

21 October 2024

# SIGNIFICANT OPTIMISATIONS MADE TO ADVANCE ROVER 1 BFS

Castile Resources Limited (ASX: **CST**) (**Castile** or the **Company**) provides a progress update on work to advance the Bankable Feasibility Study (BFS) for the Company's flagship Rover 1 IOCG Project located in Tennant Creek, Northern Territory. The Company plans to develop a financially robust, long-life mine that will produce gold doré, copper, cobalt sulphate and high-grade magnetite. The Company is pleased to advise that work completed on the BFS to date has significantly optimised all stages of the development pathway, from mining and beneficiation in Tennant Creek, to refining at the Middle Arm Sustainable Development Precinct (MASDP) in Darwin. Key outcomes include:

#### Mining - Rover 1 Project:

- **Box Cut Relocation:** The relocation of the Rover 1 Mine boxcut (portal) directly over the ore body has reduced the surface profile within a single tenement boundary reducing the eventual extraction lease requirements.
- Moving the portal also allows the use of existing water bores eliminating the high cost of drilling new ones.
- Bore water well testing, which is the final requirement for the Environmental Impact Statement (EIS) submission, has now begun ahead of schedule.

#### **Beneficiation Plant:**

- **Reduced Plant Size and Energy Demand:** The decision to move the refining operations to MASDP has reduced the size and power requirements of the concentrate plant remaining at the Rover 1 site.
- This results in the cancellation of the gas pipeline construction and associated infrastructure and clearing requirements. Gas will now be trucked to site in tanks at a considerable operating cost saving.

#### **Refining - Darwin MASDP Facility:**

- Autoclave Efficiency and Metallurgical Studies: Testing has halved the residency time required in the pressure oxidation (POX) autoclave from two hours down to one hour, effectively doubling the capacity of the vessel.
- Reducing the ore grind size from P<sub>80</sub>105mm to P<sub>80</sub>75mm has led to higher metal recoveries, further enhancing overall processing efficiency and metal production. (See Table 1, Page 4)

#### Gold Price Forecasts:

- **Updated Gold Price Assumptions:** The current gold price of approximately A\$4,000/oz is a significant increase from the A\$2,640/oz used in the December 2022 Pre-Feasibility Study (PFS).
- Castile, with forecast annual production of approximately 30,000oz, is highly leveraged to the gold price and is forecasting using higher gold prices for the BFS financial modelling than were used in the PFS.

## 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 Rover 1 revealed a financially robust, polymetallic, high-grade iron oxide copper gold (IOCG) deposit that will produce gold doré, copper and cobalt metal and high-grade magnetite. High purity (99%) copper and cobalt metal produced will be available for sale to EV and battery manufacturers directly from Castile. The gold doré and 96.5% magnetite product (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.





Castile Managing Director Mark Hepburn commented:

"Our focus to develop Rover 1 as a financially robust, long life stand-alone operation has intensified with the outstanding outcomes of re-locating the boxcut at site and the downstream refinery to MASDP. These changes have resulted in a remarkable domino effect of presenting opportunities to increase efficiencies, enhance financial outcomes and provide cost savings back upstream through our beneficiation and mining operations. None more so than cancelling the gas pipeline to Rover 1, this has effectively eradicated our largest land clearance requirement and one of our bigger capital construction costs. In another huge boost, testing has shown the ore residency time in the POX autoclave has reduced from two hours to one hour, effectively doubling the capacity of our autoclave with no additional cost. Out at the Rover 1 site, relocating the portal to a position directly adjacent to the ore body has allowed us to use existing bores which has saved us the considerable cost of drilling new ones. Furthermore, we were able to begin water bore testing last week, well ahead of schedule. We have the luxury of being a gold mine that also produces downstream critical minerals, the run in the gold price has been substantial since we completed our PFS, and we anticipate using significantly higher gold price sumptions in the pricing deck for the BFS. Whilst Castile is the only company in the Tennant Creek region with significant gold and copper reserves, the flexibility of the both the beneficiation plant and the refinery are scalable should any other opportunities arise in gold/copper ore reserves in future years."

