

4th March 2025

# RAS Mineral Resource Estimate Review: More Indicated Resources at Higher Grade

The Board of Santana Minerals Limited (SMI, 'Santana' or the 'Company') is pleased to provide an update of its Mineral Resource Estimate (MRE) which now incorporates addition infill drilling since the previous MRE announced to the ASX on 2 July 2024, which supported the Company's Pre-feasibility Study (PFS) released to the ASX/NZX on 15 November 2024.

Infill drilling, including 28 drill holes for 7,060 metres at the Rise & Shine (RAS) deposit has enabled a significantly refined resource model with improved grade domaining and variography. Applying 0.5g/t cut-off grade and a top cut of 60g/t, the new Indicated Resource has a 7% increase in grade (from 2.35g/t to 2.52 g/t) and a 6.4% increase in contained gold ounces.

#### Latest MRE:

March 2025 RAS Mineral Resources Estimate (0.5g/t cut-off grade)				
Deposit	Category	Tonnes (Mt)	Au (g/t) rounded	Contained Gold (koz)
DAC	Indicated	18.9	2.5	1,538
RAS	Inferred	7.6	2.2	542
RAS Total	Indicated and Inferred	26.5	2.4	2,080

#### **Previous MRE:**

	June 2024 RAS Mineral Resources Estimate (0.5g/t cut-off grade)			
Deposit	Category	Tonnes (Mt)	Au (g/t) rounded	Contained Gold (koz)
RAS	Indicated	19.1	2.4	1,445
KAS	Inferred	11.4	2.1	772
RAS Total	Indicated and Inferred	30.6	2.3	2,217

### Santana CEO, Damian Spring said:

The improved domaining enables a more selective mining approach than that applied in our initial PFS. Consequently, an improved mine extraction plan with lower pre-strip demands and lower pre-production capital requirements is the anticipated result.

We're now working on the release of a revised PFS incorporating this data and a revised development plan for the early years of the project."

<sup>&</sup>quot;These refined and revised numbers will have a positive impact on the economics of the project.



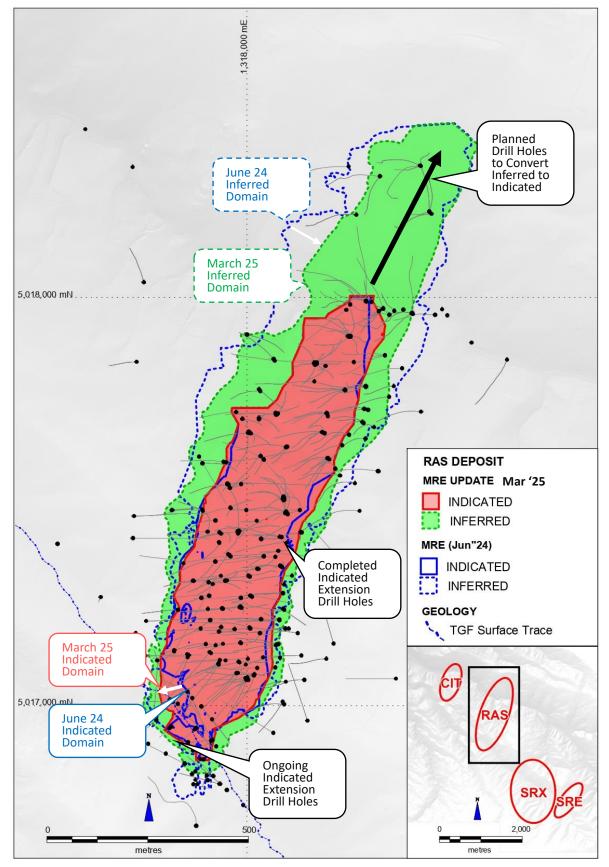


Figure 1. Plan view of RAS showing MRE refinements in Inferred and Indicated domains, with infill drill program notations.



### **RAS Mineral Resource - March 2025 Discussion**

This MRE update incorporates a refined wireframe model based upon a more detailed geological interpretation and more stringent interval selection criteria.

The revised MRE wireframes have also constrained extrapolation of the Inferred Resource in an E-W extent to improve its reliability and consistency with the geological model.

Figure 2 shows the grade tonnage curve, which illustrates the potential increase in head grade compared to the June 2024 MRE.

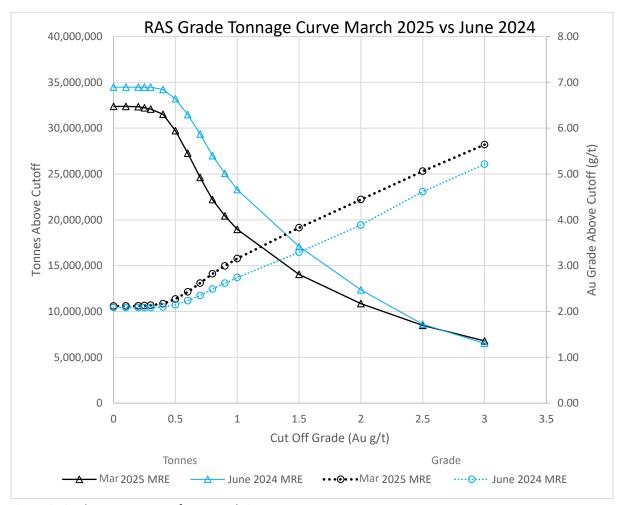


Figure 2. Grade tonnage curve from March 25 MRE

A key feature of the revised MRE is the segregation of a domain representing the high-grade core of the orebody which exhibits higher grades and a proportionally higher amount of gold (see Figure 3). Further, the infill drilling applied has more precisely defined the eastern edges of the ore body for mining.



