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Initial Metallurgical Test Work Confirms Economic Potential

Melbourne, Australia — Southern Cross Gold Ltd (“SXG” or the “Company”) (ASX: SXG) is pleased to announce the results of its successful initial metallurgical test program conducted on two drill holes from the 100%-owned Sunday Creek Project in Victoria, Australia.

The initial program was successful in outlining a robust flow sheet for Sunday Creek. The proposed flow sheet consists of gravity separation of gold, followed by bulk or sequential flotation of gold and sulphides, that resulted in high recoveries of both gold and antimony into products that are anticipated to be readily saleable, with high returns for both gold and antimony values. The test work also highlighted the non-refractory nature of native gold at Sunday Creek.

HIGHLIGHTS

- Recovery by gravity separation and flotation resulted in high recoveries of antimony and gold into two separate gold-sulphide concentrates that are anticipated to be readily saleable, with high returns for both gold and antimony values:
 - Gravity and bulk flotation resulted in 93.3% - 97.6% recovery of gold.
 - A hypothetical processing route was assessed for flotation only (no gravity concentrate) as part of sample preparation for mineralogical assessment. Analysis of results from sequential rougher flotation and separate cleaning of concentrates resulted in calculated estimates of 88.9% - 95.0% recovery of gold across two products:
 - An antimony concentrate, grading 32% - 52% Sb (87.1% - 93.8% recovery), 81.4 g/t – 313.6 g/t Au (40% of feed gold) with low to moderate arsenic contents (0.4% and 2.58%). It was estimated that 96% - 98% of the contained gold was native gold and:
 - A sulphide concentrate containing 65.7 g/t – 159.0 g/t Au (49% - 55% of feed gold) with higher arsenic contents (5.7% and 12.1%). Critically 79% - 82% of the contained gold was native gold indicating the opportunity for ease of gold separation.
- Work highlighted the non-refractory nature of native gold at Sunday Creek:
 - Mineralogical investigations demonstrated a high proportion of native gold (82% - 84%).
 - Gravity recoveries from 18% - 33% achieved with concentrates containing 89% - 96% native gold.
 - Cyanide-solubility of gold at a moderate grind size (80% passing 106 µm) was high (68% - 75%), reflecting that the sulphide minerals (pyrite, stibnite and arsenopyrite) contain relatively low gold concentrations.
- Test work was completed by independent metallurgical consultants, AMML, at their testing facilities in Gosford, NSW and supervised by Craig Brown of Resources Engineering & Management.

SOUTHERN CROSS GOLD LTD

Level 21, 459 Collins Street, Melbourne Vic 3000 Australia
Justin Mouchacca - Company Secretary
p: +61 3 8630 3321 e: jm@southerncrossgold.com.au
Nicholas Mead - Investor Relations
p: +61 415 153 122 e: info@southerncrossgold.com.au

ABN: 70 652 166 795
ASX Code: SXG
Issued Capital: 184.0M fully paid shares

Southern Cross Gold's Managing Director, Michael Hudson, states, "A key aspect of any mineral discovery is to test early for metallurgical performance. In this extremely strong initial result, we have demonstrated both the highly non-refractory and free nature of the gold at Sunday Creek, along with a robust flow sheet with high recoverability of both gold and antimony via industry-standard gravity and flotation methods. The products produced are anticipated to be readily saleable, with good payabilities."

Metallurgical Program Outline

The program was completed by AMML, an established mineral and metallurgical testing laboratory specialising in flotation, hydrometallurgy, gravity and comminution testwork at their testing facilities in Gosford, NSW. The program was supervised by Craig Brown of Resources Engineering & Management, who was engaged to develop plans for initial sighter flotation testing of samples from drilling of the Sunday Creek deposit.

Two quarter core intercepts were selected for metallurgical test work (Table 1). A split of each was subjected to assay analysis:

Table 1: Sample selected for metallurgical test work:

<u>Sample Location</u>	<u>Sample Name</u>	<u>Weight (kg)</u>	<u>Drill hole</u>	<u>from (m)</u>	<u>to (m)</u>	<u>Length (m)</u>	<u>Au ppm</u>	<u>Sb%</u>	<u>As%</u>
Rising Sun	RS01	22.8	MDDSC025	275.9	289.3	13.4	3.18	1.06	0.223
Apollo	AP01	16.6	SDDSC031	220.4	229.9	9.5	4.89	0.443	0.538

The samples submitted for metallurgical testwork were indicative of the upper levels of each respective deposit at the time of sample selection. However, RS01 is of a lower average tenor and contains less visible gold than the main lower Rising Sun system is now understood to contain. This has been demonstrated in subsequent drilling post metallurgical sample selection, and thus RS01 may not be reflective of the zone as now understood.