### **Refining Moves to The Middle Arm Sustainable Development Precinct**

The most notable change to the processing flowsheet has been the relocation of the refining section of the plant to MASDP. The 96.5% magnetite product will be produced in Tennant Creek while the gold, copper and cobalt will be sent in a bulk concentrate to the refinery at MASDP to produce 99% pure copper, gold dore' and cobalt sulphate.



Figure 1: Updated Rover 1 Processing Flowsheet



## **Rover 1 Mine Design**

#### Change in Decline Pathway:

Work has continued optimising the layout and design of the surface and underground infrastructure for Rover 1. As a result, the boxcut and surface infrastructure have been relocated directly adjacent to the Rover 1 ore body. This change significantly reduces the final extraction lease requirements. The revised decline pathway will now remain closer to Rover 1, allowing for the utilisation of historically drilled water bores for the Hydrology Assessment, which are necessary for the EIS. By utilising the existing water bore network, Castile will avoid the significant costs associated with drilling new ones.



Figure 2: Updated Rover 1 Surface and Underground Infrastructure layout.

ASX:CST | OTCQB: CLRSF



#### Use of Electrified Battery Electric Vehicles (BEVs) At Rover 1 Site

Castile is closely monitoring the development and deployment of BEVs within Australian mining operations. We plan to operate a fleet of battery-powered trucks and loaders in our underground operation to reduce our environmental impact and improve workplace conditions. We are encouraged by the positive results from ongoing trials and the advancements being demonstrated globally.

### **Rover 1 Beneficiation Plant**

As previously announced, Castile has conducted further metallurgical testing in preparation for a Pilot Plant to cycle test the autoclave recovery of the copper cobalt and remaining gold. Samples simulating the expected grade profile and the anticipated geometallurgical domains for the first five years of operation have been taken. Figure 2 shows the locations of the samples selected for this work.

Revised bulk sulphide flotation tests were conducted for the BFS, assessing three different grind sizes:  $P_{80}150\mu m$ ,  $P_{80}105\mu m$ , and  $P_{80}75\mu m$ . In the 2022 Rover 1 Pre-feasibility Study, a grind size of  $P_{80}105\mu m$  was used but improvements in the recovery of all four products were observed when reducing the grind size from  $P_{80}105\mu m$  to  $P_{80}75\mu m$ .

The increases in recovery are considered to outweigh the additional costs associated with this change, in line with Castile's commitment to maximising the value of every tonne of material mined.

	Individual Recovery at Relative Grind Size		
	75μm Grind 105μm Grind 150μm Grind		150µm Grind
Gold	90.9%	88.6%	87.2%
Copper	98.7%	98.2%	97.0%
Cobalt	91.8%	89.3%	88.7%
Magnetite	74.1%	73.6%	73.6%

#### Table 1 Improvements in Concentrate Recoveries

#### Additional Tests Conducted on the Ore

The following additional tests have been carried out on the Rover 1 ore:

- Crushing, grinding, and Bond Work Index testing to determine the ore's hardness and energy requirements for processing.
- Flowsheet sequence analysis to assess whether bulk sulphide flotation should be performed before or after Magnetic Separation.
- Mineral recovery testing post-Pressure Oxidation of the bulk concentrate to evaluate the efficiency of extracting the minerals.
- Gravity gold recovery verification to ensure optimal recovery of gold through gravity-based methods.

These tests further enhance the understanding and optimisation of Rover 1's beneficiation process.

#### **Gravity Gold Recovery and Flowsheet Optimisation**

In addition to producing a sulphide concentrate, gravity gold will also be recovered from the ores. Recent testwork has confirmed historical results, with expected gravity gold recovery of approximately 20%. The ore will be ground to  $P_{80}75\mu m$  prior to gravity gold recovery. The general flowsheet has been further revised to enable bulk sulphide flotation before magnetic separation. This modification maximises the available copper, cobalt and gold for the bulk sulphide concentrate. The results from the additional comminution testing align with previous testwork, reinforcing the process parameters.