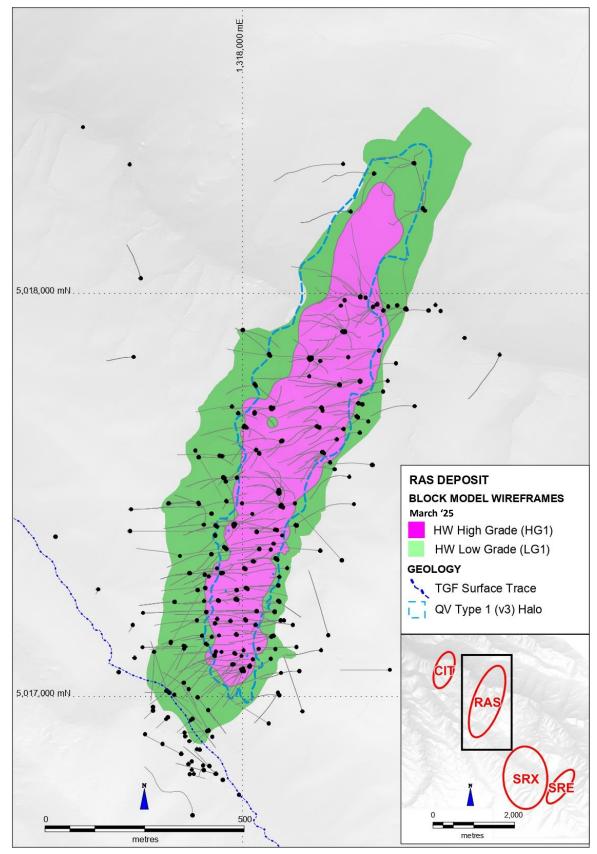


Figure 3. High-grade domain (HG1) shown in purple, the focus of mine design.



March 2025 RAS by Domain (0.5g/t cut-off grade)				
Domain	Category	Tonnes (kt)	Au (g/t) rounded	Contained Gold (koz)
HG1	Indicated	6,392	4.5	919
	Inferred	884	5.5	157
LG1	Indicated	10,713	1.5	514
	Inferred	4,697	1.8	275
LG2	Indicated	1,497	1.9	93
	Inferred	626	1.8	36
LG3	Indicated	149	1.2	6
	Inferred	630	1.7	35
LG4	Inferred	237	2.1	16
LG5	Inferred	93	0.8	2
LG6	Inferred	2	0.8	0
LG7	Indicated	62	0.9	2
	Inferred	32	0.7	1
LG8	Indicated	90	1.4	4
	Inferred	63	2.1	4
LG9	Inferred	2	0.7	0
West	Inferred	342	1.5	17

Table 1. Mineral Resource Estimates by domain (HG=High Grade, LG=Low Grade)

A key advantage of the high-grade domain and its implication to mining is that our early open pit stages can focus on the high-grade domain ore as a priority while extracting ore from other domains as a consequence. This will potentially enable much higher feed grades in the early years of ore processing enabling enhanced fiscal outcomes. Further, lower grade open pit ores can be supplemented with underground mining ores of a higher grade to maintain annualised output at consistent levels.

# Reasonable Prospect of Eventual Economic Extraction (RPEEE)

The total Mineral Resources Estimates have been validated to comply with Reasonable Prospect of Eventual Economic Extraction (RPEEE) parameters. Pit shells were generated using a gold price of A\$4,590/oz escalated by 30% to constrain the Open Pittable MRE estimate and reported at 0.5g/t cutoff grade. Resources beneath the RPEEE pit shell were reported at a 1.5g/t cut-off grade (see Table 2 for tonnes and grade) assuming that underground mine extraction would be required.



March 2025 RAS Mineral Resources Open Pit & U/G cut-offs					
	Category	Cut-Off (g/t Au)	Tonnes (Mt)	Au (g/t) rounded	Contained Gold (koz)
	Indicated		18.9	2.5	1534
Open pit	Inferred	0.5	6.5	2.1	434
	Total		25.4	2.4	1,968
	Indicated		0.03	4.1	4
Underground	Inferred	1.5	1.08	3.1	108
	Total		1.11	3.1	112
	Indicated		18.9	2.5	1,538
Total	Inferred		7.6		542
	Total		26.5		2,080

Table 2. Mineral Resource Estimate for Open pit and Underground\*

## **Updated Pre-Feasibility Study**

The March 2025 MRE and a revised early mining strategy are being incorporated into an updated PFS, with a focus on reducing waste mining volumes while maintaining steady-state mill feed. Additionally, following the completion of detailed geotechnical assessments, slightly improved geotechnical parameters will be applied to the mine design.

The primary objective of the revised PFS is to lower the project's pre-production financial requirements while maintaining optimal gold production levels and maximising financial returns.

### **Early Works and Fast-track Approval**

The Company remains on track to finalise its substantive baseline studies and environmental effects assessments, aligning with the standards of the former Resource Management Act (RMA) processes. Having been invited to submit under Schedule 2 of the new Fast-track Approvals Act (FTA), the Company will integrate these comprehensive studies into its resource consent submission in April 2025.

Planning for early works is well advanced, focusing on upgrading essential infrastructure such as power, roads, and electricity ahead of FTA approvals. Consultation with relevant authorities and the local community, who will directly benefit from these upgrades, is ongoing.

Ends.

This announcement has been authorised for release by the Board.

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<sup>\*</sup> Open pit resources may form the basis of underground ore reserves as per the Nov 2024 PFS



# **Bendigo-Ophir Gold Project Mineral Resource Estimate**

The Project contains a Mineral Resource Estimate (MRE) calculated at a cutoff grade of 0.5 g/t Au with top cuts applied, as at March 2025:

Deposit	Category	tonnes (Mt)	Au grade (g/t)	Contained Gold (koz)
RAS	Indicated	18.9	2.5	1,538
KAS	Inferred	7.6	2.2	542
RAS Total	Indicated and Inferred	26.5	2.4	2,080
CIT	Inferred	1.2	1.5	59
SRX	Indicated	2.2	0.8	54.7
SRX	Inferred	2.9	1.0	90.5
SRX Total	Indicated and Inferred	5	0.9	145
SRE	Indicated	0.4	0.8	10.3
SRE	Inferred	1.1	1.2	42
SRE Total	Indicated and Inferred	1.5	1.1	52
DOCD Total	Indicated	21.5	2.3	1,603
BOGP Total	Inferred	12.8	1.8	734
<b>BOGP Total</b>	Indicated and Inferred	34.3	2.1	2,337

Table 3. Bendigo-Ophir Gold Project Mineral Resource March 2025

### **Current Disclosure - Competent Persons Statement**

The information in this report that relates to this March 2025 RAS Mineral Resource Estimates (MRE) and to the November 2024 SRX and SRE MRE, is based on work completed by Mr Kerrin Allwood, a Competent Person (CP) who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Allwood is a Principal Geologist of GeoModelling Limited, Petone, New Zealand and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Allwood consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Allwood and GeoModelling Limited are independent of Santana Minerals Ltd.

The information in this report that relates to prior 2021 Mineral Resource Estimates (2021 MRE) for CIT deposit completed by Ms Michelle Wild (CP) (ASX announcement on 28 September 2021) continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified.

