Maiden Reserve for Henty Hold Mine - Updated

Catalyst Metals Limited (Catalyst) (**ASX: CYL**) refers to the announcement titled Maiden Reserve for Henty Hold Mine which was lodged with ASX on 8 November 2022.

The announcement has been updated to incorporate all reporting requirements under ASX Listing Rules 5.9.1 and 5.9.2.

Attached is a copy of the updated announcement.

This announcement has been approved for release by the Board of Directors of Catalyst Metals Limited.

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HENTY GOLD MINE, TASMANIA

Maiden Reserve advances strategy to grow mine life and production rate

Catalyst continues to build foundations of a more sophisticated operation at Henty with the reporting of a maiden Reserve

Key Points

- **Over last 18 months, Catalyst has been progressively building Henty's foundations into that of a more stable operation**
- **Reporting of this maiden Reserve is a further step in that direction**
- **Henty's maiden Ore Reserve is 983,000t @ 3.6g/t for 115,000oz Au**
- **Reserves support a life of mine plan beyond 5 years**
- **This base provides Catalyst with a stable platform from which to continue executing its strategy of extending mine life and increasing the production rate**

Catalyst Metals Limited (Catalyst) (**ASX: CYL**) is pleased to announce an initial JORC 2012-compliant Ore Reserve Estimate of 983,000t at 3.6g/t for 115,000oz at its Henty Gold Mine in Tasmania.

Catalyst Managing Director & CEO, James Champion de Crespigny said: *"This Reserve is key strategic milestone for Henty because it underpins our growth plan and highlights the project's increasingly strong future.*

"This is shown by the fact that we have been able to convert 55% of the Indicated Resource to Ore Reserve. Importantly, the anticipated Henty mine life now extends beyond five years using a mine plan which incorporates the increased production rates being targeted in coming years".

This maiden Reserve follows the recently released Mineral Resource Estimate (Refer ASX release dated 27 September 2022) which showed that after accounting for the Financial Year 2022 production, there was an increase of 10% in the operation's Mineral Resource and a 20% increase in Resources since Catalyst acquired Henty in January 2021.

The 2022 Reserve has been derived from the Mineral Resource models using ore classified in the Indicated category. Individual stopes may contain up to 20% Inferred ore, and in total these comprise less than 1% of the ORE. Stopes designed within the Life of Mine plan that contain insufficient Indicated Resource will be targeted for upgrade drilling.

This is important because these represent areas where Catalyst can target relatively low cost conversion from Inferred to Indicated Resource, and provide additional material to be assessed in future Reserve estimates.

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Table 1 below summarises the Henty 2022 Ore Reserve Estimate (ORE).

Table 1 Henty Ore Reserve Estimate as at 30 June 2022

JORC Classification	Tonnage (Mt)	Au (g/t)	Ounces (koz)
Proved	-	-	-
Probable	983	3.6	115
Total	**983**	**3.6**	**115**

Note: The ORE utilises a 2.7g/t breakeven cut-off, and 1.9g/t incremental cut-off grade respectively i.e. the variable cost for mining, administration and processing. The ORE is based on the same $2,600/oz gold price as the MRE. Tonnage estimates have been rounded to the nearest 1,000 tonnes

The ORE has been developed from the Life of Mine Plan. The ORE is the subsection of the Life of Mine plan being in the Indicated Resource category. The Mineral Resource Estimate (MRE) on which the ORE is based was prepared by consultants CSA Global based on drill hole data as of 30 June 2022.

HENTY GOLD MINE

The Henty Gold Mine is located 23 kilometres from the town of Queenstown in north western Tasmania, consisting of an underground mine and a nameplate capacity 300,000tpa conventional CIL processing plant.

Catalyst acquired 100% of the Henty Gold Mine and regional exploration tenements, in January 2021. Since acquisition, Catalyst has been pursuing a strategy to increase mining inventory to support higher gold production and lower costs. Catalyst has invested heavily in exploration and recent updates to its Reserve and Resource estimates will inform a life of mine plan to support this strategy.

In the FY22 June quarter production at Henty was 6,397oz at an AISC of A$2,100oz. Production for FY22 was 25,199oz and Catalyst is targeting an annualised gold production rate of 35,000oz by the end of FY23.

ORE RESERVE ESTIMATION

The Ore Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level that include application of Modifying Factors. The studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

A 'Probable Ore Reserve' is the economically mineable part of an Indicated Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.

A Proved Ore Reserve represents the highest confidence category of reserve estimate and implies a high degree of confidence in geological and grade continuity, and the consideration of the Modifying Factors. All Reserves in the 2022 ORE are classified as Probable.

Table 2 below details the Mineral Resource estimate which was reported on 27 September 2022.

Table 2 Mineral Resource estimate *by JORC Classification – Henty Deposit*

JORC Classification	Tonnage (Mt)	Au (g/t)	Ounces (koz)
Indicated	1.8	4.5	257
Inferred	0.9	4.0	111
Total	**2.6**	**4.3**	**368**

Note: The MRE utilises a 1.7g/t cut-off, the variable cost for mining and processing. The MRE is based on $2600/oz gold price. Tonnage estimates have been rounded to the nearest 0.1 million tonnes

MINING METHODS

The Henty Mine uses bench mining and flatback mining as the principle means of ore extraction. In selected places where development allows, a modified Avoca method has been used with success. Mining method selection is based on:

- Width and grade of the ore
- Regularity along strike and up dip
- Proximity to the Henty Fault zone
- General ground conditions

Each orebody has unique characteristics. Where conditions permit, benching provides the most cost-effective method of extraction. Where the ore value is high, but ground conditions are critical to minimising dilution flatback mining is preferred.

In bench stoping, heights are limited to 12-15m. Where it is economic to do so, development is completed top and bottom. The choice of uphole or downhole drilling is based on geometry of the ore. Extraction is bottom up.

As a generality, the mining areas in the lower section of the mine have wider widths, more modest grades and are away from the Henty Fault. Conversely the upper areas of the mine tend to be higher grade, narrow and occasionally interact with the Henty Fault.

Production drilling is carried out using a long hole drill rig equipped with a Minnovare Production Optimiser system for drillhole accuracy. Blasting is carried out using ANFO and electronic detonators.

PROCESSING METHOD

The Henty Gold Mine has been operational since 1996. The process plant has an annual plant capacity of 300,000 tonnes and comprises a semi-autogenous mill (SAG) feeding a conventional carbon-in-leach (CIP) circuit. Catalyst has operated the plant since January 2021. Feed grade during that time has been 3.5-4.0g/t. The 94% recovery used in the ORE estimation is consistent with current plant recoveries and there is no foreseeable reason to change to projected recovery.

MATERIAL ASSUMPTIONS

Gold grades were built into the geological block model for the MRE and ORE. The various cut-off grades were based on current gold price of AUD2,600/oz. The current gold price is considered relevant because of the relatively short projected mine life.

