ASX: GSN

# ASX Announcement – 7 November 2018



## Gold Discovery - Mon Ami Gold Project

## Maiden Mineral Resource Estimate

Great Southern Mining Limited ("GSN" or "the Company") is pleased to announce a new gold discovery and maiden JORC 2012 Mineral Resource estimate ("MRE") at its Mon Ami Gold Project ("Mon Ami" or "the Project"). Mon Ami is 100% owned by GSN and is located 25km south-east of Laverton, WA (Figure 1).

The gold discovery and maiden MRE has been estimated using a 1.0 g/t gold cut-off for the deposit and is reported as follows:

| Classification | Tonnes ('000) | Grade (g/t Au) | Ounces ('000) |
|---|---|---|---|
| Inferred | 1,100 | 1.7 | 59 |

***Notes**:*
*Discrepancies may occur due to rounding.*
*Historic mining depletion has been taken into account.*
*The MRE **excludes** mineralisation noted >150m below surface.*

The Company engaged the services of mining consultancy firm SRK Consulting Pty Ltd (SRK) to undertake the MRE for the Project. The discovery and the MRE of **1.1 Mt @ 1.7 g/t for 59,000 oz's** is an exceptional result given the limited drilling undertaken by GSN since Mon Ami was acquired in March 2018. Careful management of costs has allowed GSN to achieve a discovery cost per resource ounce of less than $15/oz.

The results to date highlight the potential for the MRE to increase and be upgraded to a higher degree of confidence once further drilling is undertaken as the deposit remains open at depth and along strike. Further, some of the mineralisation captured within the current model remains unclassified and has been excluded from the MRE as a consequence of cut-off, drill spacing and depth. Specifically the MRE excludes a number of holes from GSN's maiden drilling program which noted mineralisation below 150m (refer to the ASX announcement of 16 July 2018).

Metallurgical test work and mining studies are also underway.

Having received approval for the second drilling campaign GSN plans to undertake an extensive infill and extensional drilling aimed at increasing the understanding of the deposit and its potential.

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**Exploration Upside at the Mon Ami Project**

The maiden MRE is only estimated for three gold lodes constrained by the extent of GSN drilling to date. The discrete zones are open along strike and only extend to a depth of 150 metres below surface. There are numerous gold intercepts outside of the MRE, however the drilling density in these areas is currently not sufficient to determine the orientation and continuity of the mineralisation with enough confidence to support classification as Mineral Resources.

Further drilling is planned to test for Resource extensions within these high priority target zones. Further, more detailed structural studies are planned to improve targeting of higher grade NE-trending zones within the MRE to improve Resource confidence.

**Great Southern Mining Limited's Executive Chairman John Terpu said:**

*"The maiden resource estimate represents a major milestone for the Company and has surpassed our early expectations in discovering a new gold system and deposit that we anticipate will grow as further drilling is undertaken. The Resource remains open in all directions and to achieve this result based on the limited drilling to date is exceptional.*

*We are fortunate to have a granted Mining Licence and to have extensive infrastructure nearby which offers flexibility and development options for the Company.*

*This is an outstanding result and on behalf of the Board I'd like to acknowledge the hard work and efforts of Dr Bryce Healy as our Head of Exploration, the contractors and our consultants who have assisted us in obtaining the maiden Mineral Resource estimate."*

**For more information:**
John Terpu
Executive Chairman
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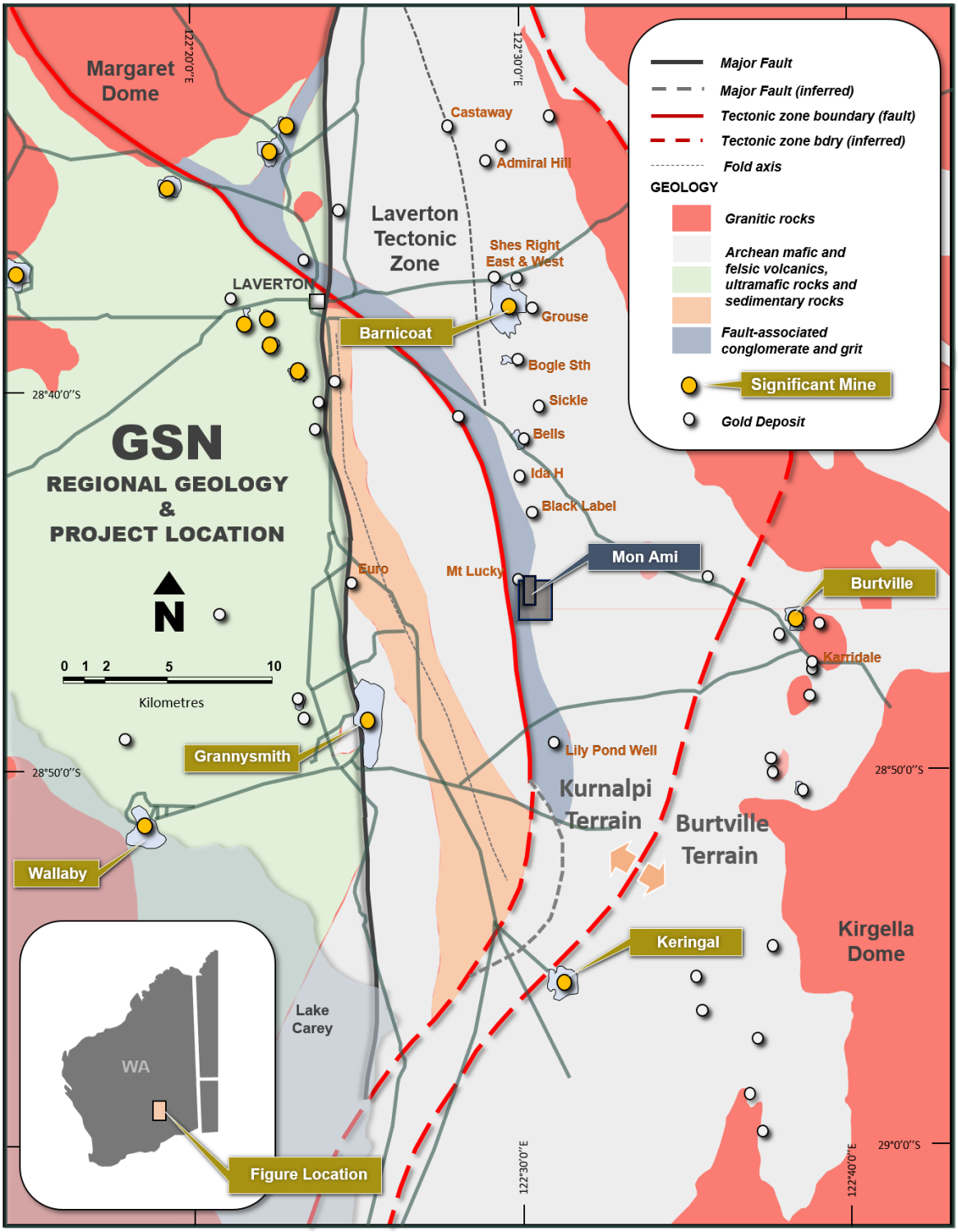


