sampling data has no geological logging, however geological mapping was completed along the exploration drives and is recorded on level plans. Historical plan and section geological interpretations have been used in these areas to assist in geological model development. |
| **Subsampling techniques and sample preparation** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • All core was half-core sampled. Most core was cut using an electric diamond saw and some more friable intervals were split manually. All core for sampling was pre-marked with the cut line, and only the left-hand side of the core was sent for assay to maintain consistency.<br>• The core sampling intervals were generally at one metre intervals which were refined to match logged lithology and geological boundaries. A minimum sample length of 0.5 m was used.<br>• RC samples were collected in plastic bags at 1m intervals from a cyclone located adjacent to the drill rig. Valentis field staff passed the bulk sample through a riffle splitter to produce a nominal 2kg sub sample.<br>• Given the nature of the RC drilling to pulverise the sample into small chips riffle splitting the sample is an appropriate technique for a sulphide base metal deposit. The 2kg sub-sample was deemed an appropriate sample size for submittal to the laboratory.<br>• No sub-splitting of the open pit chips samples was undertaken. Sample lengths ranged from 1 m to 2 m (typically 1.5 m). Sample intervals were refined to match geological boundaries.<br>• Historical underground subsampling techniques are unknown. |
| **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.*<br>• *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.*<br>• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • The diamond drilling, RC samples and open pit channel samples were all sent to Intertek Laboratories in Yangon for sample preparation.<br>• All samples were dried and weighed and crushed to in a Boyd Crusher. A representative split of 1.5 kg was then pulverised in a LM5 pulveriser. A 200 g subsample pulp was then riffle split from the pulverised sample. The crusher residue and pulverised pulp residue were stored at the Yangon laboratory.<br>• Sample pulps were sent to the Intertek analytical facility in Manila, Philippines where they were analysed in 2017 using ICP-OES – Ore grade four-acid digestion. Elements analysed were Ag, Fe, Cd, Co, Ni, Pb, Cu, Mn, S and Zn. In 2018, ICP-OES – Ore grade four-acid digestion continued to be employed, along with additional multi-element analysis of 46 elements using four-acid standard ICP-OES and MS. In 2019 a subset of samples have also been assayed for non-sulphide sulphur and mercury for |

| Criteria | JORC Code explanation | Commentary |
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| | | Geometallurgical modelling.<br>• Quality control (QC) samples were submitted with each assay batch (certified reference standards, certified reference standard blanks and duplicate samples). The Laboratory inserted their own quality assurance/quality control (QAQC) samples as part of their internal QAQC. All assay results returned were of acceptable quality based on assessment of the QAQC assays.<br>• The underground data was assayed by the Bawdwin mine laboratory on site. Bulk samples were crushed in a jaw crusher, mixed, coned and quartered. Two 100 g samples were then dried and crushed in a ring mill to approximately 100 mesh. Two 0.5 g homogenised samples were taken for lead and zinc titration using Aqua Regia (Pb) and Nitric acid (Zn). RSG inspected the laboratory in 1996 and noted it to be "clean, and great pride is taken in the conditions and quality of the work". The laboratory remains operational and CSA Global's review in 2017 reached similar conclusions to RSG. Results for Zn and Pb were reported to 0.1%.<br>• There is no QAQC data for the historical underground sampling data. |

| Criteria | JORC Code explanation | Commentary |
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| **Verification of sampling and assaying** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • All diamond drill core samples were checked, measured and marked up before logging in a high level of detail.<br>• RC Samples were sampled and logged at the drill rig. A small sub-sample from each metre was placed into a plastic ship tray to allow re-logging if required.<br>• The diamond and RC drilling, sampling and geological data were recorded into standardised templates in Microsoft Excel by the logging/sampling geologists.<br>• Geological logs and associated data were cross checked by the supervising Project Geologist<br>• Laboratory assay results were individually reviewed by sample batch and the QAQC data integrity checked before uploading.<br>• All geological and assay data were uploaded into a Datashed database.<br>• The Datashed database was loaded into Micromine mining software. This data was then validated for integrity visually and by running systematic checks for any errors in sample intervals, out of range values and other important variations.<br>• All drill core was photographed with corrected depth measurements before sampling.<br>• No specific twin holes were drilled; however, three daughter holes were inadvertently cut due to challenging drilling conditions during re-entry through collapsed ground. and intersected mineralisation of very similar tenor and grade to the parent hole.<br>• Historical underground sampling data was captured off hard copy mine assay level plans. These plans show the development drives on the level along with the sampling traverse locations and Ag, Pb, Zn and Cu values. This process involved the systematic digital scanning of the various mine assay level hard copy plans, along with manual data entry of the assay intervals and assay results by Project Geologists and assistants. Coordinates of sampling traverse locations were scaled off the plans (in the local Bawdwin Mine Grid). Data was collated into spreadsheets and then uploaded into Micromine. Sampling traverses were loaded as horizontal drill holes. The channel samples were systematically visually checked in Micromine against the georeferenced mine assay plans. The data was further validated by running systematic checks for any errors in sample intervals, out of range values and other important variations. Any data that was illegible or could not be accurately located was removed from the database. Underground channel sample databases were made for the Shan, China and Meingtha lodes and associated mine development. These were later uploaded into a master Access database. |