The characterisation test work included:

- Diagnostic LeachWELL testing.
- Gravity recovery by Knelson concentrator and hand panning.
- Timed flotation of combined gravity tails.
- Rougher-Cleaner flotation (without gravity separation), with sizing of products, to produce samples for mineralogical investigation.
- Mineral elemental concentrations and gold deportment was investigated using Laser Ablation examination by University of Tasmania.

Mineralogical Investigations

Assay data and QXRD Mineralogical assessment were used to estimate mineral contents for the test products, and, from this, to assess performance in terms of minerals as well as elements, including contributions to gold deportment. **For both test samples, observations and calculations indicated a high proportion of native ('free') gold: 84.0% in RS01 and 82.1% in AP01.**

Samples of size fractions of the three sulphide and gold containing flotation products from the Rougher-Cleaner test series were sent to MODA Microscopy for optical mineralogical assessment. Key observations were:

- The highest gold grade samples from each test series found multiple grains of visible gold which were generally liberated, with minor association with stibnite (antimony sulphide).
- Stibnite was highly liberated and was very 'clean' – 71.7% Sb, 28.3% S.

- Arsenopyrite was also highly liberated indicating potential for separation.
- Pyrite was largely free but exhibited some association with gangue minerals.

Cyanidation

Both samples exhibited high cyanide solubility of gold, at a moderate grind size of 80% passing 106 µm (**74.8% in RS01 and 68.4% in AP01**). The results reflected that the sulphide minerals (pyrite, stibnite and arsenopyrite) contain relatively low gold concentrations, and that most of the gold is 'free' gold.

Gravity

The response at grind size of 80% passing 106 µm to gravity recovery differed for the two samples, reflecting the differences in content of coarse free gold:

- **RS01** – 18% recovery, 66 times upgrade to 185 g/t Au concentrate, estimated to have 89% of the contained gold as 'free' gold.
- **AP01** – 33% recovery, 126 times upgrade to 1,090 g/t Au concentrate, estimated to have 96% of the contained gold as 'free' gold.

Visible gold was observed in the AP01 concentrate. However, the lower average tenor of RS01 compared to the current level of visible gold now observed in the main lower Rising Sun system (which was discovered after the met samples were selected), indicates this result may not be reflective of this zone overall. Additionally for both samples, given the high proportion of the feed gold estimated to be as 'free' gold, it is considered that gravity separation of larger feed samples could result in higher recovery of gold to a gravity concentrate.

Gravity and Bulk Rougher Flotation

Timed rougher flotation tests were performed on the tailings from the gravity recovery assessment. Analysis of results indicated that two separate concentrate products could be produced – an antimony concentrate, with high proportion of the feed antimony plus gold, and a concentrate of the remaining sulphides, containing further gold. Results for combined gravity recovery and flotation at 12 minutes:

- **Rising Sun:**
 - **Total gold recovery was 93.3%** for the three separate rougher products with:
 - Gravity Concentrate graded 185 ppm Au,
 - 'Rougher 1' graded 29.1 g/t Au, and
 - 'Rougher 2' graded 19.0 g/t Au.
 - Primary antimony recovery was 89.5% for 'Rougher 1' containing 28.5% Sb and 0.37% As.
- **Apollo:**
 - **Total gold recovery was 97.6%** for the three separate rougher products with:
 - Gravity Concentrate graded 1,090 ppm Au,
 - 'Rougher 1' graded 95.6 g/t Au, and
 - 'Rougher 2' graded 11.1 g/t Au
 - Primary antimony recovery was 94.3% for 'Rougher 1' containing 8.90% Sb and 6.6% As.

It was apparent from this test that improved selectivity is required for Apollo feed types; either through shorter flotation times (potential loss of antimony recovery) or modified chemical conditions. The 'Rougher 2' concentrate was low grade in sulphides and gold, reflecting the high rate of recovery of these to the Gravity Concentrate and the 'Rougher 1' concentrate. Grades of this product would be improved

by separating the non-antimony sulphides from the 'Rougher 1' concentrate and diverting them to the second product.

