ASX ANNOUNCEMENT 18 MAY 2021



ACQUISITION OF THE BULONG SOUTH, GLANDORE AND COWARNA GOLD PROJECTS NEAR BOORARA

Acquisition includes the high-grade Cannon Gold Mine

HIGHLIGHTS

- Binding Tenement Sale Agreement executed with private gold mining company Aurenne Group Holdings Pty Ltd for the acquisition of 100% interest in the Bulong South, Glandore and Cowarna gold projects in the Western Australian goldfields
- Projects comprise 24 granted mining, prospecting, exploration and miscellaneous licences covering an area of approximately 180km² strategically located in close proximity to the Boorara asset:
 - Bulong South, located 10km east of the 100% owned Boorara gold project, includes the Cannon underground deposit with an established Mineral Resource of 142kt grading 5.17g/t Au for 24koz with mineralisation open at depth and to the north and south along the Cannon shear zone ¹
 - Previous feasibility work completed in 2019 delivered a maiden Ore Reserve of 117kt grading 5.31g/t Au for 20koz for the Cannon deposit and positive economic results at a A\$1,750/oz gold price for a decline development from the base of the open pit via contract mining and toll milling ^{1, 2}
 - Glandore, located 14km east of Boorara, has multiple advanced open pit and underground exploration targets with historic drilling results awaiting follow up
 - The Cowarna project, covering 138km², sits immediately east of the emerging Mt Belches gold project within Silver Lake Resource's Mt Monger gold operation with walk up drill targets within the orogenic banded iron formation units to the southeast
- Projects acquired for a total cash consideration of A\$5 million on the following terms:
 - A\$2.5 million in cash at settlement funded from existing cash reserves
 - A\$2.5 million in cash on the earlier of 12 months from settlement or first gold production from the Cannon underground gold mine
- Significant exploration potential at all project areas with target review and drill planning now underway and drilling to commence in the September Quarter 2021³
- Cannon will now join Boorara, Rose Hill, Binduli, Kalpini and Teal as core projects under evaluation as part of the consolidated Feasibility Study due for completion in the December Quarter 2021 ³

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¹ As first announced to the ASX by Southern Gold Ltd on 10 October 2017, see Competent Persons Statement on Page 11 and JORC Tables on Page 20. ² As announced by Southern Gold on 6 May 2019, see Competent Persons Statement on Page 15 and JORC Tables on Page 21.³ See Cautionary and Forward-Looking Statements on Page 20.



Commenting on the significant acquisition, Managing Director Mr Jon Price said:

"Horizon's core focus remains firmly set on developing a stand-alone gold production business in the Kalgoorlie and Coolgardie regions and this significant acquisition aligns with our strategy of further regional consolidation of advanced, complementary development assets in close proximity of the proposed Boorara Mill.

"The Cannon underground gold project presents a high-grade near-term development opportunity that will now be incorporated into the consolidated Feasibility Study and can provide high grade ore feed in the early years to complement the base load Boorara deposit and the four advanced open pit and underground satellite projects currently under evaluation.

"We also see the potential for significant resource growth and exploration upside from the Bulong South, Glandore and exciting Cowarna project areas with multiple walk-up drill targets on major geological structures. Drill planning is now underway, and we look forward to providing further updates as we complete the transaction, update mine development studies and commence exploration drilling."



Figure 1: Cannon open pit, 10km east of Boorara with established underground reserves



Overview

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or the "Company") is pleased to announce it has executed a binding Tenement Sale Agreement with private mining company Aurenne Group Holdings ("Aurenne") for 100% interest in the Bulong South, Glandore and Cowarna gold projects in the Western Australian goldfields (Figures 2 and 3).

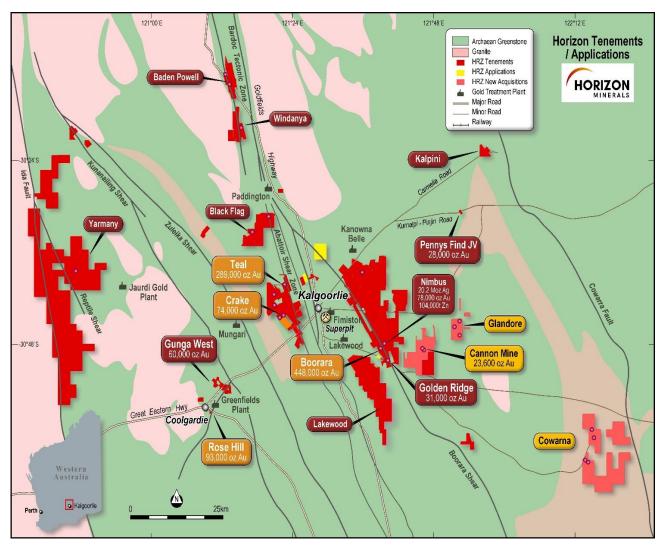


Figure 2: Horizon's Project area locations, resources and surrounding infrastructure with the new acquisitions shown in orange

Bulong South contains the development ready high grade Cannon gold project (Figures 1 and 2) which now joins the baseload Boorara project, Rose Hill, Binduli, Teal and Kalpini satellite deposits as core development projects under evaluation to underpin the proposed construction of a standalone processing plant at Boorara¹.

The following sections provide a summary of the projects and the significant development and exploration potential of the project areas.



Bulong South and Glandore gold projects

Bulong South is located approximately 28km southeast of Kalgoorlie in the Eastern Goldfields of Western Australia (Figures 2 and 3) and 10km east of the 100% owned Boorara gold project by existing roads. The project comprises three granted mining leases, two prospecting licences, two exploration licences and four miscellaneous leases covering a total area of approximately 180km². The project includes the high-grade Cannon gold project and a significant number of historic mines and workings within the rich quartz vein system. Glandore sits 4km to the east of Bulong South (Figure 3).

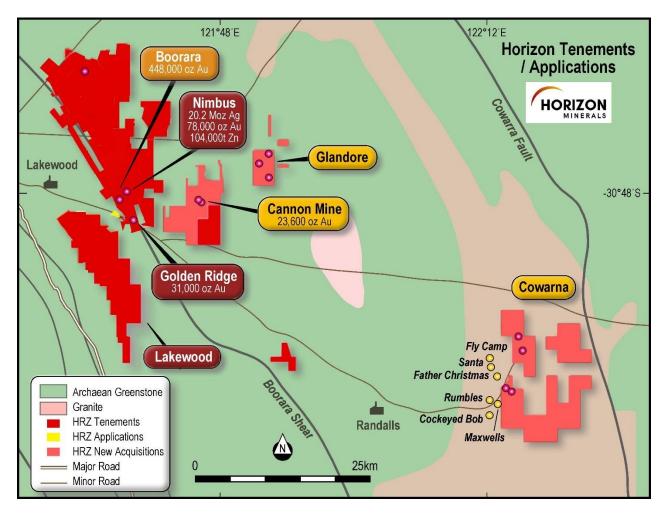


Figure 3: Bulong South (with Cannon Mine), Glandore and Cowarna project locations (in orange), geology and surrounding infrastructure



History

There are mine workings such as historic shafts, modern open cut pits (Cannon open pit) and trenches within the tenements that have been worked since the early 1900s with a significant amount of gold nuggets reported from local prospectors.

Previous exploration was undertaken by a number of companies and prospectors including Cyprus Gold Ltd and Roebuck Resources NL with a number of anomalies identified, shallow RAB drilling conducted and at least three areas of gold mineralisation intersected.

Southern Gold Ltd (ASX: SAU) discovered the Cannon deposit in 2008 as the northern strike extension of the George's Reward deposit held by Northern Mining Ltd and then Metals X Ltd. Open pit mining commenced at the Cannon and George's Reward deposits in August 2015 under a finance, mining and processing agreement with Metals X Ltd (now Westgold Resources Ltd).

The Cannon open pit produced 53koz grading 3.02g/t Au and 91% metallurgical recovery with mining completed in June 2017. Southern Gold then completed an extensional drilling program and defined an updated underground Mineral Resource estimate as announced to the ASX on 9 October 2017.

An underground Feasibility Study and maiden underground Ore Reserve was completed in November 2017, updated in 2019 and announced to the ASX on 6 May 2019. During this period, Westgold sold its South Kalgoorlie assets, including its interest in the Cannon Mine, to Northern Star Resources Ltd as announced to the ASX on 8 March 2018.

As announced by Southern Gold Ltd to the ASX on 10 December 2018, agreement was reached with Northern Star Resources Ltd for the consolidation of the project area securing the tenure covering the strike extension of the Cannon shear zone.

In August 2019, Southern Gold announced the sale of the project and the Glandore and Cowarna tenements to private mining company Aurenne Group Holdings Ltd. Aurenne has completed a number of drilling programs across the tenement packages since the acquisition before deciding to divest the projects to focus on the Menzies region.

Geology

The projects are located within the Kurnalpi Terrane which forms part of the regionally extensive Norseman-Wiluna greenstone belt and sit in the western part of the Bulong ultramafic complex in the Boorara domain.

The Bulong South and Glandore projects are located in the western part of the Bulong ultramafic complex consisting of a 5km thick sequence of komatiitic lava flows made up of thick serpentinised peridotite in the centre of the complex, flanked by thin spinifex-textured komatiitic flows at the top of the sequence.

The Cannon Deposit is hosted within a sequence of ultramafic and high-Mg basaltic rocks intruded by a mafic-intermediate suite of lamprophyre dykes, and rarer dacitic dykes. The greenstone sequence strikes N-S while intrusions strike NNE-SSW with variable dips to the west and east. In the vicinity of the Cannon pit, a prominent N-S trending quartz vein extends for at least 1.5km to the southwest of Cannon and a numbers of smaller quartz veins sub-parallel to the main vein is also present.



The Cannon deposit mineralisation is structurally controlled and strikes north easterly, dipping steeply to the northwest; higher grades within the mineralised envelope appears to have a steep dipping northerly plunge.

Much of the Glandore project lies within the NW trending Moreland's Group on the western limb of the Bulong anticline. Mineralisation is found in NW and NE trending veins within a large, differentiated, dolerite sill. The Doughnut Jimmy and Lavaeolus prospects have mineralisation associated with the contact between the dolerite sill and the overlying basalts. Mineralisation to the west appears more steeply dipping as it approaches the Goddard Fault, a major regional structure, and zones of pegmatoids within the dolerite sill. These are rich in magnetite which may act as a suitable trigger for the precipitation of gold.