#### **Forward Looking Statements**

Forward-looking statements in this announcement include, but are not limited to, statements with respect to Santana's plans, strategy, activities, events or developments the Company believes, expects or anticipates will or may occur. By their very nature, forward-looking statements require Santana to make assumptions that may not materialise or that may not be accurate. Although Santana believes that the expectations reflected in the forward-looking statements in this announcement are reasonable, no assurance can be given that these expectations will prove to have been correct, as actual results and future events could differ materially from those anticipated in the forward-looking statements. Accordingly, viewers are cautioned not to place undue reliance on forward-looking statements. Santana does not undertake to update publicly or to revise any of the included forward-looking statements, except as may be required under applicable securities laws.



#### Appendix 1 – Additional Mineral Resource Estimate Information

## **Drilling and Sampling**

The Rise and Shine (RAS) Mineral Resource Estimate (MRE) is based on 23 RC holes (2,068.5 m) and 301 DD holes (83,356.7 m). 73 wet RC samples were omitted from use in the resource estimate due to concerns about downhole sample contamination and bias due to washing away of fines. Similarly, all 129 legacy 'blasthole' samples, 104 surface trench and 15 underground channel samples were omitted from use in the resource estimate due to the absence of documentation describing sampling methods. 16 Composited RC samples were omitted due to significantly different sample support and poor geological definition. 4 DD samples were omitted because the core tray was dropped and could not be confidently reassembled.

RC drilling was sampled using a three-tier riffle splitter producing a 2kg – 4kg 12.5% sub-sample. DD core was triple tube PQ3 and HQ3. Core orientation is attempted on each DD run and successful unless the rock is broken. DD core is sub-sampled as half core using a core saw unless friable or unconsolidated in which case a trowel is used. DD core is sampled from approximately 5 m above the TGF to the end of hole. The TZ3 schist above the TGF is uniformly un-mineralised.

## **Assaying and QAQC**

After the omission of low quality data as described above, 26,608 fire assays (FA), 433 BLEG assays, 631 Photon assays and 149 screen fire assays (SFA) were available for use in the RAS MRE.

All the fire assays were prepared by crushing the entire sample to 80% passing 2mm. Prior to 2019 a 200g rotary split subsample was pulverized in a ring mill to 85% passing 75 $\mu$ m. A 50g charge was then sub-sampled and assayed by fire assay with AAS analysis. 877 samples were assayed this way. After 2019 the sample preparation procedure was changed so that a 1000g split (rotary or linear) sub-sample was pulverized in a ring mill to 85% passing 75 um from which a 50g charge was subsampled and fire assayed. 22,513 samples were assayed this way. Where multiple assay results exist for a single sample an assay method ranking was used to select data for export from the database with BLEG > Photon > SFA > 1000g pulp FA > 200g pulp FA.

Field duplicates, coarse blanks, pulp standards, pulp duplicates, pulp replicates and umpire laboratory pulp repeats are all used at a rate of 1 per 20 routine samples to assess sample quality. The results of these QC samples show no material assay bias. Standards and blanks perform well. Pulp duplicates, pulp repeats and umpire laboratory pulp repeats show no bias but high variance. The high pulp variance is attributed to the presence of coarse gold forming flakes in the ring mill. The presence of coarse gold is demonstrated by logged visible gold, optical mineralogy (up to 400 µm) and metallurgical testwork.

The coarse rejects of a further ~5% of samples are re-submitted as QC check samples which involve pulp FAA re-assays by the original and an umpire laboratory and CREJ re-assayed by 500-gram (+ & -75mu) screen fire assay (SFA), 1kg BLEG (LeachWELL) and 500-gram Photon analysis (PHA) for gold. The results of these assays showed comparable results to the paired FA results.

Snowdon Optiro completed a desktop review of the assay methods and QC sample results in February 2023 and concluded that the sampling and assaying methods are in line with standard industry procedures. Snowden Optiro consider that the assay data in the supplied database is suitable to be used as the basis for a Mineral Resource Estimate.

#### **Surveying and Density Measurements**

Drill collar locations are surveyed by RTK GPS. The surface topography was surveyed by LiDAR. RC downhole surveys are taken with the Reflex multi-shot tool within the inner stainless-steel tube behind the hammer. All diamond holes have been surveyed using a north seeking Precision Mining and Drilling or Veracio gyro survey tool with survey records at 1m intervals. The bulk density of 2,653 core samples from across the BOGP was measured by core immersion. The core was not routinely wax coated, allowing water to penetrate voids, however the rocks have very low porosity due to metamorphism. 100 samples of fresh (un-weathered) core were tested by wax coating and by the routine method to check for the effect of the water ingress on the bulk density measurements. There was no difference in the average value or the CV of the two methods.

### **Geological Model**

Eleven gold grade domains (1 high grade, 10 low grade) were created using Leapfrog software (v 2023.2.0). Areas interpreted to be geologically continuous were wireframed using the vein model methodology with nominal cut off grades for the high grade and low grade domains of 1g/t and 0.25g/t respectively. Due to the nuggety nature of the mineralisation some intervals below these cut off grades were included in the domains. Conversely, sporadic high grade samples also exist within the low grade domains, but these do not form continuous zones that may be confidently interpreted at the scale of the drill spacing. Not all mineralisation was included in the geological interpretation. Scattered, discontinuous assays were excluded from the wireframe model.

Areas of consistent waste within the mineralised wireframes were modelled and removed from the mineralised volume. The edges of the mineralised wireframes were controlled with a combination of boundary strings and HW/FW control points. Wireframes were terminated less than 50% of the hole spacing distance beyond the last drill hole intersection. In the HW of the deposit the Thompsons Gorge Fault (TGF) truncated the mineralised wireframes.



Oxidation domains were interpreted from logged oxidation and weathering. Weathering is shallow with complete oxidation typically to 10m depth and partial oxidation a further 10 m - 20 m below.

#### **Resource Estimation**

The raw assay data was composited to 2.0m, honouring gold domain boundaries with composites less than 1.0m long distributed equally within their domain. All statistics, variography and grade interpolation was done using the composited data

Domains LG2 to LG9 were combined for statistical and geostatistical analysis. The coefficient of variation (CV) of the composites at RAS was 3.5 in the high grade domain, 2.8 in LG1 and 5.5 in domains LG2 to LG9 combined.