Differential Rougher–Cleaner Batch Flotation (Without Gravity)

For each sample, Rougher-Cleaner flotation testing was conducted on the original samples without preliminary gravity recovery. This work was conducted in two stages, to produce a separate antimony product with gold, and a separate sulphide-gold product. Based on the differential flotation kinetics shown by the preliminary testing, the Rougher 1 flotation time for the RS01 sample was 4 minutes and the Rougher 2 flotation time 8 minutes. For the AP01 sample Rougher 1 flotation time was 2 minutes and Rougher 2 flotation time was 10 minutes. Each rougher concentrate was cleaned separately. Cleaner 1 (Rougher 1 Con) was 3 minutes and Cleaner 2 (Rougher 2 Con) was 6 minutes for both samples.

- **Rising Sun**
 - **Overall gold recovery of 90.9%.**
 - The cleaning stage on the Rougher 1 concentrate was **very effective, producing a 51.8% grade antimony concentrate at high (93.8%) antimony recovery.**
 - Low arsenic recovery in both rougher and cleaner stages produced a low arsenic grade in the antimony concentrate of 0.37% As. A target **grade of 60% Sb** may be possible with further cleaning to remove pyrite and non-sulphide gangue.
 - The second stage roughing and cleaning produced a high-grade gold concentrate - 77.1g/t Au - with arsenic grade of 7.9% As.
- **Apollo:**
 - **High overall gold recovery of 96.9%.**
 - The reduced Rougher 1 flotation time enhanced the selectivity between the antimony and arsenic, though at slightly reduced antimony recovery. The cleaning stage on the Rougher 1 concentrate was very effective in rejecting arsenic to the Cleaner 1 Tail. But due to the ratio of As to Sb in the feed, the antimony concentrate product still had a higher arsenic grade – 2.58% As and lower antimony grade – 31.6%. Further cleaner rejection of arsenopyrite and pyrite is required to increase the Sb grade of the concentrate, with a target grade of >43%Sb.
 - The second stage roughing and cleaning produced a high-grade gold concentrate - 132g/t Au with an arsenic grade of 12.5% As.

Hypothetical Flotation Production (no gravity)

Based on the observed mineralogy of the flotation products, a hypothetical processing route was postulated in which Cleaner 1 Tail is added to the Rougher 2 Concentrate ahead of Cleaner 2 flotation. Calculations based on results from the sequential rougher flotation and separate cleaning of concentrates resulted in estimates of **88.9% - 95.0% recovery of gold** across the two products:

- Antimony concentrate, grading 32% - 52% Sb (87.1% - 93.8% recovery), 81.4 – 313.6 g/t Au (40% of feed gold) with low to moderate arsenic contents (0.4% and 2.58%). It was estimated that 96% - 98% of the contained gold was native gold and;
- A sulphide concentrate containing 65.7 g/t – 159.0 g/t Au (49% - 55% of feed gold) with higher arsenic contents (5.7% and 12.1%). Critically 79% - 82% of the contained gold was native gold indicating the opportunity for ease of gold separation.

Calculated balances for rougher and cleaner flotation (without gravity extraction from the front end) are summarised in tables 2-3 below. The gold recoveries and grades will be different with gravity separation ahead of flotation. Forecasts for this process route need to be confirmed with appropriate testing.

Table 2: Rising Sun hypothetical flotation production (no gravity)

Metallurgical Balance	Mass %	Au g/t	Gold rec %	Sb %	Sb rec %	As%	As rec %	S%	S rec %
Feed		4.0		1.1		0.2		1.6	
Stibnite Concentrate	2.0	81.4	40.1	51.8	93.8	0.4	3.4	31.8	38.4
Sulphide Concentrate	2.9	65.7	48.7	1.4	3.7	5.7	79.3	31.8	57.7
Calculated Tailings	95.1	0.5	11.1	0.029	2.5	0.038	17.3	0.07	3.9
Overall			88.9						

Table 3: Apollo hypothetical flotation production (no gravity)

Metallurgical Balance	Mass %	Au g/t	Gold rec %	Sb %	Sb rec %	As%	As rec %	S%	S rec %
Feed		10.7		0.5		0.5		1.9	
Stibnite Concentrate	1.4	313.6	40.0	31.6	87.1	2.6	6.6	38.6	27.4
Sulphide Concentrate	3.7	159.0	55.0	1.4	10.8	12.1	83.6	35.6	68.6
Calculated Tailings	94.9	0.6	5.0	0.011	2.1	0.055	9.8	0.1	3.9
Overall			95.0						

Calculations of gold-type deportment estimated that gold in the stibnite concentrates was >95% 'free' gold. For the sulphide concentrates it was ~80% 'free' gold, indicating the opportunity for ease of gold separation. This would be less with gravity recovery ahead of flotation.

