

# SXG DRILLS 18.6 m @ 4.1 g/t AuEq AT RISING SUN, EXTENDING MINERALISATION AND DEFINING CONTINUITY

28 February 2023

Melbourne, Australia — Southern Cross Gold Ltd ("SXG" or the "Company") (ASX:SXG) announces results from three further drill holes (SDDSC053 to SDDSC055), including the first hole (SDDSC055) drilled at a high angle to the successful SDDSC050, at the 100%-owned Sunday Creek Project in Victoria (Figure 1). Drilling with three rigs is in progress at Sunday Creek at the Golden Dyke, Rising Sun and Apollo prospects with 13 holes being processed and analysed or in progress.

# HIGHLIGHTS

- Drill hole SDDSC055, the first cross hole drilled to test the upper levels across hole SDDSC050, successfully demonstrated significant scale, grade and continuity of mineralisation around SDDSC050. Gold and antimony mineralisation was intersected up to 60 m above and 40 m east of SDDSC050 in the plane of the Rising Sun shoot, indicating a thickening or bulging of the host structure at depth (Figures 2, 3 and 4). SDDSC050 was reported on 21 November 2022 and 14 December 2022 and intersected 521 m of mineralisation including 305.8 m @ 2.4 g/t AuEq.
  - Better results from SDDSC055 are:
    - **18.6 m @ 4.1 g/t AuEq** (1.2 g/t Au, 1.8 %Sb) from 388.5 m including:
      - 0.9 m @ 25.0 g/t AuEq (4.1 g/t Au, 13.2% Sb) from 388.5 m
      - 0.4 m @ 59.3 g/t AuEq (9.8 g/t Au, 31.4% Sb) from 392.0 m
      - 2.1 m @ 11.5 g/t AuEq (4.7 g/t Au, 4.3% Sb) from 400.4 m and
      - 0.3 m @ 8.3 g/t AuEq (5.1 g/t Au, 2.0% Sb) from 405.9 m
    - o 5.1 m @ 2.8 g/t AuEq (1.7 g/t Au, 0.7% Sb) from 417.9 m including:
      - 0.2 m @ 26.8 g/t AuEq (12.6 g/t Au, 9.0% Sb) from 417.9 m and
      - 0.6 m @ 10.4 g/t AuEq (7.9 g/t Au, 1.6% Sb) from 420.8 m
  - Drill hole SDDSC053, which drilled parallel to and 140 m above SDDSC050, intersected **the lower grade margin of three veins sets** (Figure 2, 3 and 4) as it was drilled too far north of the Rising Sun shoot and skimmed the northern margins of the host breccia dyke, exiting the host position as a consequence. Better results are:
    - 10.4 m @ 1.5 g/t AuEq (0.7 g/t Au, 0.5% Sb) from 270.6 m
    - o **14.0 m @ 1.5 g/t AuEq** (0.9 g/t Au, 0.4% Sb) from 307.0 m, including:
      - 0.4 m @ 35.9 g/t AuEq (18.0 g/t Au, 11.4% Sb) from 317.5 m
    - **11.0 m @ 1.0 g/t AuEq** (0.6 g/t Au, 0.3 %Sb) from 400.5 m
  - Drillholes SDDSC053 and SDDSC055 define continuity in the Rising Sun shoot over 250 m down dip between the upper levels of drillholes SDDSC050, MDDSC021 (21.7 m @ 6.2 g/t AuEq (4.7g/t Au, 1.0% Sb)) and SDDSC046 (21.5 m @ 15.0 g/t AuEq (12.2 g/t Au and 1.7% Sb)).

#### 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: 156.2M fully paid shares



## **HIGHLIGHTS** continued

- Also reported here is drillhole SDDSC054, considered to be a near-miss hole located 25 m east of SDDSC052. It is the most easterly hole drilled at Apollo to date and intersected:
  - **1.6 m @ 3.1 g/t AuEq** (2.4 g/t Au, 0.4% Sb) from 140.0 m and
  - o **0.7 m @ 2.1 g/t AuEq** (2.1 g/t Au, 0.0% Sb) from 207.0 m
- Drilling with three rigs is in progress at Sunday Creek at the Golden Dyke, Rising Sun and Apollo prospects with 13 holes being processed and analysed or in progress (Figure 2). Drill holes awaiting assays or in progress include the deepest drill holes drilled on the project.

Southern Cross Gold's Managing Director, Michael Hudson says, "A strong result confirming mineralisation around hole SDDSC050 extends further than previously known. SDDSC055, which reported **18.6 m @ 4.1 g/t AuEq**, is the first hole drilled at a high angle to SDDSC050. This is a critical building block to our knowledge of the width, grade and continuity of gold and antimony mineralisation at these deeper levels, with this result located up to 60 m above and 40 m east of SDDSC050, suggesting bulging of the host structure at depth. A further five holes will be, or have been drilled to test the mineralisation in SDDSC050 from the NW-SE orientation to gain further knowledge in an E-W direction.