**Figure 1: Proximity of Mon Ami Project to existing mines and associated infrastructure.**

**Project Location and Background**

In March 2018 Forte Consolidated Limited (now GSN) acquired the Mon Ami Project. The Project comprises a Mining Lease, M38/1256, granted in 2012 for a term of 21 years and is located approximately 10 km east of the Granny Smith Mill and 25km southeast of Laverton (Figure 1). GSN was attracted to the Project due the existence of widespread gold anomalism, artisanal-scale gold workings, its holding under a current Mining Lease and its proximity to infrastructure and potential toll treatment options.

Geologically, the Project lies within the Laverton Tectonic Zone (LTZ) (north-eastern Goldfields) which comprises a broad 70 km long and 20 km wide greenstone belt, which is bounded by the granitoids of the Laverton Dome to the northwest and the Kirgella Dome to the southeast and by the north-northwest trending Mt Celia and Mt Varden-Burtville fault zones. The LTZ is coincident with a domain of anastomosing, regional-scale shear zones and folds associated clustered of gold deposits show well-documented gold endowment with in excess of 25 million ounces with two world class deposits, in Sunrise Dam and Wallaby, and numerous deposits that show endowment of more than one million ounces (e.g. Mt Morgans, Lancefield, Granny Smith).

The Project lies in the centre of the LTZ located on a major regional structure, the Barnicoat Shear zone, which defines the boundary between the eastern (Burtville) and the central (Kurnalpi) LTZ terranes. Locally, the Barnicoat shear marks the contact zone between the eastern margin of a north-south trending graben structure and metabasalts to the east. The graben contains poorly sorted clastic arenaceous sandstones, laminated and pyritic shales, (minor BIF's, cherts), with numerous zones of matrix supported conglomerates. Gold mineralisation is associated with both margins of the graben. The eastern margin hosts gold mineralisation from Mt. Barnicoat and Ida H in the north to Lily Pond Well in the south.

**Mon Ami Deposit Geology**

The exploration target for the tenement is orogenic gold mineralisation associated with the Barnicoat shear (Figures 1 & 2). The Barnicoat Shear Zone is a high strain zone up to 100 m wide which strikes NNE and dips steeply east (and west) to near vertical. It includes discontinuous cherts, "ironstones", silicified schists and quartz veins in outcrop and is characterised by gold mineralisation.

There are several historic shafts along the shear within the GSN tenement which have extracted gold in the early 19th century and the tenement has been subject to 'modern' exploration since the late 1980s through several exploration companies including Placer (Granny Smith) Pty Ltd between 2001 and 2002.

Exploration to date has clearly defined the main gold-bearing structure as a 40m-50m wide deformation zone with intense shearing and alteration at the contact between metabasalt (foot wall) and a unit of undifferentiated clastic sediments with zones of polymictic conglomerate (hanging wall). All the metasediments have been metamorphosed to greenschist facies, are tightly folded and show a prominent vertical schistosity with a degree of flattening and shearing increasing towards the margins of the graben.

The gold mineralisation at Mon Ami currently extends over a strike length of at least 400m and is primarily hosted within a number of discrete parallel approximate north-south striking ore lodes contained predominantly within heavily silicified and phyllic altered hanging wall sequences (Figure 3 & 4). The individual lodes can be traced over 300m along strike and at least 150m down-dip and plunge moderately to the north.

The ore zones are structurally controlled occurring in a series of parallel quartz-filled ferruginous shear zones which cut obliquely through the schistosity. Lodes are locally stacked en-echelon and dip moderately (65°) to steeply (80°) west and strike roughly north to north-north-east between 5° and 20°. There are mineralised splays (Riedel Shears) branching off the main shears, striking between 30° and 70°, dipping shallow to moderately (35° to 60°) north. The individual lodes vary in true width from 2m to 15m.