Mineral Resources, Ore Reserve and supporting information

Following further infill drilling completed at Cannon in 2017, an underground Mineral Resource estimate was compiled and is summarised in the table below ¹:

Category	Tonnes	Grade (g/t)	Ounces
Indicated	121,570	5.68	22,180
Inferred	20,700	2.10	1,400
TOTAL	142,270	5.17	23,580

The estimate, first disclosed in a news release dated 9 October 2017 issued by Southern Gold Ltd are reported in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code) (Southern Gold Announcement).

The Southern Gold Announcement dated 9 October 2017 is available at:

https://www.asx.com.au/asx/statistics/displayAnnouncement.do?display=pdf&idsId=01905649

Mineralisation remains open at depth (Figures 4 and 5) and along the greater Cannon shear zone with the project no longer constrained by tenement boundaries and multiple ownership.

An underground Feasibility Study was completed in November 2017 and updated in May 2019 as announced to the ASX by Southern Gold on 6 May 2019 delivering an Ore Reserve in accordance with the JORC (2012) Code as shown below ¹:

Category	Tonnes	Grade (g/t)	Ounces
Probable	117,000	5.31	20,000

Further details on the study can be found in the Southern Gold Ltd ASX announcement dated 6 May 2019 available at:

https://www.asx.com.au/asx/statistics/displayAnnouncement.do?display=pdf&idsId=02102907

¹ As first announced to the ASX by Southern Gold Ltd on 9 October 2017 and 6 May 2019, see Competent Persons Statement on Page 11, 15 and JORC Tables on Page 21. ² See Cautionary and Forward-Looking Statements on Page 20.



A detailed review of all previous drilling and resource modelling information is now underway with drill testing of near mine extensions along the Cannon shear planned to commence in the September Quarter 2021¹. Multiple exploration drill targets have been identified within the greater Bulong South and Glandore areas with drill planning underway for the Pinner, Monument, Lavaeolus, Central zone and Doughnut Jimmy prospects.

All data, mine optimisation, underground designs from the previous Feasibility Study and historic Ore Reserve have been reviewed and an updated 2021 Ore Reserve will be generated in the September Quarter 2021 as part of the consolidated Feasibility Study ¹.

The current Cannon underground deposit (Figure 4) will be evaluated as a medium scale mechanised contract mining operation from a decline established at the base of the historic open pit (Figure 1) with ore processed at the proposed Boorara Mill 10km to the west. The open pit produced 53koz at 3.02g/t Au at a metallurgical recovery of 91% and provides valuable information on geological, mining, geotechnical and metallurgical performance for a rapid development phase.

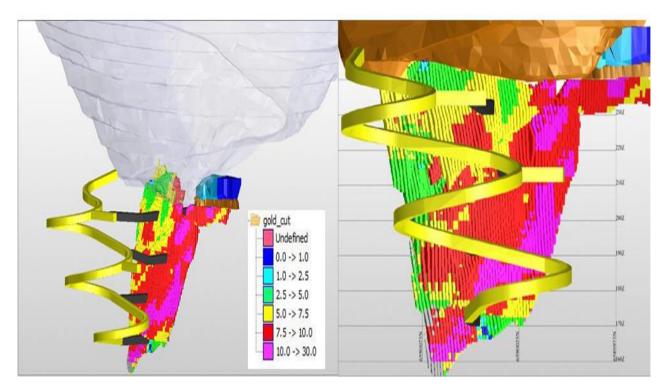


Figure 4: Cannon underground block model with conceptualised 4 level underground development ¹

Acquisition Key Terms

The Company has executed a binding Tenement Sale Agreement ("TSA") to acquire the project areas from Aurenne Cannon Pty Ltd, a 100% subsidiary of Aurenne Group Holdings Ltd, for a total cash consideration of A\$5m with A\$2.5m payable at settlement and a further A\$2.5m on the earlier of 12 months from settlement or first production from Cannon. The consideration will be funded from existing cash reserves.



Conditions precedent to settlement include:

- Consent of the Minister required under the Mining Act for the transfer of the tenements having been obtained
- Establishment of a mortgage deed over the project as security for the deferred payment
- The execution of any third-party agreements required
- The provision of all mining information

Settlement of the transaction is expected in the current June Quarter 2021.

Technical Overview – information required by Listing Rule 5.8.1

Geology and geological Interpretation

Mineralisation is considered to be a mesothermal, vein and alteration style deposit, similar to many other deposits in the Kalgoorlie district. The interpretation used for this estimate is based on work completed by Company personnel who logged the holes and mapped the area. The Cannon gold mineralisation is structurally controlled strikes north-easterly and dips to the west. High grade mineralised zones within the resource appear to be controlled by local scale dilational structures.

Mineralisation is associated with chlorite-biotite-albite-quartz-carbonate-pyrite alteration. The bulk of the gold mineralisation is hosted in a pillowed basalt unit. Other lithologies present include dioritic intrusives, lamprophyre dykes, high magnesium basalts and komatiites.

Sampling Techniques

The mineralisation of the Cannon deposit was sampled using face sampling, reverse circulation (RC) percussion and diamond core drilling techniques. RC drill holes and RC pre-collars were sampled at 1m intervals followed by riffle splitting and collection into plastic bags for non-pre-collared holes or as 4m, spear sampled, composite samples for RC pre-collars. Individual 1m samples from RC composites returning anomalous gold values were subsequently re-split by sample spear and assayed. Individual RC drilling samples riffle split from the drill rig were collected into pre-numbered calico bags. Diamond core was sampled as half core at intervals not less than 0.1m and no greater than 1.3m lithological boundaries. Sampling intervals were controlled by geological boundaries.

Drilling Techniques

Diamond or face sampling RC percussion drilling were the primary drilling techniques used to evaluate the initial Cannon resource. The original Cannon resource was estimated using 57 RC holes, four diamond holes drilled from surface and 15 RC pre-collared holes with diamond tails. RC percussion drilling downhole depths range from 34m to 240m. Diamond drill holes and diamond tails to RC pre-collars downhole depths range from 78m to 225m.

In pit face sampling RC percussion drilling was also undertaken from surface to depths ranging from 6m to 55m. Grade control RC drilling in the Cannon Pit was undertaken by VM Drilling and Blue Spec Mining of Kalgoorlie. UG RC Ramp drilling Face sampling reverse circulation percussion drilling was the drilling technique used. Holes were surveyed by Gyro tool (Reflex EZ Gyro) in the rod stream by Ausdrill of Kalgoorlie, WA.



Classification

Blocks have been classified as Measured, Indicated or Inferred or based on drill hole spacing, geological continuity and estimation quality parameters. The Cannon Mineral Resource estimate has been classified in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC 2012).

The classification of Resources is considered appropriate based on the available level of confidence in the data quality and quantity with particular reference to the closed space grade control drilling.

Sample Analysis Method

RC samples were sampled from a cone splitter attached to the drill rig at 1m intervals and rejects collected placed in sequential order on the ground adjacent to the drill rig. Samples were taken dry with sample size presented for analysis of approximately 3kg. Preparation and analysis of samples was undertaken by Minanalytical at their Kalgoorlie and Perth facilities. Samples were pulverised to 85% passing 75micron. Field duplicates were collected at every 20th metre mark on each hole and results obtained returned a correlation coefficient of 0.988.

Estimation Methodology

The geostatistical modelling for the 2017 resource estimate was based upon the 2015 Resource modelling by external consultants Cube Consulting (Cube) under the supervision of the Competent Person at that time. The September 2017 Resource estimation used Inverse distance weighting (IDW) to power of 2 (ID2). An oriented 'ellipsoid' search was used for the estimate. Surpac software was used for the estimations. Three dimensional mineralised wireframes were used to domain the mineralised data. Sample data was composited to 1m down hole lengths using the 'best fit' method. Intervals with no assays were excluded from the estimates.

The influence of extreme grade values was addressed by reducing high outlier values by applying high grade cuts to the data. These cut values were determined through statistical analysis (histograms, log probability plots, coefficients of variation). An orientated 'ellipsoid' search was used to select data for each domain and was based on the observed lode geometry. The search ellipses were orientated to the average strike, plunge, and dip of the domain.

The Mineral Resource estimate takes into consideration the performance of the open pit mining including geology, processing and reconciliation. The performance of the open pit resource to actual mine was very high. The model estimate was validated and checked by slicing the block model and checking with physical drilling which indicated a consistency with the modelled grade and drillhole values. A second evaluation was completed by comparing the average Au grades of the composite files against the block model output. The results show a 7% variance between the two methods with the block model the higher, which is not unreasonable.

Cut-off Grades

The 2017 resource model was constrained by a boundary representing the natural grade cut-off of the deposit. This approximated a cut-off of 1.0g/t Au.



The 2017 Mineral Resource was reported using a 1.0g/t Au cut-off grade which is considered an appropriate economic mining cut-off grade for this style of mineralisation in order to ensure continuity between economic zones and maximise tonnage and grade.

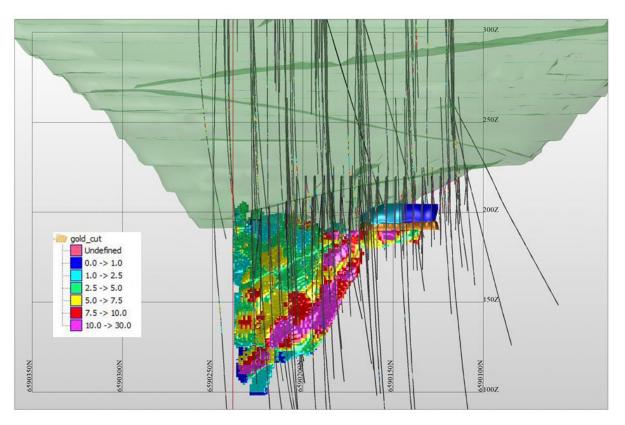


Figure 5: Cannon underground block model showing previously constrained lease boundary ¹

Mining and Metallurgical Factors

Mining is assumed to be via underground mining techniques with a hanging wall decline allowing access to 20m levels. The deposit is suitable for underground mining with a final mining method to be determined in the Reserve estimation process. Internal dilution of up to 3m has been incorporated into the modelled wireframes where necessary to allow for continuity of mineralisation. No mining dilution or ore loss has been modelled in the resource model or applied to the reported Mineral Resource.

Metallurgical test work undertaken by ALS Ammtec, Perth indicates that the Cannon mineralisation is suitable for processing by standard treatment methods. The metallurgical characteristics of Cannon ore have been determined by testwork to be free milling, of moderate hardness and free of cyanicides. The estimated recovered ounces adopted are on average 91% of the mined ounces, based upon the treatment of Cannon Open Pit Ore through the South Kalgoorlie Operations, Jubilee Processing Plant in 2016 and 2017.

Metallurgical factors have not been applied to the Mineral Resource estimate.