| Criteria | JORC Code explanation | Commentary |
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| **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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • The diamond drilling, RC drilling and pit mapping and channel sampling all utilised UTM WGS84 datum Zone 47 North.<br>• All diamond drill holes and pit mapping sampling traverse locations were surveyed using a Differential Global Positioning System (DGPS). The DGPS is considered to have better than 0.5 m accuracy.<br>• All diamond drill holes have downhole surveys. These were taken using a digital single shot camera typically taken every 30 metres.<br>• The RC Holes were surveyed in the rods every 30m, however because of interference from the steel only dips could be recorded<br>• Historically the underground and open pit mines operated in a local survey grid, the "Bawdwin Mine Grid". This grid is measured in feet with the Marmion Shaft as its datum. A plane 2D transformation was developed to transform data between the local Bawdwin Mine Grid and UTM using surveyed reference points.<br>• Historical mine plans and sections were all georeferenced using the local Bawdwin Mine grid. The outlines of stopes, underground sample locations, basic geology and other useful information was all digitised in the local mine grid. This was later translated to UTM for use in geological and resource modelling.<br>• The historical underground channel sampling data is scaled off historical A0 paper and velum mine plans which may have some minor distortion due to their age.<br>• The underground sampling locations were by marked tape from the midpoint of intersecting drives as a reference. They appear to be of acceptable accuracy.<br>• Historically within the mine each level has a nominal Bawdwin grid elevation (in feet) which was traditionally assumed to be the elevation for the entire level. It is likely that these levels may be inclined for drainage so there is likely to be some minor differences in true elevation (<5 m).<br>• The topography used for the estimate was based on satellite data at a given . 0.5m accuracy and it was calibrated against the Bawdwin Mine UTM survey of the open pit area and surveyed drill-hole collars. This survey is of appropriate accuracy for the stage of the project.<br>• Location of the IP survey stations and electrodes has been obtained by handheld GPS control in WGS84/NUTM47 datum/projection<br>• In June 2019 the Bawdwin Mine Grid (BMG) was created to ensure resource modelling was conducted on a grid near to parallel to the strike of the mineralisation. A grid origin adjacent to the Mine Office was assigned a coordinate of 50,000N and 10,000E and 1000m was added to the elevation of 950.3m The BMG grid north is oriented at 322.1717 decimal degrees.<br>• All data used in the Resource Estimate was converted to the BMG from UTM. |

