

20 October 2025

## CASTILE INCREASES GOLD, COPPER AND BISMUTH IN MINERAL RESOURCE ESTIMATE

Castile Resources Ltd ("Castile" or "the Company") advises that the Mineral Resource Estimate for the Rover 1 Project Bankable Feasibility Study (BFS) has been re-calculated to reflect increased commodity prices. This has resulted in materially larger metal inventory for the Rover 1 Mineral Resource Estimate (MRE).

Castile is progressing the Rover 1 Project to development. Rover 1 is a unique polymetallic iron-oxide copper gold deposit (IOCG) with significant co-mineralisation of bismuth, cobalt and magnetite. Geopolitical uncertainties and central bank buying has led to all-time highs in the gold price. Concerns around the security of supply of copper and critical metals, where China dominates market shares, has driven prices of these metals higher.

Being an IOCG deposit, Rover 1 has extremely high leverage to the gold and copper price which accounted for approximately 80% of the revenues in the 2022 PFS. Castile is currently advancing the project to a through a Bankable Feasibility Study (BFS) with a strategy to maximise the extraction of all metals, including the co-products via a downstream processing strategy. This will enable the extraction of the significant endowment of the critical minerals -co-products of bismuth and cobalt as well as the recovery of the magnetite which forms the bulk of the volume of the of the IOCG mineralization. Once the BFS is complete, an updated Ore Reserve can be estimated.

Increases in and available metals in this price adjusted MRE include:

#### **Primary Metals**

- Gold has increased by 26,100oz (up 8%) to 341,300oz (A\$6,500/oz1 ~Current Gold Price)
- Copper has increased by 14,200t (up 17%) to 97,400t (A\$17,000/t<sup>2</sup> ~Current Copper Price)

#### Co Metals

- Bismuth has increased by 3,000t (up 51%) to 8,900t
- Cobalt has increased by 1,200t to (up 30%) to 5,200
- Magnetite increased by 583,000t (up 45%) to 1,883,000t

#### **Total Tonnes and Grades**

- Total Mineral Resource Tonnage increased by 2,274,000t (up 41%) to:
- 7.86Mt @ 1.35g/t Au, 1.24% Cu, 0.07% Co, 0.11% Bi and 23.97% Fe<sub>3</sub>O<sub>4</sub>

Table 1: Mineral Resource Estimate (MRE) for the Rover 1 Mineral Deposit with reportable numbers based on a ≥1.0 g/t AuEq threshold and not constrained within any mining design.

Class	Tonnes (Mt)	Au (g/t)	Cu (%)	Co (%)	Bi (%)	Fe <sub>3</sub> O <sub>4</sub> (%)	Au (oz)	Cu (t)	Co (t)	Fe₃O₄ (t)
Measured										
Indicated	5.65	1.38	1.30	0.07	0.11	24.17	251,100	73,200	3,800	1,365,000
Inferred	2.21	1.27	1.10	0.06	0.12	23.46	90,200	24,300	1,400	518,000
Total	7.86	1.35	1.24	0.07	0.11	23.97	341,300	97,400	5,200	1,883,000

October 2025 Mineral Resource Update - 1g/t AuEq COG at US\$4,000/oz Au, US\$5.00 \$/lb Cu, US\$20.00 \$/lb Bi and \$US36,500 \$/t Co.

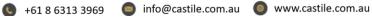
#### CASTILE RESOURCES LIMITED

Castile is developing the Rover 1 Project within the prolific gold-copper mining province of Tennant Creek in the Northern Territory. The Rover 1 PFS revealed a financially robust, polymetallic, high-grade iron oxide copper gold deposit that will produce gold doré, copper and cobalt metal and high-grade magnetite. High purity (99%) copper and cobalt produced will be available for sale to EV and battery manufacturers directly from Castile. The gold doré and 96.5% magnetite (suitable for green steel) provide further diversity and revenue streams. Castile has been awarded Major Project status by the NT Government and is engaged with NT Land Corp on a parcel of land within the Middle Arm Sustainable Development Precinct.

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This MRE will now feed into the BFS which is expected to create an increase in Ore Reserve, scale, annual production and mine life.

Mark Hepburn, Managing Director of Castile, commented:

"We are optimising all aspects of the Rover 1 Project BFS by looking at ways of increasing revenues and reducing costs. Adding 2.3mt to our MRE inventory tonnes, which includes 26,100 ounces of gold and 14,200 tonnes of copper, given the incredible price runs of our two key metals since the 2022 Pre-Feasibility Study was released is a fantastic result. These additions and price increases continue to improve the financial modelling being undertaken for the BFS.

- We used A\$2,640/oz for gold in the 2022 PFS, that price is now  $\sim A$6,500^{1}$ .
- We used A\$14,400/t for copper in the 2022 PFS and that price is now ~A\$17,000<sup>2</sup>

"Obviously we will be using significantly higher metal prices in the BFS financial modelling.

"Gold and Copper are our key metals but we also have critical minerals bismuth and cobalt as by-products, which will add further revenue streams to Rover 1.

"The bismuth resource increased by 50% at a time when dominant global supplier China, who produce 83% of the worlds refined bismuth, continues to restrict the export of this crucial critical mineral causing major supply and price disruptions globally. Castile announced work had begun on analysis within the BFS for a downstream pathway to produce pure bismuth. (See ASX:CST 16 October 2025)

"No revenue was attributed to the bismuth in 2022 PFS due to the subdued price and the then prevailing regime where bismuth within concentrates treated by third-party smelters was treated as a penalty. Bismuth has now become a critical metal for military applications and its price has increased considerably. We anticipate bismuth will add a fifth revenue stream in the BFS to this remarkable project.

"As previously reported to the market, we are in discussions with critical mineral producers and potential partners to use these by-products in prepayments or offtake agreements to assist with the funding of the project"

# Technical Information for the Rover 1 Project 2025 Mineral Resource Estimate Calculation

The global resource for the Rover 1 mineral deposit is summarised in Table 1 below for all material ≥1.0 g/t AuEq. This cut off represents the grade to cover all operating costs for Rover 1 ore and is derived from Castile's previous Pre-Feasibility Study (PFS) and subsequent reviews as advised in Castile's June 2025 quarterly report. It also applies gold, copper, bismuth and cobalt prices as of October 2025.

The numbers presented in Table 1 have not been reported within any underground mine designs and no recoveries have been applied to the metal equivalence calculation.

The metal equivalence equation is defined as:

Au Equivalent =  $((Au(ppm) \times \$128.602890/g) + (Cu(ppm) \times \$0.011023/g) + (Bi (ppm) \times \$0.044092/g) + (Co (ppm) \times \$0.036500/g))/\$128.602890/g.$ 

Modelled copper, bismuth and cobalt units are in ppm. Gold Price = US\$4,000/oz; Copper = US\$5.00/lb; US\$20.00/lb Bi and \$US36,500/t Co.

Magnetite metrics have not been applied in this estimate.