The proposed beneficiation plant remains modular in design, allowing for rapid deconstruction and redeployment at the end of the mine's life. Under the Pre-feasibility Study, the plant's deconstruction, transportation, and reconstruction were expected to take three months. However, with the refining portion of the plant now being constructed offsite, this timeframe is expected to be reduced.



Figure 3: Locations of the samples selected from Rover 1 for this test work campaign.



#### Power Optimisation Study Results in Large Reduction in Infrastructure Costs

With the removal of the downstream refining section of the processing plant, relocating it to the Middle Arm Sustainable Development Precinct (MASDP), different power supply options have become viable for Rover 1. The largest clearing requirement for the Rover 1 project was previously the pipeline needed to connect Rover 1 to the existing Amadeus gas pipeline. We will now transport gas to the site and store it for use in onsite power generation. This still allows Castile to utilise low-emission gas power production, while reducing our land clearing requirements.

## Refining Processing Plant at the MASDP in Darwin

Castile is committed to the movement of the refining process from Tennant Creek to Middle Arm Sustainable Development Precinct (MASDP). This purpose-built development is focused on sustainable production of critical minerals and energy products close to Darwin. This moves the more complex metallurgical tasks closer to Darwin and Palmerston with an established skilled workforce. A simplification in the processing of final products has also been considered with the decision to produce a cobalt sulphate product (as opposed to pure cobalt metal), while still targeting end-user battery manufacturers.

A key outcome of the recent testwork has been the reduction in residency time of the autoclave. Castile has conducted a test where the residency time in the autoclave was reduced from two hours to one. The resultant recoveries of the key products gold, copper and cobalt remain unchanged. The advantage of the reduced residency time is either a reduction in CAPEX via a smaller volume autoclave or the ability to process more concentrates to increase our output of our key products.

### Immediate Benefits of Locating the Refining Facility at MASDP

The decision to locate the refining facility at the Middle Arm Sustainable Development Precinct (MASDP) offers several immediate advantages that enhance the overall efficiency and sustainability of the Rover 1 Project:

- Reduction in Mine Site Footprint: Establishing the refining facility at MASDP will significantly reduce the environmental impact at the Rover 1 site by minimising the mine site footprint.
- Cost Savings: By developing less infrastructure at the remote Rover 1 site, there will be a reduction in capital infrastructure, construction, and operational costs, leading to a more cost-effective operation.
- Streamlined Environmental Approvals: MASDP provides a framework for streamlined environmental approvals, which can reduce the time required to commence construction, thus expediting project timelines.
- Access to Logistics Infrastructure: The precinct offers immediate access to essential road, rail, port, and logistics infrastructure, facilitating smoother operations and transportation.
- Renewable Energy Connections: MASDP connects Castile with multiple giga-scale renewable energy providers, significantly reducing project emissions and aligning with sustainability goals.
- Skilled Workforce Proximity: The nearby cities of Darwin and Palmerston provide access to a stable, skilled local workforce, ensuring that Castile can meet its operational needs effectively.
- Improved Logistics: The location enhances logistics concerning the transport of consumables and waste removals required in the refining process, making operations more efficient.





Figure 4: Illustration of the proposed Castile Critical Minerals Refinery at Middle Arm

#### **Environmental Impact Statement**

#### Hydrology

Work has commenced on the creation of a new hydrogeological model for Rover 1. Work on this model is being carried out in conjunction and supported by testing and monitoring of the water bores surrounding the proposed Rover 1 infrastructure as shown in Figure 1. Castile's Contractors accessed site this week to commence Bore Testing.

#### Waste Rock Characterisation

Work on the characterisation of the mine waste planned to be excavated at Rover 1 has been completed. The studies were completed in line with expectations. Work will now focus on the safe and efficient long-term storage that will be required for these wastes on surface in line with Environmental Standards. When the Processing Test Pilot Plant commences, further testing will be conducted on the tailings (from both the Beneficiation Plant at Rover 1 and the downstream Refinery at MASDP). In addition, ore materials will also be treated to inform site storage requirements.

#### **Development Strategy**

#### 1. Rover 1 Development Overview

Castile's planned Rover 1 development boasts an existing inventory of approximately ten years of Ore Reserves and Mineral Resources. This robust resource base will underwrite the base-load feed for the refining plant at the Middle Arm Sustainable Development Precinct (MASDP). Once development commences, further exploration will be conducted down hole at Rover 1 to expand mineral inventories.