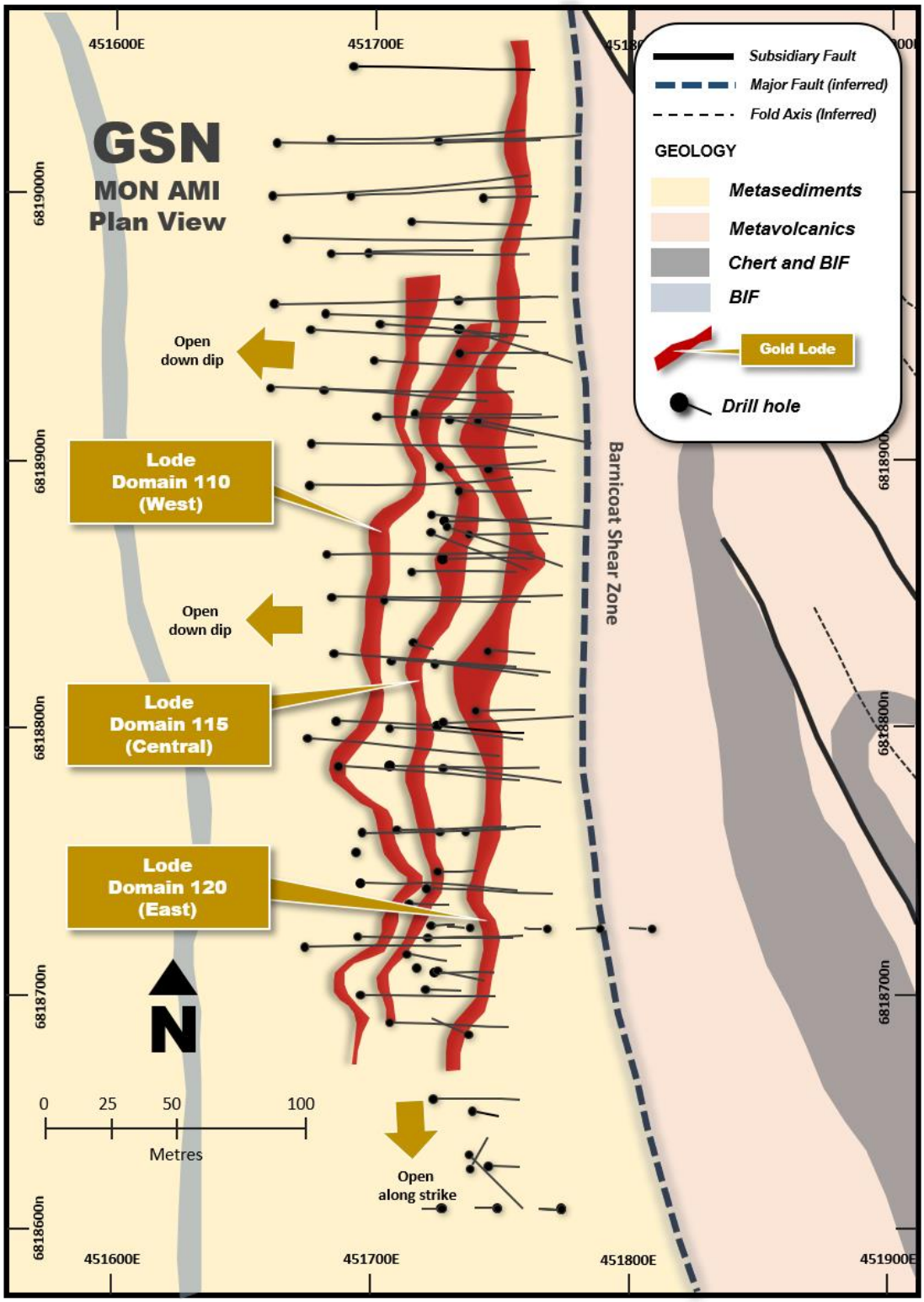


**Figure 2: Deposit-scale geology and modelled gold lodes.**

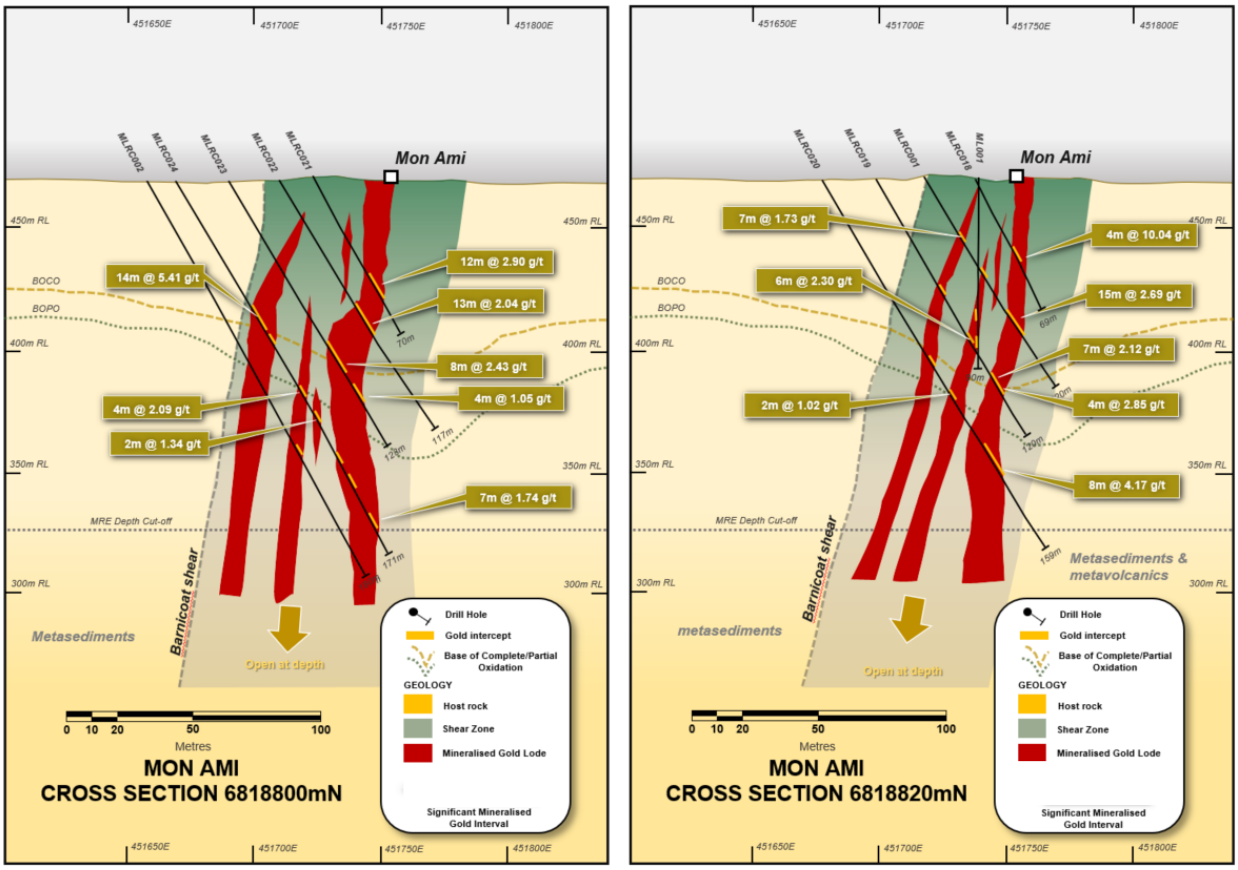


**Figure 3: Deposit-scale geology and modelled gold lodes in cross section (looking north).**

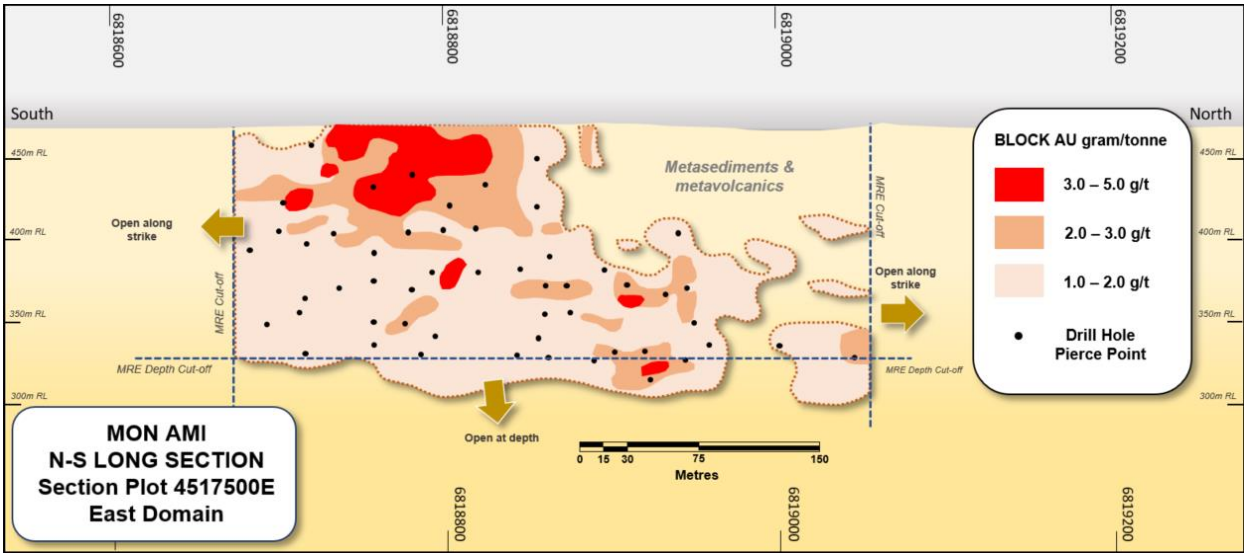


**Figure 4: Deposit-scale geology (East Domain) in N-S long section (looking west).**

The lodes include irregular and discontinuous lensoidal quartz-veins, comprising numerous interwoven quartz veins (1-20cm veins) and anastomising microveinlets with common brecciated textures indicating complex phases of brittle shear zone activity. The veins display a high degree of pinch and swell along strike. A chlorite – pink carbonate (dolomite/ankerite) propylitic alteration of the phyllite and metasandstone host rocks forms an outer halo of alteration before progressing into phyllic (silica-sericite-pyrite) alteration that envelopes the mineralisation.

A large number of displacements are interpreted to have disrupted the ore zone (1m to 10m).

**Drilling, Sampling and Assay Techniques**

Full details of the drilling and assaying procedures and protocols are provided in Annexure 1.

The drilling and assay data comprise a mix of data acquired from programs undertaken by GSN and the previous holders of the lease. Various drill campaigns have been conducted over the years at Mon Ami. In total, 11,189m of reverse circulation (RC) and diamond drilling has been completed on the Project. The MRE has been limited to the part of the deposit that has been drilled by GSN (and related entities) in 2017 and 2018 equivalent (the MLRC series). Previous exploration was completed using shallow RAB, Aircore and RC drilling, and geophysical data collection and interpretation and was used to aid domaining.

Drill holes are on a nominal 40m x 25m typically to a depth between 60 and 200m. Very limited drilling exists below a depth of 150m with the maximum hole depth approximately 225m down hole (approximately 195m vertical depth). Deeper drill holes have intersected significant mineralisation. (Refer to ASX announcement of 16 July 2018).

All RC drill samples were geologically logged on site by experienced and qualified geologists. Details on the host lithologies, veining, mineralisation, alteration and weathering and oxidation are recorded relationally (separately) so the logging is interactive and not biased to lithology. Evidence of structural features were also noted. RC percussion drill chips were collected through a cyclone and cone splitter to achieve a sample weight of approximately 3kg. Samples were collected on a 1m basis.

All sampling was carried out using GSN's sample protocols which includes the regular insertion of Certified Reference Materials and duplicate samples. The mineralisation was systematically sampled using 1m intervals and standard fire assaying was employed using a 50 gram charge.

**Mineralisation Modelling and Estimation**

A geological interpretation was undertaken by SRK personnel using all available data including geophysics, geological logging and assay data to create a resource model.