Competent Persons Statement

The information in this announcement that relates to exploration results and mineral resources is based on and fairly represents information reviewed by Mr David O'Farrell, a competent person who is a member of the AusIMM. Mr O'Farrell is employed by Horizon Minerals Limited and has sufficient experience that is relevant to this style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr O'Farrell consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears. Mr O'Farrell confirms that the information in this market announcement is an accurate representation of the available data for the Bulong South, Glandore and Cowarna gold projects.

Technical Overview – information required by Listing Rule 5.9.1

Horizon notes that the reporting of the ore reserves in this announcement is based on a feasibility Study ("Study") completed by Southern Gold Limited as announced to the ASX on 6 May 2019.

Horizon provides the following information and confirms that it has completed an extensive and detailed due diligence review and analysis of the technical work undertaken in the Study for the generation of ore reserves and is satisfied that the work is accurate and applicable to Horizon based on the following.

While the Company has endorsed the technical work completed, it has not adopted the financial forecasts and production targets from the Study and will update financial metrics including the change in the gold price and release to the market when completed.

Technical work completed by Horizon

The Cannon project is adjacent to Horizon's Boorara gold project and is similar to a number of underground projects under evaluation as part of the Company's consolidated Feasibility Study. The Company has completed a detailed internal technical review on estimation methodology, mining design, method and modifying factors, cost information, infrastructure and other Feasibility Study outcomes and considers the work valid and applicable to Horizon as summarised below. The Company considers the classification of Probable Reserve applicable and consistent with similar underground projects the Company is evaluating.

The mine design is considered conventional for this style of orebody with appropriate mining dilution and mining recovery factors applied, geotechnical parameters consistent with good mining practise and primary long hole stoping with secondary stoping with cascading rockfill for a small area beneath the southern end of the pit. Horizon confirms that it is satisfied and endorses the mining plan and the study parameters applied.

The cut-off grades applied in the study are considered appropriate and conservative for the level of study and the gold price assumptions used.

Ore processing would be conducted offsite at either third-party mills or the proposed Boorara Mill in close proximity in line with the Feasibility Study assumptions. Review of the metallurgical test work



and the open pit mining ore reconciliation and actual gold recoveries of 91% support an ore recovery of 90% as used in the study.

Established haul roads are in place for ore delivery. The underground deposit will be accessed by a portal and decline from the bottom of the existing open pit and Horizon believes approvals for mining would involve conventional mining proposal and project management plan submissions.

Confirmation

Horizon confirms that it is satisfied with the accuracy and technical outcomes that the Study indicates and endorses the mining plan specified. The Study's findings will now be incorporated into the Company's consolidated Feasibility Study alongside the baseload Boorara gold project and the Rose Hill, Binduli, Teal and Kalpini open pit and underground satellite deposits.

The following information is provided to ensure compliance with Listing Rule 5.9.1

Study Parameters

The Study completed by Hiller Enterprises Pty Ltd and was based on the following key parameters:

- Gold price of A\$1,750/oz
- Underground mining operations and road haulage conducted by contractors
- Ore processing via toll milling in close proximity
- Project implementation and oversight by management in conjunction with contractors

Feasibility Study

Further details on the study can be found in the Southern Gold Ltd ASX announcement dated 6 May 2019 available at:

https://www.asx.com.au/asx/statistics/displayAnnouncement.do?display=pdf&idsId=02102907

Mineral Resource estimate, methodology and classification

The Cannon underground Ore Reserve estimate is based upon the September 2017 Mineral Resource completed by Southern Gold Ltd (competent Person for SAU Resource – Paul Androvic). The gold grade was estimated using Inverse Distance squared (ID2) interpolation for all lodes. The 2017 Cannon Underground Resource was release on ASX on 9 October 2017 titled 'New JORC resource for Cannon Underground'.

The Ore Reserve is based only on the Indicated portion of this Resource and the design encapsulated four extraction levels, an 11 month mine life utilising minimal equipment and infrastructure to access the high-grade shoots plunging beneath the Cannon pit. All ore in the Ore Reserve estimate is classified as a Probable Ore Reserve. No Inferred Mineral Resources are included in the Ore Reserve.

The Ore Reserve is in line with expectations given the low capital cost associated with the project and due to the locality. The Competent Person is confident that it is an accurate estimation of the current Cannon reserve.



Mining Method and Modifying Factors

The primary mining method for the underground resource at Cannon will be long hole open stoping (LHOS) with either no fill, rockfill and cemented rockfill. The secondary mining method will be stoping using cascading rockfill for a small area beneath the southern end of the pit. Cascading rockfill is required for this area since no access is available to the top of the stopes due to previous stoping using a pit adit.

Stoping configurations are predominantly single-lift stoping (20m vertical interval) with strike length of 16m. The single-lift stoping method involves establishing a rise to start the slot and then the stoping front is retreated along strike. The installation of hanging-wall (HW) and crown cables and the use of small hydraulic radius for the design will assist in controlling HW stability. All stopes with top access will be filled, with cemented rockfill (orange) being used when stoping is planned adjacent and loose rockfill used for close out pillars (red). For the LHOS (grey) with no top access rib pillars are used and the stope height limited to 10 metres, with no placement of fill (Figure 6).

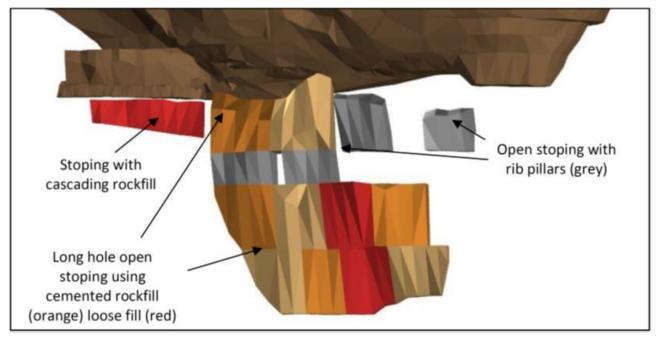


Figure 6: Cannon isometric view of Cannon Pit and stope shapes

Planned dilution has been accounted for in the creation of the Stope Shapes. Unplanned mining dilution of 15% for stoping using rib pillars, cemented and loose rockfill has been used, while the area using cascading rockfill an unplanned dilution of 20% has been used. The dilution was applied in Earthworks Production Scheduler (EPS).

A 95% mining recovery factor has been applied to both long hole open stoping using rib pillars and long hole open stoping using cemented and loose rockfill. 80% mining recovery has been used for stopes using cascading fill.

Waste development excavations are given a 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore.



Capital and Operating costs

Mining capital estimates have been made using, wherever possible, budget pricing obtained from reputable suppliers. The few instances where costs could not be obtained from these sources, costs were obtained by benchmarking of similar sized Australian mines.

The operating cost estimates have been derived from first principles estimating consumables use combined with budget pricing from reputable suppliers for the cost elements consumed in the mining process. Labour costs have been derived from pay scales of similar sized, geographically relevant underground mines in WA. Maintenance and machinery productivity costs are based on productivity estimates by benchmarking of similar sized Australian mines.

Ore Processing

All Cannon ore will be toll processed offsite, and while no current contractual agreement is in place, it is not anticipated that this will be a major impediment given the mines proximity to Kalgoorlie.

Ore Reserves are based on a metallurgical recovery of 90%, which is consistent with historical performance of Cannon Open pit fresh ore during 2016 to 2017 at the South Kalgoorlie Operations Mill with no deleterious material noted.

Cut-Off Grade

Two cut-off grades have been calculated and applied based on current and forecasted costs and modifying factors for the Life-of-Mine plan. A conservative gold price of A\$1,350/oz was provided by Southern Gold Limited and was used in this calculation.

- Fully Costed cut-off grade of 3.0 g/t and this includes all costs associated with the extraction and toll processing of ore material
- Incremental Development cut-off grade of 2.0 g/t applies to all development ore material.

Estimation Methodology

The September 2017 Resource estimation used Inverse distance weighting (IDW) to power of 2 (ID2). The Ore Reserve estimate has only utilised the Indicated portion of this Resource based on the applicable cut-off grades and has applied the modifying factors based on the various dilution parameters determined by the performance of the open pit, underground geotechnical work, and the applicable mining method and recovery factors, to generate the final diluted and recovered Ore Reserve.

Infrastructure

The selected mining methods do not require any infrastructure above the standard:

- Surface administrative and ablution facilities
- Electrical reticulation
- Portal
- Ventilation infrastructure



- Equipment servicing facilities
- Cemented rock fill is anticipated to be mixed underground in stockpiles before delivery to the stopes, this method does not require any permanent infrastructure.

The capital and operating costs of this additional infrastructure to support underground mining have been included in the economic evaluation which demonstrates the economic viability of the Ore Reserve.

Environmental and Permitting

The Cannon Open pit is currently held to an existing MCP, with rehabilitation completed on all areas not considered for used by the Underground operations. This plan does include the underground option considered during the approvals phase and remains relevant. Some modifications will need to be made for the reactivation of the underground which will require review and approval but it is assumed these are minor and do not constitute a major change requiring further environmental studies.

All existing waste rock classifications and waste dump footprints will remain unchanged with minimal mining footprint required for the underground surface infrastructure which will be placed on existing disturbed ground.

Current external reporting is recorded and reported in the Annual Environmental Report submitted to DMIRS as part of existing open pit closure reporting requirements.

The Cannon open pit operations were suspended in September 2017 after completion of stage 1 open pit mining. At that time all required government and statutory permits and approvals were in place. Underground mining would take place on an existing Cannon mining lease (M25/333 & M25/357). A submission to WA DMIRS, to reactivate the open pit to commence the underground mine will be made at a future date based upon the underground mining plan.

The existing MCP will be updated but all existing requirements for an underground stage 2 was included in original submissions for the Mining Plan. It is acknowledged that mining cannot proceed until the new underground plan is submitted and approved.

Competent Persons Statement

The information in this announcement that relates to ore reserves is based on and fairly represents information reviewed by Mr Grant Haywood, a Competent Person who is a member of the AusIMM. Mr Haywood is employed by Horizon Minerals Limited and has sufficient experience that is relevant to this style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Haywood consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears. Mr Haywood confirms that the information in this market announcement is an accurate representation of the available data for the Bulong South, Glandore and Cowarna gold projects.