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<sup>&</sup>lt;sup>1</sup> https://www.goldprice.org accessed 16/10/25)

<sup>&</sup>lt;sup>2</sup> https://www.tradingeconomics.com \$US5.00/lb and a FX 0.65)



Comparative analysis between the September 2022 MRE and the October 2025 update at a 1.0g/t AuEq calculated on the Au equivalency calculation provided above. The October 2025 update has resulted in an increase to the Indicated category of +42% tonnes and a 7% increase in gold ounces and 16% increase in copper tonnes.

The Inferred category material has increased by 37% in tonnage, 11% in gold ounces and 21% in copper tonnes. Globally, gold ounces are up 8%, copper tonnes up 17%, cobalt tonnes up 30% and bismuth tonnes up 51%. The material increase in Inferred material is directly related to extensions of IOCG hosted mineralisation identified by new drilling in 2022 and the inclusion of the Ganymede zone

The decision to include the value of the contained bismuth and cobalt is being driven by the discussions being held by Castile with third-party buyers looking to secure supply of these metals. The recovery for both bismuth and cobalt is similar to the recoveries for gold and copper.

As Castile's strategy is the extraction of all co-product metals the revenue for both bismuth and cobalt is will be based on prevailing metal prices, similarly to gold and copper

## Table 2: Global comparison between the Rover 1 October 2025 update and September 2022 MRE.

# October 2025 Mineral Resource Update - 1g/t AuEq COG at US\$4,000/oz Au, US\$5.00 \$/lb Cu, US\$20.00 \$/lb Bi and \$US36,500 \$/t Co.

Class	Tonnes (Mt)	Au (g/t)	Cu (%)	Co (%)	Bi (%)	Fe₃O₄ (%)	Au (oz)	Cu (t)	Co (t)	Bi (t)	Fe₃O₄ (t)
Measured											
Indicated	5.65	1.38	1.30	0.07	0.11	24.17	251,100	73,200	3,800	6,300	1,364,000
Inferred	2.21	1.27	1.10	0.06	0.12	23.46	90,200	24,300	1,400	2,600	519,000
Total	7.86	1.35	1.24	0.07	0.11	23.97	341,300	97,400	5,200	8,900	1,883,000

## October 2025 Mineral Resource Update - 2g/t AuEq COG at AUD\$2,620/oz Au and AUD\$13,880 \$/t Cu

Class	Tonnes	Au	Cu	Со	Bi	Fe <sub>3</sub> O <sub>4</sub>	Au	Cu	Со	Bi	Fe <sub>3</sub> O <sub>4</sub>
Class	(Mt)	(g/t)	(%)	(%)	(%)	(%)	(oz)	(t)	(t)	(t)	(t)
Measured											
Indicated	3.97	1.83	1.59	0.07	0.11	23.64	233,800	63,100	2,900	4,500	938,000
Inferred	1.61	1.57	1.25	0.07	0.08	22.13	81,400	20,100	1,100	1,400	357,000
Total	5.58	1.76	1.49	0.07	0.11	23.20	315,200	83,200	4,000	5,900	1,295,000

#### October 2025 update vs September 2022 MRE relative differences

Class	Tonnes (Mt)	Au (g/t)	Cu (%)	Co (%)	Bi (%)	Fe₃O₄ (%)	Au (oz)	Cu (t)	Co (t)	Bi (t)	Fe₃O₄ (t)
Measured											
Indicated	142%	76%	82%	92%	98%	102%	107%	116%	131%	140%	152%
Inferred	137%	81%	88%	93%	139%	106%	111%	121%	127%	186%	130%
Total	141%	77%	83%	93%	108%	103%	108%	117%	130%	151%	145%



Authorised for release by the Board of Castile Resources Limited.

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#### **COMPETENT PERSONS STATEMENT**

#### **Exploration Results and Mineral Resource Estimates**

The information contained in this report that related to Exploration Results and Mineral Resource Estimates is based on, and fairly and accurately represents information and supporting documentation prepared by Mark Savage. Mr Savage is a full-time employee of Castile, and a Member of The Australasian Institute of Mining and Metallurgy. Mr Savage has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, and Mineral Resources. Mr Savage consents to the inclusion in the report of the matters based on the exploration and resource results in the form and context in which they appear.

#### **Ore Reserves**

The information contained in this report relating to Ore Reserves has been previously reported by the Company as referenced in this report (Announcements). The Company confirms that it is not aware of any new information or data that would materially affect the information included in the Announcements and, in the case of estimates of Ore Reserves that all material assumptions released on 5 December 2022 and technical parameters underpinning the estimates continue to apply and have not materially changed. The information contained in the report relating to the Rover 1 Pre-Feasibility Study (PFS) was previously announced by the Company on 5 December 2022. The Company confirms that all material assumptions underpinning the PFS, including financial forecasts and production targets, continue to apply and have not materially changed.

#### **Forward Looking Statements**

Certain statements in this report relate to the future, including forward looking statements relating to Castile's financial position and strategy. These forward-looking statements involve known and unknown risks, uncertainties, assumptions, and other important factors that could cause the actual results, performance, or achievements of Castile to be materially different from future results, performance or achievements expressed or implied by such statements.

Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement and deviations are both normal and to be expected. Other than required by law, neither Castile, their officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements will occur. You are cautioned not to place undue reliance on those statements.



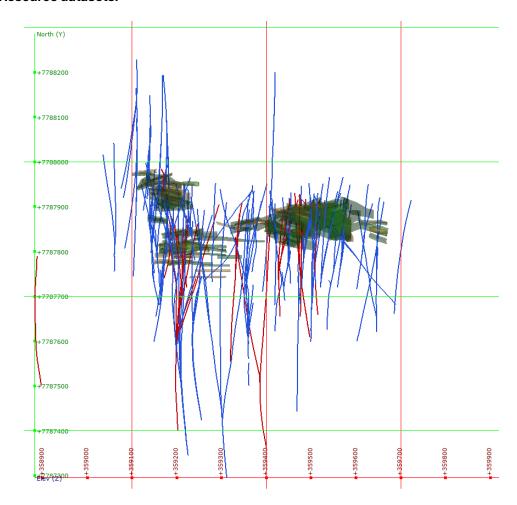
#### **Rover 1 Mineral Resource Estimate**

The following sections outline the geological interpretation, assumptions and procedures associated with the estimation of the Rover 1 mineral resource. Castile compiled the geological and mineralisation interpretation and validated drillhole database. This data was provided to Cube Consulting who undertook geostatistical analysis and resource estimation. The MRE incorporates all drilling at Rover 1 since 2011.

## **Drilling**

The Rover 1 mineral deposit has been drilled on a nominal 40m x 40m spacing, infilled to 20m x 20m through volumes containing significant mineralisation. Drilling post 2011 has targeted the Western Lode and the Jupiter Deeps mineralised areas as well as some infill drilling in the main Jupiter zone (2020, 2021). The September 2022 resource update was informed by an additional drill hole and 3 daughter holes for 1,783.7m cored and 936 samples.