The mineralisation domains were created in Leapfrog, using all available structural and lithological data and broad mineralised trends. Further sectional and plan interpretation was then carried out to refine mineralised zones. These were then wire-framed in VulcanTM software and used to constrain grade estimation.

A nominal cut-off grade of 0.5 g/t gold has been used to define mineralisation. In places, samples reporting < 0.5 g/t but >= 0.25 g/t Au were included to improve domain continuity and reduce modelling issues. SRK has identified three major subparallel domains (termed Domain 110 (west), Domain 115 (central) and Domain 120 (east). The major domain 115 can be traced along the entire north-south strike length of the Mon Ami deposit, and thickness was observed to be relatively consistent but occasionally thicken at the intersections of north-northeast strike faults with the shear zone.

The mineralisation wireframes were used to assign codes to the drill hole samples, which have been collected at 1m intervals. Prior to exploratory data analysis, samples were composited to 2m lengths. Variographic studies were conducted to quantify grade-continuity and to assist with the selection of estimation parameters.Top cuts were assigned to the composite data for each domain by analysing the grade distribution with respect to the effect of extreme grade values. High grades were evaluated with regards to any impact on overall metal within the resource, including any risk associated with over-estimating grade. Top cuts of between 10 g/t Au and 12 g/t Au were applied to the west and east domains respectively.

The construction of down-hole omnidirectional experimental semi variograms were estimated from the 1m composite data to determine the nugget for each domain. Then, directional experimental semi-variograms were estimated producing robust fitted variogram models for each of the three domains.

The Block Model was created to cover the extents of the June 2018 drilling coverage at the Project. When choosing appropriate model cell dimension, consideration was given to the drill spacing and sampling interval, the interpreted geometry and thickness of the main lithological units, and the expected end-use requirements for the resource model. The parent cell was created using a 15m (E) by 15m (N) by 5m (z) block size. This is half the drill spacing and is considered the industry standard cell size. This was further sub-celled to a size of 2.5m (E) by 2.5m (N) by 1m (z) to ensure the block model accurately reflect the wireframe geometry and grades.

SRK used Kriging neighbourhood to check the suitability of the selected cell size. Ordinary Kriging (OK) was used for grade interpolation and the mineralisation boundaries were treated as hard boundary domains, meaning that model cells were esteemed using only the samples In the same domain. Estimates were made to the location of the Parent cell using a 5 x 5 x 1 discretisation matrix. A multi-pass search strategy was implemented, which entails conducting the first interpolation pass using stringent sample selection parameters. For subsequent passes, less stringent parameters are used to estimate the grades of the cells that did not meet the first-pass criteria. The resource estimate presented in this Report was derived from Vulcan models.