The MRE has been estimated with a lower cut-off grade of 1.7g/t in line with 2012 JORC Code stating that:

- A gold price of AUD 2,600/oz has been used in both MRE and ORE
- Metallurgical recovery of 94% is based on the FY23 Budget.
- Combined royalty equivalent to 5.9%
- Ore Reserve cut-off grade of 2.7g/t is based on the all-in cost of mining and processing
- Mineral Resource cut-off grade of 1.7g/t is based on the variable cost of mining and processing
- The cut-off grade for incremental stoping ore within the ORE boundaries (which requires no further development) is 1.9g/t.
- The cut-off grade for development ore is 1.0g/t

MINING INVENTORY

A three-dimensional (3D) block model representing the mineralisation was created using Datamine software. Diamond core and underground face samples were used to interpolate Au grades into blocks using Ordinary Kriging. Several methods validated the block model, including visual review and comparison of sampling and block model grades. The stopes were created by applying the Shape Optimiser (SO) software in Deswik CAD to the various Mineral Resource models which were completed in Datamine by CSA Global Pty Ltd (CSA).

The parameters used to create the initial stope shapes were:

- All Mineral Resource categories included;
- 16m level intervals, split into 4m vertical slices. The 4m slices were also reviewed for flat backing;
- 4m strike length;
- Minimum mining width (MMW) of 1.5m;
- Minimum dip of 50 degrees;
- Minimum waste pillar between parallel stopes of 5m;
- Initially a 2.7g/t Au breakeven cut-off was applied to create the 4m shapes. A head grade of 3.2g/t for each shape was applied to allow for stope recovery and dilution; and
- An additional 1.9g/t Au incremental cut-off applied to create additional 4m shapes. A head grade of 2.3g/t for each incremental shape was applied to allow for stope recovery and dilution.

In order to convert Inferred Mineral Resources to higher classification categories, further infill drilling is required in parts of the deposit. CSA Global have recommended infill drilling to a spacing of 10–15 m(E) x 10–15 m(RL) along the main mineralised structures to support the delineation of Indicated material.

ESTIMATION METHODOLOGY

The ORE was based on the Mineral Resource classifications in the current geological block models. Details relating to the estimation of the Mineral Resource were provided in Catalyst's release to market on 27 September 2022

Development and stopes were evaluated for tonnes and grade, as well as the proportions of Mineral Resource classifications. Where activities include various classifications within a stope the following process was used to determine if the ore was a Proved Ore Reserve, Probable Ore Reserve or an Inferred Production Target.

- If (Measured tonnes) / (Measured + Indicated + Inferred tonnes) > 80% the stope (or ore development) tonnes were classified as **Proved ORE**, otherwise
- If (Measured + Indicated tonnes) / (Measured + Indicated + Inferred tonnes) > 80% the stope (or ore development) tonnes were classified as **Probable ORE**, otherwise
- The remaining ore tonnes were classified as **Inferred Production Target** and not included in the ORE.

The ORE includes 103Kt of unplanned footwall and hangingwall dilution at zero grade based on the dilution factors summarised in Table. This equates to 11% of the overall ORE tonnes. There is an additional 229Kt of planned dilution included in the ORE and this accounts for 23% of the total tonnes. The planned dilution consists of waste material within the stope due to minimum mining width and stope geometry. It also includes waste within the ore development profile. Where the development head grades dropped below the 1.0 g/t cut-off applied, the tonnes were deemed as waste and Unclassified.

The 80% Ore Reserve factor allows up to 20% of lower classified material to be included in a higher Ore Reserve classification before the entire stope or development round is downgraded to a lower Ore Reserve classification. It is the competent person's opinion that 20% of a lower classified material is not material to the integrity of an individual stope or development round, and the process used is deemed appropriate for an ORE.

The Probable Ore Reserve includes 9,100t of Inferred Mineral Resource. This equates to 0.9% Inferred Mineral Resource in the Probable Ore Reserve and is deemed immaterial to the ORE.

The 559Kt of Production Target, which is based on Inferred Mineral Resource, has not been included in the ORE. The Production Target includes 79Kt of Indicated Mineral Resource. The tonnes have been excluded from the ORE as the development and stope shapes include more than 20% of Inferred Mineral Resource in the design.

Underground mining commenced in 1996 and approximately 1.4 million ounces have been mined from the underground since the operation commenced. This includes 216Kt (27koz) mined in FY2022.

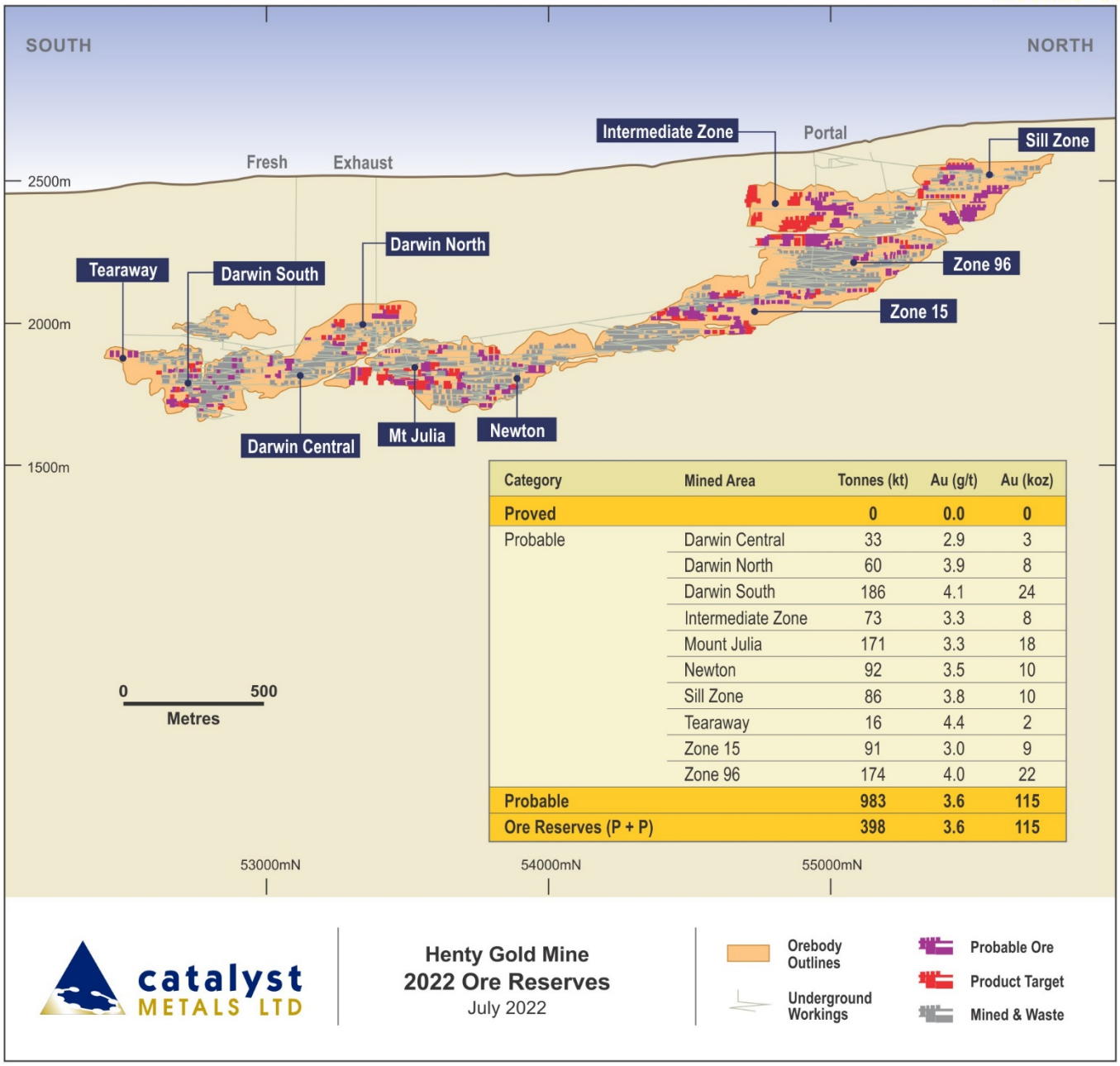
All ORE stopes are subject to economic analysis using current operating costs to determine the financial viability of each stope included in the estimate. Catalyst has operated the Henty Mine since January 2021, and has well established cost criteria.