Figure 1: Rover 1 drill hole locations with interpreted mineralisation domains. Blue holes are pre 2019, red drill holes are from Castile drilling programs 2020 - 2022. Drill holes include the Westgold and Adelaide Resource datasets.





#### **Sampling and Preparation**

All data used in the calculation of the Rover 1 Mineral Resource has been gathered from diamond core. Multiple sizes have been used historically; HQ, NQ and BQ. Core samples are selected to lie on geological boundaries, with intervals selected of lengths between 0.1 to 1.1m. Historic samples were selected on 1m intervals, irrespective of geology. To ensure representivity of samples, field blanks and certified reference material (CRM) are inserted at a nominal ratio of 1:20 samples.

Sample recovery is recorded on retrieval of the core tube, measuring recovered core against drill string advance. No apparent relationship has been observed between sample recovery and grade. No has sample bias due to preferential loss or gain of fine or coarse material been noted. Samples are halved using an automatic core saw then individual samples collected in prenumbered calico sample bags. The un-sampled half of diamond core is retained for check sampling if required.

Individual sample bags are placed in lots of 5 into poly weave bags annotated with the sample number series within and closed by zip tie. All samples are then placed into a bulka bag and transported to the certified laboratory.

In the case of pre 2020 drilling, samples underwent the following laboratory preparation:

- Half core undergoes total preparation, crushed using a vibrating jaw crusher to achieve a maximum sample size of 4 mm.
- The sample is then weighed, and if the sample weight is greater than 3.2 kg, the sample is split into two using a Jones-type riffle splitter.
- The crushed sample is then pulverised in a Labtech LM5 Ring Mill such that 90% passed 75um.
- For samples weighing greater than 3.2 kg, the first portion is removed and second portion is homogenised in the same machine. Once complete, the first portion is put back in the LM5 and both portions are homogenised.
- From the pulverised sample, approximately 200 g is collected via a scoop as a master sample for assaying.
- For every 20th sample, an approximately 25 g sample is screened to 75 microns to check that homogenising has achieved 90% passing 75 microns.
- From the analysis sample, 30g is taken for fire assay, while a 0.2g potion is taken for acid digestion. These samples are extracted from the packet with a spatula and weighed out.

Post 2020 sample preparation process consists of:

- Crushing using a Boyd Crusher to achieve a maximum sample size of 2mm.
- The crushed sample is split down to a 3kg sample via a rotating sample divider attached directly to the Boyd Crusher.
- The crushed sample is then pulverised in a Labtech LM5 Ring Mill such that 90% passes 75um. 200g is split and placed in a packet for analytical work.
- For every 20th sample, an approximately 25g sample is wet screened to check grind effectiveness.
  - From the analysis sample, 25g is taken for fire assay, while a 0.2g potion is taken for acid digestion. These samples are extracted from the packet with a spatula and weighed out.
  - Umpire laboratory checks were performed to validate the representivity of the 25g fire assay by analysis on 30g fire assays. No bias was observed.



The sample sizes are considered appropriate to the grainsize of the material being sampled.

QAQC is ensured during sampling via the use of sample ledgers, blanks, CRM and repeats. QAQC is ensured during the assays process via the use of blanks, CRM and repeats at a NATA / ISO accredited laboratory.

#### **Analysis Methods**

Analysis of Castile drill core for Au, Ag, Bi, Co, Cu, Pb and Zn is as follows:

- Gold (Au-AAS scheme lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 25-40g charge (dependant on vintage) of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead.
- The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrixmatched standards.
- Samples returning assay values in excess of 10g/t Au were repeated.
- Silver, bismuth, cobalt, copper, lead and zinc samples are digested using a 4 acid digest.
- The subsequent solution is analysed by inductively coupled plasma atomic emission spectroscopy or by atomic absorption spectrometry.

Analysis of Historic drill core for Au, Ag, Bi, Co, Cu, Pb and Zn is as follows:

- Gold (Au-AAS scheme lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 30-40g charge of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead.
- The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrixmatched standards.
- Samples returning assay values in excess of 100g/t Au were repeated using the screen-fire method.
- Silver, bismuth, cobalt, copper, lead and zinc samples are digested using a 4 acid digest.
- The subsequent solution is analysed by inductively coupled plasma atomic emission spectroscopy or by atomic absorption spectrometry.

These assay methodologies are appropriate for the style of mineral deposit under consideration.

Magnetite content was determined through mineral phase identification using Corescan® hyperspectral core imaging system (Corescan® HCI-4.1) comprising a shortwave infrared imaging spectrometer at ~500µm spatial resolution (~514 bands across 450 - 2500nm). This analysis method is well established for quantitative determination of iron ore minerals.

A total of 27 holes for 2,224m core was scanned. The sample material was checked for surface contamination and cleaned to ensure a compliant surface for scanning. Half core (HQ or NQ) was scanned in the core box.

Prior to mineral identification, any non-core / non-sample material was identified and masked. The masked material is then excluded from subsequent mineral identification processes, mineral maps, and numerical logs.

The hyperspectral datasets were processed by Corescan's® experienced spectral geology team using the company's proprietary software, Chameleon™. Mineral identification is determined using best-fit algorithms



that compare the spectral signature taken from the sample with spectral reference libraries. Mineral compositional parameters (e.g. cation substitutions, crystallinity) are calculated for the relevant mineral groups. Mineral occurrence, spectral parameter images and mineral abundance logs at ~500µm spatial resolution are generated for each sample interval for viewing and exported as (.CSV) format. These mineral logs include the relative abundances of each mineral as well as spectral parameters such as mineral composition, crystallinity, and mineral sub-speciation proportions.

Relative abundance logs were used as a proxy for volume. Mineral phases identified averaged 96% of area, these unknown areas were assumed as silicate minerals. Proxy volume was multiplied by the SG of the mineral identified and a weight percent calculated.

## **Quality Assurance and Quality Control (QAQC)**

The QAQC for sampling associated with drillhole programs at Rover 1 up to the end of 2015 was independently assessed by Cube Consulting for gold and copper and is summarised below. The QAQC for sampling associated with 2021 and 2022 drillhole programs at Rover 1 was reviewed by Castile Resources and is summarised after the historic QAQC.

Cube Consulting independently assessed all available QAQC sample data for the drilling completed on the Rover 1 project between March 2008 to August 2015, focusing on gold and copper QAQC data only. The dataset was received on 31/01/2017 as an Access database and the QAQC information was supplied as Excel spreadsheets between 31/01/2017 and 09/02/2017.