References and links to original ASX announcements

- 1. <u>Southern Gold Limited announcement entitled "Cannon RC drilling for underground grade</u> <u>control" dated 28 June 2017</u>
- 2. <u>Southern Gold Limited announcement entitled "Very high-grade gold in Cannon RC drilling"</u> <u>dated 29 August 2017</u>
- 3. <u>Southern Gold Limited announcement entitled "New JORC Resource for Cannon</u> <u>underground" dated 9 October 2017</u>
- 4. <u>Southern Gold Limited announcement entitled "Underground phase of Cannon mine to proceed" dated 23 January 2018</u>
- 5. <u>Southern Gold Limited announcement entitled "Strategic agreement executed over Cannon</u> <u>gold mine" dated 10 December 2018</u>
- 6. <u>Southern Gold Limited announcement entitled "Cannon mine maiden JORC reserve" dated 6</u> <u>May 2019</u>
- 7. <u>Southern Gold Limited announcement entitled "\$2.6 million WA asset sale agreement</u> <u>executed" dated 5 August 2019</u>



Cowarna gold project

Cowarna is located 70km east of Boorara and comprises five exploration tenements covering approximately 138km². The project sits immediately east of the emerging Mt Belches gold project within Silver Lake Resources' Mt Monger gold operation (Figure 3).

The area was consolidated by Southern Gold Ltd after compilation and review of historical data which identified several gold anomalies. Soil geochemistry and rock chip sampling was followed by a small RC program completed at the Pryde and Logan prospects which confirmed the presence of gold mineralised zones. No further work has been completed and follow up drilling is now planned and will commence in the September Quarter 2021.

Cowarna lies within the Mt Belches Basin consisting of an upper and lower greywacke sequence separated by the Santa Claus Member, a banded iron formation (BIF) comprising wacke, mudstone and ferruginous mudstone; common Bouma sequences with magnetite concentrated in the pelitic portion and chert iron-formation horizons.

Two BIF packages are recognised with economic gold mineralisation within the Mt Belches area structurally controlled but restricted to the BIF or BIF proximal horizons. Significant resources to the west include Maxwells and Cockeyed Bob and the Santa, Santa North and Flycamp projects along strike of the tenure to the northwest in the BIF marker horizon.

A detailed review of all historical work is now underway with first drilling planned at the Bamf, Nightcrawler and Deadpool prospects and follow up drilling at Pryde and Logan to the east.

Approved for release by the Board of Directors.

For further information, please contact:

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	Cut-off		Measure	ed		Indicated	ł		Inferred	l.	То	otal Reso	ource
Project	grade (g/t)	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz
Boorara OP	0.5	1.28	1.23	50,630	7.19	1.27	294,140	2.56	1.26	103,470	11.03	1.26	448,240
Jacques Find	1.0				1.60	2.24	114,850	0.32	1.68	17,140	1.91	2.14	131,970
Teal	1.0				1.01	1.96	63,680	0.80	2.50	64,460	1.81	2.2	128,140
Peyes Farm	1.0				0.31	1.65	16,310	0.22	1.77	12,550	0.53	1.7	28,860
Crake	1.0	0.46	1.85	27,460	0.48	1.49	22,570	0.33	2.22	23,790	1.27	1.82	73,820
Rose Hill OP	0.5	0.19	2.00	12,300	0.09	2.00	6,100				0.29	2.00	18,400
Rose Hill UG	2.0				0.33	4.50	47,100	0.18	4.80	27,800	0.51	4.60	74,900
Pennys Find (50%)					0.07	8.06	19,000	0.05	5.57	9,000	0.12	7.04	28,000
Gunga West	0.6				0.71	1.60	36,440	0.48	1.50	23,430	1.19	1.56	59,870
Golden Ridge	1.0				0.47	1.83	27,920	0.05	1.71	2,800	0.52	1.82	30,720
TOTAL		1.94	1.45	90,390	12.24	1.65	648,110	4.99	1.77	284,430	19.18	1.66	1,022,930

Horizon Minerals Limited – Summary of Gold Mineral Resources

Confirmation

The information in this report that relates to Horizon's Mineral Resources estimates is extracted from and was originally reported in Horizon's ASX announcements "Intermin's Resources Grow to over 667,000 Ounces" dated 20 March 2018, "Crake Gold Project Continues to Grow" dated 10 December 2019, and "Rose Hill firms as quality high grade open pit and underground gold project" dated 8 December 2020, "Horizon enters high grade underground development JV", dated 30 November 2020, "Updated Boorara Mineral Resource Delivers a 34% Increase In Gold Grade" dated 27 April 2021, each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates or Ore Reserves estimates have not been materially modified from the original market announcements.



Horizon Minerals Limited – Summary of Vanadium / Molybdenum Mineral Resources

Design Cut-off		Tonnage	Grade			Metal content (Mt)		
Project	grade (%)	(Mt)	V ₂ O ₅ (%)	Mo (ppm)	Ni (ppm)	V ₂ O ₅	Мо	Ni
Rothbury (Inferred)	0.30	1,202	0.31	259	151	3.75	0.31	0.18
Lilyvale (Indicated)	0.30	430	0.50	240	291	2.15	0.10	0.10
Lilyvale (Inferred)	0.30	130	0.41	213	231	0.53	0.03	0.03
Manfred (Inferred)	0.30	76	0.35	369	249	0.26	0.03	0.02
TOTAL		1,838	0.36	256	193	6.65	0.46	0.36

Horizon Minerals Limited – Summary of Silver / Zinc Mineral Resources

Nimbus All Lodes (bottom cuts 12g/t Ag, 0.5% Zn, 0.3g/t Au)

Category	Tonnes	Grade	Grade	Grade	Ounces	Ounces	Tonnes
	Mt	Ag (g/t)	Au (g/t)	Zn (%)	Ag (Moz)	Au ('000oz)	Zn ('000t)
Measured Resource	3.62	102	0.09	1.2	11.9	10	45
Indicated Resource	3.18	48	0.21	1.0	4.9	21	30
Inferred Resource	5.28	20	0.27	0.5	3.4	46	29
Total Resource	12.08	52	0.20	0.9	20.2	77	104

Nimbus high grade silver zinc resource (500g/t Ag bottom cut and 2800g/t Ag top cut)

Category	Tonnes	Grade	Grade	Ounces	Tonnes
	Mt	Ag (g/t)	Zn (%)	Ag (Moz)	Zn ('000t)
Measured Resource	0	0	0	0	0
Indicated Resource	0.17	762	12.8	4.2	22
Inferred Resource	0.09	797	13.0	2.2	11
Total Resource	0.26	774	12.8	6.4	33

Confirmation

The information is this report that relates to Horizon's Mineral Resources estimates on the Richmond Julia Creek vanadium project and Nimbus Silver Zinc Project is extracted from and was originally reported in Intermin's and MacPhersons' ASX Announcement "Intermin and MacPhersons Agree to Merge – Creation of a New Gold Company Horizon Minerals Ltd" dated 11 December 2018 and in MacPhersons' ASX announcements "Quarterly Activities Report" dated 25 October 2018, "Richmond – Julia Creek Vanadium Project Resource Update" dated 16 June 2020, "New High Grade Nimbus Silver Core Averaging 968 g/t Ag" dated 10th May 2016, "Boorara Trial Open Pit Produced 1550 Ounces" dated 14 November 2016 and "Nimbus Increases Resources" dated 30th April 2015, each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates have not been materially modified from the original market announcements.



Forward Looking and Cautionary Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) where applicable and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward-looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcement.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	The nature of the samples and assay results in the body of this ASX Release relate to surface reverse circulation (RC) and diamond drilling core drilling techniques. Underground face samples were used in the rare instance, to inform the modelling but not incorporated in the resource calculation.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Exploration and Resource definition drilling RC drill holes and RC pre- collars were sampled at 1m intervals followed by riffle splitting and collection into plastic bags for non-pre-collared holes or as four metre, spear sampled, composite samples for RC pre-collars.
		Exploration and Resource definition diamond core was sampled as half core at intervals not less than 0.1m and no greater than 1.3m lithological boundaries. Sampling intervals were controlled by geological boundaries. The <u>2017 Resource</u> used face sampling reverse circulation (RC) percussion drilling. Drill holes were sampled at 1m intervals via a cone-splitter connected
minerali Public R In cases been do (e.g. 'rev obtain 2 pulverist assay'). may be coarse problem minerali nodules,	Aspects of the determination of mineralisation that are Material to the Public Report.	via a cyclone directly to the drill stream. Determination of mineralisation was achieved by geological logging of samples by an experienced SAU or consultant geologist or representative, with structural measurements taken where possible. Sample intervals were geologically logged for lithology, mineralisation, alteration, veining, and structure. SAU/Westgold mapping and rock sampling results has been used to inform the determination of mineralisation at an early stage of exploration.
	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.	 Exploration and Resource Definition Drilling - Individual 1m samples from RC composites returning anomalous gold values were subsequently re-split by sample spear and assayed. Individual RC drilling samples riffle split from the drill rig were collected into pre- numbered calico bags. Exploration and Resource definition diamond core was sampled as half core at intervals not less than 0.1m and no greater than 1.3m lithological boundaries. Sampling intervals were controlled by geological boundaries. Each sample sent to the lab was greater than 500g. Samples greater than 3kg were riffle split at the preparation facility to under 3kg before being pulverised. All samples between 500g and 3kg were completely pulverised. 2017 Resource Confirmation In Pit RC Grade Control Drilling - drill holes were sampled at 1m intervals via a cone-splitter connected via a cyclone directly to the drill stream. Individual RC drilling samples were cone split from the drill rig and collected into pre-numbered calico bags. Holes BSRC275 to BSRC303: Each sample was completely pulverised to produce a 50g charge for fire assay. Holes BSRC304 and BSRC305: Each sample was completely pulverised to produce a 10g charge for multi-element analysis.