"In terms of targetability, one of the huge advantages of Sunday Creek is that the breccia dyke host structure is clearly defined and mappable and extends over at least over 1.2 km and down to 800 m within the drill area, but also along strike for up to 10 km with evidence of multiple parallel dyke structures present in the regional area. Within the host, structural controls on high grade gold mineralisation are well understood and allow us to effectively target mineralisation, and also understand what a near-miss looks like through geochemical and alteration vectors, as is the case for SDDSC053.

"We currently have thirteen drillholes awaiting assays or in progress, including the deepest drill holes so far drilled on the project at Rising Sun and Apollo. Momentum is high on the project, with three drill rigs operating. With the Company holding \$17.9m cash as of last quarter, the objective is to complete over 30,000 metres of drilling over the next year."

## **Drill Hole Discussion**

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 132.64 hectares that forms the key portion in and around the drilled area at the Sunday Creek Project.

Sunday Creek has a 10 km mineralised trend that extends beyond the drill area and is defined by historic workings and soil sampling which have yet to receive any exploration drilling and offers potential future upside.

Drill hole SDDSC055 designed as a cross hole drilled from the NE to SW across the upper levels of SDDSC050 and 90m below MDDSC021 (21.7 m @ 6.2 g/t AuEq (4.7g/t Au, 1.0% Sb) from 274.7 m). This is the first of six NE-SW oriented drillholes that are to be drilled across the trace of SDDSC050 from 400 m to 800 m to constrain the position of the host breccia dyke which will allow deeper drilling in an east-west direction below SDDSC050 to be better targeted. The hole intersected mineralisation up to 60 m above and 40 m east of SDDSC050 in the plane of the Rising Sun structure, highlighting the undulating nature of the dyke host rock, suggesting a thickening or bulging of the host structure at depth. Also noted are the high antimony grades, up to 31.4% Sb.

Drill hole SDDSC053 was designed as a 150 m up-dip hole from SDDSC050 at Rising Sun, 100 m up dip from SDDSC055. The hole intersected **the lower grade margin of three veins sets** (Figures 2-4). The hole



was drilled too far north of the Rising Sun shoot and only tested the northern margins of the host breccia dyke and exited the host position as a consequence.

SDDSC054, considered to be a near-miss hole as defined by geochemical (arsenic) and alteration (sericitepyrite) vectors, is located 25 m east of SDDSC052 at Apollo. The hole interested thin and low-grade mineralisation on the most easterly extents of the Apollo area.

Further discussion and analysis of the Sunday Creek project is available through the interactive Vrify 3D animations, presentations and videos all available on the on the SXG website. This also includes an interview these results with Managing Director Michael Hudson which can be viewed at on www.southerncrossgold.com.au

Figures 1-4 show project location, plan, longitudinal and cross sectional views of drill results reported here and Tables 1–3 provide collar and assay data. The true thickness of the mineralised interval is interpreted to be approximately 60% - 70% of the sampled thickness. Lower grades were cut at 0.3 g/t lower cutoff over a maximum of 3 m with higher grades cut at 5.0 g/t AuEq cutoff over a maximum of 1 m.

#### **Update on Current Drilling**

Drilling with three rigs is in progress at Sunday Creek at the Golden Dyke, Rising Sun and Apollo prospects. 10 holes (SDDSC56-63, 65, 66) are being geologically processed and analysed, with three holes (SDDSC064/67/68) in drill progress (Figure 2) with continual news flow expected. Drill holes awaiting assays or in progress include the deepest drill holes drilled on the project at Rising Sun (SDDSC061/67) and Apollo (SDDSC066/68).

#### Commencement of operations at new core shed

The Company has recently commenced a long-dated lease over a core storage, core cutting and office facility in Kilmore. The new shed is located 20 kilometres from the Sunday Creek Project and will improve the efficiency and management of the movement of core samples from drill site to assay lab. Previously, the movement of core from the Sunday Creek property to cutting facility and assay lab in Bendigo, and core shed outside of Nagambie involved multiple re-handling and hundreds of kilometres of transportation which will now be greatly reduced, leading to results coming faster to investors, cost savings, as well as greatly reducing the environmental impact of the process.

## **Gold Equivalent Calculation**

SXG considers that both gold and antimony that are included in the gold equivalent calculation ("AuEq") have reasonable potential to be recovered at Sunday Creek, given current geochemical understanding, historic production statistics and geologically analogous mining operations. Historically, ore from Sunday Creek was treated onsite or shipped to the Costerfield mine, located 54 km to the northwest of the project, for processing during WW1. The Costerfield mine corridor, now owned by Mandalay Resources Ltd contains two million ounces of equivalent gold (Mandalay Q3 2021 Results), and in 2020 was the sixth highest-grade global underground mine and a top 5 global producer of antimony.