There is a 55% conversion factor from the 2022 MRE (Indicated MRE only) to the 2022 ORE. This is a reasonable conversion, considering the MRE used a lower cut-off and doesn't include modifying factors.

Table 3. Henty 2022 Probable Ore Reserve Estimate by Orebody

Category	Mine Area	Tonnes (kt)	Au (g/t)	Au (koz)
Proved Total		**0**	**0.0**	**0**
Probable	Darwin Central	33	2.9	3
	Darwin North	60	3.9	8
	Darwin South	186	4.1	24
	Intermediate Zone	73	3.3	8
	Mount Julia	171	3.3	18
	Newton	92	3.5	10
	Sill Zone	86	3.8	10
	Tear Away	16	4.4	2
	Zone 15	91	3.0	9
	Zone 96	174	4.0	22
Probable Total		**983**	**3.6**	**115**
Henty Mine Ore Reserves (P+P)		**983**	**3.6**	**115**

A schematic of the Henty 2022 ORE and Production target can be seen in Figure 4 below.



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	Sill Zone	86	3.8	10
	Tearaway	16	4.4	2
	Zone 15	91	3.0	9
	Zone 96	174	4.0	22
Probable		**983**	**3.6**	**115**
Ore Reserves (P + P)		**398**	**3.6**	**115**

Figure 4: Longitudinal projection of Henty Gold Mine showing 2022 Reserve zones.

STATEMENT RELATING TO PRODUCTION TARGET

Where reference is made to Production Target, this has been determined by the same means as Ore Reserve, but the stopes contain ore classified as Inferred Resource. The Mineral Resource Estimate (MRE) on which the Production Target is based is the same as the Ore Reserve Estimate.

The Life of Mine Plan (LOM) is developed by scrutinising all orebodies for stope shapes that meet the parameters referenced above. The ORE is the subsection of the Life of Mine plan being in the Indicated Resource category. Stopes designed within the Life of Mine plan that contain insufficient Indicated Resource will be targeted for upgrade drilling. The Production Target is the remaining

portion of the LOM that contains predominantly Inferred Resource. The Competent Person considers the Production Target has reasonable prospect of being converted to Ore Reserve.

There is a low level of geological confidence associated with Inferred Mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

This announcement has been approved for release by the Board of Directors of Catalyst Metals Limited.

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John McKinstry
Chief Operating Officer

Competent person's statement for JORC 2012 Ore Reserves

The information in this report that relates to Ore Reserve Estimate is based on, and fairly reflects, information compiled by Mr John McKinstry, a Competent Person, who is a full-time employee of Catalyst Metals Limited. Mr McKinstry has sufficient experience relevant to estimation, assessment, evaluation and economic extraction of Ore Reserves and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr McKinstry consents to the disclosure of information in this report in the form and context in which it appears.

Mr McKinstry verifies that the Ore Reserve section of this report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation relating to the Ore Reserves.

JORC 2012 Mineral Resource

Catalyst confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.

Appendix A: JORC 2012 Table 1

JORC Table 1, Section 1 – Key Classification Criteria

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.*	The sampling database for Henty includes data collected by diamond drilling (DD), channel sampling (CH) and sludge sampling (SL) techniques. SL samples were not used for grade estimation. The sampling database has been compiled from information collected when the project was under ownership of numerous companies including (listed from most recent): 1 Catalyst Metals (2021 to current) 2 Diversified Minerals (2016 to 2020) 3 Unity Mining (2009 to 2016) 4 Barrick Gold (2006 to 2009) 5 Placer Dome (2003 to 2006) 6 Aurion Gold (2001 to 2003) 7 RGC/Goldfields (1996 to 2001). Details relating to drilling techniques, quality assurance (QA) protocols and quality control (QC) results for data gathered prior to 2009 is largely unavailable. Drilling carried out during this period is collectively termed "Historical Drilling" herein. For drilling carried out since acquisition of the project by Unity Mining in 2009 a reasonable, although partially incomplete, level of information is typically available describing data collection procedures and relevant QAQC. Drilling carried out during this period is collectively termed "Modern Drilling" herein.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For drillhole data, either whole core or half core is generally submitted. In areas where infill drilling is required, whole core is typically submitted given that there are other holes available with half core for future reference. Samples are taken at 0.2–1 m intervals and honour different rock types, alteration zones and mineralised zones as defined by geologists. Face sampling is carried out at grade height (~1.5 m). A duplicate sample is taken on all faces to assist in monitoring sample precision and representivity. Samples are taken at 0.2–1 m intervals and honour different rock types, alteration zones and mineralised zones as defined by geologists.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. "RC 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	Diamond drilling and face sampling methods were used to obtain 0.2 m to 1 m length samples which were subsequently pulverised to produce a 30 g charge for fire assay with determination by atomic absorption spectrometry (FA/AAS) for gold.

Criteria	JORC Code explanation	Commentary
	(e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	*Drill type (e.g. core, RC, 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.).*	Underground mobile diamond drill rigs are utilised to produce either LTK60 or NQ2 size core. Drill core is not routinely oriented.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Drilling recoveries are recorded for diamond core samples as part of geotechnical logging.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Recovery of drill core is maximised by using drilling techniques and drilling fluids suited to the particular ground conditions.
	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.	No relationship between grade and recovery has been identified.
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.*	**Drilling** For drillhole data, logging is completed on a lap top computer directly into an Excel based spreadsheet which has been designed for the mine site. Logging is carried out at a core shed with adequate facilities including roller-racks, lighting, core photograph facilities and an automatic core saw. A template with project-specific codes has been set up to ensure consistent collection of relevant geological information. Alteration, geotechnical, structure and rock type information are collected into separate tables using standalone codes. Zones of core loss are also recorded. **Face Mapping/Sampling** For underground workings, the backs are mapped 6 m from the face to provide a check for the mapping from the previous round. If a round is missed, then 9 m requires mapping to provide the 3 m overlap for checking. Faces are photographed for future reference.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is generally qualitative in nature. All core is stored at site and has been photographed wet.
	The total length and percentage of the relevant intersections logged.	All diamond core has been geologically logged in full (100%).
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	**Drilling** Diamond samples are generally half-core, with core sawn in half using a core-saw. In areas where infill drilling is required, whole core may be submitted given that there are other holes available with half core for future reference. An automatic core saw is used to cut the core.

Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	**Face Sampling** Face sampling is carried out at grade height (~1.5 m). A duplicate sample is taken on all faces to assist in monitoring sample precision and representivity. An effort is made to collect representative samples and reduce the potential for contamination.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Several laboratories and assay techniques have been used throughout the Project's history. Typically, samples are initially crushed in a jaw crusher to a size of 10 mm. The jaw crusher is cleaned by compressed air between samples. The sample is then riffle split down to 1 kg, with the remaining samples returned as coarse reject to site and stored under cover for future reference. The 1 kg sample is pulverised using an LM5 pulveriser to a size of 85% passing 75 microns, and the mill cleaned with a barren silica flush between samples. 200 g of this fine material is taken via scoop, from which 30 g is taken for fire assay (FA50).
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Subsampling is performed during the sample preparation stage according to the assay laboratories' internal protocols.
	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.	Field duplicates of diamond core, i.e. other than half of cut core, have not been routinely assayed. Field duplicate samples are taken on all underground faces to assist in monitoring sample precision and representivity.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for the material being sampled.
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.*	The techniques are considered total. 8 All samples are currently submitted to ALS Burnie for gold analysis. Samples are crushed and pulverised prior to selection of a 30 g subsample for fire assay with determination by atomic absorption spectrometry (AAS). Previous owners have adopted similar methods. Occasionally, Bi, Ag, Cu, Pb, Zn, As and Mo analyses are completed to assist with understanding the nature of the mineralisation and for metallurgical assessment. Cu, for example, may consume cyanide during processing. If required, pulps are sent from Burnie to ALS Townsville for determination via ICP analysis.
	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.	No geophysical tools were used to support the preparation of this Mineral Resource estimate.

Criteria	JORC Code explanation	Commentary
	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.	Details relating QA protocols and QC results for data gathered prior to 2009 is largely unavailable. Monthly QC reports were compiled by Unity Mining for the period 2010 to 2015. The available QC data compiled by Unity Mining was reviewed by CSA Global and considers the results as suitable to support the data gathered. Monthly QC reports compiled by CYL between February and June 2021 have also been reviewed by CSA Global and found to be reasonable. QA protocols that have been adopted since 2016 are summarised below. **Drilling** CYL specifies inclusion of field blanks at a rate of one blank every 30 samples submitted. The blanks are composed of barren basalt material, which is obtained from a commercial distributor in the town of Devonport on the north coast of Tasmania. CYL specifies inclusion of certified reference materials (CRMs) at a rate of two CRM's every 30 samples of core samples submitted, and two CRM's for every batch of channel/sludge samples submitted. Commercially available CRM's covering ranges considered as representing low, moderate and high values for gold were obtained from OREAS. Inclusion of field duplicates for core samples is not routinely carried out by CYL Pulp duplicates insertion rates are not specified by CYL. Assay laboratory internal QA protocols are relied upon for analysis of pulp duplicates. Results are not routinely monitored to the best of CSA Global's knowledge. **Face Sampling** CYL specifies two CRMs and a blank are submitted with each batch to monitor analytical bias and cross-sample contamination respectively. The quality control samples are suffixed A, B and C at the end of each submission sheet. Low, medium and high-grade CRMs are used. CYL specify a field duplicate interval is taken and submitted for analysis for each heading sampled, with final results averaged across the two samples submitted for each interval. Pulp duplicates insertion rates are not specified by CYL. Assay laboratory internal QA protocols are relied upon for analysis of pulp duplicates. Results are not routinely monitored to the best of CSA Global's knowledge. The Competent Person has reviewed all available data and considers that acceptable levels of precision and accuracy have been established for the modern drilling dataset. There is a greater degree of uncertainty attached to the historical dataset.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections have been verified by alternative CYL company personnel.

Criteria	JORC Code explanation	Commentary
	The use of twinned holes.	No twinning has been completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The summary below relates to current methods. Historical methods are not known with any certainty. **Drilling** Logging is completed on a lap top computer directly into an Excel based spreadsheet which has been designed for the mine site. Logging is carried out at a core shed with adequate facilities including roller-racks, lighting, core photograph facilities and an automatic core saw. A template with project-specific codes has been set up to ensure consistent collection of relevant geological information. Alteration, geotechnical, structure and rock type information are collected into separate tables using standalone codes. Core is photographed wet at the core shed. Core photographs are stored on the server for future reference. **Face Mapping/Sampling** Face mapping and sampling data is entered in a face mapping sheet, along with the face number, distance to the nearest survey station, the width and the height of the face, over-break estimate, time and date, scale and name of geologist and classification of face (run of mine (ROM) or waste). Once the geologist returns to the office, the data is entered in an Excel spreadsheet. The location of the face is then determined in Datamine using the query line command. The face sample is treated as a short drillhole, with collar and survey information. The output of the query line command is entered in the Excel spreadsheet which then updates the collar information. 9 Core logging and sampling data is saved in the same logging and sampling spreadsheet that is used for face sampling. The data is then manually exported to a specific directory. The exported files and Datashed database are then opened, and data from each sheet of the export document is then copied into the relevant Datashed table. Data is then exported from Datashed as CSV files ready for import into Datamine. 10 Analytical data is imported directly into the Datashed database from files sent by the laboratory.
	Discuss any adjustment to assay data.	No adjustments were made to the analytical data, other than replacing below detection results with a value equal to half the detection limit.

Criteria	JORC Code explanation	Commentary
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The summary below relates to current methods. Historical methods are not known with any certainty; however, the Competent Person considers it is reasonable to assume that industry standard techniques have been adopted over the Projects history. Diamond drillhole collar positions are set out by mine surveyors. The drilling crew has an azi-reader device that enables them to set up at the correct azimuth and dip according to the drillhole plan. Final collar positions are then picked up by Mine Surveyors at hole completion. Downhole surveys are completed using a Devi-flex tool, with surveys taken every few metres. Development drives are regularly picked up by Mine Surveyors. At stope completion, a cavity monitoring system (CMS) is generally used to model the final voids. There are historical stopes that have not been picked up, however.
	Specification of the grid system used.	The grid system used is Geocentric Datum of Australia 1994 (GDA94).
	Quality and adequacy of topographic control.	A topographic fie was not used in the preparation of this Mineral Resource estimate.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Areas that remain in situ are generally drilled at 10–20 m E by 10–20 m RL spacings in the Mineral Resource area. The drill spacing varies between deposits, and lenses within a deposit. Areas towards the periphery of the lenses are often drilled at broader spacings.
	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 Competent Person believes the mineralised domains have sufficient geological and grade continuity to support the classifications applied to the Mineral Resources given the drill pattern. Mineral Resource estimation procedures are also considered appropriate give the quantity of data available and style of mineralisation under consideration.
	Whether sample compositing has been applied.	Compositing was not applied at the sampling stage.
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.*	The drilling has been undertaken at various orientations, given the limited platforms available underground. For the most part, holes are drilled at a high angle to the mineralisation. Some holes, however, have been drilled close to sub-parallel to the mineralisation. Face sampling is carried out close to orthogonal to the mineralisation.
	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 relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.