#### 2. Strategic Exploration Initiatives

In addition to the ongoing development of Rover 1, Castile is committed to aggressively exploring the Rover Mineral Field. This proactive exploration strategy aims to identify and add to the existing mineral inventory, ensuring the long-term sustainability and viability of the Rover 1 Project.

#### 3. Downstream Facility Expansion

Castile is simultaneously evaluating the potential expansion of the downstream facility at MASDP. This expansion would facilitate the processing of third-party concentrates, thereby enhancing the production of critical minerals within Australia. The initiative is aligned with Castile's commitment to utilising, protecting, and retaining sovereignty over Australia's precious mineral resources.

#### 4. Addressing Copper Production Needs

With projected world demand for copper outpacing supply, Australian-based copper production has become increasingly critical. Establishing an in-country refining alternative could serve as a catalyst for the development and commercialisation of Australia's many small producers, who currently face challenges in accessing refining options and are forced to ship concentrates offshore for processing.

#### 5. Responsibly Produced Critical Minerals

The critical minerals and co-products generated at the Rover 1 site will be prepared for direct sale to customers, particularly within the battery and electric vehicle sectors. By positioning these products as purely Australian-owned and responsibly produced, Castile aims to enhance its reputation and strengthen its market presence in the growing sectors of sustainability and clean energy.

#### 6. Ongoing Discussions with Funding Partners

Castile continues to have confidential discussions with Government and institutional funding partners as the Bankable Feasibility Study takes shape.

Authorised by the board of Castile Resources Limited.

For further enquiries please contact:

Mark Hepburn Managing Director Castile Resources Limited E: info@castile.com.au P: +61 8 9488 4480



#### **Competent Persons Statements**

The information contained in this report relating to Exploration Results, Minerals Resources and Ore Reserves has been previously reported by the Company as referenced in this presentation (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 Mineral Resources and 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 this report is based on, and fairly and accurately represent the information and supporting documentation prepared by Colette Kock. Ms Kock is a full-time employee of MACA Interquip Mintrex who are a Contractor to Castile, and a Member of The Australasian Institute of Mining and Metallurgy. Ms Kock 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, Mineral Resources and Ore Reserves. Ms Kock consents to the inclusion in the report of the matters based on the results in the form and context in which they appear. 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 a, including financial forecasts and production targets, continue to apply and have not materially changed.

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques Drilling techniques Drill sample recovery	<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 been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> <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> <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>	<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 and a further sample for mixed acid digest with an ICP-MS finish for Ag, As, Bi, Co, Cu, Pb and Zn.</li> <li>To ensure representivity of samples, field blanks and certified reference material are inserted at a nominal ratio of 1:20 samples.</li> <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>
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> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</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> <li>Logging is quantitative in nature.</li> <li>All holes are logged completely.</li> </ul>



Criteria	JORC Code explanation	Commentary
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;</li> <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 LMS 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> <li>QA/QC is ensured during the assays process via the use of blanks, standards and repeats.</li> <li>QA/QC is ensured during the assays process via the use of blanks, standards and repeats.</li> <li>QA/QC is outring jaw crusher to achieve a maximum sample size of 4 mm.</li> <li>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.</li> <li>The crushed sample for assaying greater than 3.2 kg, the sample weighing greater than 3.2 kg, the sample weighing greater than 3.2 kg. For every 20th sample, approximately 250 g sample is creened to second portion is homogenised in the same machine. Once complete, the first portion is put back in the LM5 and both portions are homogenised.</li> <li>From the pulverised sample, approximately 250 g sample is screened to 75 microns to check that homogenising has achieved 90% passing 75 microns.</li> <li>From the analysis sample, approximately 25 g sample is screened to 75 microns to check that homogenising has achieved 90% passing 75 mi</li></ul>
Quality of assay data and	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</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</li> </ul>