| Criteria | JORC Code explanation | Commentary |
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| **Data spacing and distribution** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The diamond and RC drill holes completed at the open pit are spaced on approximately 50 m spaced sections and were designed to provide systematic coverage along the strike/dip of the China Lode. Three diamond drill holes were drilled at the Meingtha Lode on 50 m spaced sections and two diamond holes drilled at the Shan Lode on 100 m spaced sections.<br>• The open pit sampling was done on accessible berms and ramps. These traverses range from 10 m to 30 m apart.<br>• The historical underground samples are generally taken from systematic ore development crosscuts. These are typically on 50 to 100 feet spacings – 15 m to 30 m. Strike drives along mineralised lodes demonstrate continuity.<br>• The GAIP data has been collected along 100m spaced lines using 50m receiver dipoles to collect stations every 25 m along the survey lines.<br>• The PDIP uses 50m dipoles acquired along 800m long offset lines, and a central transmitter line 1km long with poles every 50m (the traverse over Yegon-China was 1.4km long with 50m poles and dipoles). |
| **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.*<br>• *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.* | • Drill holes were generally drilled on 065 azimuth (true) which is perpendicular to the main north and north-northeast striking lodes. Holes were generally inclined at -50° to horizontal. Some holes were also drilled on 245 azimuth (true) because of access difficulties due to topography and infrastructure.<br>• The drilling orientation is not believed to have caused any systematic sampling bias. Where drill direction was less than optimal, the geological model will be used to qualify the mineralised intersections.<br>• The open pit channel sampling sample traverses were orientated perpendicular to the main trend of mineralisation where possible. However, due to the orientation of the pit walls in many areas, sampling traverse are at an oblique angle to the main mineralised trend.<br>• Underground sampling data consists largely of cross strike drives which are orientated perpendicular to the steeply dipping lodes. The dataset also contains sampling from a number of along-strike ore drives. These drives are generally included within the modelled lodes which have hard boundaries to mitigate any smearing into neighbouring halo domains.<br>• IP Survey lines are oriented 45 degrees north, which is perpendicular to the known mineralised structural trend at the Bawdwin Project |
| **Sample security** | • *The measures taken to ensure sample security.* | • Drill core was taken twice daily from the drill rig, immediately following completion of day shift and night shift respectively.<br>• Core was transported to the core facility where it was logged and sampled.<br>• RC samples were collected from the rig upon hole completion. |

| Criteria | JORC Code explanation | Commentary |
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| | | • Samples were bagged and periodically sent to the Intertek laboratory in Yangon for preparation. All samples were delivered by a Valentis geologist to Lashio then transported to Yangon on express bus as consigned freight. The samples were secured in the freight hold of the bus by the Valentis geologist. The samples collected on arrival in Yangon by a Valentis driver and delivered to the Intertek laboratory.<br>• The Valentis-Austhai survey crew IP has been supervised on site by Myanmar Metals staff and data has been transferred digitally to Southern Geoscience Consultants on a daily basis |
| **Audits or reviews** | • *The results of any audits or reviews of sampling techniques and data.* | • Integrity of all data (drill hole, geological, assay) was reviewed before being incorporated into the database system.<br>• The IP survey procedures and data quality has been monitored, processed and imaged by independent geophysical consultants Southern Geoscience Consultants |

## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

| Criteria | JORC Code explanation | Commentary |
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| **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.*<br>• *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.* | • The Bawdwin Mine is in NE Shan State, Myanmar.<br>• The project owner is Win Myint Mo Industries Co Ltd (WMM) who hold a Mining Concession which covers some approximately 38 $km^2$.<br>• WMM has a current Production-sharing Agreement with the Myanmar Government.<br>• Myanmar Metals Limited (MYL) majority 51% interest in Bawdwin is held through a legally binding contractual Joint Venture between MYL, EAP and the owners of WMM.<br>• Upon completion of a bankable feasibility study and the issue of Myanmar Investment Commission (MIC) permits allowing the construction and operation of the mine by the Joint Venture, shares in Concession holder WMM will be allotted to the parties in the JV ratio. |
| **Exploration done by other parties** | • *Acknowledgment and appraisal of exploration by other parties.* | • The Bawdwin Mine was operated as an underground and open pit base metal (Pb, Zn, Ag, Cu) mine from 1914 until 2009.<br>• The only modern study on the mine was completed by Resource Service Group (RSG) in 1996 for Mandalay Mining. RSG compiled the historical underground data and completed a JORC (1995) Mineral Resource estimate. The digital data for this work was not located and only the hardcopy report exists. |
| **Geology** | • *Deposit type, geological setting and style of mineralisation.* | • The Bawdwin deposit is hosted in volcanic (Bawdwin Tuff), intrusive (Lo Min Porphyry) and sedimentary (Pangyun Formation) rocks of late Cambrian to early Ordovician age. |