SXG considers that it is appropriate to adopt the same gold equivalent variables as Mandalay Resources Ltd in its <u>Mandalay Technical Report, 2022</u> dated 25 March 2022. The gold equivalence formula used by Mandalay Resources was calculated using recoveries achieved at the Costerfield Property Brunswick Processing Plant during 2020, using a gold price of US\$1,700 per ounce, an antimony price of US\$8,500 per tonne and 2021 total year metal recoveries of 93% for gold and 95% for antimony, and is as follows:  $AuEq = Au (g/t) + 1.58 \times Sb$  (%).

Based on the latest Costerfield calculation and given the similar geological styles and historic toll treatment of Sunday Creek mineralisation at Costerfield, SXG considers that a  $AuEq = Au (g/t) + 1.58 \times Sb$  (%) is appropriate to use for the initial exploration targeting of gold-antimony mineralisation at Sunday Creek.

- 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 exploration results contained in this report is based on information compiled by Mr Michael Hudson, a Fellow of the Australasian Institute of Mining and Metallurgy. He is MD for 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). Michael Hudson has consented to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Certain information in this announcement that relates to prior exploration results is extracted from the Independent Geologist's Report dated 16 March 2022 which was issued with the consent of the Competent Person, Mr Terry C. Lees. The report is included the Company's prospectus dated 17 March 2022 which was released as an announcement to ASX on 12 May 2022 and is available at www2.asx.com.au under code "SXG". The Company confirms that it is not aware of any new information or data that materially affects the information related to exploration results included in the original market announcement. The Company confirms that the form and context of the Competent Persons' findings in relation to the report have not been materially modified from the original market announcement.

Previously reported drill results<sup>1</sup> can be accessed from the follows:

- <u>https://uploads-ssl.webflow.com/6164f987875e87a4dbb1404e/626f5bb404af2a844fec9702\_Southern%20Cross%20Prospectus%20-%2017%20March%202022%20Final%20Version.pdf</u>
- <u>https://www.southerncrossgold.com.au/investor/asx-announcements</u>

#### **About Southern Cross Gold Ltd**



The Southern Cross Gold corporate branding embodies important characteristics of the new entity. The blue lettering acknowledges the state colour of Victoria, and the gold recognises the Victorian goldfields. The Southern Cross is a constellation also represented on the Australian flag which provides a strong cultural significance to all Australians. The main 7-pointed star represents the unity of the six states and the territories of the Commonwealth of Australia and the

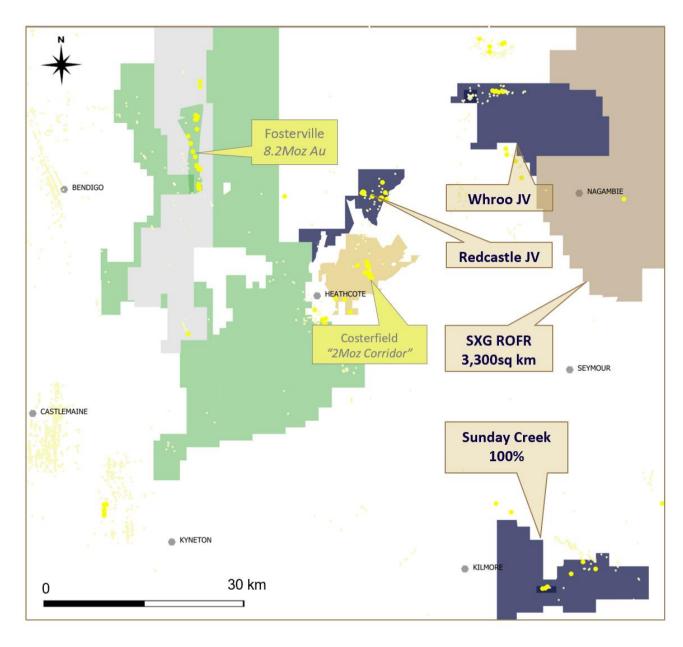
addition of a miner's pickaxe within the body of the star reflects the central place that mineral exploration has in Australia and, of course, to Southern Cross Gold.

#### For further information, please contact:

Justin Mouchacca, Company Secretary, <u>im@southerncrossgold.com.au</u>, +61 3 8630 3321 Nicholas Mead, Investor Relations, <u>nm@southerncrossgold.com.au</u>, +61 415 153 122 Figure 1: Location of the Sunday Creek project, along with SXG's other Victoria projects.