Criteria	JORC Code explanation	Commentary
Sample security	*The measures taken to ensure sample security.*	The summary below relates to current methods. Historical methods are not known with any certainty; however, the Competent Person considers it is reasonable to assume that industry standard techniques have been adopted over the Projects history. Core is transported to the core shed for processing, which is locked at the end of each day. Core samples are placed in a polyweave sack for transportation to the laboratory. Face samples are placed in an oven on site after the geologist returns from underground. The primary laboratory (ALS in Burnie) collects the samples each morning.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	CSA Global completed a review of data collection techniques in 2017.

JORC 2012 Table 1, Section 2 – Key Classification Criteria

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.*	Land tenure consists of three Mine Leases, 7M/1991, 5M/2002 and 7M/2006. Two Exploration Licences adjoin the Mine Leases; EL 8/2009 to the north and east and EL 28/2001 to the south.
	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 tenements are in good standing and no known impediments exist.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Other companies to have held the project leases include: 11 Unity Mining (2009 to 2016) 12 Barrick Gold (2006 to 2009) 13 Placer Dome (2003 to 2006) 14 Aurion Gold (2001 to 2003) 15 RGC/Goldfields (1996 to 2001).
Geology	*Deposit type, geological setting and style of mineralisation.*	The Henty deposit lies within the Mt Read Volcanic (MRV) Belt in western Tasmania. The belt hosts several world-class polymetallic ore bodies including the Hellyer, Que River, Rosebery, Hercules and Mount Lyell deposits. The whole belt has been overprinted with a regional lower green schist facies metamorphism. Mineralisation consists of a series of small high-grade lenses of gold mineralisation hosted in quartz-sericite altered volcaniclastic and volcanic rocks that occupy a large sub-vertical quartz-sericite alteration shear zone. Gold is present as both free gold and as gold-rich electrum associated with chalcopyrite and galena in the main mineralised zone.
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:* • *Easting and northing of the drillhole collar* • *Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drillhole collar* • *Dip and azimuth of the hole* • *Downhole length and interception depth* • *Hole length.*	Exploration results are not being 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.	Exploration results are not being reported.
	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade	Exploration results are not being reported.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	*truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Exploration results are not being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Exploration results are not being reported.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Exploration results are not being reported.
	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	Exploration results are not being reported.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known").	Exploration results are not being reported.
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 drillhole collar locations and appropriate sectional views.*	Relevant maps and diagrams are included in the body of the report.
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 substantive exploration data not already mentioned in this table has been used in the preparation of this Mineral Resource estimate.
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).*	Further work will be focused on testing for dip extensions and strike extensions and to confirm grade and geological continuity implied by the current block model.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams have been included in the body of this report.

JORC 2012 Table 1, Section 3 – Key Classification Criteria

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.*	The summary below relates to current methods. Historical methods are not known with any certainty; however, the Competent Person considers it is reasonable to assume that industry standard techniques have been adopted over the Projects history. Geological logging was completed onto templates using standardised logging codes. Analytical results received by CYL are imported directly into the Datashed database by a database specialist.
	Data validation procedures used.	CSA Global completed numerous checks on the data. Absent collar data, multiple collar entries, suspect downhole survey results, absent survey data, overlapping intervals, negative sample lengths and sample intervals which extended beyond the hole depth defined in the collar table were reviewed. Only minor validation errors were detected which were communicated to CYL and corrected prior to the preparation of the Mineral Resource estimate.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Site visits have been completed by Aaron Meakin and Chris Adams, CSA Global consultants, from 2017 through 2020. Chris Adams assumes Competent Person status for the Mineral Resource estimate.
	If no site visits have been undertaken indicate why this is the case.	Not applicable.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Geological controls on the mineralistion are relatively well understood and have developed over the operating life of the mine. Mineralised zone interpretations were completed by DVM. Peer review of the interpretations was completed by CSA Global.
	Nature of the data used and of any assumptions made.	Sample intercept logging and assay results from drill core and face sampling form the basis for the geological interpretations. Geological mapping information has also been used to assist with developing the geological interpretations. A 1 g/t to 1.2 g/t Au cut-off grade value, in conjunction with geological logging information, has been used to develop the mineralised zone interpretations.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	Alternative interpretations are likely to materially impact on the Mineral Resource estimate on a local but not global basis.
	The use of geology in guiding and controlling Mineral Resource estimation. *The factors affecting continuity both of grade and geology.*	Geological logging and underground mapping have been used to guide the geological interpretations. The controls on the mineralisation are both lithological and structural, and this understanding has governed the resource estimation approach.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan*	The main part of the resource extends for a strike length of approximately 3,300 m. Plan width varies from 2 m to

Criteria	JORC Code explanation	Commentary
	width, and depth below surface to the upper and lower limits of the Mineral Resource.	5 m for some lodes up to 10–20 m wide for the main mineralised structures. The reported Mineral Resource plunges to the south and occurs between 50 m and 850 m of surface. The reported Mineral Resource is comprised of 11 separate model areas covering the dimensions of the deposit as follows: 16 Sill Zone 17 Intermediate Zone 18 Zone 15 19 Zone 96 20 Newton Zone 21 Mt Julia 22 Read Zone 23 Darwin North 24 Darwin Central 25 Darwin South 26 Tear Away Zone.
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.*	All geological domains used in the MRE were constructed by CYL using Datamine software. Block modelling and grade interpolation were carried out by CSA Global using Datamine software. Statistical analysis was carried out by CSA Global using Snowden Supervisor software. Quantitative kriging neighbourhood analysis was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. Kriging efficiency and slope of regression were determined for a range of block sizes, minimum/maximum samples, search dimensions and discretisation grids. Grade interpolation for Au was carried out by ordinary kriging into either: 27 1.25 m(E) x 5 m(N) x 5 m(RL) parent cells, sub-celled down to 0.25 m(E) x 0.5 m(N) x 0.5 m(RL) (for the Sill Zone, Intermediate Zone, Zone 15 and Zone 96 model areas), or 28 2.5 m(E) x 5 m(N) x 5 m(RL) parent cells, sub-celled down to 0.5 m(E) x 0.5 m(N) x 0.5 m(RL) (all other model areas). 1 m composites with top-cuts applied to Au values were used for grade interpolation. For grade variables other than Au interpolation was carried out into the same parent cell/sub-cell scheme via inverse distance methodology using 1 m composites with top-cuts applied. Dynamic anisotropy was employed to ensure undulation in the mineralisation relating to the folded nature of the