Analysis of mineral deportments shows the opportunity to improve overall flotation outcomes by having a mechanism to depress arsenopyrite and pyrite, and/or an additional cleaner stage in the antimony concentrate production section. An additional cleaner stage for the gold-sulphide stage is also indicated, to reject non-sulphide gangue.

Blending of feeds for processing, or blending of products from separate processing, may be beneficial to overall outcomes.

Next Steps

Further investigations and test work are recommended to optimise metallurgical response, enhance understanding of the mineral types, and to provide inputs to project development studies.

- Research to investigate influences on flotation rates of the various sulphides, and to develop strategies to improve selectivity.
- A thorough geometallurgy study to identify potential metallurgical feed types.
- Application of standard tests to representative samples of each type to assess response.
- Flowsheet optimisation investigations:
 - Combined gravity separation and multi-stage flotation of representative feed type samples incorporating research outcomes.

- Detailed assessment of appropriate composites, including locked-cycle flotation testing, to confirm recovery and product quality predictions, and to produce samples for market assessment and / or downstream processing investigations.

About Sunday Creek

The Sunday Creek epizonal-style gold project is located 60 km north of Melbourne within 19,365 hectares of granted exploration tenements. SXG is also the freehold landholder of 133.29 hectares that form the key portion in and around the main drilled area at the Sunday Creek Project.

Gold and antimony form in a relay of vein sets that cut across a steeply dipping zone of intensely altered rocks (the "host"). When observed from above, the host resembles the side rails of a ladder, where the sub-vertical mineralised vein sets are the rungs that extend from surface to depth. At Apollo and Rising Sun these individual 'rungs' have been defined over 350 m depth extent from surface to 550 m below surface, are 10 m to 20 m wide, and 20 m to 100 m in strike.

Our systematic drill program is strategically targeting these significant vein formations, initially these have been defined over 1,100 m strike of the host from Christina to Apollo prospects, of which approximately 400 m has been more intensively drill tested (Rising Sun to Apollo). At least twenty-three 'rungs' have been discovered to date, defined by high-grade intercepts (20 g/t to >4,000 g/t Au) along with lower grade edges. Ongoing step-out drilling is aiming to uncover the potential extent of this mineralised system.

Geologically, the project is located within the Melbourne Structural Zone in the Lachlan Fold Belt. The regional host to the Sunday Creek mineralisation is an interbedded turbidite sequence of siltstones and minor sandstones metamorphosed to sub-greenschist facies and folded into a set of open north-west trending folds.

- Ends -

This announcement has been approved for release by the Board of Southern Cross Gold Ltd.



Competent Person Statement

Information in this announcement that relates to new metallurgical results contained in this report is based on information compiled by Mr. Craig Brown, a Fellow of the Australasian Institute of Mining and Metallurgy. He is the Metallurgical Consultant to Southern Cross Gold Ltd. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Craig Brown has consented to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original document/announcement and the Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

For further information, please contact:

Justin Mouchacca, Company Secretary, jm@southerncrossgold.com.au, +61 3 8630 3321

Nicholas Mead, Corporate Development, nm@southerncrossgold.com.au, +61 415 153 122

JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 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 (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Sampling has been conducted on drill core (half core for >90% and quarter core for check samples), grab samples (field samples of in-situ bedrock and boulders; including duplicate samples), trench samples (rock chips, including duplicates) and soil samples (including duplicate samples). Locations of field samples were obtained by using a GPS, generally to an accuracy of within 5 metres. Drill hole and trench locations have been confirmed to <1 metre using a differential GPS. Samples locations have also been verified by plotting locations on the high-resolution Lidar maps Drill core is marked for cutting and cut using an automated diamond saw used by Company staff in Kilmore. Samples are bagged at the core saw and transported to the Bendigo OnSite Laboratory for assay. At OnSite samples are crushed using a jaw crusher combined with a rotary splitter and a 1 kg split is separated for pulverizing (LM5) and assay. Standard fire assay techniques are used for gold assay on a 30 g charge by experienced staff (used to dealing with high sulphide and stibnite-rich charges). OnSite gold method by fire assay code PE01S. Screen fire assay is used to understand gold grain-size distribution where coarse gold is evident. ICP-OES is used to analyse the aqua regia digested pulp for an additional 12 elements (method BM011) and over-range antimony is measured using flame AAS (method known as B050). Soil samples were sieved in the field and an 80 mesh sample bagged and transported to ALS Global laboratories in Brisbane for super-low level gold analysis on a 50 g samples by method ST44 (using aqua regia and ICP-MS). Grab and rock chip samples are generally submitted to OnSite Laboratories for standard fire assay and 12 element ICP-OES as described above.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> HQ diameter diamond drill core, oriented using Boart Longyear TruCore orientation tool with the orientation line marked on the base of the drill core by the driller/offsider. A standard 3 metre core barrel has been found to be most effective in both the hard and soft rocks in the project.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> Core recoveries were maximised using HQ diamond drill core with careful control over water pressure to maintain soft-rock integrity and prevent loss of fines from soft drill core. Recoveries are determined on a metre-by-metre

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> basis in the core shed using a tape measure against marked up drill core checking against driller's core blocks. Plots of grade versus recovery and RQD (described below) show no trends relating to loss of drill core, or fines.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Geotechnical logging of the drill core takes place on racks in the the company core shed. Core orientations marked at the drill rig are checked for consistency, and base of core orientation lines are marked on core where two or more orientations match within 10 degrees. Core recoveries are measured for each metre RQD measurements (cumulative quantity of core sticks > 10 cm in a metre) are made on a metre by metre basis. Each tray of drill core is photographed (wet and dry) after it is fully marked up for sampling and cutting. The ½ core cutting line is placed approximately 10 degrees above the orientation line so the orientation line is retained in the core tray for future work. Geological logging of drill core includes the following parameters: Rock types, lithology Alteration Structural information (orientations of veins, bedding, fractures using standard alpha-beta measurements from orientation line; or, in the case of un-oriented parts of the core, the alpha angles are measured) Veining (quartz, carbonate, stibnite) Key minerals (visible under hand lens, e.g. gold, stibnite) 100% of drill core is logged for all components described above into the company MX logging database. Logging is fully quantitative, although the description of lithology and alteration relies on visible observations by trained geologists. Each tray of drill core is photographed (wet and dry) after it is fully marked up for sampling and cutting. Logging is considered to be at an appropriate quantitative standard to use in future studies.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	<ul style="list-style-type: none"> Drill core is typically sampled using half of the HD diameter. The drill core orientation line is retained. Quarter core is used when taking sampling duplicates (termed FDUP in the database). Sampling representivity is maximised by always taking the same side of the drill core (whenever oriented), and consistently drawing a cut line on the core where orientation is not possible. The field technician draws these lines.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sample sizes are maximised for coarse gold by using half core, and using quarter core and half core splits (laboratory duplicates) allows an estimation of nugget effect. In mineralised rock the company uses approximately 10% of ¼ core duplicates, certified reference materials (suitable OREAS materials), laboratory sample duplicates and instrument repeats. In the soil sampling program duplicates were obtained every 20th sample and the laboratory inserted low-level gold standards regularly into the sample flow.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> The fire assay technique for gold used by OnSite is a globally recognised method, and over-range follow-ups including gravimetric finish and screen fire assay are standard. Of significance at the OnSite laboratory is the presence of fire assay personnel who are experienced in dealing with high sulphide charges (especially those with high stibnite contents) – this substantially reduces the risk of in accurate reporting in complex sulphide-gold charges. The ICP-OES technique is a standard analytical technique for assessing elemental concentrations. The digest used (aqua regia) is excellent for the dissolution of sulphides (in this case generally stibnite, pyrite and trace arsenopyrite), but other silicate-hosted elements, in particular vanadium (V), may only be partially dissolved. These silicate-hosted elements are not important in the determination of the quantity of gold, antimony, arsenic or sulphur. A portable XRF has been used in a qualitative manner on drill core to ensure appropriate core samples have been taken (no pXRF data are reported or included in the MX database). Acceptable levels of accuracy and precision have been established using the following methods <ul style="list-style-type: none"> <i>¼ duplicates</i> – half core is split into quarters and given separate sample numbers (commonly in mineralised core) – low to medium gold grades indicate strong correlation, dropping as the gold grade increases over 40 g/t Au. <i>Blanks</i> – blanks are inserted after visible gold and in strongly mineralised rocks to confirm that the crushing and pulping are not affected by gold smearing onto the crusher and LM5 swing mill surfaces. Results are excellent, generally below detection limit and a single sample at 0.03 g/t Au. <i>Certified Reference Materials</i> – OREAS CRMs have been used throughout the project including blanks, low (<1 g/t Au), medium (up to 5 g/t Au) and high-grade gold samples (> 5 g/t Au). Results are automatically checked on data import into the MX database to fall within 2 standard deviations of the expected value. <i>Laboratory splits</i> – OnSite conducts splits of both coarse crush and pulp