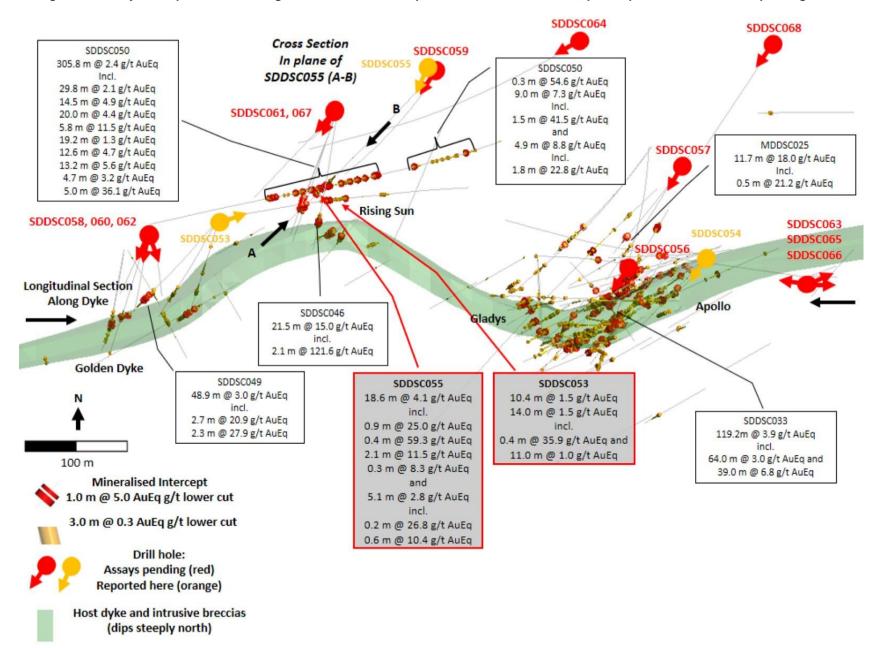
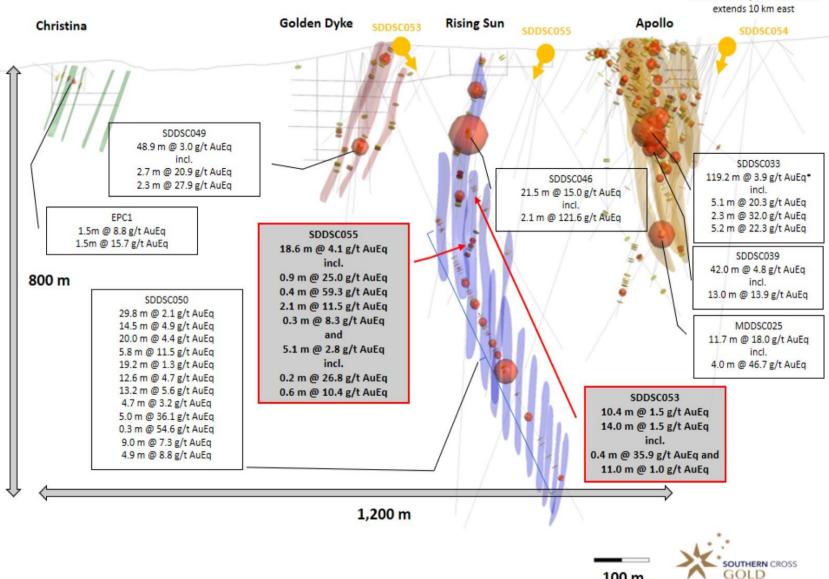


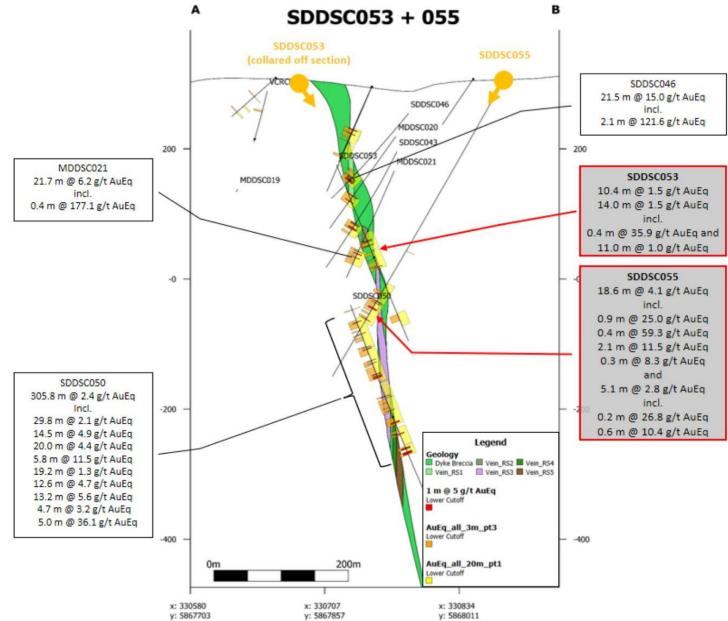
Figure 2: Sunday Creek plan view showing drillholes for results reported in this announcement, prior reported drill holes<sup>1</sup> and pending holes.