Criteria	JORC Code explanation	Commentary
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.).	 Exploration and Resource Definition Drilling – Diamond or face sampling reverse circulation percussion drilling were the primary drilling techniques used to evaluate the initial Cannon resource. The Original Cannon resource has been estimated using 57 RC holes, four diamond holes drilled from surface and 15 RC pre-collared holes with diamond tails. RC percussion drilling downhole depths range from 34m to 240m. Diamond drill holes and diamond tails to RC pre-collars downhole depths range from 78m to 225m. Exploration RC drilling was undertaken by Ausdrill, Strange Drilling and Andrews Drilling, all of Kalgoorlie, using 5½ inch diameter face sampling hammers. Exploration and Resource Diamond core drilling was undertaken by Ausdrill Ltd. Diamond tails were drilled as NQ (47.6mm diameter) and NQ2 (50.8mm diameter). Drill holes used for geotechnical or metallurgical data acquisition were drilled using triple tubed HQ3 core with a diameter of 61.1mm). All cored holes were routinely orientated using an ACE electronic tool. 2017 Resource Confirmation In Pit RC Grade Control Drilling — In pit Face sampling RC percussion drilling was undertaken from surface to depths ranging from 6 to 55m. Grade control RC drilling in the Cannon Pit was undertaken by VM Drilling and Blue Spec Mining of Kalgoorlie. UG RC Ramp drilling Face sampling reverse circulation percussion drilling was the drilling technique used. Holes were surveyed by Gyro tool (Reflex EZ Gyro) in the rod stream by Ausdrill of Kalgoorlie, WA.
	Method of recording and assessing core and chip sample recoveries and results assessed.	 Exploration and Resource Definition Drilling - Sampling intervals during RC drilling were routinely checked by comparing the position of the drill rod against the sample bag being filled. Cored hole depths were measured by Company geologists and reconciled with core markers prepared by the driller. 2017 Resource Confirmation In Pit RC Grade Control Drilling - Sampling intervals during RC drilling were routinely checked by comparing the position of the drill rod against the sample bag being filled. Drilling of RC holes was conducted with machinery and using drilling techniques appropriate to the terrain and with drillers experienced in the area.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	 Exploration and Resource Definition Drilling - Drilled cored meters compared well to recovered meters. Overall recoveries are estimated at 98% for core drilling. Drilling of core and RC holes were conducted with machinery and using drilling techniques appropriate to the terrain and with drillers experienced in the area. Core and RC sample loss was kept to a minimum by good sampling practices. Riffle splitting of RC samples and sampling of half core from diamond holes provided good representation of the intervals sampled. 2017 Resource Confirmation In Pit RC Grade Control Drilling - Sample loss and contamination was kept to a minimum by good sampling practices. Cone splitting of RC holes provided good representation of the intervals sampled.

Criteria	JORC Code explanation	Commentary
	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.	Exploration and Resource Definition Drilling – No recovery issues were identified with the RC drilling. Loss of fines at the cyclone was minimal and is not considered to have had a significant effect on sample recovery. No relationship has been noted between sample recovery and grade. Overall, sample recoveries were very high and did not present a problem.
		2017 Resource Confirmation In Pit RC Grade Control Drilling - No recovery issues were identified with drill holes within ore zones. Loss of fines at the cyclone was minimal and is not considered to have had a significant effect on sample recovery. No relationship has been noted between sample recovery and grade. Overall, sample recoveries were very high and did not present a problem.
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.	All drill holes have been geologically logged by Company geologists using a standard format over the whole length of each hole. Features for each sample or geological interval recorded included weathering, lithology, alteration mineralogy, structural information, mineralisation mineralogy, veining, vein mineralogy and orientation and proportions of non-economic minerals. This level of detail is considered appropriate to support the 2015 Mineral Resource estimate and the 2017 SAU Resource statement.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Geological logging recorded factual data (e.g. colour, grain size, percentage of identifiable minerals present) and interpretative data (e.g. lithology). A subsample of washed and sieved RC chips from each metre was collected and stored sequentially in numbered plastic chip trays. Chips trays representing each RC drill hole are stored in the Company's head office in Adelaide or at Westgold South Kalgoorlie operations. All drill core has been photographed. Detailed geotechnical logging and geotechnical tests were undertaken on three holes drilled to provide open pit design parameters and preliminary underground design parameters.
	The total length and percentage of the relevant intersections logged.	All intervals used in the 2015 and 2017 Mineral Resource estimate have been fully logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Exploration and Resource Definition Drilling - All mineralised intervals of diamond drill core were sampled as half core with intervals ranging from 0.3m to 1.3m. A minimum of three meters either side of mineralised intervals was also sampled. Sampling intervals were controlled by geological boundaries. Sample size presented for analysis was typically 1 to 3kg. 2017 Resource Confirmation In Pit RC Grade Control Drilling – did not include any new diamond drill core.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	 Exploration and Resource Definition Drilling - RC samples were riffle split at 1m intervals and rejects collected into green plastic bags. Riffle split samples were taken dry. On rare occasions when a moist or wet sample was returned, a PVC spear or scoop was used to avoid contamination of the riffle splitter (three samples). This was noted in the sample register and subsequently entered into the Company's database. Composite RC samples were taken from the plastic bags using a PVC spear. Original 1m samples were submitted for assay if initial composite analyses were considered anomalous. 2017 Resource Confirmation In Pit RC Grade Control Drilling – RC samples were sampled from a cone splitter attached to the drill rig at 1m intervals and rejects collected placed in sequential order on the ground adjacent to the drill rig. Samples were taken dry.

Criteria	JORC Code explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	 Exploration and Resource Definition Drilling - Preparation and analysis of RC and diamond core samples was undertaken by crushing and pulverizing at Intertek Genalysis' Kalgoorlie laboratory, followed by analysis at Intertek Genalysis' facility in Perth. 2016 DDH program, samples analysed through Bureau Veritas Kalgoorlie. 2017 Resource Confirmation In Pit RC Grade Control Drilling – Sample size presented for analysis was approximately 3kg. Preparation and analysis of samples was undertaken by Minanalytical at their Kalgoorlie and Perth facilities.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Exploration and Resource Definition Drilling - Sampling procedures utilised for the Cannon exploration and resource definition drilling were reviewed previously by external consultant Runge Pincock Minarco (Runge, 2010, 2011 and RPM 2012) and are considered to be of a high standard. 2017 Resource Confirmation In Pit RC Grade Control Drilling – Sampling procedures utilised for the Cannon In Pit sampling were in line with previous practices, considered appropriate and of a high standard.
	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.	 Exploration and Resource Definition Drilling - Field duplicates were collected every 20th sample from 2010 onwards and results obtained compared well with the original sample. 2017 Resource Confirmation In Pit RC Grade Control Drilling – Field duplicates were collected at every 20th metre mark on each hole and results obtained returned a correlation coefficient of 0.988. One duplicate result failed, this was of a different mineralisation style outside of the targeted zone.
	Whether sample sizes are appropriate to the grain size of the material being sampled	Samples were pulverised to 85% passing 75 micron. Consultation between the Company and the lab concluded this particle size was suitable for the Cannon samples.
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.	<i>Exploration and Resource Definition Drilling</i> - The analytical method used for samples used in the resource estimation was Genalysis method FA25/AA, consisting of a 25-g charge fire assay with detection by atomic absorption at a detection limit of 0.01ppm Au (gold). Fire assay is considered the most appropriate analysis method for the deposit and is a total digest technique. No strong nugget effect was observed in repeated assays and screening of samples prior to fire assay was not considered necessary.
		2017 Resource Confirmation In Pit RC Grade Control Drilling – Holes BSRC275 to BSRC303: Gold was analysed by Minanalytical method FA50AAS, consisting of a 50g charge fire assay followed by atomic absorption spectroscopy at a detection limit of 0.005ppm Au (gold). No strong nugget effect was observed in repeated assays and screening of samples prior to fire assay was not considered necessary. Holes BSRC304 and BSRC305: Aqua regia digest was used to produce a solution which was then analysed for a 61 element suite with detection by ICP-OES / ICP-MS (AR1031) methods.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No data from geophysical tools were used to determine analytical results for this Resource.

Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	 Exploration and Resource Definition Drilling – The QAQC protocol used for drilling undertaken in 2009 consisted of certified standards inserted at a rate of approximately 1 in 100, a small number of blanks and laboratory repeats. The QAQC protocol used for drilling undertaken in 2010 consisted of certified standards plus blanks inserted at a rate of 1 in 15. Duplicate sampling was also undertaken. The QAQC protocol used for drilling undertaken in 2012 and 2016 drilling consisted of certified standards plus blanks inserted at a rate of a rate of a paproximately 1:20. Field duplicates were collected every 20th sample from 2010 onwards and results compared well. Results from QAQC monitoring of the accuracy and precision of the analytical methods employed which were at variance with accepted values were discussed with the analysing laboratory and resolved to the satisfaction of the Company. A review of the analytical performance of the external standards and blanks used in exploration and resource definition drilling was previously assessed (Runge, 2010, 2011 and RPM 2012) which indicated that these results were acceptable in the majority of samples and that the assay data was considered acceptable for resource estimation purposes.
		2017 Resource Confirmation In Pit RC Grade Control Drilling – The QAQC protocol used consisted of certified reference materials plus blanks, each inserted at a rate of 1:20. Field duplicates were collected every 20th metre mark and results compared well (R=0.988).
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Exploration and Resource Definition Drilling - Significant intersections were visually inspected and verified by the Competent Person (Mr Ian Blucher). A total of 361 samples were submitted to an umpire laboratory (ALS Kalgoorlie) for sample preparation and analysis at the Perth ALS laboratory in 2010 with results comparing well.
	The use of twinned holes.	2017 Resource Confirmation In Pit RC Grade Control Drilling – Significant intersections were visually inspected and verified by the Competent Person No twinned holes have been completed as part of these programs.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	All sampling data is recorded on computer spreadsheets or by hand onto logging sheets and re-checked before submission to the lab. Data is then entered into digital form and stored on the Company database after validation. Original logging sheets are filed in the Company's field Office in Kalgoorlie/Adelaide. The assay database is stored securely on the Company's server which is backed up routinely both on and offsite. No adjustments are made to the assay data after review of QAQC measures
	Discuss any adjustment to assay auta.	as stated above.
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.	 Exploration and Resource Definition Drilling - Drill hole collar positions have been accurately surveyed by registered surveyors utilising DPGS survey equipment to an accuracy of +/- 0.01m. 71% of holes were surveyed downhole by Gyro Inclinometer with the remaining 29% by electronic multi-shot tool. 2017 Resource Confirmation In Pit RC Grade Control Drilling – Drill hole collar positions have been surveyed by Differential GPS to an accuracy of +/- 0.1m. Holes were surveyed by Gyro tool (Reflex EZ Gyro) in the rod stream by Ausdrill of Kalgoorlie, WA.