Criteria	JORC Code explanation	Commentary
laboratory tests	<ul> <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>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 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 100g/t Au were repeated using the screen-fire method.</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>No significant QA/QC issues have arisen in recent drilling results.</li> <li>These assay methodologies are appropriate for the style of mineral deposit under consideration.</li> </ul>
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>	<ul> <li>Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process.</li> <li>Several twinned holes have been drilled with no significant issues highlighted.</li> <li>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.</li> <li>All data used in the calculation of resources is compiled in databases which are overseen and validated by senior geologists.</li> <li>No primary assays data is modified in any way.</li> </ul>
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 and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the</li> </ul>	<ul> <li>Drilling has been undertaken on a nominal 40x40m spacing, infilled to a nominal 20x20m spacing where significant mineralisation has been identified.</li> <li>No compositing of primary samples is undertaken prior to analysis</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul><li>Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li><li>Whether sample compositing has been applied.</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>	<ul> <li>Site generated data is routinely reviewed by the Castile corporate technical team.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC	Code explanation	Commentary
Mineral tenement and land tenure status	•	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 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.	<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 security of tenure.</li> <li>There are no known impediments to continued operation.</li> </ul>
Exploration done by other parties	•	Acknowledgment and appraisal of exploration by other parties.	<ul> <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 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	•	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: o easting and northing of the drill hole collar	<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>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	<ul> <li>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.</li> </ul>	<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	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</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>
Other substantive exploration data	<ul> <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> </ul>	Ongoing exploration and mine feasibility assessments continue to take place     at the Rover Project.

Criteria	JORC Code explanation	Commentary
	<ul> <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>	

## 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 (Surpac and Leapfrog) to ensure spatial data is correct and consistent with previous validated drilling (drill hole azimuths, dips, sampling, geology).</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>Mr Savage has been routinely on-site from 2019, reviewing historic core and data, supervising drill programs relating to recent exploration results and the resource under consideration.</li> </ul>
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 sub-surface 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	• 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.	<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	• The nature and appropriateness of the estimation technique(s)	• All geological and mineralisation domain interpretation was undertaken by
and modelling techniques	applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum	Castile Resources, carried out in three dimensions using Surpac (mineral domains) and Leapfrog (geological domains).
teeninques	distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer	<ul> <li>Resource estimation was undertaken by Cube Consulting, under the direction of Castile Resources.</li> </ul>
	software and parameters used.	After validating the drillhole data to be used in the estimation, interpretation
	<ul> <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> </ul>	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
	• The assumptions made regarding recovery of by-products.	manual triangulation to create a three-dimensional representation of the sub-
	<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage</li> </ul>	surface mineralised body. Copper and gold domains were modelled separately.
	characterisation).	• Drillhole intersections within the 3D mineralised body are used to flag the
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	appropriate sample records within the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for
	Any assumptions behind modelling of selective mining units.	<ul> <li>grade estimation.</li> <li>Once sample data has been composited, statistical analysis is undertaken</li> </ul>
	<ul> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	on mineral domains to assist with determining estimation parameters, top- cuts etc. Variographic analysis of individual domains is undertaken in
	<ul> <li>Discussion of basis for using or not using grade cutting or</li> </ul>	Snowdens 'Supervisor' and Geovariances 'Isatis' software and incorporated
	capping.	with observed geological and geometrical features to determine the appropriate search parameters. Given the strongly skewed sample
	<ul> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	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.
		<ul> <li>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.</li> </ul>
		<ul> <li>The block sizes used in the model vary depending on orebody geometry,</li> </ul>
		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:
		<ul> <li>Au, Ag and Bi – based on the interpreted gold estimation domains;</li> </ul>
		<ul> <li>Cu, Co – based on the interpreted copper estimation domains;</li> </ul>
		<ul> <li>Density and magnetite – based on interpreted ironstone lithologies and alteration.</li> </ul>
		• 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