Figure 3: Sunday Creek east-west longitudinal section looking towards 000, along the trend of the dyke/structure showing pierce point locations scaled by grade x width. Also, prior reported drillholes shown<sup>1</sup>. Mineralised dyke breccia host



100 m

Figure 4: Sunday Creek cross section (50 m thickness) in plane of SDDSC055 looking towards 310 showing individual NW striking vein sets (coloured polygons) and prior reported drillholes<sup>1</sup>.



Hole_ID	Hole Size	Depth (m)	Prospect	East GDA94_Z55	North GDA94_Z55	Elevation	Azimuth	Plunge
SDDSC050	HQ	923.7	Rising Sun	330538.6	5867885.4	295.5	77	-63.5
SDDSC051	HQ	263.5	Apollo	331191.4	5867848.00	307.4	226.5	-74.5
SDDSC052	HQ	245.4	Apollo	331191.4	5867848.00	307.4	246.8	-67.4
SDDSC053	HQ	601.9	Rising Sun	330617.0	5867890.60	299.8	78.6	-62.0
SDDSC054	HQ	285	Apollo	331180.3	5867847.90	306.6	240	-77.0
SDDSC055	HQ	522.2	Gentle Annie	330883.0	5868075.00	306.7	224.2	-60.3
SDDSC056	HQ	194	Apollo	331110.8	5867850.90	303.1	231.2	-35.0
SDDSC057	HQ	414.2	Apollo	331111.65	5867975.1	319.1	184.3	-71.1
SDDSC058	HQ	303	Golden Dyke	330534.6	5867882.1	295.9	188	-69.8
SDDSC059	HQ	641.9	Root Hog	330883	5868075	306.7	214	-75.5
SDDSC060	HQ	263.8	Golden Dyke	330534.6	5867882.1	295.9	167.3	-69.9
SDDSC061	HQ	821.8	Gentle Annie	330754.2	5868022.2	294.3	209.5	-81.7
SDDSC062	HQ	339.3	Golden Dyke	330537.1	5867883.4	295.6	199	-74.2
SDDSC063	HQ	41.1	Apollo	331292.5	5867824.6	316.4	68	-35
SDDSC064	HQ	In progress plan 940	Root Hog	331031.5	5868097.6	325.1	239.6	-69.2
SDDSC065	HQ	40.1	Apollo	331292.5	5867824.6	316.4	92	-39
SDDSC066	HQ	669.9	Apollo	331291.1	5867823.1	316.8	278.9	-57
SDDSC067	HQ	In progress plan 490	Rising Sun	330754.2	5868022.2	294.3	220.2	-70.4
SDDSC068	HQ	In progress plan 730	Apollo	331254	5868098.6	353.9	211.3	-77.7

**Table 1:** Drill collar summary table for recent drillholes or those reported in this announcement and in progress.

**Table 2:** Tables of mineralised drill hole intersections reported from SDDSC053-55 using two cut-off criteria. Lower grades cut at 0.3 g/t lower cutoff over a maximum of 3 m with higher grades cut at 5.0 g/t AuEq cutoff over a maximum of 1 m.

Drill Hole	From (m)	To (m)	Width (m)	Au g/t	Sb %	AuEq g/t
SDDSC053	270.6	281.0	10.4	0.7	0.5	1.5
SDDSC053	307.0	321.0	14.0	0.9	0.4	1.5
including	317.5	317.9	0.4	18.0	11.4	35.9
SDDSC053	400.5	411.5	11.0	0.6	0.3	1.0
SDDSC054	140.0	141.6	1.6	2.4	0.4	3.1
SDDSC054	207.0	207.7	0.7	2.1	0.0	2.1
SDDSC055	388.5	407.1	18.6	1.2	1.8	4.1
including	388.5	389.4	0.9	4.1	13.2	25.0
including	392.0	392.4	0.4	9.8	31.4	59.3
including	400.4	402.5	2.1	4.7	4.3	11.5
including	405.9	406.2	0.3	5.1	2.0	8.3
SDDSC055	417.9	423.0	5.1	1.7	0.7	2.8
including	417.9	418.1	0.2	12.6	9.0	26.8
including	420.8	421.3	0.6	7.9	1.6	10.4