Criteria	JORC Code explanation	Commentary
	Specification of the grid system used.	The grid system used for locating the collar positions of drill holes is the Geocentric Datum of Australia (GDA94), Zone 51 (MGA Projection). Elevations are recorded in Australian Height Datum (AHD).
	Quality and adequacy of topographic control.	Exploration and Resource Definition Drilling - Topographic control in the immediate vicinity of the Cannon resource is provided by topographic mapping undertaken by Whelans of Kalgoorlie with an estimated RMS accuracy of 0.05m horizontal and 0.05m vertical.
		2017 Resource Confirmation In Pit RC Grade Control Drilling - Topographic control in the area is provided by SRTM data and mine site surveying.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	 Exploration and Resource Definition Drilling - The average drill hole spacing in the main portion of the resource is approximately 20m along strike and 20m down dip. With the good continuity of structure evident at the deposit, this spacing is considered adequate to allow some parts of the deposit to be classified as an Indicated Mineral Resource. The portions of the deposit drilled at spacings of greater than 20m, or where continuity of structure is uncertain, have been classified as Inferred Mineral Resource. 2017 Resource Confirmation In Pit RC Grade Control Drilling – The average in-pit drill hole spacing used was 10 m grid east west and 5 m grid north – south. This spacing provides information to infill between existing
		resource drilling and is adequate to inform the mining process. Compositing of samples reported has not been applied. UG RC Ramp infill drilling was undertaken on 5m grid north- south spacing over 70m with 1-4 holes per line.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The Cannon deposit shows reasonable continuity of the main mineralised zones allowing the drill hole intersections to be modelled into coherent, geologically robust wireframes. Reasonable consistency is evident in the thickness of the structure, and the distribution of grade appears to be reasonable along strike and down plunge. The data spacing and distribution is sufficient and appropriate to inform the Mineral Resource and Reserve estimation.
	Whether sample compositing has been applied.	Samples were composited to 1m intervals for use in the both the 2015 and 2017 Mineral Resource Estimations.
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.	Exploration and Resource Definition Drilling - The orientation of the drilling direction is to the east, which is approximately perpendicular to the general strike of structures controlling mineralisation which dip to the west. A number of holes have been drilled at a close angle to the dip due to the steep nature of the lodes and varying strike of the mineralisation. The majority of holes have been drilled to the east, with one scissor hole drilled to the west. Three geotechnical holes drilled for mine design purposes were drilled at bearings of 120, 235 and 300 magnetic. Data obtained from these holes had also been incorporated in the 2015 Mineral Resource estimate.
		2017 Resource Confirmation In Pit RC Grade Control Drilling – All drilling was undertaken to the east, parallel to the majority of the Cannon resource and Grade Control drilling. No twinned-holes were drilled.

Criteria	JORC Code explanation	Commentary
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The relationship between the orientation of drilling and orientation of mineralised structures is not considered to have introduced a sampling bias.
Sample security	The measures taken to ensure sample security.	Security measures employed for grade control samples were the same as for the exploration and resource drilling. RC samples are placed into pre-numbered calico bags directly from the splitter under the supervision of the rig geologist. The geologist places the calicos bags containing the samples into polyweave bags and transports them to the sample preparation laboratory where a sample submission form is completed. The details entered onto the sample submission form are the means by which the samples are tracked through the laboratory. The laboratory provides the Company with a reconciliation of samples submitted compared to samples received.
Audits or	The results of any audits or reviews of	Exploration and Resource Definition Drilling -
reviews	sampling techniques and data.	A site visit was conducted in June 2010 (Runge, 2010) to review the project and deposit geology, drilling, sampling and site procedures. Runge (2010) reported that Company procedures and protocols were operating at a high level. The exploration and resource definition drilling data was audited previously in Surpac by Runge (2010 and 2011) and RPM(2012), with no major issues identified. An internal review of bulk density data was undertaken by Company geologists in Dec 2012.
		2017 Resource Confirmation In Pit RC Grade Control Drilling – No audits or reviews of grade control sampling techniques have been

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Cannon resource is secured by M25/333, located ca. 30km ESE of Kalgoorlie, WA. Georges Reward is located with ML25/357, and there are four miscellaneous licences providing haul road access and borefield, L25/50, L25/51, L25/43 & L25/48. There are no material issues with third parties, however there is a \$1/t processing Royalty held by a third party over any resource within M25/357. There are no known impediments to obtaining a license to operate. The acquisition of ML25/357 (Georges Reward) from Northern Star in January 2019 has not affected any reporting of results as these had been included in previous releases pertaining to Westgold and Cannon open pit operations thru to 2018. The current Resource and Reserve, does not at this time, include any ore from within ML25/357.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	There are no known impediments to obtaining a license to operate. All tenements are in good standing.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration prior to 2005 was undertaken by a number of companies and prospectors including Cyprus Gold Limited and Roebuck Resources. Work by Roebuck Resources in 1994 identified a number of surface lag sample anomalies. A 1994 bedrock geochemical RAB drilling program resulted in the identification of at least three areas of significantly anomalous gold anomalous intersections which were not followed up at the time.
Geology	Deposit type, geological setting and style of mineralisation.	Mineralisation is considered to be a mesothermal, vein and alteration style deposit similar to many other deposits in the Kalgoorlie district. The interpretation used for this estimate is based on work completed by Company personnel who logged the holes and mapped the area. The Cannon gold mineralisation is structurally controlled strikes north- easterly and dips to the west. High grade mineralised zones within the resource appear to be controlled by local scale dilational structures. Mineralisation is associated with chlorite-biotite-albite-quartz- carbonate-pyrite alteration. The bulk of the gold mineralisation is hosted in a pillowed basalt unit. Other lithologies present include dioritic intrusives, lamprophyre dykes, high magnesium basalts and komatiites.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 	No new previously unreported data, results is included in this Resource/Reserve statement. A summary of detailed results used in the 2015 Resource report can be found in tables and figures presented in the Southern Gold ASX release dated 10 th March 2015. Further details and selection of grade control results have previously been released with relevant drilling and grades and full data tables for the 2017 Southern Gold Maiden Cannon Underground Resource released and Announced to ASX on 29 th August 2017 <i>"Multiple very-high grade Au</i> <i>results from RC drilling at Cannon Gold Mine, WA"</i> and ASX release 9 th October 2017 <i>"New Mineral Resource estimate underpins underground</i> <i>phase at Cannon Gold Mine, WA"</i> .
	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.	No information has been excluded from this release that has not previously been release. All drill hole information, results and details has been previously published.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No weighting average techniques or grade aggregations have been reported in this release in relation to Exploration or grade control results. Previously released results reported were uncut in reporting of Exploration results.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No aggregated intercepts are reported here.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been reported in this ASX Release.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Mineralisation widths are the same as intercept widths as observed underground. No SAU drilling has been conducted for this release.
		Previously report results relating to the range of variation in down hole widths and grades and the nature of the continuity established is shown in: Table 1 and Figures 1,2, 3 and 4 Table 1 of the Southern Gold ASX announcement dated 29 th January 2013. Table 1 and Figures 1, 2, 3 and 4 of the Southern Gold ASX announcement dated 10 th March 2015. Table 1 and Figures 2, 3, 5 & 5 and Appendix table 1 of Southern Gold ASX announcement dated 29 th August 2017.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Modelling of results indicate drill direction is at a high enough angle to lithological contacts and structural trends as to provide non- biased sampling. The cannon mineralisation has a strike that varies from 010° in the south to 040° toward the north with grade control drilling nominal drilled to 090° with only rare holes drilled true orthogonal to the ore.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	In previously reporting of results, only down hole lengths are reports in result tables and not true widths.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be	Appropriate maps, sections, and tables have been included in previously ASX Releases and are not reported again in this release.
	included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Figures 2, 3 and 4 of the Southern Gold ASX announcement dated 10 March 2015 show a typical range of downhole intercept widths and associated grades that may be found within the Cannon mineralisation. And is considered to be representative of the variation present in the Cannon Mineral Resource.
		A selection and full table of Underground RC drilling results was shown in Southern Gold ASX announcement dated the 29 th of August 2017 – "Multiple very high-grade Au results from RC drilling campaign at Cannon Gold Mine, WA".
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	Not all sample assay data has been included in this report as it is not considered material beyond the representatively reported high and low grade results previously announce in ASX Releases relating to the 2015 and 2017 Cannon Resources.
	avoid misleading reporting of Exploration Results.	Previous information is referenced in the company's 20130129, 2015039, 20170829 and 20171009 'New JORC Resource for Cannon Underground'.
Other substantive exploration	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	To the best of our knowledge, no meaningful and material exploration data has been omitted from this ASX Release.
exploration data		Other than the exploration undertaken by other parties documented above, no other substantive exploration data for the 2017 Cannon Mineral Resource exists.
	treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Drilling to obtain both geotechnical and metallurgical information has been undertaken. Where present, intersections of gold mineralisation and associated grades has been utilised in the modelling of the 2017 Mineral Resource which has informed the 2019 Reserve.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out	The 2017 Cannon Mineral Resource Estimate has been utilised to develop the underground mine designs and associated mining

Criteria	JORC Code explanation	Commentary
	drilling).	schedule scenarios. This data will be incorporated into financial models along with other relevant data to generate a Reserve. Information relating to possible extensions of the Cannon Resource is show in diagrams as the ore plunges into and below Georges Reward but further deep drilling is required to delineate this interpreted extension.
	possible extensions, including the main geological interpretations and future drilling	As previously released in ASX announcement '20181206 Cannon NST agreement', Figure 3 highlights a long section with the interpreted down plunge extension of Cannon. This is also repeated in ASX release 20190131 SAU quarterly report on Activities.

Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in the preceding section also apply to this section.)

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.	All logging data recorded on filed logs was input to a digital template. All digital data has been validated using standard database checks. Assay data is imported directly from the lab CSV files into the database with no manual keying of data involved. Data quality and integrity of the exploration and resource definition drilling sampling database was reviewed previously by Runge (2010 & 2011) and RPM (2012) with no major issues identified. A Datashed SQL database provides automated validation processes to ensure all data is imported with associated relationships.
	Data validation procedures used.	Data validation was conducted at the time of transfer of information from log sheets to digital files and again on entry of the digital data into the database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person (Mr Paul Androvic) visited the site during the latest ramp RC grade control drilling activities were underway. Based on observations made during these visits, it was concluded that Company's procedures relating to geological logging and sampling was of an adequate standard.
	If no site visits have been undertaken indicate why this is the case	The competent person visited site over a number of visits included the 2017 RC campaign.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Confidence in the geological interpretation is considered to be high due to the closely spaced drilling, continuity of geological units and local structures. Drill line spacing for this modelling was 5m.
	Nature of the data used and of any assumptions made.	The data used for the interpretation include geological observations on core and RC drill cuttings, structural measurements on oriented core and geochemical data from laboratory assays and handheld XRF analyses.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The strong structural control on mineralisation, which has been defined to an acceptable level of confidence from measurements on oriented core, eliminates to a large extent any possible changes resulting from alternative lithological models.
	The use of geology in guiding and controlling Mineral Resource estimation.	Geological and structural data were taken into account when constructing the mineralisation wireframes used in this Sept 2017 Resource Estimate.
	The factors affecting continuity both of grade and geology.	Factors affecting continuity of grade and geology include continuity of structure and thickness of host/favourable lithological units.