The following summary is based on the issues found during the QAQC review:

- The combined CRM, blanks and duplicate samples represent an insertion rate of 6% (i.e. 1,506 samples);
- A total of 67 blank CRM was inserted into the sampling stream:
- The pulp blanks (i.e. 48 samples) suggest a low risk of contamination during the analytical stages of the assaying process for both gold and copper;
- The whole rock granite samples suggest a low risk of contamination during the sample preparation stage for gold, but the consistent reporting of ~60 ppm Cu indicates the granite contains a minor amount of copper and it is not suitable for a copper blank;
- It is recommended that certified coarse blanks are used in the future to monitor contamination during the sample preparation and analytical stages.
- A total of 705 gold and 61 copper CRM's were inserted into the sampling stream between 2008 and 2015. The inclusion of the CRM represents an insertion rate of 3%, which is slightly lower the industry standard of 5%.
- The analysis of the CRM's accuracy, precision and control charts is within acceptable limits and a low risk is associated with the accuracy and precision of the assay results;
- Approximately 5% of the CRM's were misclassified because of sample swapping and/or data transcription errors.
- Limited field duplicates, coarse reject duplicates or pulp duplicates have been submitted during for the Rover 1 dataset.
- No umpire laboratory duplicate sampling is presented in the dataset;
- No field duplicates or coarse reject samples were present in the dataset;



- The laboratory repeats for both gold and copper relative paired difference plots and average coefficient of variation are within acceptable limits;
- A total of 145 pulp duplicates were re-assayed using BLEG assaying methodology. The purpose of this
  is unclear. The BLEG duplicates will not give any meaningful conclusions with respect to the precision
  associated with the nature of the mineralisation, sample collection, sample preparation, sample size
  and assay methodology.

The following recommendations to address identified issues are summarised below:

- Sample weights should be recorded prior to leaving site and on receipt at the laboratory to improve the "sample chain of custody" and reduce potential sample handling errors;
- Incorporate coarse reject and field duplicate sampling as part of the routine QC procedures to monitor
  the accuracy and precision of the sample preparation, sampling error, analytical methods and natural
  variability (i.e. nugget effect) of the mineralisation. An insertion rate of 5% 10% is considered industry
  best practice;
- Perform a retrospective field duplicate sampling campaign based on the coarse rejects stored onsite;
- Umpire laboratory duplicates are essential in determining any assay bias at the primary laboratory. It
  is recommended that 5% of mineralised samples are submitted to an alternative laboratory for check
  assay.
- Wet screening of the pulp should be conducted and grind size monitored on a routine basis.

The QAQC review demonstrates that the analytical accuracy and precision is acceptable and this indicates the sample data is appropriate for the purpose of Mineral Resource estimation.

Castile Resources reviewed available QAQC sample data for the drilling completed on the Rover 1 project between March 2020 to November 2021 as part of the MRE completed in April 2022, focusing on gold and copper QAQC data only. QAQC reports were routinely prepared at the conclusion of drill programs once all results were returned, then reviewed as part of drill program completion reports. No issues were observed in the reliability of the assay data.

The following summary is based on the individual drill program QAQC reports:

- The combined CRM, blanks and duplicate samples represent an insertion rate of 1:13 samples;
- A total of 205 blanks and CRM were inserted into the sampling stream:
  - The blanks (68 samples) suggest a low risk of contamination during the sample preparation stages of the assaying process for both gold and copper;
  - o Bunbury basalt certified blank samples (68 samples) suggest a low risk of contamination during the sample preparation stage for gold.
- A total of 106 gold and 34 copper CRM's were inserted into the sampling stream, representing an overall insertion rate of 1:13.
  - The analysis of the CRM's accuracy, precision and control charts is within acceptable limits indicating a low risk is associated with the accuracy and precision of the assay results;
  - A small number of CRM's were misclassified because of sample swapping and/or data transcription errors
- Limited field duplicates, coarse reject duplicates or pulp duplicates have been submitted during for the Rover 1 dataset.
  - o No field duplicates or coarse reject samples were present in the dataset;



- The laboratory repeats for both gold and copper relative paired difference plots and average coefficient of variation are within acceptable limits;
- A total of 22 pulps were re-assayed at an umpire laboratory to verify gold results were representative. Results were repeatable.

Castile Resources reviewed available QAQC sample data for the drilling completed on the Rover 1 project between March 2022 to July 2022, focusing on gold and copper QAQC data only. QAQC reports were prepared at the conclusion of drill programs once all results were returned, then reviewed as part of drill program completion reports. No issues were observed in the reliability of the assay data.

The following summary is based on the individual drill program QAQC reports:

- The combined CRM, blanks and duplicate samples;
- A total of 147 blanks and CRM were inserted into the sampling stream representing an overall insertion rate of 1:8:
  - The Bunbury basalt certified samples (59 samples) suggest a low risk of contamination
  - A total of 31 gold and 57 copper CRM's were inserted into the sampling stream, representing an insertion rate of 1:14.
  - The analysis of the CRM's accuracy, precision and control charts is within acceptable limits and a low risk is associated with the accuracy and precision of the assay results;
  - A small number of CRM's were misclassified because of sample swapping and/or data transcription errors.
- Limited field duplicates, coarse reject duplicates or pulp duplicates have been submitted during for the Rover 1 dataset.
  - No field duplicates or coarse reject samples were present in the dataset;
  - The laboratory repeats for both gold and copper relative paired difference plots and average coefficient of variation are within acceptable limits;

#### **Database**

Database checks were performed prior to the estimation process and included but not limited to:

- Checking for duplicate drill hole names and duplicate coordinates in the collar table.
- Checking for missing drill holes in the collar, survey, assay and geology tables based on drill hole names.
- Checking for survey inconsistencies including dips and azimuths <00, dips >900, azimuths >3600, negative depth values.
- Checking for inconsistencies in the "From" and "To" fields of the assay and geology tables. The inconsistency checks included the identification of negative values, overlapping intervals, duplicate intervals, gaps and intervals where the "From" value is greater than "To" value.
- Database checks were conducted within Microsoft Access and Surpac Mining Software.

The database was extracted on the 1st of August 2022 and the information used in the estimation process is coded with the "Validated Code" (ResInvalid = ignored, Valid = used in estimation process) field in the collar table.

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A total of 242 drill holes have been drilled within the Rover 1 mineralised area of which 212 drill holes were used in the estimation process:

- 170 Westgold / Metals X / Castile Resources diamond drillholes.
- 19 Adelaide Resources diamond drill holes.
- 23 Historic GeoPeko diamond drill holes

#### Geology

The Rover 1 deposit occurs in a low relief area covered by extensive transported cover lying over approximately 110 metres of flat-lying Cambrian sediments of the Wiso Basin. The basin rocks unconformably overly a Proterozoic basement of the Warramunga Formation which hosts the deposit in the Rover 1 area, consequently, the deposit does not outcrop. Recent dating by the Northern Territory Geological Survey indicates the host rocks are part of the Ooradidgee Group.

The deposit is situated within a sequence of variably altered volcano-sedimentary rocks consisting of interbedded shales, siltstones tuffaceous sandstones and crystal tuff. Alteration grades from distal silica and silica-hematite (historically logged as hematitic shales) to proximal Jasper, quartz-magnetite and magnetite ironstone. Strong late stage chlorite alteration is associated with the ironstone margins and 'root zone'. The sediment package has been metamorphosed to lower greenschist facies.