Drill Hole	From (m)	To (m)	Width (m)	Au g/t	Sb %	AuEq g/t
SDDSC053	200	201	1.00	0.10	0.00	0.11
SDDSC053	201	201.75	0.75	0.12	0.04	0.18
SDDSC053	257	258.25	1.25	0.06	0.02	0.10
SDDSC053	258.25	259.2	0.95	0.71	0.09	0.85
SDDSC053	259.2	259.6	0.40	0.54	0.49	1.31
SDDSC053	270.6	271.3	0.70	0.98	0.27	1.41
SDDSC053	271.3	271.75	0.45	3.60	2.00	6.75
SDDSC053	272.9	273.4	0.50	2.76	1.99	5.90
SDDSC053	273.4	274	0.60	0.22	0.33	0.74
SDDSC053	274	275	1.00	0.06	0.34	0.60
SDDSC053	276	276.5	0.50	1.45	0.63	2.44
SDDSC053	277	278	1.00	0.83	0.43	1.51
SDDSC053	278	279	1.00	0.29	0.17	0.56
SDDSC053	279	279.5	0.50	0.11	0.02	0.14
SDDSC053	279.5	280	0.50	1.69	3.92	7.88
SDDSC053	280	281	1.00	0.14	0.15	0.38
SDDSC053	286.3	287	0.70	0.24	0.12	0.42
SDDSC053	287.6	288.3	0.70	0.03	0.07	0.14
SDDSC053	291	292	1.00	0.22	0.10	0.38
SDDSC053	292	292.6	0.60	0.25	0.11	0.42
SDDSC053	292.6	293.2	0.60	1.00	0.08	1.13
SDDSC053	293.2	294.2	1.00	0.28	0.08	0.40
SDDSC053	294.2	295.15	0.95	0.14	0.06	0.23
SDDSC053	295.15	295.8	0.65	0.11	0.21	0.44
SDDSC053	295.8	296.6	0.80	0.22	0.04	0.28
SDDSC053	296.6	297.3	0.70	0.04	0.13	0.25
SDDSC053	297.3	298.1	0.80	0.01	0.11	0.18
SDDSC053	299	300	1.00	0.01	0.08	0.13
SDDSC053	300	301	1.00	0.01	0.11	0.18
SDDSC053	302	303	1.00	0.02	0.25	0.42
SDDSC053	303	304	1.00	0.24	0.02	0.26
SDDSC053	306	307	1.00	0.15	0.01	0.16
SDDSC053	307	307.8	0.80	0.30	0.00	0.31
SDDSC053	307.8	308.7	0.90	1.07	0.01	1.08
SDDSC053	308.7	309.7	1.00	0.23	0.14	0.45
SDDSC053	309.7	310.7	1.00	0.24	0.03	0.29
SDDSC053	310.7	312	1.30	0.11	0.02	0.14
SDDSC053	312	313.2	1.20	0.26	0.36	0.83
SDDSC053	313.2	314.1	0.90	0.80	0.04	0.86
SDDSC053	316	316.5	0.50	1.07	0.13	1.28
SDDSC053	316.5	317.45	0.95	0.11	0.00	0.12

Table 3: All individual assays reported from SDDSC053-55 >0.1g/t AuEq.

SDDSC053	317.45	317.85	0.40	18.00	11.35	35.93
SDDSC053	317.85	318.45	0.60	0.71	0.04	0.77
SDDSC053	318.45	319	0.55	1.20	0.02	1.23
SDDSC053	319	319.95	0.95	0.27	0.00	0.28
SDDSC053	319.95	321	1.05	0.52	0.01	0.53
SDDSC053	357	358	1.00	0.10	0.00	0.10
SDDSC053	399	400	1.00	0.14	0.00	0.14
SDDSC053	400	400.5	0.50	0.17	0.00	0.17
SDDSC053	400.5	401.5	1.00	0.47	0.04	0.53
SDDSC053	401.5	402.2	0.70	0.45	0.12	0.64
SDDSC053	402.2	403	0.80	0.83	0.58	1.75
SDDSC053	403	403.55	0.55	0.54	1.02	2.15
SDDSC053	403.55	404.4	0.85	1.03	0.19	1.33
SDDSC053	404.4	405.2	0.80	0.83	0.34	1.37
SDDSC053	405.2	406	0.80	0.37	0.10	0.53
SDDSC053	406	407	1.00	1.41	0.59	2.34
SDDSC053	407	407.9	0.90	0.48	0.25	0.86
SDDSC053	407.9	408.9	1.00	0.23	0.14	0.45
SDDSC053	408.9	409.9	1.00	0.07	0.05	0.15
SDDSC053	409.9	410.9	1.00	0.04	0.07	0.15
SDDSC053	410.9	411.45	0.55	0.77	0.07	0.89
SDDSC053	421.2	421.55	0.35	0.41	0.06	0.50
SDDSC053	426	427	1.00	0.09	0.01	0.10
SDDSC053	447.4	447.7	0.30	0.30	0.00	0.30
SDDSC054	106	107	1.00	0.28	0.00	0.28
SDDSC054	140	140.75	0.75	4.21	0.84	5.54
SDDSC054	140.75	141.6	0.85	0.84	0.02	0.87
SDDSC054	141.6	142	0.40	0.29	0.00	0.29
SDDSC054	196	197.12	1.12	0.27	0.00	0.27
SDDSC054	198.65	199.65	1.00	0.56	0.00	0.56
SDDSC054	205	206	1.00	0.11	0.00	0.12
SDDSC054	206.98	207.67	0.69	2.07	0.01	2.08
SDDSC054	216.2	217.1	0.90	0.10	0.00	0.11
SDDSC054	228.7	229	0.30	0.14	0.00	0.14
SDDSC054	245.5	246.55	1.05	0.14	0.00	0.14
SDDSC055	299	300	1.00	0.22	0.00	0.22
SDDSC055	357.04	357.35	0.31	0.43	0.00	0.43
SDDSC055	358.53	359	0.47	0.31	0.00	0.31
SDDSC055	359	360	1.00	0.22	0.00	0.22
SDDSC055	371	372	1.00	0.12	0.01	0.13
SDDSC055	372	372.82	0.82	0.11	0.01	0.13
SDDSC055	372.82	373.75	0.93	1.06	0.34	1.60
SDDSC055	373.75	374	0.25	0.14	0.01	0.15