		<ul> <li>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* xHG) + (I* xLG).</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>In some circumstances where sample populations are small, and geostatistical trends unable to be interpreted, the domain was assigned the declustered mean composite grade.</li> <li>A distance limiting top-cut approach was implemented for some gold domains to limit the spatial influence of outlier values, which have limited continuity.</li> <li>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 coppercobalt relationship. There are no assumptions made about the recovery of by-products.</li> <li>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.</li> <li>Estimation results are validated against primary input data.</li> <li>In all aspects of resource estimation, the factual and</li></ul>
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 2.0g/t Au equivalent.</li> <li>The 2.0g/t Au equivalent cut-off grade represents the economic cut-off of mining and processing gold only <i>excluding CAPEX</i>.</li> <li>Au equivalent is calculated on gold and copper only by the following formulae: AUEQ = Au + (Cu x 0.000169). Cu assays are in ppm.</li> <li>Gold Price = AUD\$2640/oz and Copper = AUD\$13,880/tonne.</li> </ul>

Mining factors or assumptions	<ul> <li>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.</li> </ul>	<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	<ul> <li>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.</li> </ul>	<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 into the resource as these will be considered within Reserve Calculations.</li> </ul>
Environmental factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>Castile operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.</li> <li>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 resource.</li> <li>No environmental factors are incorporated into the resource as these will be considered within Reserve Calculations.</li> </ul>
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density of mineralisation at the Rover Project is variable, dependant on lithology, alteration and mineralisation.</li> <li>Geological technicians perform routine density test-work on core samples of both host rock and mineralisation. All sampled intervals are tested for density.</li> <li>Density measurements have been determined using the water immersion technique on core.</li> <li>Bulk density is modelled by lithological domains.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations,</li> </ul>	<ul> <li>Resources are classified in line with JORC guidelines utilising a combination of estimation quality parameters, and geological knowledge.</li> <li>This approach considers all relevant factors and reflects the Competent Person's view of the deposit.</li> </ul>

•	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.	
Audits or • reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>Resource estimates were calculated and reviewed internally by independent contractor Cube Consulting then peer reviewed by Castile Resources' Corporate technical team.</li> </ul>
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 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	<ul> <li>The reported resource estimate is considered robust, and representative of the deposits 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>The Ore Reserve is a subset of the Mineral Resource.</li> <li>The rover1_aug2022_with_distance_capping.mdl resource was utilised for the Reserve Calculation.</li> <li>No previous mining has occurred.</li> <li>A technical description of the Mineral Resource is presented in the preceding sections to this table.</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>The Competent Person has visited site and is a full time employee of Castile Resources.</li> <li>Whilst preparing this estimate the Competent Person has satisfied himself that the data and analysis used in this estimate is appropriate for the proposed operating conditions for the project.</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>A pre-feasibility study has been completed for Rover 1.</li> <li>A full mine plan was developed for the inclusion of material into the Ore Reserve including capital and operating development. This design assumed a mining recovery of 95% and no additional dilution outside the designed shapes.</li> </ul>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>A cut-off grade of 2.25g/t Au.</li> <li>Eq was utilised for Rover 1. This cut-off grade only considers gold and copper.</li> <li>The following formula was utilised for the calculation of the AuEq : AuEq=Gold (g/t) +Copper (ppm) * 0.00016415736. Formula was based on a gold price of AUD\$2,640 and a copper price of AUD\$13,880/t.</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> </ul>	<ul> <li>A full design has been carried out to determine the material which can be included into the Ore Reserve. Stopes were assessed individually to ensure they were above the cut-off grade with no inferred material to be included within the ore reserve. Development headings were then included on the basis of their stoping blocks.</li> <li>Top down, bottom up long hole open stoping methods were selected for mining the ore reserve. Paste fill has been assumed for all stope voids. This mining method is regularly utilised in Australia and considered appropriate for the deposit.</li> <li>Jumbo development of sufficient size to support a mechanised stoping fleet will be used.</li> <li>Minimum mining width of the stopes was 3.0mW including a minimum hangingwall and footwall diluition of 0.5m (each). Ore development was set at 4.5mW x 4.5mH. No additional dilution was considered.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <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>	<ul> <li>was completed with all blocks below 1.5g/tAuEq was set to 0g/t. All blocks below 2.0g/tAuEq were set to waste for the purposes of determining if material could be classified within the Ore Reserve.</li> <li>Stopes had a minimum strike of 10m. Ore drive development is designed at 25m (floor to floor) and all stopes are full height. Stopes were restricted to a strike of 40m prior to filling. Geotechnical parameters were recommended by Mining One Mining Consultants. Wall angles were set to a minimum of 60° ensuring the flow of ore to the development level for extraction.</li> <li>Mining recovery for both development and stoping was 95%.</li> <li>Additional inferred material may be mined in addition to the Ore Reserve. This material has not been included within this report and only enhances the economic outcomes of the Pre-feasibility study.</li> <li>All associated infrastructure has been included within the Prefeasibility Study in order the Ore Reserve to be extracted. This includes the capital development required to access the ore body from the surface, along with the capital infrastructure required on the surface. It was assumed that a 5.5mW x 5.5mH decline will be developed for access to the ore. An exhaust network of 3.5m raise bore holes will be developed to ventilate the project. Additional 2.4m raise bores will be developed in fresh air to act as escapeways. It was assumed that a battery powered haulage fleet will be utilised.</li> </ul>
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 to meet the specifications?</li> </ul>	<ul> <li>It is assumed that the ore will be treated by Pressure Oxidisation. This method was recommended in the external metallurgical study as appropriate for the ore body. Pressure Oxidiation is a well tested technology currently being utilised in projects within Australia and Internationally. This will extract the gold, copper and cobalt metal. The magnetite will be magnetically separated from the material using low intensity magnetic separator technology.</li> <li>Testwork to a prefeasibility standard has been completed, with further testwork planned. Current testwork has focused on a sample representing the average grade and different metallurgical domains of the first five years.</li> <li>No deleterious elements have been identified for the process method under consideration.</li> <li>Recovery factors of 92.4% for gold, 82.9% for cobalt, 95.3% for copper as defined in metallurgical studies.</li> <li>A recovery factor of 67.7% for the magnetite have been applied to the project as defined in metallurgical studies.</li> <li>Pilot scale test work is to be completed in the coming months testing a bulk sample.</li> <li>Magnetite material can meet specifications through simple separation as defined in metallurgical studies.</li> </ul>
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	<ul> <li>Only preliminary designs for waste and tails dumps have been considered. Locations of these dumps have been provided to Environmental Consultants who have undertaken preliminary environmental risk assessments.</li> <li>A proponent referred Environmental Impact Statement (EIS) has been made and approved by the NT EPA. A final EIS has not yet been submitted.</li> </ul>