Rover 1 consists of three mineralised areas: Jupiter, Jupiter West and Jupiter Deeps. Structural investigations indicate the ironstones are associated with antiformal structures. Economic mineralisation is observed to be associated with steep axial planar shear zones interacting with geology to generate brittle fracturing through competency contrast. These brecciated zones have focused mineralising fluids, resulting in deposition of sulphide phases as crack seal.

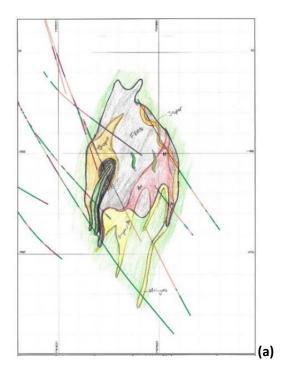
#### **Geological Interpretation**

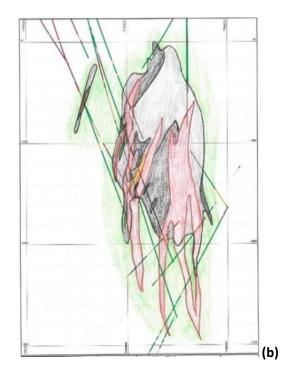
The geological interpretation on a sectional basis formed the framework of the estimation domains and was performed on 20m spaced easting sections. The geological interpretation focused on defining the extents of the ironstone alteration and feeder zones (i.e. interpreted axial planner shears) focusing mineralisation into the system.

The sectional interpretation was conducted for all zones, resulting in a broad alteration halo and distinct ironstone types: Jasper/hematite ironstone, quartz-magnetite ironstone and magnetite ironstone. These zones were used to control density and magnetite interpolation in the block model, as well as constraining the extents of copper and gold mineralisation interpretations.



Figure 2: Example sectional interpretation of the Rover 1 mineralised area. (a) Jupiter mineralised area; and, (b) Western Lode mineralised area.





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#### **Estimation Domains**

Due to the multi-element nature of the Rover 1 mineralisation, the interpretation and construction of the estimation domains was informed by:

- Lithological and structural interpretation (as discussed above);
- Global statistical analysis to determine mineral associations;

## **Global Statistical Analysis**

Multivariate statistics were conducted on the samples inside the halo domain to justify which domains would be used for the Ag, Bi and Co estimate.

**Table 1: Multivariant Correlation Matrix from Cube (2022)** 

	Au	Cu	Co	Ag	Bi
Au	1	0.063	0.031	0.127	0.199
Cu		1	0.369	0.135	0.154
Co			1	0.1	0.101
Ag				1	0.086
	N(Au)	N(Cu)	N(Co)	N(Ag)	N(Bi)
N(Au)	1	0.656	0.675	0.711	0.724
N(Cu)		1	0.552	0.568	0.154
N(Co)			1	0.572	0.469
N(Ag)				1	0.449



The above Table 1 shows that Au and Cu have a weak correlation (0.063). These elements were modelled with independent domains. Cu and Co have a moderately positive correlation (0.369) and it is deemed acceptable to estimate both elements within the same set of domains. Ag and Bi both have a weak correlation with Au and Cu; however, when a normal score transformation is applied to suppress the scaling effect, those elements proved to have a strong correlation with Au (0.711 and 0.724 respectively) The normal score correlation justifies using the gold domains for the estimation of Ag and Bi.

#### **Mineralisation Selection Criteria**

Estimation domains were constructed for gold and copper. The orientation of the estimation domains was governed by the lithological and structural interpretation in the first instance.

The domaining selection criteria for gold mineralisation was based on:

- >0.50 ppm gold assay results;
- Orientation defined in the sectional lithological interpretation and structural orientations
- In some instances, material below the cut-off was incorporated into the interpretation to maintain geological continuity.

The domaining selection criteria for copper mineralisation was based on:

- >5000 ppm copper assay results;
- Orientation defined in the sectional lithological interpretation, structural orientations and gold estimation domains;
- In some instances material below the cut-off was incorporated into the interpretation to maintain geological continuity.

The domaining selection criteria for ironstone and density was based on:

- Geological interpretation;
- Logged hematite and magnetite;

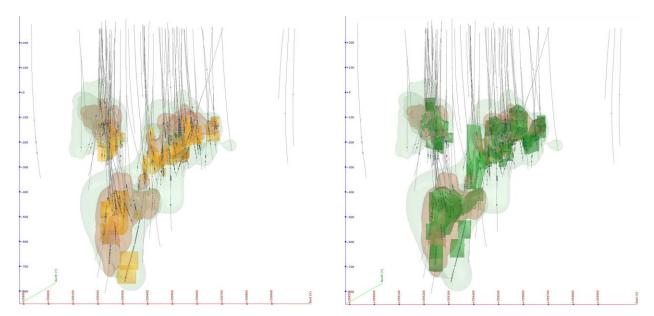
The interpretation of the estimation domains was initially conducted for the gold estimation domains.

The gold estimation domains were used to assist with defined the orientation of the copper domains, under the assumption the gold and copper mineralisation are associated with the same controls, though temporally discrete.

The gold estimation domains were used in the estimation of silver and bismuth. Copper estimation domains were used in the estimation of Cobalt as per the multivariant analysis above.



Figure 3: Interpreted gold and copper estimation domains and interpreted ironstones.



#### **Geostatistical Analysis and Estimation Methodology**

Statistical analysis and estimation parameter development and interpolation was undertaken by Cube Consulting under the direction of Castile Resources. The following is a summary of the resource technical note.

## **Spatial Continuity**

The spatial continuity analysis of estimation domains was performed using Supervisor and Isatis on samples composited to 1m. All estimation domains displayed a skewed distribution and normal scores transformations were used to obtain interpretable experimental estimation domains. Exploratory data analysis (EDA) was performed on all estimation domains. Most domains have a limited number of samples (< 50) which made it difficult to interpret trends within the variogram maps. When possible, domains were grouped to compute and model a variogram.

Experimental variograms were generated using the 1m composite data and a number of estimations domains were assigned the variogram parameters of the larger domains based on the orientation of the domain and the distribution.

# **Estimation**

The interpolation of Au, Cu, Co, Ag, Bi and SG attributes was based on a number of different approaches depending on the characteristics of the estimation domain. The assigned estimation domains included:

- Au, Ag and Bi based on the interpreted gold estimation domains;
- Cu, Co based on the interpreted copper estimation domains;
- Density– based on the interpreted ironstone.
- A background halo domain was based on ironstone and alteration was used to control the extrapolation of the background interpolation.