Criteria	JORC Code explanation	Commentary
		stratigraphy was captured by the search ellipses (i.e. rotating search ellipses). A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not select sufficient data for the block estimate. Initial search ellipse dimensions were set to honour the maximum variogram ranges determined in the three principal directions. Search ellipse expansion for second and third pass interpolations were set to two times and 10 times the initial search ellipse ranges respectively. 29 All interpolated grades variable utilise the same search and sample selection plan. Sample selection was either: o A minimum of 4 and maximum of 12 samples per estimate, with a maximum number of samples per drillhole of 3 (for block schemas of 1.25 m(E) x 5 m(N) x 5 m(RL) parent cells); or o A minimum of 6 and maximum of 16 samples per estimate, with a maximum number of samples per drillhole of 4 (for block schemas of (2.5 m(E) x 5 m(N) x 5 m(RL) parent cells).
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	No previous Mineral Resource estimates reported in accordance with the JORC Code were available for comparison. Production data was not available in a format that could be utilised to reconcile against the block models for each area.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding the recovery of by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Non-grade variables (i.e. variables other than Au) estimated for metallurgical characterisation are Ag, Cu, Pb, Zn, As and Bi.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A 2.5 m E x 5 m N x 5 m RL, or 1.25 m E x 5 m N x 5 m RL parent cell size was used to honour wireframe boundaries. The drillhole data spacing is variable throughout the deposit but approximates 10 m to 15m along strike by 10 m to 15 m down-dip. The block size therefore represents approximately half the drillhole spacing.
	Any assumptions behind modelling of selective mining units.	No assumptions were made regarding selective mining units.
	Any assumptions about correlation between variables	No assumptions have been made regarding correlation between variables.
	Description of how the geological interpretation was used to control the resource estimates.	A 1 g/t to 1.2 g/t Au cut-off grade value, in conjunction with geological logging information, has been used to develop the mineralised zone interpretations. Each mineralised zone interpretation is considered as being a separate estimation domain. Dynamic anisotropy was used to ensure undulation in the mineralisation

Criteria	JORC Code explanation	Commentary
		domains was captured by the search ellipses during grade interpolation.
	Discussion of basis for using or not using grade cutting or capping.	Grade capping was applied to all grade variables prior to grade interpolation. Histograms and log-probability plots were reviewed for to understand the distribution of grades and assess the requirement for grade capping for each estimation domain. A visual inspection in Datamine of any potential clustering of very high-grade sample data was then carried out prior to selecting a capping value. The drill samples were composited (1 m) prior to capping assessment and application.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Drillhole grades were initially visually compared with cell model grades. Domain drillhole and block model statistics were compared. Trend plots were then created to compare drillhole grades with block model grades for easting, northing and elevation slices throughout the deposit. The block model reflected the tenor of the grades in the drillhole samples both globally and locally.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis. No moisture data is available.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The Mineral Resource reported above a cut-off grade of 1.75 g/t Au. The adopted cut-off grade is the current incremental cut-off grade for underground development ore.
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.*	In selecting the cut-off grades, it was assumed that the current incremental cut-off grade will be applicable for future mining activities.
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.*	Henty is an operating mine and there are no material metallurgical issues that are known to exist.

Criteria	JORC Code explanation	Commentary
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.*	Henty is an operating mine with environmental permits in place.
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.*	Bulk density determinations adopted the water displacement method.
	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.	Samples were not wax coated prior to immersion.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Density has been applied on a global basis as follows: • 2.76 g/cm^3 for all model areas.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1. After giving due consideration to the integrity of all input data, available QC results, data distribution, geological and grade continuity, areas of the deposit were classified as Indicated where geological continuity is reasonable and the deposit has been drilled on a 10-15 m E x 10-15 m RL pattern (or denser). Given the complexity of the deposit, CSA Global considers that a drill pattern of approximately 10–15 m E by 10–15 m RL is required to enable the broad architecture of the deposit to be discerned prior to level development. This is also the spacing that is roughly required to assume geological and grade continuity between points of observation. Areas with broader drill spacing (but still denser than 50 m) and within the modelled mineralisation envelopes were classified as Inferred.
	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).	Appropriate account has been taken of all relevant criteria including data integrity, data quantity, geological continuity, and grade continuity.

Criteria	JORC Code explanation	Commentary
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource appropriately reflects the Competent Person's views of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	The current model has not been audited by an independent third party but has been subject to CSA Global's internal peer 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.*	The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource. The MRE has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this table. High-grade gold mines are particularly susceptible to Mineral Resource uncertainty. The presence significant short scale variability increases the likelihood of "unexpected" resource and financial results.
	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.	The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No collated mine production records were available to enable meaningful comparison with the block model estimates.

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.*	The sampling database for Henty includes data collected by diamond drilling (DD), channel sampling (CH) and sludge sampling (SL) techniques. SL samples were not used for grade estimation. The sampling database has been compiled from information collected when the project was under ownership of numerous companies including (listed from most recent): • Diversified Minerals (2016 to 2020) • Unity Mining (2009 to 2016) • Barrick Gold (2006 to 2009) • Placer Dome (2003 to 2006) • Aurion Gold (2001 to 2003) • RGC/Goldfields (1996 to 2001). Details relating to drilling techniques, quality assurance (QA) protocols and quality control (QC) results for data gathered prior to 2009 is largely unavailable. Drilling carried out during this period is collectively termed "Historical Drilling" herein. For drilling carried out since acquisition of the project by Unity Mining in 2009 a reasonable, although partially incomplete, level of information is typically available describing data collection procedures and relevant QAQC. Drilling carried out during this period is collectively termed "Modern Drilling" herein.
	Include reference to measures taken to ensure sample representivity and the	For drillhole data, either whole core or half core is generally submitted. In areas where infill drilling is required, whole core is

Criteria	JORC Code explanation	Commentary
	appropriate calibration of any measurement tools or systems used.	typically submitted given that there are other holes available with half core for future reference. Samples are taken at 0.2–1 m intervals and honour different rock types, alteration zones and mineralised zones as defined by geologists. Face sampling is carried out at grade height (~1.5 m). A duplicate sample is taken on all faces to assist in monitoring sample precision and representivity. Samples are taken at 0.2–1 m intervals and honour different rock types, alteration zones and mineralised zones as defined by geologists.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. "RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay"). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Diamond drilling and face sampling methods were used to obtain 0.2 m to 1 m length samples which were subsequently pulverised to produce a 30 g charge for fire assay with determination by atomic absorption spectrometry (FA/AAS) for gold.
Drilling techniques	*Drill type (e.g. core, RC, 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.).*	Underground mobile diamond drill rigs are utilised to produce either LTK60 or NQ2 size core. Drill core is not routinely oriented.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Drilling recoveries are recorded for diamond core samples as part of geotechnical logging.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Recovery of drill core is maximised by using drilling techniques and drilling fluids suited to the particular ground conditions.
	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.	No relationship between grade and recovery has been identified.
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.*	**Drilling** For drillhole data, logging is completed on a lap top computer directly into an Excel based spreadsheet which has been designed for the mine site. Logging is carried out at a core shed with adequate facilities including roller-racks, lighting, core photograph facilities and an automatic core saw. A template with project-specific codes has been set up to ensure consistent collection of relevant geological information. Alteration, geotechnical, structure and rock type information are collected into separate tables using standalone codes. Zones of core loss are also recorded. **Face Mapping/Sampling** For underground workings, the backs are mapped 6 m from the