Criteria	JORC Code explanation	Commentary
	of approvals for process residue storage and waste dumps should be reported.	<ul> <li>Waste Rock characterisation studies are underway on unprocessed mined material. Further characterisation of tails material is planned for pilot plant material.</li> <li>It is planned for paste fill to be utilised at Rover 1 which will significantly reduce the volume of material required to be stored within the tails dam. A dam capable of accepting the full volume of planned processed material has been proposed.</li> </ul>
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.	<ul> <li>No current infrastructure is present at Rover 1.</li> <li>Castile currently has sufficient tenement footprint to allow for the construction of required project infrastructure.</li> <li>Castile plans to use existing the rail line and airport facility at Tennant Creek. Transportation is planned to be on the Darwin/Adelaide rail line with International products sourced through Darwin port.</li> <li>Gas services are within 100km of the project. A new solar project is being proposed north of Tennant Creek. Castile has assumed Rover 1 electricity requirements will be provided by gas powered generator, supplied via portable vessels.</li> <li>It is planned to utilise labour from within the Northern Territory on a fly in-fly out basis from Darwin.</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>	<ul> <li>Cost for processing both operating and capital have been provided by third party Engineering Consultants.</li> <li>Capital costs for mining equipment were provided by the supplier. Capital and operating costs for mining have been constructed from first principals.</li> <li>Sundry capital costs have been sourced from inflated historic quotes.</li> <li>Transportation costs were validated by third party Engineering Consultants.</li> <li>No deleterious elements were present within the final specified products. Further testwork including pilot test plant to be carried out.</li> <li>Preproduction Capital costs for the project have been estimated at \$280M. Mining Operating costs are estimated at \$60/t ore and processing operating costs are estimated at \$125/t ore. Site Administration costs were estimated at \$10/t ore.</li> <li>Allowance for private royalties as required. Northern Territory royalties have been included within the Financial Model.</li> </ul>
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>	<ul> <li>The following Australian dollar prices have been assumed for the project:         <ul> <li>Copper \$12,308/t</li> <li>Gold \$2,640/oz</li> <li>Cobalt \$92,308/t</li> <li>Magnetite \$350/t</li> </ul> </li> <li>These prices were determined internally by Castile Resources.</li> <li>All products are considered final products when leaving site. All products were considered FOB Darwin. The gold will be sold to an Australian Mint.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The grades of all products were considered when calculating revenue and recoveries. No equivalent grades were considered outside the initial design of stoping blocks.</li> </ul>
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>	<ul> <li>It is considered all products will continue to be in demand and is expected to increase for copper and cobalt with the decarbonisation economy.</li> <li>The ongoing use of magnetite as an industrial mineral is expected to continue for the production of plastics and coal washing sectors. It is intended to sell all magnetite to a single purchaser.</li> </ul>
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>The project has been evaluated in a nominal cash flow model with a discount rate of 10%. A positive NPV was realised for the Ore Reserve material. No impact of mining material outside the ore reserve was considered in this estimate, however was considered as part of the Pre-feasibility Study.</li> <li>Costs as estimated above were utilised for the cash flow model.</li> <li>Sensitivity analysis has been conducted on the ore reserve. From this analysis the key variables were exchange rate, copper price, gold price, mining and processing costs. All factors were tested on a ±10% movement basis.</li> </ul>
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul> <li>Castile has a Deed of Exploration agreement with the Central Land Council. This agreement outlines the steps needed to proceed to a Mining Agreement between Castile and the CLC. Castile has had ongoing positive communication with the CLC.</li> <li>Castile has a positive working relationship with the Northern Territory government.</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>	<ul> <li>No naturally occurring risks have been identified. Tennant Creek is subject to intense high rainfall events. These events are not expected to have a significant impact on the monthly production estimates utilised.</li> <li>No legal or marketing agreements have commenced.</li> <li>The Government Approval Process has commenced. Work is ongoing for the preparation of this report.</li> <li>Pilot scale test work for the processing plant is expected to occur soon formalising final product specifications.</li> <li>The ore reserve sits on a current Mineral Retention Licence which will need to be expanded to include all infrastructure requirements. Castile currently holds sufficient tenement foot print for this to occur.</li> <li>The Mining Agreement process with the CLC is outlined, but no activity has commenced.</li> <li>The only significant outstanding environmental concern is the hydrological survey and water testwork. Sufficient water is expected to be sourced within Castile Tenements.</li> </ul>