SDDSC055	374	374.87	0.87	0.29	0.02	0.32
SDDSC055	374.87	375.38	0.51	0.65	2.53	4.65
SDDSC055	376.47	377.24	0.77	0.11	0.04	0.17
SDDSC055	377.24	377.66	0.42	0.52	0.04	0.58
SDDSC055	379.17	380	0.83	0.06	0.03	0.10
SDDSC055	380	380.65	0.65	0.17	0.09	0.32
SDDSC055	380.65	381.55	0.90	0.14	0.05	0.22
SDDSC055	382.45	383.42	0.97	0.10	0.04	0.16
SDDSC055	383.42	384.23	0.81	0.22	0.07	0.33
SDDSC055	384.23	385.1	0.87	0.19	0.03	0.23
SDDSC055	388.5	388.8	0.30	9.67	23.60	46.96
SDDSC055	388.8	389.15	0.35	0.63	0.54	1.48
SDDSC055	389.15	389.38	0.23	2.17	18.90	32.03
SDDSC055	390.2	391.1	0.90	0.42	0.03	0.47
SDDSC055	391.1	392	0.90	0.96	0.04	1.03
SDDSC055	392	392.37	0.37	9.79	31.35	59.32
SDDSC055	392.37	393.25	0.88	0.11	0.03	0.16
SDDSC055	393.25	394.1	0.85	0.65	0.04	0.71
SDDSC055	394.1	395.25	1.15	0.22	0.04	0.28
SDDSC055	395.25	395.55	0.30	0.44	0.18	0.72
SDDSC055	395.55	396.38	0.83	0.13	0.01	0.14
SDDSC055	397.02	398	0.98	0.52	0.17	0.79
SDDSC055	398.74	399.54	0.80	0.16	0.05	0.24
SDDSC055	399.54	400.4	0.86	0.61	0.02	0.65
SDDSC055	400.4	401.3	0.90	8.77	1.11	10.52
SDDSC055	401.6	402.48	0.88	2.22	8.96	16.36
SDDSC055	402.48	403	0.52	0.05	0.75	1.24
SDDSC055	403	403.78	0.78	0.34	0.04	0.40
SDDSC055	404.84	405.85	1.01	0.09	0.04	0.15
SDDSC055	405.85	406.15	0.30	5.07	2.02	8.26
SDDSC055	406.15	407.06	0.91	0.18	0.15	0.42
SDDSC055	410.27	410.58	0.31	2.83	1.05	4.49
SDDSC055	410.58	411.62	1.04	0.21	0.07	0.32
SDDSC055	412.61	413	0.39	0.29	0.03	0.34
SDDSC055	413	413.4	0.40	0.18	0.02	0.21
SDDSC055	417.35	417.86	0.51	0.09	0.00	0.10
SDDSC055	417.86	418.1	0.24	12.60	8.98	26.79
SDDSC055	418.1	419	0.90	0.07	0.09	0.20
SDDSC055	419	419.74	0.74	0.12	0.03	0.16
SDDSC055	420.76	421.33	0.57	7.88	1.61	10.42
SDDSC055	422.66	422.96	0.30	2.95	1.06	4.62
SDDSC055	424.1	424.63	0.53	0.12	0.00	0.13
SDDSC055	424.95	425.48	0.53	0.15	0.01	0.17