Criteria	JORC Code explanation	Commentary
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 2017 Cannon Mineral Resource has been estimated over a strike length of 150m (from 6,590,100mN - 6,590,205mN) and a vertical interval of 100m from adjacent to the base of the Cannon pit at 250mRL to 150mRL. Mineralisation varies in thickness from 1m to 15m with a typical thickness of 5 to 10m.
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 geostatistical modelling for the 2017 resource estimate was based upon the 2015 Resource modelling by external consultants Cube Consulting (Cube) under the supervision of the competent person at that time. The September 2017 Resource estimation used Inverse distance weighting (IDW) to power of 2 (ID2). An oriented 'ellipsoid' search was used for the estimate. Surpac software was used for the estimations. Three dimensional mineralised wireframes were used to domain the mineralised data. Sample data was composited to 1m down hole lengths using the 'best fit' method. Intervals with no assays were excluded from the estimates. The influence of extreme grade values was addressed by reducing high outlier values by applying high grade cuts to the data. These cut values were determined through statistical analysis (histograms, log probability plots, coefficients of variation). An orientated 'ellipsoid' search was used to select data for each domain and was based on the observed lode geometry. The search ellipses were orientated to the average strike, plunge, and dip of the domain.
	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 mineral resource estimate takes into consideration the performance of the open pit mining including geology, processing and reconciliation. The performance of the open pit resource to actual mine was very high. The model estimate was validated and checked by slicing the block model and checking with physical drilling which indicated a consistency with the modelled grade and drillhole values. A second evaluation was completed by comparing the average Au grades of the composite files against the block model output. The results show a 7% variance between the two methods with the block model the higher, which is not unreasonable.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding recovery of by- products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No estimation was made of deleterious elements or other non- grade variables of economic significance as they are nonidentified.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	First pass search parameters with a radius of up to 15m, maximum vertical search distance of 50m and minimum & maximum number of composites per estimate of 2 & 20 respectively, was adopted. The block model was generated in Surpac v6.8, using topographic and oxidation surfaces & mineralised domain wireframes as constraints. Primary block dimensions used was 2.5m (X) x 2.5m (Y) x 2.5m (Z) with subblocking to 1.25m (X) x 1.25m (Y) x 0.625m (Z)) due to the close spaced drilling and variable widths of mineralisation. The final model is a combination of the different block dimensions. No assumptions were made on selective mining units.
	Any assumptions behind modelling of selective mining units.	The block size was based upon estimated minimum mining widths using common underground mining methods in relation to the geological model. All estimation domain boundaries were treated as hard boundaries.

Criteria	JORC Code explanation	Commentary
	Any assumptions about correlation between variables.	No assumptions have been made between variables.
	Description of how the geological interpretation was used to control the resource estimates.	Construction of mineralised wireframes was based on a combination of gold grades, lithological units and geological structures. Where grade continuity was unclear, geological and structural data was used to guide the wire- framing. There were 10 objects wireframed with 7 major objects and 3 minor lodes. Variographic analysis was not completed however geostatistical information was used from the original 2015 Resource information Inverse distance Weighting interpolation was used to estimate average block grades using Surpac software.
	Discussion of basis for using or not using grade cutting or capping.	High grade cuts were used in the estimation of the Cannon resource due to the presence of outliers in the gold assays. Statistical analysis of the 1m composite data determined and an individual top cut for each lode/domained object, was determined and applied based upon the 97.5 percentile for each domain.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	The modelled data was validated by: A qualitative assessment was completed by slicing sections through the block model in positions coincident with drilling A quantitative assessment of the estimate was completed by comparing the average grades of the composite file input against the block model output for all the resource objects.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates for the 2017 Mineral Resource are estimated on a dry tonnage.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The 2017 resource model was constrained by a boundary representing the natural grade cut-off of the deposit. This approximated a cut-off of 1.0 g/t Au. The 2017 Mineral Resource was reported using a 1.0 g/t Au cut-off grade which is considered an appropriate economic mining cut-off grade for this style of mineralisation in order to ensure continuity between economic zones and maximise tonnage and grade.
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 is assumed to be via underground mining techniques with a Hangingwall Decline allowing access to 20m levels. The deposit is suitable for underground mining with a final mining method to be determined in the Reserve estimation process. Internal dilution of up to 3m has been incorporated into the modelled wireframes where necessary to allow for continuity of mineralisation. No mining dilution or ore loss has been modelled in the Resource model or applied to the reported Mineral Resource. The boundary of the mineralisation has been interpreted using a cut-off of 1.0 g/t Au, considered to be a conservative economic cut- off for the deposit. The wireframes have been modelled in a bulk scenario where two or three lodes are interpreted to combine.

Criteria	JORC Code explanation	Commentary
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 undertaken by ALS Ammtec, Perth indicates that the Cannon mineralisation is suitable for processing by standard treatment methods. The metallurgical characteristics of Cannon ore have been determined by testwork to be free milling, of moderate hardness and free of cyanicides. The estimated recovered ounces adopted are on average 91% of the mined ounces, based upon the treatment of Cannon Open Pit Ore through the South Kalgoorlie Operations, Jubilee Processing Plant in 2016 and 2017. Metallurgical factors have not been applied to the resource estimate.
Environment al 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.	Waste characterisation and acid base accounting (ABA) and net acid generation (NAG) test work indicates that the waste material from Cannon is generally considered as non-acid forming (NAF). The samples analysed had predominantly low total sulphur content (less than 0.2%) and an excess of acid neutralising capacity (ANC). It is considered the materials tested present a low risk of metalliferous drainage. No assumptions were made with respect to other variables
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density values used in the model were determined by measurements using the water displacement method. These were undertaken by Company employees for transitional and fresh lithologies with an assumed regional average used for the oxide zone. The assumed oxide density value was considered appropriate as it is very consistent across a large number of deposits in the Eastern Goldfields. Average bulk density values used were: Oxide – 2.0 t/m3, Transitional
	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.	The water displacement method used for bulk density measurements is considered appropriate as the material measured has very low porosity and minimal to no cavities.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Assumptions that samples measured in the fresh and transitional zones are representative of the entire deposit are considered valid as the lithological and alteration characteristics are very consistent across the deposit. The 2017 Cannon Underground Resource is entirely within Fresh Rock so the 2.75 value was utilised for all calculations.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The classification of Measured, Indicated and Inferred is made on the basis of data quality, continuity of structure and grade distributions, plus drill spacing and reflects the level of confidence in those parameters. The Cannon Mineral Resource has been classified in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012).

Criteria	JORC Code explanation	Commentary
	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, quality, quantity and distribution of the data).	The classification of Resources is considered appropriate based upon the available level of confidence in the data quality and quantity. Grade uncertainty and geological continuity are key considerations when classifying.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The classification approach considers all relevant factors and appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No internal audits or reviews were undertaken as part of this resource estimation process apart from internal peer review by Southern Gold.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	 The original Cannon Resource Estimation was completed using Ordinary Kriging Interpolation methodology by an external third-party consultant (cube consulting). This supports the current 2017 estimation, which has refined the geological model and mineralisation wireframes based upon the in-pit drilling and has essential significantly improved the confidence in the spatial relationship of the Cannon ore body and high grade tenor of the mineralisation below the pit. The close correlation with total gold metal contained in the two estimation methodologies (IDW vs OK) also validates the 2017 estimation process, which effectively has consolidated the resource into a high confident geometry ideal for designing underground development. Mineralisation wireframe and block modelling procedures were undertaken by the Competent Person (Paul Androvic), who has sufficiently experience appropriate to the deposit and produce the resource with an adequate level of confidence and accuracy. The total mineral resource estimate is based on global estimate. The 2017 Cannon Underground Resource estimate is 142,200t @
	These statements of relative accuracy and confidence of the estimate should be compared	5.18 g/t for 23,600 Ounces (top cut applied). Utilising geological data collected during mining of the Cannon Open pit, mining reconciliations and additional drilling firm the Pit floor and ramp, there is high Production from the Open pit portion of the Cannon Resource was concluded in June 2017. All available data and knowledge from this
	with production data, where available.	mining period has been considered and included. The reconciliation of the model to the material mined within the pit was: 576,394t @ 2.98 g/t for 55,143 Ounces.
		Compared with the 2015 Resource, against the final pit shell actually mined, this is 129% of the estimated tonnes and 99% of the Estimated Ounces. A very good correlation.
		The remnant resource below this pit shell and the subsequent small Adit, extracted from the 2015 Cube/MLX Resource was: 173,000t @ 3.9 g/t for 21,500.
		When compared to the current 2017 IDW Resource, which included 30 additional close spaced drill holes directly into the mineralisation and combined with the geological and mining knowledge obtained from mining the Cannon Open pit 120m, there is very close correlation in total metal.

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	The Cannon underground Ore Reserve estimate is based upon the September 2017 Mineral Resource completed by Southern gold Ltd (competent Person for SAU Resource – Paul Androvic). The gold grade was estimated using Inverse Distance squared (ID2) interpolation for all lodes. The 2017 Cannon Underground Resource was release on ASX on the 9 th October 2017 'New JORC resource for Cannon Underground'.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported exclusive of the Ore Reserve.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person is Christopher Hiller a full-time employee of Hiller Enterprises Pty Ltd and has conducted a site visit on 14th of January 2019 to Cannon. Christopher is a member of the Australasian Institute of Mining and Metallurgy.
	If no site visits have been undertaken indicate why this is the case.	A site visit was undertaken.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	A Mining Study was completed by Hiller Enterprises Pty Ltd for the Cannon underground options in 2017. This document was prepared for internal purposes at the time with referenced title 'Cannon UG Mining
	The Code requires that a study to at least Pre- Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The study was to a prefeasibility level of detail.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	 Two cut-off grades have been calculated and applied based on current and forecasted costs and modifying factors for the Life-of-Mine plan. A conservative gold price of AU\$1,350/oz was provided by Southern Gold Limited and was used in this calculation. Fully Costed cut-off grade of 3.0 g/t and this includes all costs associated with the extraction and toll processing of ore material Incremental Development cut-off grade of 2.0 g/t applies to all development ore material.
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	The Cannon Ore Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied post geological interrogation to generate the final diluted and recovered Ore Reserve.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	 The Life-of-Mine plan contained in the Cannon Mining Study produced by Hiller Enterprises Pty Ltd indicated that three mining methods will be utilised. Long hole open stoping using rib pillars with no fill Long hole open stoping using cemented or loose rockfill. Long hole open stoping using cascading rockfill.