| Criteria | JORC Code explanation | Commentary |
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| | | • The historical mine was based on three high-grade massive Pb-Zn-Ag-Cu sulphide lodes, the Shan, China and Meingtha lodes. These lodes were considered to be formed as one lode and are now offset by two major faults the Hsenwi and Yunnan faults.<br>• The major sulphides are galena and sphalerite with lesser amounts of pyrite, chalcopyrite, covellite, gersdorffite, boulangerite, and cobaltite amongst other minerals.<br>• The lodes are steeply-dipping structurally-controlled zones and each lode incorporated anastomosing segments and footwall splays.<br>• The lodes occur within highly altered Bawdwin Tuff which hosts extensive stockwork and disseminated mineralisation as well as narrow massive sulphide lodes along structures. This halo mineralisation is best developed in the footwall of the largest China Lode.<br>• The main central part of the mineralised system is approximately 2 km in length by 400 m width, while ancient workings occur over a strike length of about 3.5 km.<br>• The upper portion of the China Lode was originally covered by a large gossan which has been largely mined as part of the earlier open pit. The current pit has a copper oxide zone exposed in the upper parts, transitional sulphide mineralisation in the central areas and fresh sulphide mineralisation near the base of the pit.<br>• The Bawdwin deposit is interpreted as a structurally-controlled magmatic-hydrothermal replacement deposit emplaced within a rhyolitic volcanic centre. |
| **Drillhole information** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>  o *easting and northing of the drillhole collar*<br>  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar*<br>  o *dip and azimuth of the hole*<br>  o *downhole length and interception depth*<br>  o *hole length.*<br>• *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.* | • All collar and composite data has been provided in tables in the body of ASX Releases document or as Appendices to those realeases. |
| **Data aggregation methods** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *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.* | • Length-weighted composites have been reported based on lower cut-off criteria that are provided in the composite tables, primarily 0.5% Pb. Additional composites based on cut-off of 0.5% Cu have been reported to highlight copper-rich zones.<br>• No top-cut has been applied. The Bawdwin deposit includes extensive high grade massive sulphide lodes that constitute an important component of the mineralisation; top-cuts will be applied if appropriate during estimation of mineral resources |

| Criteria | JORC Code explanation | Commentary |
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| | • *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • Metal equivalents are not reported here. |
| **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 drillhole angle is known, its nature should be reported.*<br>• *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').* | • Drill holes were orientated at an azimuth generally to the main orientation of mineralisation with a dip at about 40-50° from the dip of mineralisation; reported drill composite intercepts are down-hole intervals, not true widths |
| **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 collar locations and appropriate sectional views.* | • Diagrams that are relevant to this release have been included in the main body of the document or reported in previous announcements. |
| **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.* | • A table showing all composite assay intervals calculated at a designated lower cut-off grade and details of internal dilution is included at the end of this report. |
| **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.* | • In Company's opinion, this material has been adequately reported in this or previous announcements. |
| **Further work** | • *The nature and scale of planned further work (e.g. 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.* | • The details of additional work programmes will be determined by the results of the current exploration program that is currently underway.<br>• It is envisaged that a drilling program will be undertaken to test exploration targets, supported by geology, geochemistry and geophysics. |

## **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 |
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| **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>• *Data validation procedures used.* | • All historical underground drive sampling data was compiled into a Microsoft Access database and migrated to Datashed database.<br>• Diamond and RC drilling sampling, and open pit sampling data was also compiled into a Datashed database. |

| Criteria | JORC Code explanation | Commentary |
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| | | • Data was exported as Micromine tables and drilling/underground sampling databases constructed. These were validated in Micromine for inconsistencies, overlapping intervals, out of range values, and other important items.<br>• All data was visually checked. |
| **Site visits** | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | • Dr Neal Reynolds, a director of CSA Global, conducted site visits to the project area in August 2017, October 2017, May 2018 and November 2018. Drill activities were observed and checked, drill core was examined and mineralisation in the open pit was observed. The historical systematic documentation of mining and exploration development, sampling and assaying was confirmed, and the assay laboratory was visited during 2017 visits. |
| **Geological interpretation** | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | • The Bawdwin Mine has a long underground and open pit mining history. The geological interpretation used for the resource estimate is based on historical sectional and plan underground geology interpretations and recent open pit mapping and new diamond and RC drilling information. Stoped areas were also modelled and these provide a useful guide to the geometry and orientation of the major lodes. This data has been used to create a wireframed 3D model of geology, structure and mineralisation.<br>• Underground and open pit channel sampling, drill-hole assay results have formed the basis for the geological interpretation.<br>• The major lodes were modelled in Micromine primarily in plan view and additionally in section view to integrate drill-hole data. 3.5% Pb cut-off grade was applied for interpretation of the major lodes.<br>• Surrounding the major lodes, a “halo” zone was modelled based on 0.5% Pb cut-off grade and represents an alteration envelope around the high-grade lodes.<br>• A separate zinc resource estimate was completed independently as zinc does not always correlate with lead. A 1% Zn cut-off grade was applied for interpretation of the Zinc mineralisation<br>• A separate copper resource estimate was completed independently due the low correlation between Pb and Cu. 1% Cu cut-off grade was applied for interpretation of the copper mineralisation<br>• No alternate interpretations have been considered as the overall geometry of the mineralisation is generally well understood due to previous mining.<br>• The grade and to a lesser degree lithological interpretation forms the basis for the modelling. |
| **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.* | • The currently interpreted mineralisation of the Bawdwin area extends for approximately 1.8 km along a 325° northwest strike ($0^0$ North in Bawdwin mine grid). The dip angle of the zone varies from -70° to -90° with most common dip angle at -80°. The zone extends from surface to 475 m below the surface. |