To validate the MRE model visual assessment including the checking of the block model grades against the de-clustered input composite grades, use of swath plots in major directions (northing, easting and elevation), comparison of statistics on a block model domain and drill hole composite statistics basis and a visual comparison of the block grades versus the composited top cut data in cross section using block data that is well informed.

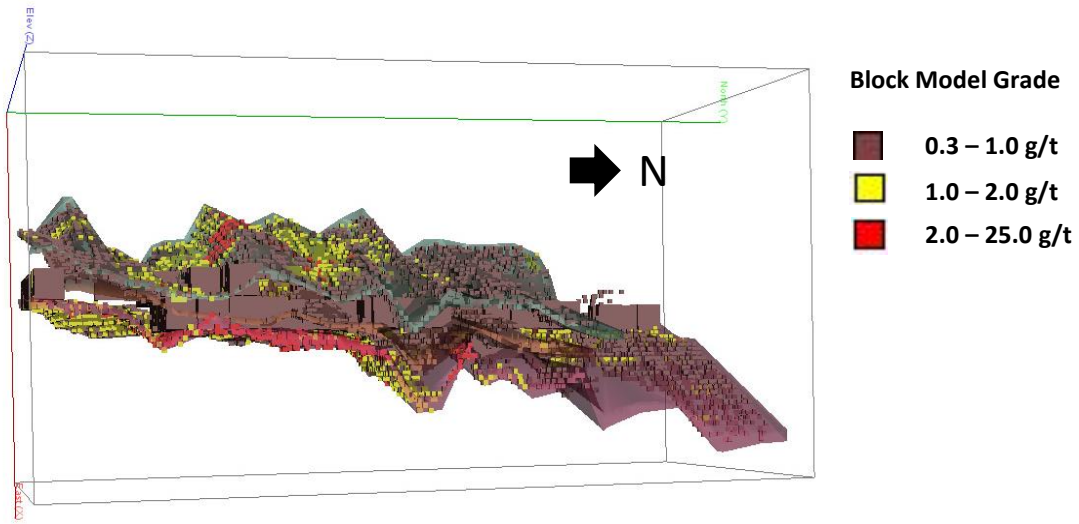


**Figure 5: Block Model – Mon Ami deposit**

**Classification and Reporting**

The Mon Ami Mineral Resource estimate was classified in accordance with the JORC Code, 2012 edition. Numerous factors were taken into consideration when assigning the classification applied to the Mineral Resource estimate. Of these factors, it is considered that the classification has been primarily influenced by the drill coverage, geological complexity and data quality as described below:

*Data quality*: The datasets comprise a mix of data acquired from programs conducted prior to GSN's acquisition of the Mon Ami lease (historical data). QA/QC data are not available for the majority of the historical data, but SRK considers that comparisons between datasets indicate that the historical data is sufficiently reliable for resource estimation when classification is considered.

*Geological complexity*: The general orientation of the major defined domains / horizons appears to be consistent and predictable. Thickness is variable and occurs as lodes within highly sheared sandstone and phyllites. High grade pods occur near at intersections of the shear zone boundary with cross cutting structures. At present, these are not well constrained between drill sections, although localised variability is evident.

*Data coverage*: The data coverage reflects the 2017 and 2018 GSM rock chip drilling program and has a nominal spacing of 40 x 25 m and the majority holes are drilled at around 60° to the east. The variography studies indicate useful grade continuity ranges up to 70m for estimation. All estimated domain model cells within the defined extents were assigned a classification of Inferred Resource.

The Mineral Resource statement is presented in Table 1 at a variety of reporting cut-offs. GSN's optimum preferred reporting cut-off grade is 1.0 g/t Au as it similar to the economic criteria as determined by surrounding similar style of deposits.

**Table 1: Sensitivity of grade-tonnage to cut-off - gold**

| Cut-off | Grade Au g/t | Tonnage (000's) | Au Ounces (000's) |
|---|---|---|---|
| **0.4** | 1.2 | 1,937 | 77 |
| **0.5** | 1.3 | 1,734 | 74 |
| **0.6** | 1.4 | 1,595 | 72 |
| **0.7** | 1.5 | 1,478 | 69 |
| **0.8** | 1.6 | 1,320 | 66 |
| **0.9** | 1.6 | 1,204 | 62 |
| **1** | 1.7 | 1,071 | 59 |
| **1.1** | 1.8 | 932 | 54 |
| **1.2** | 1.9 | 797 | 49 |
| **1.3** | 2.0 | 687 | 44 |
| **1.4** | 2.1 | 587 | 40 |
| **1.5** | 2.2 | 524 | 37 |

More details are available in Annexure 1.

**Competent Person's Statement**

*The information in this report that relates to exploration targets and exploration results on ML 38/1256 is based on, and fairly represents, information and supporting documentation compiled by Dr Bryce Healy. Dr Healy is an employee of Noventum Group Pty Ltd (ACN 624 875 323) and has been engaged by Great Southern Mining Limited as Head of Exploration. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration. Dr Healy is a Member of the Australasian Institute of Geoscientists and as such, is a Competent Person for the Reporting of Exploration Results, Mineral Resources and Ore Reserves under the JORC Code (2012). Dr Healy consents to the inclusion in the report of the matters based on his information in the form and context in which they occur.*

*The information in this report that relates to the Mineral Resources estimation approach at the Project is based on information compiled by Dr Michael Cunningham, GradDip, (Geostatstics) BSc honours (Geoscience), PhD, MAusIMM, MAIG. Dr Cunningham is a Principal Consultant, full-time, of SRK Consulting (Australasia) Pty Ltd. He has sufficient experience relevant to the assessment and of this style of mineralisation to qualify as a Competent Person as defined by the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)". Dr Cunningham consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The Company has released all material information that relates to exploration results and Mineral Resources estimates on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release. Material ASX releases referred to in this announcement are below:*

- *22/2/18 – Notice of General Meeting/Proxy Form.*
- *16/7/18 – Maiden Drill Results at Mon Ami Project.*
- *3/9/18 – Acquisition of tenement package.*

**Forward Looking Statements**

*Forward- looking statements are only predictions and are not guaranteed. They are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of the Company. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward looking statements or other forecast. The occurrence of events in the future are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to differ from those referred to in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward- looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company, its directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplate.*