Outlier grade limits were determined from log histograms, cumulative probability plots, assessment of the reduction in CV versus metal lost and then checked visually for spatial continuity. The outlier grades were then used to cut extreme grades prior to use in grade interpolation. The top cuts applied were 60 g/t Au in the high grade domain and 20 g/t Au in the low grade domains. After top cutting the CV composites reduced to 1.5 in the high grade domain, 2.0 in LG1 and 2.0 in domains LG2 to LG9 combined.

Variogram models were determined from experimental correlograms of composites below the outlier limit grade for the high grade, LG1 and LG2-9 combined domains. There are insufficient data in the steep western domain to create robust experimental variograms, therefore the LG2-9 domain variogram model was appropriately rotated to reflect the geometry of the steep domain. The variogram model had a relative nugget effects of 55% to 75%. The major axes typically plunged 0 to 10 degrees towards 000 to 010 and were parallel to the intersection of the TGF and splay shears. The semi-major axes plunged 15 to 25 degrees towards 080. The minor axes were orthogonal to the major and semi-major axes. Together, the major and semi-major axes approximate the orientation of the splay shears. The total ranges were 50 m to 75 m for the major axes, 30 m to 40 m for the semi-major axis and 10 m to 15 m in the minor axis directions.

Parent blocks were 12.5 m (E) by 12.5 m (N) by 5m (vertical), sub-blocked to 2.5 m by 2.5 m by 0.5m. The block model parent blocks are approximately 50 % of the typical drill spacing. The parent block size was selected as a compromise between honouring the domain geometry / volume and minimizing block grade estimation error. The blocks were interpolated by ordinary kriging of the top cut composites in two passes. The first pass used a minimum of 4 and a maximum of 15 composites from within a 100m by 100 m by 20 m ellipsoid oriented parallel to the variogram model. A maximum of 3 composites were used per hole. Gold domain boundaries were treated as hard boundaries. A small proportion of the blocks were not interpolated by pass 1, mostly in the margins of the LG1 domain at the northern (deepest) end of the mineralisation. A second interpolation pass using the same parameters as pass one except the search ellipsoid was expanded to 150 m by 150 m by 30 m and the maximum per hole restriction was removed.

Bulk density was interpolated by inverse distance squared weighting into the fresh and partial oxidation domains from 2,202 bulk density measurements. There was insufficient data in the oxide domain to allow interpolation. Bulk density was assigned to un-interpolated blocks by oxidation domain based on the median values of the bulk density samples in each oxidation domain, being 2.3 t/m3 in oxide, 2.65 t/m3 in partially oxidized and 2.70 t/m3 in fresh material.

The block model was validated against drilling grades visually in section and in plan, using swath plots and by comparison of the block model volumes to domain wireframe volumes.

#### Classification

The MRE was classified using input data quality, confidence in the geological interpretations, estimation pass number, average distance to composites used, distance to the nearest composite used and the kriging slope of regression (a function of grade continuity and data (drilling) configuration). In general, indicated resources are reported from continuous zones of unambiguous geological interpretation and in block grades estimated in pass 1 where the nearest composite was less than 25m away, the average composite distance was less than 40 m and kriging slope of regression was greater than 0.6.

# **Modifying Factors**

The resource reporting cut-off grades (0.5 g/t Au for open pit mining and 1.5 g/t Au for underground mining) and the assessment of reasonable prospects of eventual economic extraction are based on metallurgical recovery indicated by gravity / CIL test work, processing, mining and G & A costs from comparable projects and revenue from a gold price of A\$4,590/oz escalated by 30% to allow for reasonably foreseeable future gold prices within the anticipated 5 to 20-year mine-life. The open pit resource estimates were constrained at depth by RPEEE pit shells optimised using these economic factors and an assumed overall pit slope of 45°. Underground resources are reported from continuous zones of sufficient size to justify likely development costs that are located outside the pit shells.



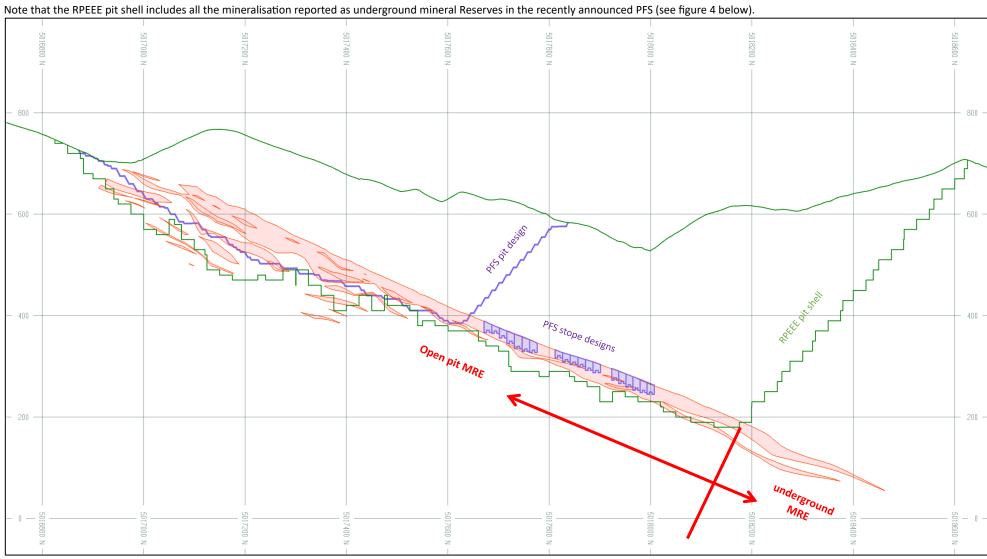


Figure 4. Long section down plunge looking west showing how open pit and underground resources are reported



# JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 a charae for fire assay'). In other cases more	from one side of the core using a scoop. Where distinct mineralisation boundaries are logged, sample lengths are adjusted to the respective geological contact. RC samples were sub-sampled at 1.0 m intervals using either a riffle splitter or a cone splitter mounted below the cyclone. The splitter produced 2 x 12.5% splits and 1 x 75% split. The two 12.5% splits were used as primary sample and field duplicate (if submitted) with the 75% split used for logging and then stored at the MGL core yard.  Samples are crushed at the receiving laboratory to minus 2mm (85% passing) and split using a rotary or linear splitter to provide 1kg for pulverising in a ring mill to -75um. Pulps are fire assayed (FAA) using a 50g charge with AAS finish. Prior to 2019 only 200g of the crushed material was pulverised. 877 samples were assayed this way.  Certified standards, blanks and field replicates are inserted with the original batches at a frequency of ~5% arealy for 2000 and split using a scoop of the crushed material was pulverised.