| Criteria | JORC Code explanation | Commentary |
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| **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>• *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>• *The assumptions made regarding recovery of by-products.*<br>• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. Sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.* | • Grade estimation was by ordinary kriging (OK) using Micromine 2018.1 software for the Lode domain, Cu mineralisation and Zn mineralisation zones. Categorical Indicator Kriging (CIK) was used for the Halo domain. The interpretation was extended perpendicular to the corresponding first and last interpreted plan levels to the distance equal to a half distance between the adjacent underground levels.<br>• CSA Global carried out the reported Mineral Resource estimate in June 2019 to August 2019.<br>• The OK and CIK estimates were completed concurrently with two check Inverse Distance Weighting (IDW) estimates. The OK and CIK estimates used the parameters obtained from the modelled variograms. The results of the check estimates correlate well.<br>• No deleterious or non-grade variables were estimated.<br>• The block model was constructed using a 5 m E x 10 m N x 10 m RL parent block size, with sub-celling to 1.25 m E x 1.25 m N x 1.25 m RL for domain volume resolution. The parent cell size was chosen on the basis of the general morphology of mineralised zones and in order to avoid the generation of large block models. The sub-cell size was chosen to maintain the resolution of the mineralised zones and to allow a block model transfer to the Surpac mining package. The sub-cells were optimised in the models where possible to form larger cells.<br>• The search radii were determined by means of the evaluation of the semi-variogram parameters.<br>• The first search radius was selected to be equal to the block size dimensions to use the grades from the workings that intercepted the block. The second search radius was selected to be equal to two thirds of the semi-variogram long ranges in all directions. Model cells that did not receive a grade estimate from the first interpolation run were used in the next interpolation with greater search radii equal to full long semi-variogram ranges in all directions. The model cells that did not receive grades from the first three runs were then estimated using radii incremented by the full long semi-variogram ranges. When model cells were estimated using radii not exceeding the five full semi-variogram ranges, a restriction of at least three samples from at least two drill holes was applied to increase the reliability of the estimates.<br>• No selective mining units were assumed in this estimate. |

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| **Estimation and modelling techniques** (continued) | • *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.* | • No strong correlations were found between the grade variables estimated.<br>• Grade envelopes were defined for Pb based on 3.5% Pb grade to define high grade lodes and 0.5% Pb for the "Halo" zone. Hard boundaries between the grade envelopes were used to select sample populations for grade estimation.<br>• Grade envelopes were defined for Zn based on 1.0% Zn grade to define zinc mineralisation<br>• Grade envelopes were defined for Cu based on 1.0% Cu grade to define copper mineralisation.<br>• Statistical analysis to determine top cut grade values was carried out separately for each element (Pb, Zn, Cu, Ag) and separately for high grade lodes and the "Halo" zone.<br>• Validation of the block model included comparison of the block model volume to the wireframe volume. Grade estimates were validated by statistical comparison with the drill data, visual comparison of grade trends in the model with the drill data trends, and by using a second interpolation technique.<br>• No reconciliation data is available. |
| **Moisture** | • *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | • The tonnages are estimated on a dry basis |
| **Cut-off parameters** | • *The basis of the adopted cut-off grade(s) or quality parameters applied.* | • The Mineral Resource above 750 m RL was reported at 2.0% Pb (reflecting the high grade core mineralisation and 0.5% Pb reflecting the pit optimisation which demonstrates potential for economic extraction in an open pit to this depth.<br>• A single cut-off grade of 2% Pb has been applied to the reported Mineral Resource below the 750 m RL that has potential for eventual economic extraction by underground mining.<br>• Cut-off grade of 1% Zn has been applied to the reported Mineral Resource to the zinc mineralisation that lie outside of the Pb Halo and Cu mineralisation zones.<br>• Cut-off grade of 0.5% Cu has been applied to the reported Mineral Resource to the copper mineralisation that lie outside of the Pb Halo zones. |
| **Mining factors or assumptions** | • *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.* | • A Feasibility Study including a pit optimisation is currently assessing the open pit development opportunity at Bawdwin. It is expected that deeper parts of the deposit will be amenable to underground mining. |