# ANNEXURE 1

## JORC Code, 2012 Edition – Table 1 Report for Mon Ami RC Drilling

## Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Sampling techniques | • Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.<br>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br>• Aspects of the determination of mineralisation that are Material to the Public Report.<br>• In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 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. | • The mineralisation was systematically sampled using 1m intervals, collected from reverse circulation (RC) drill holes.<br>• Drill hole locations were designed to allow for spatial spread across the interpreted mineralised zone.<br>• Dry RC 1m samples are riffle split to 2-3kg as drilled and dispatched to the laboratory. Any wet samples are recorded in the database as such and allowed to dry before splitting and dispatching to the laboratory<br>• All samples are pulverised prior to splitting in the laboratory to ensure homogenous samples with 85% passing 75µm.<br>• Standard fire assaying was employed using a 50 gram charge. |
| Drilling techniques | • Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). | • The MLRC series drilling operation was undertaken by drilling contractor Challenge Drilling. RC drilling was conducted with a modern truck mounted drill rig (KWL350). RC pre-collar samples were obtained utilising high pressure and high volume compressed air using RC $5^{3}/_{4}$ inch diameter face bit.<br>• Holes orientations were surveyed using a Reflex-EZ shot at 50m intervals down hole and at the EOH depth. |
| Drill sample recovery | • Method of recording and assessing core and chip sample recoveries and results assessed.<br>• Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. | • Bulk RC drill holes samples were visually inspected by the supervising geologist to ensure adequate clean sample recoveries were achieved. Any wet, contaminated or poor sample returns were flagged and recorded in the database to ensure no sampling bias was introduced.<br>• Excellent RC drill recovery is reported from all RC holes. |
| Logging | • Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.<br>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.<br>• The total length and percentage of the relevant intersections logged. | • All RC drill samples are geologically logged on site by experienced and qualified geologists. Details on the host lithologies, veining, mineralisation, alteration and weathering and oxidation are recorded relationally (separately) so the logging is interactive and not biased to lithology. Evidence of structural features are noted.<br>• Drill hole logging of RC chips is qualitative on visual recordings of rock forming minerals and quantitative on estimates of mineral abundance.<br>• The entire length of the RC drill holes are geologically logged and representative portion of samples are retained in chip trays for future reference. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.<br>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.<br>• The total length and percentage of the relevant intersections logged. | • All RC drill samples are geologically logged on site by experienced and qualified geologists. Details on the host lithologies, veining, mineralisation, alteration and weathering and oxidation are recorded relationally (separately) so the logging is interactive and not biased to lithology. Evidence of structural features are noted.<br>• Drill hole logging of RC chips is qualitative on visual recordings of rock forming minerals and quantitative on estimates of mineral abundance.<br>• The entire length of the RC drill holes are geologically logged and representative portion of samples are retained in chip trays for future reference. |
| Sub-sampling techniques and sample preparation | • If core, whether cut or sawn and whether quarter, half or all core taken.<br>• If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.<br>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.<br>• Whether sample sizes are appropriate to the grain size of the material being sampled. | • Duplicate samples are collected every 80th sample from the RC pre-collar chips<br>• Dry RC 1m samples are riffle split to 2-3kg as drilled and dispatched to the laboratory. Any wet samples are recorded in the database as such and allowed to dry before splitting and dispatching to the laboratory<br>• All samples are pulverised prior to splitting in the laboratory to ensure homogenous samples with 85% passing 75um.<br>• RC samples submitted to the laboratory are sorted and reconciled against the submission documents. In addition to duplicates, a high grade or low grade standard is included every 30th sample, a controlled blank is inserted every 60th sample. The laboratory uses barren flushes to clean their pulveriser and their own internal standards and duplicates to ensure industry best practice quality control is maintained.<br>• The sample size is considered appropriate for the type, style, thickness and consistency of mineralisation |
| Quality of assay data and laboratory tests | • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.<br>• For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.<br>• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. | • The fire assay method is designed to measure the total gold in the sample. The technique involves standard fire assays using a 50gm sample charge with a lead flux (decomposed in the furnace) and is regarded as a complete digest technique and appropriate for the target-style of mineralisation<br>• Geochemical analysis was conducted by SGS Laboratories in Kalgoorlie. Sample preparation included drying the samples (105° C) and pulverising to 95% passing 75µm. Samples were then riffle split to secure a sample charge of 50 grams. Analysis was via Fire Assay (FAA505) with AAS finish. Only gold analysis was conducted (ppm detection limit of 0.01ppm).<br>• Industry best practice is employed with the inclusion of blanks, duplicates and standards at a ratio of 1:20, as discussed above, and used by Great Southern Mining Limited (GSN) as well as the laboratory. All GSN standards and blanks are interrogated to ensure they lie within acceptable tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grades. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Verification of sampling and assaying | • The verification of significant intersections by either independent or alternative company personnel.<br>• The use of twinned holes.<br>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>• Discuss any adjustment to assay data. | • Alternative GSN personnel have verified the correlation of mineralised zones between assay results and lithology, alteration and mineralisation.<br>• All holes are digitally logged in the field and all primary data is forwarded to GSN database in Perth. Assay data is electronically merged when received from the laboratory and made available to the project geologist to verify against the RC chips in the field<br>• No adjustments or calibrations are made to any of the assay data recorded in the database and no holes were twinned |
| Location of data points | • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.<br>• Specification of the grid system used.<br>• Quality and adequacy of topographic control. | • Drill hole collars were initially located and recorded using a hand held GPS with ±3m accuracy.<br>• At the completion of the drilling program, all drill hole collars are picked up using accurate DGPS survey control. All down hole surveys are collected using non-magnetic gyro surveying techniques from recognised industry surveying service providers.<br>• All holes are picked up in MGA94 – Zone 51 grid coordinates. Elevation is Australian Height Datum<br>• Topographic control is established from digital DTMs, calibrated against the surveyors DGPS pick-up |
| Data spacing and distribution | • Data spacing for reporting of Exploration Results.<br>• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.<br>• Whether sample compositing has been applied. | • The holes were planned to test the continuity of mineralisation along a broadly north-south striking and steeply west-dipping shear zone, with a hypothesised northerly plunge. Therefore, holes were oriented to the east and spaced at broadly 25-40m spacing<br>• Given the detailed understanding of the target shear zone this spacing is considered adequate as a first pass to define the continuity of mineralisation, ahead of any future resource estimation work<br>• No sampling compositing has been applied within key mineralised intervals |
| Orientation of data in relation to geological structure | • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.<br>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. | • The drilling is drilled orthogonal to the interpreted strike of the target mineralization zone. Structural logging of available from historic diamond core, current OTV/ATV viewing on select holes and historic pit/shaft mapping of mineralized quartz reefs supports the drilling direction and sampling method<br>• No drilling orientation and/or sampling bias has been recognised at this time |
| Sample security | • The measures taken to ensure sample security. | • Samples were shipped directly from site to a secure stored site in Perth to undergo evaluation<br>• Select samples for geochemical analysis were transported directly from site to SGS in Kalgoorlie in the custody of the field team where upon receipt the samples are officially checked in and appropriate chain of custody documentation received<br>• All sample information is kept in paper and digital form. Digital data is backed up onto the Company server regularly and then externally backed up daily |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Audits or reviews | • The results of any audits or reviews of sampling techniques and data. | • No external audits have been completed to date |