Criteria	JORC Code explanation	Commentary
		<p>duplicates as quality control and reports all data. In particular, high Au samples have the most repeats.</p> <p><i>Laboratory CRMs</i> – OnSite regularly inserts their own CRM materials into the process flow and reports all data</p> <p><i>Laboratory precision</i> – duplicate measurements of solutions (both Au from fire assay and other elements from the aqua regia digests) are made regularly by the laboratory and reported.</p> <ul style="list-style-type: none"> • <i>Accuracy and precision</i> have been determined carefully by using the sampling and measurement techniques described above during the sampling (accuracy) and laboratory (accuracy and precision) stages of the analysis. • <i>Soil sample</i> company duplicates and laboratory certified reference materials all fall within expected ranges.
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • The Independent Geologist has visited Sunday Creek drill sites and inspected drill core held at the Kilmore core shed. • Visual inspection of drill intersections matches the both the geological descriptions in the database and the expected assay data (for example, gold and stibnite visible in drill core is matched by high Au and Sb results in assays). • In addition, on receipt of results Company geologists assess the gold, antimony and arsenic results to verify that the intersections returned expected data. • The electronic data storage in the MX database is of a high standard. Primary logging data are entered directly by the geologists and field technicians and the assay data are electronically matched against sample number on return from the laboratory. • Certified reference materials, ¼ core field duplicates (FDUP), laboratory splits and duplicates and instrument repeats are all recorded in the database. • Exports of data include all primary data, from hole SDDSC077B onwards after discussion with SRK Consulting. Prior to this gold was averaged across primary, field and lab duplicates. • Adjustments to assay data are recorded by MX, and none are present (or required). • Twinned drill holes are not available at this stage of the project.
<p>Location of data points</p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Differential GPS used to locate drill collars, trenches and some workings • Standard GPS for some field locations (grab and soils samples), verified against Lidar data. • The grid system used throughout is Geocentric datum of Australia 1994; Map Grid Zone 55 (GDA94_Z55), also referred to as ELSG 28355. • Topographic control is excellent owing to sub 10 cm accuracy from Lidar data.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • The data spacing is suitable for reporting of exploration results – evidence for this is based on the improving predictability of high grade gold-antimony intersections. • At this time the data spacing and distribution are not sufficient for the reporting of Mineral Resource Estimates. This however may change as knowledge of grade controls increase with future drill programs. • Sample compositing has not been applied to the reporting of any drill results.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The true thickness of the mineralised intervals reported are interpreted to be approximately 60-70% of the sampled thickness. • Drilling is oriented in an optimum direction when considering the combination of host rock orientation and apparent vein control on gold and antimony grade. The steep nature of some of the veins may give increases in apparent thickness of some intersections, but more drilling is required to quantify. • A sampling bias is not evident from the data collected to date (drill holes cut across mineralised structures at a moderate angle).
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Drill core is delivered to the Kilmore core logging shed by either the drill contractor or company field staff. Samples are marked up and cut by company staff at the Kilmore core shed, in an automated diamond saw and bagged before loaded onto strapped secured pallets and trucked by commercial transport to Bendigo for submission to the laboratory. There is no evidence in any stage of the process, or in the data for any sample security issues.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • Continuous monitoring of CRM results, blanks and duplicates is undertaken by geologists and the company data geologist. Mr Michael Hudson for SXG has the orientation, logging and assay data.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Sunday Creek Goldfield, containing the Clonbinane Project, is covered by the Retention Licence RL 6040 and is surrounded by Exploration Licence EL6163 and Exploration Licence EL7232. All the licences are 100% held by Clonbinane Goldfield Pty Ltd, a wholly owned subsidiary company of Southern Cross Gold Ltd.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The main historical prospect within the Sunday Creek project is the Clonbinane prospect, a high level orogenic (or epizonal) Fosterville-style deposit. Small scale mining has been undertaken in the project area since the 1880s continuing through to the early 1900s. Historical production occurred with multiple small shafts and alluvial workings across the Clonbinane Goldfield permits. Production of note occurred at the Clonbinane area with total production being reported as 41,000 oz gold at a grade of 33 g/t gold (Leggo and Holdsworth, 2013) Work in and nearby to the Sunday Creek Project area by previous explorers typically focused on finding bulk, shallow deposits. Beadell Resources were the first to drill deeper targets and Southern Cross have continued their work in the Sunday Creek Project area. EL54 - Eastern Prospectors Pty Ltd Rock chip sampling around Christina, Apollo and Golden Dyke mines. Rock chip sampling down the Christina mine shaft. Resistivity survey over the Golden Dyke. Five diamond drill holes around Christina, two of which have assays. ELs 872 & 975 - CRA Exploration Pty Ltd Exploration focused on finding low grade, high tonnage deposits. The tenements were relinquished after the area was found to be prospective but not economic. Stream sediment samples around the Golden Dyke and Reedy Creek areas. Results were better around the Golden Dyke. 45 dump samples around Golden Dyke old workings showed good correlation between gold, arsenic and antimony. Soil samples over the Golden Dyke to define boundaries of dyke and mineralization. Two costeans parallel to the Golden Dyke targeting soil anomalies. Costeans since rehabilitated by SXG. ELs 827 & 1520 - BHP Minerals Ltd Exploration targeting open cut gold mineralization peripheral to SXG tenements. ELs 1534, 1603 & 3129 - Ausminde Holdings Pty Ltd