# **JORC Table 1**

# Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (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.</li> </ul>	<ul> <li>Sampling has been conducted on drill core (half core for &gt;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 &lt;1 metre using a differential GPS.</li> <li>Samples locations have also been verified by plotting locations on the high-resolution Lidar maps</li> <li>Drill core is marked for cutting at the Nagambie core shed and sent by commercial transport to an automated diamond saw used by Company staff in Bendigo.</li> <li>Samples are bagged at the core saw and transported to the nearby OnSite Laboratory for assay.</li> <li>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.</li> <li>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.</li> <li>Screen fire assay is used to understand gold grain-size distribution where coarse gold is evident.</li> <li>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).</li> <li>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 are generally submitted to OnSite Laboratories for standard fire assay and 12 element ICP-OES as described above.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>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.</li> <li>A standard 3 metre core barrel has been found to be most effective in both the hard and soft rocks in the project.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill sample recovery Logging	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> <li>Whether core and chip samples have been geologically and geotechnically</li> </ul>	<ul> <li>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 basis in the core shed using a tape measure against marked up drill core checking against driller's core blocks.</li> <li>Plots of grade versus recovery and RQD (described below) show no trends relating to loss of drill core, or fines.</li> <li>Geotechnical logging of the drill core takes place on racks in the the company</li> </ul>
	<ul> <li>logged to a level of detail to support appropriate Mineral Resource estimation mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul> <li>future studies.</li> <li>Drill core is typically sampled using half of the HD diameter. The drill core orientation line is retained.</li> <li>Quarter core is used when taking sampling duplicates (termed FDUP in the database).</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>In mineralised rock the company uses approximately 10% of ¼ core duplicates, certified reference materials (suitable OREAS materials), laboratory sample duplicates and instrument repeats.</li> <li>In the soil sampling program duplicates were obtained every 20<sup>th</sup> sample and the laboratory inserted low-level gold standards regularly into the sample flow.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>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).</li> <li>Acceptable levels of accuracy and precision have been established using the following methods ¼ <i>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 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 (&lt;1 g/t Au), medium (up to 5 g/t Au) and high-grade gold samples (&gt; 5 g/t Au). Results are automatically checked on</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>data import into the MX database to fall within 2 standard deviations of the expected value.</li> <li><i>Laboratory splits</i> – OnSite conducts splits of both coarse crush and pulp duplicates as quality control and reports all data. In particular, high Au samples have the most repeats.</li> <li><i>Laboratory CRMs</i> – OnSite regularly inserts their own CRM materials into the process flow and reports all data</li> <li><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.</li> <li><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.</li> <li><i>Soil sample</i> company duplicates and laboratory certified reference materials all fall within expected ranges.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The Independent Geologist has visited Sunday Creek drill sites and inspected drill core held at the Nagambie core shed.</li> <li>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).</li> <li>In addition, on receipt of results Company geologists assess the gold, antimony and arsenic results to verify that the intersections returned expected data.</li> <li>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.</li> <li>Certified reference materials, ¼ core field duplicates (FDUP), laboratory splits and duplicates and instrument repeats are all recorded in the database.</li> <li>Exports of data have the option of including all primary data, or a subset with average field duplicates for some reporting.</li> <li>Adjustments to assay data are recorded by MX, and none are present (or required).</li> <li>Twinned drill holes are not available at this stage of the project.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul> <li>Differential GPS used to locate drill collars, trenches and some workings</li> <li>Standard GPS for some field locations (grab and soils samples), verified against Lidar data.</li> </ul>
	<ul><li>Specification of the grid system used.</li><li>Quality and adequacy of topographic control.</li></ul>	<ul> <li>The grid system used throughout is Geocentric datum of Australia 1994; Map Grid Zone 55 (GDA94_Z55), also referred to as ELSG 28355.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Topographic control is excellent owing to sub 10 cm accuracy from Lidar data.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>Sample compositing has not been applied to the reporting of any drill results.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The true thickness of the mineralised interval reported is interpreted to be approximately 60-70% of the sampled thickness.</li> <li>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.</li> <li>A sampling bias is not evident from the data collected to date (drill holes cut across mineralised structures at a moderate angle).</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Drill core is delivered to the Nagambie core logging shed by either the drill contractor or company field staff. Samples are marked up by company staff at the Nagambie core shed, loaded onto strapped secured pallets and trucked by commercial transport to Bendigo where they are cut by company staff in an automated diamond saw and bagged before submission to the laboratory. There is no evidence in any stage of the process, or in the data for any sample security issues.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Continuous monitoring of CRM results, blanks and duplicates is undertaken by geologists and the company data geologist. Dr Nick Cook, Technical Advisor for SXG has the orientation, logging and assay data.</li> </ul>