Criteria	JORC Code explanation	Commentary
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre- production drilling.	Stope size, development placement and ground support strategies have been designed in line with recommendations from geotechnical consultants Peter O'Bryan and Associates.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	The model used to estimate the Ore Reserve is consistent with that which forms the basis of the Mineral Resource estimate for the Cannon deposit as announced in ASX release dated 9th October 2017 'New JORC Resource for Cannon Underground'. The models are internally known as cannon_ug_update280917.mdl.
	The mining dilution factors used.	Planned dilution has been accounted for in the creation of the Stope Shapes. Unplanned mining dilution of 15% for stoping using rib pillars, cemented and loose rockfill has been used, while the area using cascading rockfill an unplanned dilution of 20% has been used. The dilution was applied in Earthworks Production Scheduler (EPS).
	The mining recovery factors used.	A 95% mining recovery factor has been applied to both long hole open stoping using rib pillars and long hole open stoping using cemented and loose rockfill. 80% mining recovery has been used for stopes using cascading fill. Waste development excavations are given a 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore.
	Any minimum mining widths used.	A global minimum mining width of 3m is used for stopes. While the ore body width generally exceeds the minimum mining width, where the ore body is narrower stoping outlines are designed to honour the minimum width and include planned dilution. Ore drive development is designed 5m wide and 5m high to allow access of the chosen mining fleet. Planned dilution is included within the ore development design.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	All ore in the Ore Reserve estimate is classified as a Probable Ore Reserve. No Inferred Mineral Resources are included in the Ore Reserve. The Inferred Mineral Resources in the Life-of-Mine plan have been removed from the Ore Reserve estimate.
	The infrastructure requirements of the selected mining methods.	 The selected mining methods do not require any infrastructure above the standard: Surface administrative and ablution facilities Electrical reticulation Portal Ventilation infrastructure Equipment servicing facilities Cemented rock fill is anticipated to be mixed underground in stockpiles before delivery to the stopes, this method does not require any permanent infrastructure. The capital and operating costs of this additional infrastructure to support underground mining have been included in the economic evaluation which demonstrates the economic viability of the Ore Reserve.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	All Cannon ore will be trucked to a toll processing plant in Kalgoorlie. All plants being considered consist of a crushing circuit, single-stage milling circuit and hybrid carbon-in-leach (CIL) circuit with designated leach tank and numerous adsorption tanks. Gold is recovered from activated carbon into concentrated solution. Electrowinning and smelting are conducted in a secure gold room. The tailings from the process may be thickened and pumped to a paddock type tailings storage facility with multi- spigot distribution.

Criteria	JORC Code explanation	Commentary
	Whether the metallurgical process is well- tested technology or novel in nature.	The technology associated with processing of Cannon ore is currently in operation and is based on industry standard practices.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	Mine production and cash flow estimates are based on a metallurgical recovery of 91%, which is consistent with historical performance of Cannon Open pit fresh ore during 2016 to 2017 at the South Kalgoorlie Operations Mill.
	Any assumptions or allowances made for deleterious elements.	No deleterious elements are extracted.
	The existence of any bulk sample or pilot scale test work and thedegree to which such samples are considered representative of the orebody as a whole.	The historical performance of the Cannon Open Pit ore is considered representative of the performance of the Cannon orebody which ranged from ~88% to 92.5% across the production profile from oxide to fresh, with average life of mine recovery of 91.1%. The use of 90% recovery in the reserve is considered conservative.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	No minerals have been defined by a specification.
Environmen- tal	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	The Cannon Open pit is currently held to an existing MCP, with rehabilitation completed on all areas not considered for used by the Underground operations. This plan does include the underground option considered during the approvals phase and remains relevant.
		Some modifications will need to be made for the reactivation of the underground which will require review and approval but it is assumed these are minor and do not constitute a major change requiring further environmental studies.
		All existing waste rock classifications and waste dump footprints will remain unchanged with minimal mining footprint required for the underground surface infrastructure which will be placed on existing disturbed ground.
		Current external reporting is recorded and reported in the Annual Environmental Report submitted to DMIR as part of existing open pit closure reporting requirements.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development,	Infrastructure has been constructed for open pit mining. Works on site include access road, railway crossing and cleared ROM pad.
	power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	The capital and operating costs for the following infrastructure upgrades have been estimated to Feasibility Study level and included in the economic evaluation which demonstrates the economic viability of the Ore Reserve.
		 Underground primary fan Secondary fans Portal
		Pump station and staging tanks Water dams
		Mobile equipment Compressor
		Equipment service location
		 Substation Relocatable offices, explosive magazines and fuel storage area
		Labour is sourced from Kalgoorlie, the operation requires no accommodation or messing facilities.

Criteria	JORC Code explanation	Commentary
		Cannon being located close to Kalgoorlie has many active mining operations within a short distance and as such the ability to procure labour and infrastructure services for the operation should not pose any major challenges.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	All costs used in the estimation of Ore Reserves are based on the Ore Reserve plan. This plan excludes the Inferred Mineral Resources in the Life-of-Mine plan. Mining capital estimates have been made using, wherever possible, budget pricing obtained from reputable suppliers. The few instances where costs could not be obtained from these sources, costs were obtained by benchmarking of similar sized Australian mines.
	The methodology used to estimate operating costs.	The operating cost estimates have been derived from first principles estimating consumables use combined with budget pricing from reputable suppliers for the cost elements consumed in the mining process. Labour costs have been derived from pay scales of similar sized, geographically relevant underground mines in WA. Maintenance and machinery productivity costs are based on productivity estimates by benchmarking of similar sized Australian mines.
	Allowances made for the content of deleterious elements.	No deleterious elements are modelled in the Mineral Resources Models nor has there been any concern with this during the 18 months the Cannon Open pit operated and processed ore through the SKO plant.
	The source of exchange rates used in the study.	Gold price is expressed in Australian dollars and no exchange rate is required. A gold price of AU\$1350/oz has been used in all calculations.
	Derivation of transportation charges.	Transport charges for ore haulage have been estimated based upon historical costs and current competitive haulage rates from similar sites around Kalgoorlie. Transport charges for dore to the Perth Mint are included in the refining charges and based on historical charges incurred by Westgold for open pit gold production from Cannon Open Pit.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Site Treatment charges have been estimated based upon a high end toll treatment cost through a range of Kalgoorlie processing facilities.
	The allowances made for royalties payable, both Government and private.	An allowance has been made for WA state royalty of revenue less processing and selling costs in the financial evaluation.
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Ore production and head grades are determined by an optimised mine production schedule and input into the financial model. The model includes transportation and processing charges for gold.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	A gold price of AU\$1350/oz has been used in all revenue calculations for the Ore Reserve plan while AU\$1,650 was used in the Life-of-Mine plan contained in the Mining Study conducted by Hiller Enterprises Pty Ltd.
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	All gold doré produced at affiliated toll processing facilities will be transported to the Perth Mint for refining and sale.
	A customer and competitor analysis along with the identification of likely market windows for the product.	The gold market is driven by a number of factors and fluctuates dependent on physical supply and demand, political tensions and global instability. In times of uncertainty gold is seen to be a stable

Criteria	JORC Code explanation	Commentary
		and safe "currency" and this has maintained its value for a significant period of time.
	Price and volume forecasts and the basis for these forecasts.	Despite fluctuations in the gold price in USD, the price of gold in AUD has been significantly more stable and is anticipated to continue to stay around \$1,650 AUD for some time.
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	The Cannon underground mine would contribute only a small portion of the overall volume of national or global output and is unlikely to have any impact on the market.
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	The underground mining study conducted by Hiller Enterprises Pty Ltd included an economic evaluation. The financial analysis used the costs as well as the revenue from gold sales, together with the mine schedule to calculate a net cashflow per month for the duration of the project. This cashflow is then discounted to derive at the projects Net Present value (NPV). This NPV excludes depreciation, amortisation and taxes.
		No inflation of costs has been undertaken as there has been no forward speculation on gold price. It is the net cashflow that drives NPV and this is assumed to remain consistent (i.e. gold price and inflation move in the same direction).
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Sensitivities have been undertaken for both the entire mining inventory and the reserve version of the financial model.
Social	The status of agreements with key stakeholders and matters leading to social license to operate.	A social license to operate is underpinned by the excellent relationship that the Company has built, over many years, with the local community, indigenous representatives, Kalgoorlie council and WA mines department. Given the extensive mining operations in and around Kalgoorlie and the historical role of mining in this area and the pre-existing Cannon open pit, the underground mine at Cannon is not expected to have any additional effects on the local community.
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	The project is costed on the basis of leasing all the required mining
	Any identified material naturally occurring risks.	A company risk register will be maintained to address and mitigate against all foreseeable risks that could impact the Ore Reserve. The experience of the Cannon open pit has previously highlighted key areas that will be directly addressed.
	The status of material legal agreements and marketing arrangements.	Contracts would be put in place for all critical goods and services required to operate the mine. The proximity to Kalgoorlie offers a number of competitive alternatives.

	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	The Cannon open pit operations were suspended in September 2017 after completion of stage 1 open pit mining. At that time all required government and statutory permits and approvals were in place. Underground mining would take place on an existing Cannon mining lease (M25/333 & M25/357). A submission to WA DMIR, to reactivate the Open pit to commence the underground mine will be made at a future date based upon the underground mining plan. The existing MCP will be updated but all existing requirements for an Underground stage 2 was included in original submissions for the Mining Plan. It is acknowledged that mining cannot proceed until the new underground plan is submitted and approved.
Criteria	JORC Code explanation	Commentary
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	The Ore Reserve includes only Probable classifications.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Ore Reserve is in line with expectations given the low capital cost associated with the project and due to the locality. The Competent Person is confident that it is an accurate estimation of the current Cannon reserve.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	The Cannon underground resource does not have any Measured Mineral Resource has been classified as a Proved Ore Reserve. The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve has undergone internal reviews to ensure quality and consistency. No external reviews have been undertaken.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	The Ore Reserve estimate has been prepared by Christopher Hiller, a member of the Australasian Institute of Mining and Metallurgy, who is deemed a competent person with sufficient experience, in accordance with the guidelines of the JORC Code (2012). The relative confidence of the estimates contained fall with the criteria of Proved and Probable Ore Reserves.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The Ore Reserve relates to a global estimate.

Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	 The Mining Study completed by Hiller Enterprises is of an accuracy of +/- 15% and it is believed the work undertaken to derive this Ore Reserve conforms to that expectation. The main factors which could affect the confidence of the assessment include: Stope stability has been assessed by a reputable geotechnical consultancy as part of a previous feasibility study and remains relevant. Additional conservatism has been added in this area reducing the overall extraction ratio of the deposit. Modifying factors are in line with industry accepted norms Costs have been sourced from budget estimates and benchmarking and the author's knowledge of numerous similarly sized and geologically and geographically similar deposits. Revenue assumptions used in this study are in line with Southern Gold Limited expectations and gold price used below current spot prices.
It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data is available since underground mining at Cannon has not commenced. However, a small Adit was mined at the base of the open pit by Westgold with 10,640t actual mined at 9.15g/t Au for 3,131 ounces. This gold was recovered at 105% of the reserve ounces. It is not possible to directly compare this with the proposed underground reserve but it did provide factual data into parameters used, such as recovered grade tenor and geotechnical factors.