Criteria	JORC Code explanation	Commentary
		<p>Targeting shallow, low grade gold. Trenching around the Golden Dyke prospect and results interpreted along with CRAs costeans. 29 RC/Aircore holes totalling 959 m sunk into the Apollo, Rising Sun and Golden Dyke target areas.</p> <p>ELs 4460 & 4987 - Beadell Resources Ltd</p> <ul style="list-style-type: none"> • ELs 4460 & 4987 - Beadell Resources Ltd ELs 4460 and 4497 were granted to Beadell Resources in November 2007. Beadell successfully drilled 30 RC holes, including second diamond tail holes in the Golden Dyke/Apollo target areas. • Both tenements were 100% acquired by Auminco Goldfields Pty Ltd in late 2012 and combined into one tenement EL4987. • Nagambie Resources Ltd purchased Auminco Goldfields in July 2014. EL4987 expired late 2015, during which time Nagambie Resources applied for a retention licence (RL6040) covering three square kilometres over the Sunday Creek Goldfield. RL6040 was granted July 2017. • Clonbinane Gold Field Pty Ltd was purchased by Mawson Gold Ltd in February 2020. Mawson drilled 30 holes for 6,928 m and made the first discoveries to depth.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • Refer to the description in the main body of the release.
Drillhole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <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.</i> 	<ul style="list-style-type: none"> • Refer to appendices
Data aggregation methods	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for</i> 	<ul style="list-style-type: none"> • See “Further Information” and “Metal Equivalent Calculation” in main text of press release.

Criteria	JORC Code explanation	Commentary
	<p><i>such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> See reporting of true widths in the body of the press release.
Diagrams	<ul style="list-style-type: none"> <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> The results of the diamond drilling are displayed in the figures in the announcement.
Balanced reporting	<ul style="list-style-type: none"> <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> All results above 0.1g/t Au have been tabulated in this announcement. The results are considered representative with no intended bias. Core loss, where material, is disclosed in tabulated drill intersections.
Other substantive exploration data	<ul style="list-style-type: none"> <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> Previously reported diamond drill results are displayed in plans, cross sections and long sections and discussed in the text and in the Competent Person's statement. Preliminary testing (AMML Report 1801-1) has demonstrated the viability of recovering gold and antimony values to high value products by industry standard processing methods.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> The Company has 4 diamond drill rigs in operation and plans to drill 30,000 m in 2023. The company remains in an exploration stage to expand the mineralisation along strike and to depth. See diagrams in presentation which highlight current and future drill plans.