- A number of estimation approaches were implemented for Au, Cu, Co, Ag and Bi depending on variable domain characteristics, which included the following permutations:
- Some of the larger non-halo domains were estimated using an Ordinary Kriging ("OK") indicator approach where samples displayed bi modal distributions. An indicator grade threshold was chosen, splitting the grade distribution into lower grade and higher grade sub-domains. The indicator was estimated using OK, yielding a proportion of lower and higher grade material for each block. The high and low grades were then estimated separately by OK, using the lower and higher grade samples respectively. A final grade was calculated for each block by weighting the upper and lower grade estimates using the results of the indicator estimate. The estimated indicator (I\*), which values are bounded between 0 and 1, plays the role of a proportional weighting (%) field, and the final grade was computed such as: Final grade = (I\* x HG) + (I\* x LG). This method is able to "sharpen" the transition between lower and higher grade areas within the domain, which would be over smoothed if a standard OK approach was used;
- All domains were estimated using OK based on the entire domain sample population;
- A number of domains were assigned the domain's declustered mean composite grade due to the small number of available composites;
- A distance limiting top-cut approach was implemented for specific gold domains to limit the spatial influence of outlier values into poorly informed areas.
- Some domains display orientation changes. These domains utilised dynamic kriging in Isatis, with trend surfaces developed to control the orientation of the search volume for block estimation
- Ordinary Kriging was used to estimate density inside the interpreted ironstone estimation domains
  using a local orientation to define the orientation of the modelled variogram and search
  neighbourhoods. Outside of the alteration or ironstone volumes, a flat density of 2.75t/m3 was used.
- The resource modelling results were validated against the primary input data for all domains, globally and spatially.
- Being a 'virgin' mineral deposit, the model was not depleted for mining voids outside of topography.

#### **Global Resource**

The global resource for the Rover 1 mineralised area is outlined in Table 1 above for all material ≥1.0 g/t Au metal equivalency (AuEq). The numbers have not been reported within any underground mine designs and no recoveries have been applied to the AuEq calculation. Commodity prices used for the metal equivalency are Gold Price = US\$4,000/oz, Copper = US\$5.00/lb, Bismuth = US\$20.00/lb and Cobalt = US\$36,500/t. Modelled copper units are in ppm. The metal equivalence equation is defined as:

Au Equivalent =  $((Au(ppm) \times \$128.602890/g) + (Cu(ppm) \times \$0.011023/g) + (Bi (ppm) \times \$0.044092/g) + (Co (ppm) \times \$0.036500/g))/\$128.602890/g$ . The 1.0g/t Au metal equivalent cut-off grade represents the economic cut-off of mining and processing gold only, excluding CAPEX.

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# Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has</li> </ul>	<ul> <li>All data used in the following sections at Rover 1 has been gathered from diamond core. Multiple sizes have been used historically; HQ, NQ and BQ.</li> <li>Samples are selected to lie on geological boundaries, with intervals selected of lengths between 0.1 to 1.1m. Historic samples selected on 1m intervals. Samples are halved using an automatic core saw then individual samples collected in prenumbered calico sample bags.</li> <li>The sample of between 0.5kg to 3kg is whole crushed then pulverised to produce a 40g charge for fire assay with AAS finish for Au</li> </ul>
Drilling techniques	been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire	and a further sample for mixed acid digest with an ICP-MS finish for Ag, As, Bi, Co, Cu, Pb and Zn.
Drill sample recovery	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	<ul> <li>To ensure representivity of samples, field blanks and certified reference material are inserted at a nominal ratio of 1:20 samples.</li> </ul>
,	<ul> <li>(e.g. submarine nodules) may warrant disclosure of detailed information.</li> <li>Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul> <li>Sample recovery is recorded on retrieval of the core tube, measuring recovered core against drill string advance. No apparent relationship has been observed between sample recovery and grade. No has sample bias due to preferential loss or gain of fine or coarse material been noted.</li> </ul>
	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	
	<ul> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul> <li>All geological data has been visually logged and validated by the relevant area geologists, recording lithology, alteration, mineralisation, structure, veining, magnetic susceptibility and geotechnical data.</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative</li> </ul>	<ul> <li>Logging is quantitative in nature.</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul> <li>in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	All holes are logged completely.
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate. Historic core samples on 1m intervals independent of geological features.</li> <li>Half core undergoes total preparation.</li> <li>Castile sample preparation process consists of;         <ul> <li>Crushing using a Boyd Crusher to achieve a maximum sample size of 2mm.</li> <li>The crushed sample is split down to a 3kg sample via a rotating sample divider attached directly to the Boyd Crusher.</li> <li>The crushed sample is then pulverised in a Labtech LM5 Ring Mill such that 90% passes 75um. 200g is split and placed in a packet for analytical work.</li> <li>For every 20th sample, an approximately 25g sample is wet screened to check grind effectiveness.</li> <li>From the analysis sample, a 25 - 40g is taken for fire assay (dependant on vintage), while a 0.2g potion is taken for acid digestion. These samples are extracted from the packet with a spatula and weighed out.</li> </ul> </li> <li>QA/QC is ensured during sampling via the use of sample ledgers, blanks, standards and repeats.</li> <li>QA/QC is ensured during the assays process via the use of blanks, standards and repeats at a NATA / ISO accredited laboratory.</li> <li>In the case of Historic sampling, preparation consisted of the following:</li></ul>



Criteria	JORC Code explanation	Commentary
		second portion is homogenised in the same machine. Once complete, the first portion is put back in the LM5 and both portions are homogenised.  From the pulverised sample, approximately 200 g is collected via a scoop as a master sample for assaying.  For every 20th sample, an approximately 25 g sample is screened to 75 microns to check that homogenising has achieved 90% passing 75 microns.  From the analysis sample, 30g is taken for fire assay, while a 0.2g potion is taken for acid digestion. These samples are extracted from the packet with a spatula and weighed out.  The sample sizes are considered appropriate to the grainsize of the material being sampled.  The un-sampled half of diamond core is retained for check sampling if required.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Analysis of Castile drill core for Au, Ag, Bi, Co, Cu, Pb and Zn is as follows;</li> <li>Gold (Au-AAS scheme – lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 40g charge of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead.</li> <li>The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrix-matched standards.</li> <li>Samples returning assay values in excess of 10g/t Au were repeated.</li> <li>Silver, bismuth, cobalt, copper, lead and zinc samples are digested using a 4 acid digest.</li> <li>The subsequent solution is analysed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry.</li> <li>Analysis of Historic drill core for Au, Ag, Bi, Co, Cu, Pb and Zn is as follows;</li> <li>Gold (Au-AAS scheme – lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 30-40g charge of prepared sample is fused with a mixture of lead</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead.  The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrix-matched standards.  Samples returning assay values in excess of 100g/t Au were repeated using the screen-fire method.  Silver, bismuth, cobalt, copper, lead and zinc samples are digested using a 4 acid digest.  The subsequent solution is analysed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry.  No significant QA/QC issues have arisen in recent drilling results.  These assay methodologies are appropriate for the style of mineral deposit under consideration.  Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process.  Several twinned holes have been drilled with no significant issues highlighted.  Primary data is collected on a ruggedised computer, on predefined and self-validating worksheets. This data is imported into a relational database (DataShed) and is backed up regularly.  All data used in the calculation of resources is compiled in databases which are overseen and validated by senior geologists.  No primary assays data is modified in any way.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All data is spatially oriented by survey controls via direct pickups by DGPS.         Drillholes are all surveyed downhole. Modern holes are surveyed by north seeking gyro tools.     </li> <li>All drilling is undertaken in MGA grid.</li> <li>Topographic control is generated from a combination of aerial photogrammetry and ground-based surveys. This methodology is considered adequate for the resource in question.</li> </ul>
Data spacing	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	Drilling has been undertaken on a nominal 40x40m spacing, infilled to a nominal