Criteria	JORC Code explanation	Commentary
		face to provide a check for the mapping from the previous round. If a round is missed, then 9 m requires mapping to provide the 3 m overlap for checking. Faces are photographed for future reference.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is generally qualitative in nature. All core is stored at site and has been photographed wet.
	The total length and percentage of the relevant intersections logged.	All diamond core has been geologically logged in full (100%).
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	**Drilling** Diamond samples are generally half-core, with core sawn in half using a core-saw. In areas where infill drilling is required, whole core may be submitted given that there are other holes available with half core for future reference. An automatic core saw is used to cut the core.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	**Face Sampling** Face sampling is carried out at grade height (~1.5 m). A duplicate sample is taken on all faces to assist in monitoring sample precision and representivity. An effort is made to collect representative samples and reduce the potential for contamination.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Several laboratories and assay techniques have been used throughout the Project's history. Typically, samples are initially crushed in a jaw crusher to a size of 10 mm. The jaw crusher is cleaned by compressed air between samples. The sample is then riffle split down to 1 kg, with the remaining samples returned as coarse reject to site and stored under cover for future reference. The 1 kg sample is pulverised using an LM5 pulveriser to a size of 85% passing 75 microns, and the mill cleaned with a barren silica flush between samples. 200 g of this fine material is taken via scoop, from which 30 g is taken for fire assay (FA50).
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Subsampling is performed during the sample preparation stage according to the assay laboratories' internal protocols.
	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.	Field duplicates of diamond core, i.e. other than half of cut core, have not been routinely assayed. Field duplicate samples are taken on all underground faces to assist in monitoring sample precision and representivity.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for the material being sampled.
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.*	The techniques are considered total. All samples are currently submitted to ALS Burnie for gold analysis. Samples are crushed and pulverised prior to selection of a 30 g subsample for fire assay with determination by atomic absorption spectrometry (AAS). Previous owners have adopted similar methods. Occasionally, Bi, Ag, Cu, Pb, Zn, As and Mo analyses are completed to assist with understanding the nature of the mineralisation and for metallurgical assessment. Cu, for example, may consume cyanide during processing. If required, pulps are sent from Burnie to ALS Townsville for determination via ICP analysis.
	For geophysical tools, spectrometers,	No geophysical tools were used to support the preparation of this

Criteria	JORC Code explanation	Commentary
	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.	Mineral Resource estimate.
	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.	Details relating QA protocols and QC results for data gathered prior to 2009 is largely unavailable. Monthly QC reports were compiled by Unity Mining for the period 2010 to 2015. The available QC data compiled by Unity Mining has been reviewed by CSA Global and considers the results as suitable to support the data gathered during this time period. QA protocols that have been adopted since 2016 are summarised below. **Drilling** DVM specifies inclusion of field blanks at a rate of one blank every 30 samples submitted. The blanks are composed of barren basalt material, which is obtained from a commercial distributor in the town of Devonport on the north coast of Tasmania. DVM specifies inclusion of certified reference materials (CRMs) at a rate of two CRM's every 30 samples of core samples submitted, and two CRM's for every batch of channel/sludge samples submitted. Commercially available CRM's covering ranges considered as representing low, moderate and high values for gold were obtained from OREAS. Inclusion of field duplicates for core samples is not routinely carried out by DVM. Pulp duplicates insertion rates are not specified by DVM. Assay laboratory internal QA protocols are relied upon for analysis of pulp duplicates. Results are not routinely monitored to the best of CSA Global's knowledge. **Face Sampling** DVM specifies two CRMs and a blank are submitted with each batch to monitor analytical bias and cross-sample contamination respectively. The quality control samples are suffixed A, B and C at the end of each submission sheet. Low, medium and high-grade CRMs are used. DVM specify a field duplicate interval is taken and submitted for analysis for each heading sampled, with final results averaged across the two samples submitted for each interval. Pulp duplicates insertion rates are not specified by DVM. Assay laboratory internal QA protocols are relied upon for analysis of pulp duplicates. Results are not routinely monitored to the best of CSA Global's knowledge. The Competent Person has reviewed all available data and considers that acceptable levels of precision and accuracy have been established for the modern drilling dataset. There is a greater degree of uncertainty attached to the historical dataset.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections have been verified by alternative DVM company personnel.
	The use of twinned holes.	No twinning has been completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic)	The summary below relates to current methods. Historical methods are not known with any certainty. **Drilling**

Criteria	JORC Code explanation	Commentary
	protocols.	Logging is completed on a lap top computer directly into an Excel based spreadsheet which has been designed for the mine site. Logging is carried out at a core shed with adequate facilities including roller-racks, lighting, core photograph facilities and an automatic core saw. A template with project-specific codes has been set up to ensure consistent collection of relevant geological information. Alteration, geotechnical, structure and rock type information are collected into separate tables using standalone codes. Core is photographed wet at the core shed. Core photographs are stored on the server for future reference. **Face Mapping/Sampling** Face mapping and sampling data is entered in a face mapping sheet, along with the face number, distance to the nearest survey station, the width and the height of the face, over-break estimate, time and date, scale and name of geologist and classification of face (run of mine (ROM) or waste). Once the geologist returns to the office, the data is entered in an Excel spreadsheet. The location of the face is then determined in Datamine using the query line command. The face sample is treated as a short drillhole, with collar and survey information. The output of the query line command is entered in the Excel spreadsheet which then updates the collar information. Core logging and sampling data is saved in the same logging and sampling spreadsheet that is used for face sampling. The data is then manually exported to a specific directory. The exported files and Datashed database are then opened, and data from each sheet of the export document is then copied into the relevant Datashed table. Data is then exported from Datashed as CSV files ready for import into Datamine. Analytical data is imported directly into the Datashed database from files sent by the laboratory.
	Discuss any adjustment to assay data.	No adjustments were made to the analytical data, other than replacing below detection results with a value equal to half the detection limit.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The summary below relates to current methods. Historical methods are not known with any certainty; however, the Competent Person considers it is reasonable to assume that industry standard techniques have been adopted over the Projects history. Diamond drillhole collar positions are set out by mine surveyors. The drilling crew has an azi-reader device that enables them to set up at the correct azimuth and dip according to the drillhole plan. Final collar positions are then picked up by Mine Surveyors at hole completion. Downhole surveys are completed using a Devi-flex tool, with surveys taken every few metres. Development drives are regularly picked up by Mine Surveyors. At stope completion, a cavity monitoring system (CMS) is generally used to model the final voids. There are historical stopes that have not been picked up, however.
	Specification of the grid system used.	The grid system used is Geocentric Datum of Australia 1994 (GDA94).
	Quality and adequacy of topographic control.	A topographic fie was not used in the preparation of this Mineral Resource estimate.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Areas that remain in situ are generally drilled at 10–20 m E by 10–20 m RL spacings in the Mineral Resource area. The drill spacing