Criteria JORC Code explanation Commentary



#### Drilling techniques

Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).

Diamond (DD) and reverse circulation (RC) drilling has been used to inform the MREs being reported here. All diamond coring was PQ3 size triple tube for holes MDD001 to MDD016. The DD coring in since MDD016 has all been HQ3 size triple tube. Where PQ3 core size (83mm diameter) is commenced this is maintained throughout the DD hole until drilling conditions dictate reduction in size to HQ3 core (61mm diameter). DD pre-collars are drilled open hole through un-mineralised TZ3 schist to within about 15 m of the mineralisation hangingwall at which point diamond coring commences.

RC drilling was only carried out where the mineralisation target was less than about 150m downhole and used a face sample bit with sample collected in a cyclone mounted over a riffle or cone splitter producing 2 x 12.5% splits and 1 x 75% split. The two 12.5% splits were used as primary sample and field duplicate (if submitted) with the 75% split used for logging and then stored at the MGL core yard.

Drillholes are oriented to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable. A small number of holes are oriented in other directions to resolve areas of ambiguous geological interpretation.

All drill core is oriented to assist with interpretation of mineralization and structure. Historically a Trucore orientation tool was used but in November 2024 this was changed for an Axis orientation tool.

#### **Drill sample recovery**

Method of recording and assessing core and chip sample recoveries and results assessed.

Measures taken to maximise sample recovery and ensure representative nature of the samples.

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.

DD core sample recoveries are recorded by the drillers at the time of drilling by measuring the actual distance of the drill run against the actual core recovered. The measurements are checked by the site geologist. DD core recovery averages 97.7% within the gold estimation domains.

When poor core recoveries are recorded the site geologist and driller endeavour to immediately rectify any problems to maintain maximum core recoveries. DD core logging to date indicate  $\sim$  94% recoveries.

RC sample recovery is visually estimated and averages 96.2% overall and 97.2% within the gold domains. All RC samples logged as wet were omitted from use in this MRE. Of the 215 RC samples within the gold grade domains, 82.3% were logged as dry and 17.7% logged as moist.

Sample grades were plotted against drilling recovery by drilling method and no relationship was established.

Wet RC samples do show higher grades than dry RC samples. This may be due to wet RC samples coming from higher grade zones or sampling bias due to the loss of fines in wet samples. Whatever the cause, this bias was the reason that wet RC samples were omitted from use in



this MRE.

Critoria	IOPC Code explanation	Commentary
Criteria	JORC Code explanation	Commentary
Logging	and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All DD holes have been logged for their entire length below upper open hole drilling (nominally 0-450 metres below collar). Data is recorded directly into AcQuire database with sufficient detail that supports Mineral Resource estimations (MRE).  Logging is mostly qualitative but there are estimations of quartz and sulphide content and quantitative records of geological / structural unit, oxidation state and water table boundaries. Oriented DD core allows alpha / beta measurements to determine structural element detail (dip / dip direction) to supplement routine recording of lithologies / alteration / mineralisation t/ structure / oxidation / colour and other features for MRE reporting, geotechnical and metallurgical studies.  All RC chips were sieved and logged for lithology, colour, oxidation, weathering, vein percentage and sulphide minerals.  All core is photographed wet and dry before cutting. Sieved RC chips are also photographed. 100% of all relevant (within the gold grade domains) intersections were logged. The logging is of sufficient quality and detail for resource estimation.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half o all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all subsampling stages to maximise representivity of samples.  Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/secondhalf sampling.  Whether sample sizes are appropriate to the grain size of the material being sampled.	



# Quality of assay data and laboratory tests

and laboratory procedures used and whether the technique is considered partial or total.

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.

Nature of quality control procedures adopted (eq standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.

The nature, quality and appropriateness of the assaying FA, BLEG, SFA and PHA are all total gold assays and are appropriate to the RSSZ mineralization. DD core and RC chip samples for gold assays undergo sample preparation by SGS laboratory Westport or Macreas. Sample preparation involves drying and crushing of the entire sample to 2 mm followed by milling of a 1000g sub-sample to 75um. The sample is then sent to SGS laboratory Waihi (if prepared at Westport) where a 50 g sub-sample is assayed by fire assay with an AAS finish (SGS method FAA505 DDL 0.01ppm Au or FAD505 DDL 1ppm Au & FAD52V DDL 500ppm Au)If the sample is prepared at Macraes it is anlaysed by the same method at Macraes. Occasionally, other SGS laboratories (Townsville, Australia), are used from time to time and follow the same processes. Prior to 2019 the 75um sub-sample was only 200g. For laboratory QAQC, samples (certified standards, blanks and field replicates) are inserted into each laboratory batch at a frequency of ~5% respectively. A selection of 5% of retained lab pulps across a range of grades are sent for re-assay and to an umpire laboratory for cross-lab check assays.

> Portable XRF (pXRF) instrumentation is used onsite (Olympus Innov-X Delta Professional Series model DPO-4000 equipped with a 4 W 40kV X-Ray tube) primarily to identify arsenical samples (arsenic correlates well with gold grade in these orogenic deposits). The pXRF analyses a 31element suite (Ag, As, Bi, Ca, Cd, Cl, Co, Cr, Cu, Fe, Hg, K, Mn, Mo, Nb, Ni, P, Pb, Rb, S, Sb, Se, Sn, Sr, Th, Ti, V, W, Y, Zn, Zr) utilising 3 beam Soil mode, each beam set for 30 secs (90 secs total). pXRF QAQC checks involve regular calibration (every 20 samples) and QAQC analyses of SiO2 blank, NIST standards (NIST 2710a & NIST 2711a), & OREAS standards. No geophysical tools have been used in this MRE.



Verification of sampling and assaying

The verification of significant intersections by either independent or alternative company personnel.

The use of twinned holes.

Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.

Discuss any adjustment to assay data.

Significant gold assays and pXRF arsenic analyses are checked by alternative senior company personnel. Original lab assays are initially reported and where replicate assays and other QAQC work require re-assay or screen fire assays, the larger sample results are adopted. To date results are accurate and fit well with the mineralisation model.