Criteria	JORC Code explanation	Commentary
and distribution	<ul> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>20x20m spacing where significant mineralisation has been identified.</li> <li>No compositing of primary samples is undertaken prior to analysis</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Drilling intersections are nominally designed to be normal to the orebody under consideration as far topography and economics allows.</li> <li>It is not considered that drilling orientation has introduced an appreciable sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Individual samples in calico samples are collected in groups of 5 and placed into poly weave bags and secured with a zip-tie. All poly weave bags of a submission are then placed within a bulka bag, which is then sealed before delivery to a third party transport service who provides a tracking number. The transport contractor then relays the samples to the independent laboratory contractor.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Site generated data is routinely reviewed by the Castile corporate technical team.

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Rover Project comprises 5 granted exploration leases.</li> <li>Native title interests are recorded against the Rover Project tenements.</li> <li>The Rover Project tenements are held by Castile Resources exclusively.</li> <li>Third party royalties exist across various tenements at the Rover Project, over and above the Northern Territory government royalty.</li> <li>Castile operates in accordance with all environmental conditions set down as conditions for grant of the leases or Authorisations to conduct Mining Activities.</li> <li>There are no known issues regarding</li> </ul>

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Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>security of tenure.</li> <li>There are no known impediments to continued operation.</li> <li>The Tennant Creek area has an exploration and production history in excess of 100 years.</li> <li>The Rover area specifically has exploration history dating back to the 1970's, firstly undertaken by Geo Peko.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Rover Project is presently considered to be associated with a southern repeat of the 1860-1850Ma Warramunga Province. Recent dating by the NTGS indicates the host rock date equivalent to the Ooradidgee. This is a weakly metamorphosed succession of partly tuffaceous sandstones, siltstones and turbidite shales. Locally the turbidite metasediments are variably altered by hematite and silica flooding.</li> <li>Mineralisation is mainly of the Iron Ore Copper-Gold (IOCG) type, particularly the Tennant Creek sub-type. Massive ironstone comprised of magnetite or hematite +/-quartz is interpreted to be alteration of metasediments within a structural trap.</li> <li>Copper manifests as chalcopyrite, associated with breccia fill within magnetite-quartz ironstones and Jasper/BIF that often form an alteration transition to a chlorite alteration envelope. Pervasive sub-economic copper levels can persist throughout the zone. Economic levels of copper are dominantly contained in the lower massive magnetite zone of the ironstone bodies, particularly where intense chlorite alteration replaces magnetite laterally and at depth, grading into magnetite chlorite stringer zones. Gold content is related to an increase in haematite dusted quartz veins, with bonanza grades associated with massive pyrite with subordinate bismuthite. Cobalt appears to have a direct relationship with copper mineralisation.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> </ul>	<ul> <li>All drillhole information reported has been incorporated into the Mineral Resource.</li> <li>No new exploration results are being presented in this release.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>All drillhole information reported has been incorporated into the Mineral Resource.</li> <li>Assay results are reported on a length weighted average basis.</li> <li>Assay results are reported above a 0.5g/t Au / 0.5% Cu or 0.5% Pb + Zn cut offs.</li> <li>Results reported may include up to two metres of internal dilution below a 0.5g/t Au / 0.5% Pb + Zn / 0.5%m Cu.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>All drillhole information reported has been incorporated into the Mineral Resource.</li> <li>Interval widths are reported as both downhole width and true width.</li> </ul>
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.	<ul> <li>All drillhole information reported has been incorporated into the Mineral Resource.</li> <li>Schematic plans and sections presented.</li> <li>No new exploration results are being presented in this release.</li> </ul>
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	<ul> <li>All drillhole information reported has been incorporated into the Mineral Resource.</li> <li>No new exploration results are being presented in this release.</li> </ul>



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Exploration Results.</li> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>All drillhole information reported has been incorporated into the Mineral Resource.</li> <li>No new exploration results are being presented in this release.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Ongoing exploration and mine feasibility assessments continue to take place at the Rover Project.</li> </ul>

# Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Drillhole data is stored in a Maxwell's DataShed based on the Sequel Server platform which is currently considered "industry standard".</li> <li>As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), face chip and sludge drilling data and some associated metadata. By its nature this database is very large, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.</li> <li>In addition to data upload validation, data is visually checked within a 3D work space</li> </ul>



Site visits	Comment on any site visits undertaken by	(Surpac and Leapfrog) to ensure spatial data is correct and consistent with previous validated drilling (drill hole azimuths, dips, sampling, geology).  • Mr Savage has been routinely on-site from
	<ul> <li>the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	2019, reviewing historic core and data, supervising drill programs relating to recent exploration results and the resource under consideration.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource was both sufficiently constrained, and representative of the expected subsurface conditions. In all aspects of resource estimation, the factual and interpreted geology was used to guide the development of the interpretation of mineralisation zones.</li> <li>Mineralisation is primarily controlled by subvertical structures interacting with contrasting geology rheology to generate brittle fracturing. These brecciated zones have focused mineralising fluids, resulting in deposition of sulphide phases.</li> <li>Mining of similar deposits in the Tennant Creek region provides confidence in the current geological interpretation.</li> </ul>
Dimensions	<ul> <li>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.</li> </ul>	<ul> <li>The Rover 1 deposit is mineralised over a strike length of over 540m, a lateral extent of +70m and a depth of 800m.</li> <li>Ironstone bodies are oriented east-west, steeply dipping north with a moderate westerly plunge.</li> </ul>
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic</li> </ul>	<ul> <li>All geological and mineralisation domain interpretation was undertaken by Castile Resources, carried out in three dimensions using Surpac (mineral domains) and Leapfrog (geological domains).</li> <li>Resource estimation was undertaken by Cube Consulting, under the direction of Castile Resources.</li> <li>After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create a three-dimensional representation</li> </ul>

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- significance (e.g. sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- of the sub-surface mineralised body.
  Copper and gold domains were modelled separately.
- Drillhole intersections within the 3D mineralised body are used to flag the appropriate sample records within the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation.
- Once sample data has been composited, statistical analysis is undertaken on mineral domains to assist with determining estimation parameters, top-cuts etc. Variographic analysis of individual domains is undertaken in Snowdens 'Supervisor' and Geovariances 'Isatis' software and incorporated with observed geological and geometrical features to determine the appropriate search parameters. Given the strongly skewed sample populations of all elements, 'normal-score' transformation was used to generate meaningful variograms. Domains with limited samples were grouped together where they were close proximity and shared orientation to model variograms.
- An empty block model is created for the area of interest. The model contains attributes set at background values for the various elements of interest as well as density, and estimation parameters that are subsequently used to assist in resource categorisation.
- The block sizes used in the model vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available.
- The interpolation of Au, Cu, Co, Ag, Bi, SG and Magnetite was based on a number of different approaches depending on the characteristics of the estimation domain.
   The assigned estimation domains included:
  - Au, Ag and Bi based on the interpreted gold estimation domains;
  - Cu, Co based on the interpreted copper estimation domains;
  - Density and magnetite based on interpreted ironstone lithologies and alteration.