# JORC Code, 2012 Edition – Table 1 Report for Mon Ami RC Drilling

## Section 2 Reporting of Exploration Results

| 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.<br>• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. | • The results reported in this report are on granted Mining Lease (ML) 38/1256 (Mon Ami), being 100% owned by Great Southern Mining Limited (having been acquired by Great Southern Mining Limited under Sale Agreement with Valleybrook Investments Limited in 2018 – ASX Announcement 23rd January, 2018). The mining lease is located on the Mt Weld pastoral lease owned and operated by Goldfields.<br>• Native Title has been extinguished<br>• At this time all the tenements are in good standing. There are no known impediments to obtaining a licence to operate in the area |
| Exploration done by other parties | • Acknowledgment and appraisal of exploration by other parties. | • Exploration by other parties has been reviewed and is used as a guide to GSNs' exploration activities. Previous parties have completed shallow RAB, Aircore and RC drilling, geophysical data collection and interpretation.<br>• This report concerns only exploration results generated by GSN. |
| Geology | • Deposit type, geological setting and style of mineralisation. | • The mineralisation at Mon Ami typical of orogenic structurally controlled (shear zone hosted) Archaean gold lode systems. The mineralisation is controlled by a N-S trending anastomosing shear zone at the contact between meta-conglomerates and basic metavolcanics. The Mon Ami deposit extends over 400m strike (where it has been mined historically) and dips around 70-80° to the west. The plunge of the system is still unclear but future drilling will test an inferred northerly plunge. |
| 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 drillholes:<br>• easting and northing of the drillhole collar<br>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar<br>• dip and azimuth of the hole<br>• downhole length and interception depth<br>• hole length.<br>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. | • All the drill holes reported in this report have the following parameters applied. All drill holes completed, including holes with no significant results (>0.5 g/t Au) are reported in this announcement.<br>• Dip is the inclination of the hole from the horizontal. Azimuth is reported in magnetic degrees as the direction the hole is drilled. MGA94 and magnetic degrees vary by <10 in the project area.<br>• Down hole length is the distance measured along the drill hole trace. Intersection length is the thickness of an anomalous gold intersection measured along the drill hole trace.<br>• Hole length is the distance from the surface to the end of the hole measured along the drill hole trace.<br>• No results currently available from the exploration drilling are excluded from this report.<br>• Only gold grade intersections >0.5 g/t Au with up to 1m of internal dilution are considered significant and are reported in this report. Gold grades less than 0.5 g/t Au are not considered material as drill targets due to their low grade |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Relationship between mineralisation widths and intercept lengths | • These relationships are particularly important in the reporting of Exploration Results.<br>• If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.<br>• If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). | • Drilling at Mon Ami was on an azimuth of 90° and an angle of -60° designed to test a steeply west dipping shear zone<br>• The intersection length is measured down the length of the hole and is not usually the true width. When sufficient knowledge on the thickness of the intersection is known an estimate of the true thickness is provided.<br>• The geometry of the mineralization with respect to the drill holes reported in this report is still being interpreted and is only constrained from historical mining and previous drill hole intersections, which infer the host quartz reefs dip to the west at 60 - 80° |
| Diagrams | • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views. | • Relevant Diagrams will be included in the accompanying report (FCL006) |
| Balanced reporting | • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. | • All RC samples that have been geochemical tested at an appropriate laboratory (discussed above) from drill holes completed to date are reported in this report and all material intersections (>0.5g/t Au) are reported. |
| Other substantive exploration data | • Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | • Nine targeted holes spread across the deposit were geophysically logged by ABIM Solutions Pty Ltd at the completion of the drilling program. Density logs were provided giving density profiles through the host rock lithologies, weathering profiles and mineralised zones.<br>• The density logs were calibrated with a series of SG measurements (true SG value) determined by an air pycnometer with checks also made using a flask method (glass pycnometer with xylene). SG tests were conducted at SGS Laboratory (Perth) on 50 select samples representing various host rock lithologies, oxidation states, and degrees of mineralisation. |
| Further work | • The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | • Future exploration includes deeper drilling below the reported intersections at Mon Ami focusing on the higher-grade intersections to better define the extent of the mineralisation at depth. |