Twinned holes have not been deliberately drilled. Twinned data is available where DD core holes have been sited adjacent to previous RC drillholes and where DD redrills have occurred. In such cases the logged geology is similar and the tenor of gold mineralisation comparable. pXRF multi-element analyses are directly downloaded from the pXRF analyser as csv electronic files. These and laboratory assay csv files are imported into the database, appended and merged with previous data.

Since October 2022 all logging has been directly entered into the Acquire database using tablets. All collar surveys, downhole surveys and assay results are provided digitally and directly imported into the database. On import into the database validation checks are made for: interval overlaps, gaps, duplicate holes, duplicate samples and out of range values. The AcQuire database is stored on a cloud server and is regularly backed up, updated and verified by an independent qualified person.

The only adjustment made to the data on import to the database is to convert below detection results to negative the detection limit. Samples with multiple Au results are ranked by assay method (BLEG > PHA > SFA > FA > other) and on export only the highest ranked method is exported. Prior to import into Minesight software for resource estimation the data is further validated as above plus checks on the highest and lowest values. Negative below detection results are converted to half the detection limit on import into Minesight.

#### Location of data points

Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource

estimation.

Specification of the

grid system used.

Quality and adequacy of topographic control.

All drillhole collar locations are accurate (+/- 50mm) xyz coordinates when captured by an experienced surveyor using RTK-GPS equipment.

All drill holes reference the NZGD2000 NZTM map projection and collar RLs the NZVD2016 vertical datum.

DD down hole surveys are recorded continuously with a Precision Mining and Drilling or Veracio "North-seeking" Gyro downhole survey tool. RC holes are surveyed at 12m intervals using a Reflex multi-shot camera in a non-magnetic stainless steel rod behind the hammer.

There are very minor historical adits and shafts at RAS. No surveys of these voids exist, although at least one adit is still accessible. Historical production records total 630.5 tons of ore crushed. Such small volumes are not material to this MRE.

Topographic control is provided by LiDAR topographic surveys in 2018 and 2021 covering the entire project area. These are very accurate and suitable for resource estimation.



### Data spacing and distribution

Data spacing for reporting of Exploration Results.

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.

Whether sample compositing has been applied.

Drill collar locations in steep terrain are dictated to some degree by best access along contour tracks and gradients that allow safe working access. Drillhole designs take into account this variation to achieve evenly spaced intercepts at the hangingwall of the mineralisation.

Drillhole intersection spacing on the hangingwall of the mineralisation at RAS varies from 20 m (EW) by 20 m (NS) in closely spaced areas to 120 m (EW) by 100 m (NS) in widely spaced (inferred) areas. These spacings are considered appropriate for determination of geological and grade continuity at the mineral resource categories reported.

Some of the historical RC drilling was sampled as 4 m composites and if the composite result exceeded a threshold later re-sampled. For a small number of holes the re-sampling did not happen and these holes were omitted prior to use in statistical analysis and grade interpolation. There are no composited samples within the gold grade estimation domains and so no composited samples were used in this MRE.

Sampling and assaying are in one metre intervals or truncated to logged features.

# Orientation of data in relation to geological structure

sampling of possible structures and the extent to which this is known, considering the deposit type.

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.

Whether the orientation of sampling achieves unbiased Drillholes are oriented to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable. True widths are estimated perpendicular to mineralisation boundaries where these limits are known. As the deposits are tabular and lie at low angles, there is not anticipated to be any introduced bias for resource estimates.

#### Sample security

The measures taken to ensure sample security.

Company personnel manage the chain of custody from sampling site to laboratory.

DD drill core samples are transported daily from DD rig by the drilling contractor in numbered core boxes to the Company secure storage facility for logging and sample preparation. After core cutting, the core for assay is bagged, securely tied, and weighed before being placed in polyweave bags which are securely tied. Mineralised retained core is stored on racks in secure locked containers. RC samples are also place in polyweave bags and secured with zip ties.

Polyweave bags with the calico bagged samples for assay are placed in plastic cage pallets, sealed with a wire-tied cover, photographed, and transported to local freight distributer for delivery to the laboratory. On arrival at the laboratory photographs taken of the consignment are checked against despatch condition to ensure no tampering has occurred.

#### Audits or reviews

The results of any audits or reviews of sampling techniques and data.

An independent Competent Person (CP) conducted a site audit in January 2021 and December 2022 of all sampling techniques and data management. No major issues were identified, and recommendations have been followed.



In February 2023 Snowdon Optiro completed a desktop review of the assay methods and QC sample results and in its report concluded that the sampling and assaying methods are in line with standard industry procedures and that that the assay data in the supplied database is suitable to be used as the basis for a Mineral Resource.

# **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	There are no material issues with third parties.  MGL was granted Minerals Prospecting Permit (MPP) 60882 (40km²) to the north of MEP60311 on 30 Nov 2023 for a term of 2 years.  The tenure of the Permits is secure and there are no known impediments to obtaining a licence to operate.



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Early exploration in the late 1800's and early 1900's included small pits, adits and cross-cuts and alluvial mining.  Exploration has included soil and rock chip sampling by numerous companies since 1983 with drilling starting in 1986. Exploration in the 1990's commenced with a search for Macraes style gold deposits along the RSSZ. Drilling included 13 RC holes by Homestake NZ Exploration Ltd in 1986, 20 RC holes by BHP Gold Mines NZ Ltd in 1988 (10 of these holes were in the Bendigo Reefs area which is not part of the MRE area), 5 RC holes by Macraes Mining Company Ltd in 1991, 22 shallow (probably blasthole) holes by Aurum Reef Resources (NZ) Ltd in 1996, 30 RC holes by CanAlaska Ventures Ltd from 2005-2007, 35 RC holes by MGL in 2018 and a further 18 RC holes by MGL in 2019 prior to SML acquiring MGL.
Geology	Deposit type, geological setting and style of mineralisation.	The RSSZ is a low-angle late-metamorphic shear-zone, presently known to be up to 120m thick. It is sub-parallel to the metamorphic foliation and dips gently to the north- east. It occurs within psammitic, pelitic and meta-volcanic schists.  The hangingwall of the RSSZ is truncated by the post metamorphic and post mineralisation Thomsons Gorge Fault (TGF). The TGF is a regional low-angle fault that separates upper barren chlorite (TZ3) schist from underlying mineralised biotite (TZ4) schists.  Gold mineralisation occurs in the RSSZ as 4 known deposits with Mineral Resource Estimates (MRE) – Come-in-Time (CIT), Rise and Shine (RAS), Shreks (SHR) and Shreks-East (SRE). The gold and associated pyrite/arsenopyrite mineralisation at all deposits occur as stockworks of brecciated / laminar quartz veinlets within the highly- sheared and silicified schist. The stockworks are centred on highly silicified shear zones and breccisa (SBX) which control mineralisation with TGF parallel, moderately east dipping and very steeply east dipping structures all influencing gold distribution.  Gold mineralisation in the oxide, transition and fresh zones is characterised by free gold with some coarse, especially in high grade mineralisation.
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>easting and northing of the drill hole collar</li> </ul>	e



Criteria	JORC Code explanation	Commentary
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- elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar
- dip and azimuth of the hole
- down hole length and interception depth
- hole length.
- 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.