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 Two approaches were used for the estimation of Rover1: an Indicator Kriging for domains which displayed a bi-modal



distribution, and an Ordinary Kriged (OK) estimate for all domains. In the case where domains were estimated with an Indicator, the indicator was estimated first, then each population (High-Grade HG and Low-Grade LG), as defined by the threshold used for the indicator, was kriged in the domain. The estimated indicator (I\*), which values are bounded between 0 and 1, plays the role of a proportional weighting (%) field, and the final grade was computed such as:
Final grade = (I\* x HG) + (I\* x LG).

- When the number of composites was not sufficient for a variogram to be interpreted, an artificial one was created based on the strike length and width of the domains with reasonable nugget effects and sills for this type of deposit.
- Due to the shape of the domains, some have been estimated using dynamic kriging.
   The reference surface was created in Geovariances 'Isatis' software package to guide the variogram algorithm and search volume.
- The ordinary kriging estimation method is considered appropriate for the style of mineral deposit under consideration.
   Estimation was undertaken in Geovariances 'Isatis' software and the results transferred to a Surpac block model.
- In some circumstances where sample populations are small, and geostatistical trends unable to be interpreted, the domain was assigned the declustered mean composite grade.
- A distance limiting top-cut approach was implemented for some gold domains to limit the spatial influence of outlier values, which have limited continuity.
- Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. Multivariate statistical analysis has identified a relationship between gold- silver- bismuth and a separate copper-cobalt relationship. There are no assumptions made about the recovery of by-products.
- The resource model is then depleted for topography and mining voids where applicable and subsequently classified in line with JORC guidelines utilising a combination of estimation derived



		parameters and geological knowledge. This approach has proven to be applicable to similar deposits.  Estimation results are validated against primary input data.  In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the estimation.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates are dry tonnes.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>The Rover 1 mineral resource inventory comprises material at 1.0g/t Au equivalent (AuEq).</li> <li>The 1.0g/t Au equivalent cut-off grade represents the economic cut-off of mining and processing excluding CAPEX.</li> <li>Au equivalent is calculated on gold, copper, cobalt and bismuth by the following formulae:         Au Equivalent = ((Au(ppm) x \$128.602890/g) + (Cu(ppm) x \$0.011023/g) + (Co(ppm) x \$0.036500/g) + (Bi(ppm) x \$0.044092/g)) /\$128.602890/g.</li> <li>Gold Price = US\$4,000/oz Copper = US\$5.00/lb Cobalt Price = US\$36,500/t Bismuth Price = US\$20.00/lb</li> </ul>
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.	<ul> <li>Underground mining is assumed on the basis that similar deposits have been mined successfully by underground methods at the nearby Tennant Creek field.</li> <li>Minimum mineralisation widths and composite grades have been considered during the interpretation stage.</li> <li>There may be cases where lower grade material is incorporated to maintain geological continuity of the interpretation.</li> <li>No mining factors are incorporated into the resource as these will be considered within Reserve Calculations</li> </ul>
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	<ul> <li>Conventional sulphide oxidation processing methods are assumed on the basis that similar deposits have been successfully mined and processed.</li> <li>Metallurgical test work indicates ore is non-refractory.</li> <li>No metallurgical factors are incorporated</li> </ul>



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.
Assumptions made regarding possible
waste and process residue disposal options.
It is always necessary as part of the process

into the resource as these will be considered within Reserve Calculations.

# 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.
- Castile operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.
- Castile is investigating mitigation of environmental impacts by storage of PAF material underground and utilising tails into paste fill to minimise surface disturbance and hydrology impacts. Use of paste fill will aid in maximising extraction of the
- No environmental factors are incorporated into the resource as these will be considered within Reserve Calculations.

#### **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.
- 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.
- Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.

- Bulk density of mineralisation at the Rover Project is variable, dependant on lithology, alteration and mineralisation.
- Geological technicians perform routine density test-work on core samples of both host rock and mineralisation. All sampled intervals are tested for density.
- Density measurements have been determined using the water immersion technique on core.
- Bulk density is modelled by lithological domains.

#### Classification

- The basis for the classification of the Mineral Resources into varying confidence categories.
- 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).
  - Whether the result appropriately reflects the Competent Person's view of the deposit.
- Resources are classified in line with JORC guidelines utilising a combination of estimation quality parameters, and geological knowledge.
- This approach considers all relevant factors and reflects the Competent Person's view of the deposit.

# Audits or reviews

- The results of any audits or reviews of Mineral Resource estimates.
- Resource estimates were calculated and reviewed internally by independent contractor Cube Consulting then peer

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		reviewed by Castile Resources' Corporate technical team.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The reported resource estimate is considered robust, and representative of the deposit on a global scale.</li> <li>The relative accuracy and confidence of the resource is reflected in the classification category assigned.</li> <li>No production data exists to compare the resource estimate against.</li> </ul>

# Section 4 Estimation and Reporting of Ore Reserves (Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>

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Criteria	JORC Code explanation	Commentary
Cut-off parameters	<ul> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Mining factors or assumptions	<ul> <li>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 appropriate factors by optimisation or by preliminary or detailed design).</li> <li>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.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	No new Reserve information is being presented in this release.
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>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.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy</li> </ul>	No new Reserve information is being presented in this release.
	<ul><li>to meet the specifications?</li><li>The status of studies of potential</li></ul>	No new Reserve information is being



Criteria	JORC Code explanation	Commentary
	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.	presented in this release.
Infrastructure	<ul> <li>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.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	No new Reserve information is being presented in this release.
Revenue factors	<ul> <li>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.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	No new Reserve information is being presented in this release.
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	No new Reserve information is being presented in this release.



Criteria	JORC Code explanation	Commentary
Economic	<ul> <li>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.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>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 extraction of the reserve is contingent.</li> </ul>	No new Reserve information is being presented in this release.
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<ul> <li>No new Reserve information is being presented in this release.</li> </ul>
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the	No new Reserve information is being presented in this release.



Criteria	JORC Code explanation	Commentary
	factors which could affect the relative accuracy and confidence of the estimate.  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.  Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.  It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

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