Criteria	JORC Code explanation	Commentary
		varies between deposits, and lenses within a deposit. Areas towards the periphery of the lenses are often drilled at broader spacings.
	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 Competent Person believes the mineralised domains have sufficient geological and grade continuity to support the classifications applied to the Mineral Resources given the drill pattern. Mineral Resource estimation procedures are also considered appropriate give the quantity of data available and style of mineralisation under consideration.
	Whether sample compositing has been applied.	Compositing was not applied at the sampling stage.
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.*	The drilling has been undertaken at various orientations, given the limited platforms available underground. For the most part, holes are drilled at a high angle to the mineralisation. Some holes, however, have been drilled close to sub-parallel to the mineralisation. Face sampling is carried out close to orthogonal to the mineralisation.
	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 relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.
Sample security	*The measures taken to ensure sample security.*	The summary below relates to current methods. Historical methods are not known with any certainty; however, the Competent Person considers it is reasonable to assume that industry standard techniques have been adopted over the Projects history. Core is transported to the core shed for processing, which is locked at the end of each day. Core samples are placed in a polyweave sack for transportation to the laboratory. Face samples are placed in an oven on site after the geologist returns from underground. The primary laboratory (ALS in Burnie) collects the samples each morning.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	CSA Global completed a review of data collection techniques in 2017.

JORC 2012 Table 1, Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 & 3, also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The 2022 ORE is based on the following Mineral Resource block models: ◦ Darwin Central (dc_12_210720wd.m.dm) ◦ Darwin North (dn_32.1_220808wd.m.dm) ◦ Darwin South (ds_36.4_220721wd.m.dm) ◦ Intermediate Zone (iz_16.4_220815wd.m.dm) ◦ Mount Julia (mj_10.1_220812wd.m.dm) ◦ Newton Zone (nmj_32_210805wd.m.dm) ◦ Sill Zone (sz_21.1_220805wd.m.dm) ◦ Tear Away Zone (ta_19_210730wd.m.dm) ◦ Zone 15 (z15_2.2_220729wd.m.dm) ◦ Zone 96 (z96_29.4_220725wd.m.dm) • The MRE includes the ORE.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Henty ORE was produced by John McKinstry, who is a fulltime employee of Catalyst Metals and has good knowledge of the project, with assistance from Anthony Allman, director of ANTCIA Consulting Pty Ltd.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• The ORE is based on current operating parameters of the Henty Mine. • The study considered all material modifying factors and concluded that the proposed mine plan was technically feasible and economically viable.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The cut-off value of 2.7g/t for stoping and 1.9g/t for incremental stoping was used based on current operating costs at Henty. Ore development used a 1.0g/t cut-off. • Cut-off values incorporated all operating costs including development, stoping, haulage, processing and administration. (Table 6)
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of*	• Only stopes containing no more than 20% Inferred Mineral Resource were considered for the ORE. The amount of Inferred ore in the ORE is less than 1% of the total

	appropriate factors by optimisation or by preliminary or detailed design). • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre- production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• The mining method used for the LOM is a combination of Longhole Benching and Flatbacking • The ORE include an average of 11% of unplanned dilution. • The ORE also includes an average of 23% of planned dilution due to minimum mining width and practical stope shapes. • Sub level intervals vary from 12-15m for the benching. This is based on appropriate method for control of dilution, reduction of pillars and ore loss, ground control, safety and regional stability. • A minimum stoping width of 1.5m has been used. • Stable stope dimensions using a maximum HR=4m have been based on geotechnical assessment. • Practical designs have been included for ventilation, power, pumping and drainage as well as second means of egress. • Majority of the stopes will be filled using unconsolidated rock fill trucked from surface or underground development waste. This will improve stope stability and increase ore recovery while minimising the backfill costs. Stopes will be filled with waste rock from development where possible to minimise the trucking requirements.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the Ore Reserve estimation been based on the appropriate mineralogy to meet the specifications*	• The ORE is based on current performance of the Henty CIL circuit

Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Mine waste rock characterisation and process tailings characterisation remain unchanged. • The Henty Mine has been in operation since 1996.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• All Henty Mine infrastructure is in place • The Henty TSF is approved for a further 6m height lift which will allow production through to 2030.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Capital costs for decline development and accesses were included in the financial evaluation. Other capital such as surface and underground infrastructure have been included in the financial evaluation. • Operating costs for mining were based on FY22 costs • Tasmania operates under a two-tiered system where royalty is paid as a percentage of net sales and of profit. The formula for the payment of royalty is specified in Regulation 7 of the MRR. Royalty is payable at the rate of 1.9% of Net Sales, plus profit. A rebate of up to 20% is available for the production of a metal within the State. Maximum royalty payable is 5.35% of net sales. • There is a royalty payable to royalty company Black Flag of 3% NSR (excluding transport and refining) • There is a royalty payable to royalty company Franco-Nevada of 1% of gold metal
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• An AUD gold price of AUD2600/oz was used for both MRE and ORE • Average realised gold price in FY22 was AUD2529/oz
Market assessment	• *The demand, supply and stock situation for the particular*	• The outlook for the gold market remains positive

	commodity, consumption trends and factors likely to affect supply and demand into the future. • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract*	
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• A financial LOM model of the Henty has been completed by suitably qualified and experienced accounting and financial staff employed by Catalyst Metals The financial model demonstrates a positive NPV. • The confidence in the inputs is consistent with the assigned Probable classification of the ORE. Confidence in the economic inputs is appropriate to the level of study given that the mining cost inputs are current costs from the Henty operation. • Sensitivity analysis work has been undertaken on variables such as mining costs, processing costs, foreign exchange rate and metal price, with the NPV proving most sensitive to changes in the AUD gold price.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• All mining permits are current
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which*	• There are no foreseeable risks associated with the Henty Mine which are expected to impact on the ORE.

	extraction of the Ore Reserve is contingent.	
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The ORE is based on the MRE. Indicated Mineral Resources within stopes have been converted to Probable ORE. • To ensure practical stope shapes certain areas included unclassified waste material at zero grade. This was included as planned dilution. • It is the competent person's view that the classifications used for the ORE are appropriate.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No external audit of this ORE has been completed, but the process has been internally reviewed by Henty Mine Management
Discussion of relative accuracy/ confidence		• The ORE is mostly determined by the order of accuracy associated with the MRE model, the metallurgical inputs and the cost adjustment factors used. • The ORE is based on design and financial model inputs which are well understood and as such has a corresponding level of confidence. • Considerations in favour of a high confidence in the ORE include; • Catalyst is investing heavily on underground drilling to improve confidence, expand the known Resource and find new potential orebodies. • Considerations in favour of a lower confidence in ORE include; • Future gold price and exchange rate forecasts carry an inherent level of risk • There is a degree of uncertainty associated with geological estimates. The Ore Reserve classifications reflect the levels of geological confidence in the estimates.