# JORC Code, 2012 Edition – Table 1 Report for Mon Ami RC Drilling

## Section 3 Estimation and Reporting of Mineral Resources

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Database integrity | • Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.<br>• Data validation procedures used. | • SRK created an SQL database using open-source Postgres, from all data provided. This included capturing raw assay data from both ALS and SGS assay certificates<br>• Samples were cross checked, and a number of validations were made. The data was then imported into Vulcan™ software where it was validated and corrected where appropriate. Dr Bryce Healy subsequently did further checks on the database and any issues were immediately corrected. |
| Site visits | • Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br>• If no site visits have been undertaken indicate why this is the case. | • No site visit was conducted by SRK but a series of meetings were held between SRK and Dr Healy who visited the site (Competent Persons for Sections 1 and 2) to discuss the geology, mineralisation, and QA/QC procedures. |
| Geological interpretation | • Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.<br>• Nature of the data used and of any assumptions made.<br>• The effect, if any, of alternative interpretations on Mineral Resource estimation.<br>• The use of geology in guiding and controlling Mineral Resource estimation.<br>• The factors affecting continuity both of grade and geology. | • The confidence in the geological interpretation of the Mon Ami deposit is considered reasonable. The global geological setting is a structurally controlled shear zone with a number of tertiary intersecting structures that host pods of high-grade gold.<br>• Drilling by the Client as well as historical drilling and information derived from WAMEX reports were used to aide interpretation<br>• A structural grade control was initially applied using Leapfrog™ software to produce domains for mineral resource estimates. Subsequent re-interpretation by section analysis using Vulcan™ software was completed and gave better results and block quality statistics<br>• The shear zone plays a major role in the continuity of both grade and geology. High grade mineralised offshoots are currently not well constrained by drill spacing, which is reflected in the Inferred category of classification, and will be a focus for future exploration and resource delineation |
| Dimensions | • The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. | • The Mineral Resource area has dimensions of approximately 200 m (easting), 380m (northing) by 180m (elevation). |
| Further work | • The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | • Future exploration includes deeper drilling below the reported intersections at Mon Ami focusing on the higher-grade intersections to better define the extent of the mineralisation at depth. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Estimation and modelling techniques | • The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen, include a description of computer software and parameters used.<br>• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.<br>• The assumptions made regarding recovery of by-products.<br>• Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).<br>• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.<br>• Any assumptions behind modelling of selective mining units.<br>• Any assumptions about correlation between variables.<br>• Description of how the geological interpretation was used to control the resource estimates.<br>• Discussion of basis for using or not using grade cutting or capping.<br>• The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available. | • Grade Estimation using Ordinary Kriging was completed using Vulcan™ software for gold (g/t). Drill hole spacing is approximately 30 m with 1 m sample intervals through mineralised zones. Drillhole samples were flagged using domain codes generated from three dimensional domains. Sample data was composited to 2 m intervals with no significant residuals. The influence of extreme sample distribution outliers was reduced by top-cutting where required. The top cut levels were determined using a range of top-cut analysis tools. Top cuts were reviewed and applied on a domain basis. For the three domains, directional variograms were modelled for Au using raw variograms in the geostatistical software Isatis™. Nugget values are moderate, ranging around 20 to 30%. Grade continuity was characterised by two spherical models with short ranges (up to 25 m), and longer ranges up to 50 m. Gold continuity in the down-dip direction was relatively poor, but reasonable across strike, and good to excellent along strike.<br>• No previous estimate has been completed<br>• The economics and cut-off grades are based on gold alone<br>• No deleterious elements were estimated<br>• The block model was constructed using a 15 m (easting) by 15 m (northing) by 5 m (elevation) parent block size. Sub-cells of 2.5 m (east) by 2.5 m (north) by 1 m (elevation) were allowed to ensure block model volumes accurately reflect wireframe grades. All estimation was completed at the parent block scale. Kriging Neighbourhood analysis was carried out to optimise block size, search distances and number of samples used. The size of the first two pass search ellipses per domain was based on the corresponding variogram. The ellipse was orientated in the plane of the deposit (approximately north-south), steeply dipping to the west and with a moderate plunge to the north. The first two passes utilised a minimum of 6 composites, and a maximum of 24 composites. This was relaxed for the final pass to enable 100% of blocks to be given a gold estimate. Hard boundaries were applied between all the domains<br>• No selective mining units were assumed in this estimate<br>• No correlations between variables were assumed in this estimate<br>• The geological interpretation correlated the gold mineralisation to geological and structural element, particularly at shear zone contacts. These domains were used as hard boundaries to select samples populations for variography and estimation<br>• All domains displayed moderate skewness. A top cut of 10 g/t Au and 12 g/t Au were applied to the west and east domains respectively. The central domain between the two had no top cut applied.<br>• Validation of the block model involved a visual inspection of the block model versus domain boundaries and drill hole intersections. Comparison of block model statistics and drill hole composite statistics, and swath plots (northing, easting, elevation) were also completed. |

| Criteria | JORC Code explanation | Commentary |
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| Moisture | • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. | • The tonnages were estimated on a dry basis. |
| Cut-off parameters | • The basis of the adopted cut-off grade(s) or quality parameters applied. | • This is a maiden resource and awaiting the results of metallurgical testwork. A general exclusion of low grade zones <0.25 g/t Au has been applied, based on similar styles of deposits nearby |
| Mining factors or assumptions | • Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. | • Mining of the Mon Amor deposit will probably be open pit mining. The geometry of the deposit will make it amenable to mining methods currently employed in many open-pit operations in similar deposits in the Yilgarn. |
| 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. | • No assumptions have been made for metallurgical factors. |
| Environmental factors or assumptions | • Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. | • No environmental impact statement has yet to be compiled. |

| Criteria | JORC Code explanation | Commentary |
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| Bulk density | • Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.<br>• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.<br>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. | • Bulk density for converting estimates to grade-tonnage is estimated from measurements carried out on 50 samples from 25 RC holes by SGS Laboratory (Perth)<br>• Samples represent various host rock lithologies, oxidation states and degree of mineralisation.<br>• The bulk density values were estimated from samples taken within the primary shear zone during the 2017 and 2018 drilling programs |
| Classification | • The basis for the classification of the Mineral Resources into varying confidence categories.<br>• Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).<br>• Whether the result appropriately reflects the Competent Person's view of the deposit. | • The Mineral Resource classification is based on reasonable confidence in the geological and grade continuity, along with 30 m drill spacing. Estimation parameters including Kriging efficiency, Kriging weights and Slope of Regression have been utilised during the classification, as well as smearing out of high grade pods on the periphery of the deposit (not well constrained currently).<br>• The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. Geological controls consist of a primary mineralisation event via hydrothermal fluids later modified by structural events. The definition of the mineralised zone is based on a high level of geological understanding from nearby mines and deposits, producing a robust model of mineralised domains. The validation of the block model shows good correlation of the input data to the estimated grade<br>• The Mineral Resource Estimate appropriately reflects the view of the Competent Persons |
| Audits or reviews | • The results of any audits or reviews of Mineral Resource estimates. | • As this is a maiden mineral resource estimate, no audits or reviews have yet been carried out. |
| 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 relative accuracy and confidence level in the Mineral Resource estimate is considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a quantitative and, to a lesser extent, a qualitative basis, and is based on the Competent Person's experience with similar gold deposits in Western Australia. The factors that could affect the relative accuracy and confidence of the estimate include:<br>– The completeness and accuracy of the historical database,<br>– Lack of surveyed topography, and<br>– Better structural constrain of the main shear zone and intersecting tertiary structures producing high grade pods. |

| Criteria | JORC Code explanation | Commentary |
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| | • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.<br>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. | • The Competent Person is of the opinion that the scope for variations is minimal, and if any, the impact on the Mineral Resource estimate is unlikely to be significant.<br>• The estimate is a global estimate and not suitable for detailed mine planning.<br>• No tonnages are relevant to technical and economic analysis as the classification is all within the Inferred category.<br>• No production data is available as the deposit currently remains unmined |
| 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 greenfield 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. | • No environmental impact statement has yet to be compiled. |