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| **Metallurgical factors or assumptions** | • *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 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.* | • It is assumed that Pb, Zn, Cu and Ag sulphide mineralisation can all be economically extracted using conventional flotation methods. These were all produced historically at the Bawdwin Mine and Namtu Smelter Complex. The results of the Pre-Feasibility Study testing were described in<br>• Testing as part of the May 2019 PFS showed that recoveries of both lead and zinc were sensitive to grain size of the galena and sphalerite, and degree of oxidation. Galena and to a lesser extent sphalerite is present as both coarse and fine grain sizes in the samples tested to date. The coarser grained sulphides respond very well to flotation tests, with the finer grained sulphides less so, requiring a finer grind.<br>• Transition or partly oxidized mineralisation shows lower recoveries than the fresh material as a result of the presence of anglesite and cerussite (lead sulphate and carbonate respectively) and smithsonite (zinc carbonate) as well as sulphide minerals. Transitional material comprises 11% of the Mineral Reserve.<br>• Testing to date indicates lead and silver recoveries up to 88% and 85% respectively, is achievable from fresh ore. The recovery function for zinc, from fresh ore, has a direct relationship to the zinc head grade. Testing shows recoveries of between 60 to 80% will be achievable from fresh ores. See section 1.10 for discussion on the Starter Pit weighted average recovery and concentrate grades.<br>• Additional metallurgical test work program is currently being carried out as part of the current Feasibility Study. |
| **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.* | • Suitable sites for waste dumps are located in the neighbouring valleys east, west and south of the planned open pit area.<br>• The Pangyun creek that flows on the margins of the deposit will require a diversion for a large open pit.<br>• Ore processing sites are undergoing further evaluation with Tiger camp the preferred location. |
| **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 measurements, the nature, size and representativeness of the samples.*<br>• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | • A total of 1,025 bulk density measurements were taken from a suite of mineralised and un-mineralised drill core using conventional water immersion and caliper techniques.<br>• The bulk density of mineralisation increases with sulphide content and hence Pb, Zn and Cu metal grade.<br>• Density data was used to develop a regression between the density and Pb, Zn, Cu and Ag grades for samples within the mineralised envelopes. Separate regression formulas were derived for oxide/transition and fresh zones.<br>• Based on the bulk density measurements a density of 2.0 t/m$^3$ for oxide, 2.3 t/m$^3$ for transitional and deep transitional zones outside of mineralised envelopes, 2.5 t/m$^3$ for |

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| | | un-mineralised fresh material. |
| **Classification** | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *Whether appropriate account has been taken of all relevant factors (ie 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>• *Whether the result appropriately reflects the Competent Person's view of the deposit.* | • The Inferred Mineral Resource classification is based on the evidence from the available drill hole and channel sampling. This evidence is sufficient to imply but not verify geological and grade continuity. However, the areas with the denser drilling and robust continuation of the mineralised zones were classified as Indicated (where the new 2017-19 drillholes were drilled).<br>• The Inferred and Indicated classification has considered all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project.<br>• The open pit mapping and diamond drilling all have been carried in accordance with modern industry best practice standards and have QAQC data to support the assay data. The historical underground sampling has no assay QAQC. The data quality is acceptable for the classification of Indicated in the areas with supporting drilling data.<br>• The overall structure of the major lodes is well understood from the underground data and open pit mapping.<br>• The Mineral Resource estimate appropriately reflects the view of the Competent Person. |
| **Audits or reviews.** | • *The results of any audits or reviews of Mineral Resource estimates.* | • Internal audits were completed by CSA Global which verified the technical inputs, methodology, parameters and results of the estimate. |
| **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.*<br>• *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>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | • The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource to an Indicated and Inferred classification as per the guidelines of the 2012 JORC Code.<br>• The statement refers to global estimation of tonnes and grade. |