#### Data aggregation methods

- In reporting Exploration Results, weighting high grades) and cut-off grades are usually Material and should be stated.
- lengths of low grade results, the procedure and the end use of the data. used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.
- The assumptions used for any reporting of metal equivalent values should be clearly stated.

Significant gold intercepts are reported on a continuous basis using various gold grade lower averaging techniques, maximum and/or grade cutoffs with a maximum of 3m of internal dilution included. Broad zonation is: minimum grade truncations (eg cutting of Exploration Results - 0.10g/t Au cut-off defines the wider low-grade halo of mineralisation, Open Pit Mineral Resource - 0.25g/t Au cut-off represents possible economic open pit mineralisation Underground Mineral Resource - 1.50g/t Au cut-off is possible economically underground exploitable Metal unit (MU) distribution, where shown on maps and in tables are Where aggregate intercepts incorporate calculated from total drill hole Au \* associated drill hole interval metres. pXRF analytical results short lengths of high grade results and longer reported for laboratory pulp returns are considered accurate for the suite of elements analysed



Criteria	JORC Code explanation	Commentary
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 (eg 'down hole length, true width not known').</li> </ul>	20-120m thick low-angle mineralised shear that is largely perpendicular to the drillhole traces. Aggregate widths of mineralisation reported up until 2nd June 2023 are drillhole intervals >0.50g/t Au occurring in apparent low angle stacked zones. Subsequent reporting is on a continuous basis. There are steeply dipping narrow (1-5m) structures deeper in the footwall and the appropriateness of the current drillhole orientation will become evident and modified as additional drill results dictate.
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 colla locations and appropriate sectional views.</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 to avoid misleading reporting of Exploration Results.</li> </ul>	
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (bu not limited to): geological observations geophysical survey results; geochemica survey results; bulk samples – size and method of treatment; metallurgical tes</li> </ul>	; I d



Criteria	JORC Code explanation	Commentary
	results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	<ul> <li>(eg 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</li> </ul>	DD infill drilling of existing inferred resources continues along with minor programmes designed to resolve local geological interpretation uncertainties.  A review of field mapping, soil sampling and geophysical surveys is in progress to determine new targets for drilling in the project area.  Concurrent to the planned drilling outlined above, additional metallurgical test work, environmental, geotechnical and hydrological investigations are on-going to support the studies into a gold mining and processing operation.

# **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> </ul>	Collar location surveys, downhole surveys and assay data are imported into the database from digital files provided by external providers. Geological logging, sample information and QAQC sample insertion data are entered directly using picklists into spreadsheets on mobile devices in the field. All source data is archived for later audits.  All data is validated on import into the database with checks made for interval overlaps, gaps, duplicate holes, duplicate samples and out of range values. The database structure
	<ul> <li>Data validation procedures used.</li> </ul>	uses key fields to ensure there are no duplicate drillholes or samples.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> </ul>	Mr Allwood has visited the site on 8 occasions between January 2021and May 2024, inspecting RC and DD drilling, logging, sampling, QC insertion practices and site geology. No major issues were identified. Some minor recommendations were made, and these have
	<ul> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	since been implemented.



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Criteria	JORC Code explanation	Commentary
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> </ul>	There is good confidence in the large scale interpretation of the geology. The TGF is easily recognized in core and has a simple tabular geometry. Structural measurements of vein and fault orientations from oriented core allow good confidence in the geometry of mineralisation controlling faults. The drill spacing makes recognizing small scale (<10 m)
	<ul> <li>Nature of the data used and of any assumptions made.</li> </ul>	variations in geometry, especially the internal grade geometries within the estimation domains difficult.
	<ul> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> </ul>	The RAS gold grade domains were created using Leapfrog software (v 2023.2.0) using the vein interpretation function. Intervals were tagged as one of eleven domains based on gold grade, logged vein type. Ten low grade domains (LG1 to LG9 and the steep western domain) were created. A single high grade domain was interpreted in the core of the LG1 domain to
	<ul> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul>	enclose a continuous zone of mineralisation above about 1g/t. The high grade domain was created to prevent the high grade data having excessive influence outside the zone of high
	controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.	
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of	At RAS mineralisation has been defined by drilling 1,850 m down plunge (-25° towards 025°) and is 300 m to 380 m wide. In plan this equates to approximately 1,750 m NNE and 300 m to 380 m ESE. Mineralisation extends vertically in multiple zones over about 180 m. The thickest part of the east dipping domain is continuously mineralized over 50 m vertically

the Mineral Resource.

below the TGF. Other zones range in thickness from 20 m to 2 m. The deepest part of the



Criteria

JORC Code explanation

Commenta

MRE is at 50 RL or about 590 m below surface. The core of the east dipping domain is very continuous

# Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (eg 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.

This MRE was made by interpolating gold assays composited to 2.0m by ordinary kriging into a sub-blocked model using Minesight v 16.1.0 software. Geostatistical analysis was carried out using Leapfrog Edge v 2023.1.0 software.

Domains LG2 to LG9 were combined for statistical and geostatistical analysis. The coefficient of variation (CV) of the composites at RAS was 3.5 in the high grade domain, 2.8 in LG1 and 5.5 in domains LG2 to LG9 combined.

Outlier grade limits were determined from log histograms, cumulative probability plots, assessment of the reduction in CV versus metal lost and then checked visually for spatial continuity. The outlier grades were then used to cut extreme grades prior to use in grade interpolation. The top cuts applied were 60 g/t Au in the high grade domain and 20 g/t Au in the low grade domains. After top cutting the CV composites reduced to 1.5 in the high grade domain, 2.0 in LG1 and 2.0 in domains LG2 to LG9 combined.