Criteria	JORC Code explanation	Commentary
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 Measured Mineral Resource is present. The whole Ore Reserve is considered Probable Ore Reserves and has been derived from the Indicated Mineral Resource.</li> <li>Any inferred material that has been included within the Ore Reserve was classified as waste and therefore no positive impact on the economics.</li> <li>The Ore Reserve appropriately reflects the Competent Persons view of the deposit.</li> </ul>
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	<ul> <li>No audits or reviews have been conducted on the Ore Reserve. A full audit of the reserve will be conducted as part of the feasibility study.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>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 factors which 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>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.</li> <li>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.</li> </ul>	<ul> <li>The design, schedule, and financial model, on which the Ore Reserve is based has been completed to a Pre-Feasibility Study standard, with a corresponding level of confidence.</li> <li>All modifying factors have been applied to designed mining shapes on a global scale.</li> <li>Future commodity price forecasts carry an inherent level of risk.</li> <li>There is a degree of uncertainty associated with geological estimates. The Ore Reserve classification reflect the level of geological confidence in the estimates.</li> <li>There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study.</li> <li>The ore treatment process is not a novel process and is being utilised in Australian and International Operations.</li> <li>Further work is being undertaken by Castile prior to a Final Investment Decision.</li> <li>There are no modifying factors identified at the time of this statement that are not accounted for and that would have a material impact on the Ore Reserve estimate.</li> </ul>