Variogram models were determined from experimental correlograms of composites below the outlier limit grade for the high grade, LG1 and LG2-9 combined domains. There are insufficient data in the steep western domain to create robust experimental variograms, therefore the LG2-9 domain variogram model was appropriately rotated to reflect the geometry of the steep domain. The variogram model had a relative nugget effects of 55% to 75%. The major axes typically plunged 0 to 10 degrees towards 000 to 010 and were parallel to the intersection of the TGF and splay shears. The semi-major axes plunged 15 to 25 degrees towards 080. The minor axes were orthogonal to the major and semi-major axes. Together, the major and semi-major axes approximate the orientation of the splay shears. The total ranges were 50 m to 75 m for the major axes, 30 m to 40 m for the semi-major axis and 10 m to 15 m in the minor axis directions.

Parent blocks were 12.5 m (E) by 12.5 m (N) by 5m (vertical), sub-blocked to 2.5 m by 2.5 m by 0.5m. The block model parent blocks are approximately 50 % of the typical drill spacing. The parent block size was selected as a compromise between honouring the domain geometry / volume and minimizing block grade estimation error. The blocks were interpolated by ordinary kriging of the top cut composites in two passes. The first pass used a minimum of 4 and a maximum of 15 composites from within a 100m by 100 m by 20 m ellipsoid oriented parallel to the variogram model. A maximum of 3 composites were used per hole. Gold domain boundaries were treated as hard boundaries. A small proportion of the blocks were not interpolated by pass 1, mostly in the margins of the LG1 domain at the northern (deepest) end of the mineralisation. A second interpolation pass using the same parameters as pass one



Criteria	JORC Code explanation	Commentary
	<ul> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <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>	except the search ellipsoid was expanded to 150 m by 150 m by 30 m and the maximum per hole restriction was removed.  Check estimates were completed on the RAS MRE as follows: combining the LG1 and HG domains; outlier restriction at 12.5 m; and nearest neighbour interpolation.  In addition, volume – variance analysis using an affine correction was completed to assess which variants best represented the theoretical grade – tonnage curve.  Previous estimates of the gold MRE at RAS have been made in 2019, 2021, July 2022 and February 2023, February 2024 and July 2024.  There has been no production from the BOGP to allow reconciliation of the model.  No by-products are assumed.  pXRF Arsenic grades have been estimated in the block models for use in characterizing waste.  The block model parent blocks are approximately 25% of the typical drill spacing. The parent block size was selected as a compromise between honouring the domain geometry / volume and minimizing block grade estimation error.  Open pit mining is assumed with a likely smallest mining unit (SMU) of about 5m by 5m by 5m. Underground mining is also possible, albeit at a higher cut-off grade (around 1.5 g/t Au). No assumption is made of correlation between variables.  The MRE is geologically controlled by the use of domains interpreted with reference to the geological model.  The block model was validated against drilling grades visually in section and in plan, using swath plots, and by comparison of the block model volumes to domain wireframe volumes. No reconciliation data is available as mining has not commenced.
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Tonnages are estimated on a dry basis. Assays are reported as weight proportion of oven (110°C) dried samples. Bulk densities were determined from air dried core by immersion.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	The reporting cut-offs (0.5 g/t) for 'open pittable' resources and 1.5 g/t for underground resources are based on metallurgical recovery indicated by gravity / CIL test work, processing, mining and G & A costs from comparable projects and revenue from a gold price of A\$4,390/oz escalated by 30% to allow for the reasonable prospects test.
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</li> </ul>	No allowance has been made for mining dilution or mining recovery.



Criteria	JORC Code explanation	Commentary

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.

# Metallurgical factors or assumptions

• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.

Metallurgical test work investigating a gravity – CIL process has resulted in combined recoveries ranging from 86.0% to 97.8% and averaging over 90%. Further work is underway to determine full processing parameters and economics.

# 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

It is assumed that all permits necessary for commercial gold production will be obtained. Baseline studies are well advanced including:

- surface water flow and quality
- aquatic ecology
- ecology including geckos, skinks, bats, birds, pests and flora
- geochemistry
- hydrology
- socio-economic



Criteria	JORC Code explanation	Commentary
	potential environmental impacts should be	Other studies have commenced as mine studies advance including noise, traffic, lighting and visual.
Bulk density	assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density was interpolated by inverse distance squared weighting into the fresh and partial oxidation domains from 2,653bulk density measurements. There was insufficient data in the oxide domain to allow interpolation.  Bulk density was assigned to un-interpolated blocks by oxidation domain based on the median values of the bulk density samples in each oxidation domain.  No difference was found in the median value of bulk density data between mineralised and
	• 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 densit	un-mineralised samples. Bulk density was measured by core immersion. The core was not routinely coated, allowing water to penetrate voids, however the rocks have very low porosity due to metamorphism.  100 samples of fresh (unweathered) core were tested by the routine method and by wax coating to check for the effect of the water ingress on the bulk density measurements. There was no difference in the average value or the CV of the two methods. Therefore, MGL continues to use un-coated core for density determinations.
	<ul> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	,
Classification	Mineral Resources into varying confidence categories.	The MRE was classified using input data quality, confidence in the geological interpretations, estimation pass number, average distance to composites used, distance to the nearest composite used and the kriging slope of regression (a function of grade continuity and data
	• Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values,	(drilling) configuration). In general, indicated resources are reported from continuous zones of un-ambiguous geological interpretation and in block grades estimated in pass 1 where the nearest composite was less than 25 m away, the average composite distance was less than 40 m and kriging slope of regression was greater than 0.6.  Resource categorization is based on confidence in the estimation of gold grades only. The resource classification appropriately reflects the Competent Person's view of the deposit.



Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates</li> </ul>	Earlier iterations of the RAS MRE were reviewed by AMC Consultants in 2023 and RSC Consultants in 2024.  AMC concluded that the MRE is an adequate representation of average grade and grade trends but with a degree of local variability not able to be accurately represented in the model.  RSC concluded that extreme grades were not adequately restricted. This issue has been addressed by the application of top cuts (previously outlier restriction was used) and the use of a high grade domain.
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> </ul>	The relative accuracy and confidence in the MRE is reflected in the resource classification. No quantitative assessment of errors has been made.  The RAS MRE is a global estimate intended to give the best global grade – tonnage relationship, suitable for use in long term planning but not for local (block scale) estimates. No production data are available for reconciliation as mining has not commenced.
	<ul> <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</li> </ul>	



Criteria

JORC Code explanation

Commentary

compared with production data, where available.