

# Sunday Creek An Expanding and Significant Global Gold Discovery

09 December 2024



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This presentation ("this Presentation") has been prepared by Southern Cross Gold Ltd [ACN 652166795] ("SXG" or the "Company") and is dated 09 December 2024.

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#### Important Notice and Disclaimer

#### **Competent Persons Statement**

Information in this presentation is based on information compiled by 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.

Information in this presentation relates to the Exploration Target for the Sunday Creek Project is based on information compiled by Mr Kenneth Bush and Mr Michael Hudson. Mr Bush is a Member of Australian Institute of Geoscientists and Mr Hudson is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Bush and Mr Hudson each have sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bush is Exploration Manager and Mr Hudson is Managing Director of Southern Cross Gold Limited and both consent to the inclusion in the report of the matters based on their information in the form and context in which it appears. For further exploration target information see SXG News Release Dated 23/01/24: https://wcsecure.weblink.com.au/clients/southerncrossgold/headline.aspx?headlineid=3635026.

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.

Certain information in this announcement also relates to prior exploration results, are extracted from the following announcements, which are available to view on <a href="www.southerncrossgold.com.au">www.southerncrossgold.com.au</a>:

9 August, 2022 SDDSC038, 4 October, 2022 SDDSC046, 20 October, 2022 SDDSC049, 21 November, 2022 SDDSC050, 14 December, 2022 SDDSC050, 28 February, 2023 SDDSC055, 29 August, 2023 SDDSC068, 5 September, 2023 SDDSC077B, 12 October, 2023 SDDSC091, 30 November, 2023 SDDSC091, 30 November, 2023 SDDSC092, 5 March, 2024 SDDSC107, 15 April, 2024 SDDSC110 & 113, 13 June, 2024 SDDSC118, 19 August, 2024 SDDSC122/122W

#### **Au 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. SXG considers that it is appropriate to adopt the same gold equivalent variables as Mandalay Resources Ltd in its Mandalay Technical Report, 2024 dated 28 March 2024. The gold equivalence formula used by Mandalay Resources was calculated using Costerfield's 2023 production costs, using a gold price of US\$1,900 per ounce, an antimony price of US\$12,000 per tonne and 2023 total year metal recoveries of 94% for gold and 89% for antimony, and is as follows:  $AuEq = Au (g/t) + 1.88 \times Sb$  (%).

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  $AuEq = Au (g/t) + 1.88 \times Sb$  (%) is appropriate to use for the initial exploration targeting of gold-antimony mineralisation at Sunday Creek.



## Aim to Create the Highest Margin Gold Business Globally



#### **Exceptional Hit Rate**

Sunday Creek compares favorably with global leading hit rates for this stage of the project's development

**50 individual intersections** >100 AuEq g/t x m

152 drill holes for 67.6 km drilling reported to date

67 vein sets wireframed within main drill area



#### 3 Clear Objectives

Drilling plan has three clear objectives that will have the largest emphasis over the next six months

- Demonstrate Grade
- 2 Demonstrate Volume
- Demonstrate
  Scale



## 5 diamond drill rigs operating at site

Aim to increase capacity with additional rig per quarter, 60 km drilling planned to Q3 2025



#### **News flow continuous**



#### **Funded with permits**

\$10.6 m (31 August '24)
Plus: \*\$18.75m mid-Dec
+\$2M from Dec24
Fully funded and permitted

**1,055** ha of freehold (subj FIRB), 5 house blocks

**100% owned projects**, no commercial royalties





## Corporate Structure – A Tight Register





Share Price (06 Dec 2024)	A\$3.25
Shares Issued	198.4M
Fully Diluted	215.0M
Basic Market Capitalisation	A\$645.0M
Cash (31 August 2024)	A\$10.6M++

#### Other Data

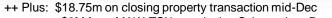
Options	Price	No. of Securities
JLM Options (Expiry 16 May 2025)	\$0.30	1.35M
Class A ESOP (Expiry 16 May 2025)	\$0.30	1.96M
Class B ESOP (Expiry 16 May 2026)	\$0.30	2.78M
Class C ESOP (Expiry 16 May 2027)	\$0.30	2.78M
Unlisted ESOP (Expiry 15 August 2026)	\$0.66	1.25M
Broker Options (Expiry 28 November 2025)	\$0.87	1.11M
Consultant Options (Expiry 23 October 2026)	\$1.20	1.50M
Director Options (Expiry 7 November 2026)	\$1.20	3.55M
Performance Rights (3-5 years)		0.28M

# Mayson Gold Ltd Institutions & HNW (Franklin Templeton, Konwave, Springtide Capital, Firelight Investments, Earth Resource, SG Hiscock, Wincrest, CQS, Schroders, Sprott AM, Kaplan, Invesco, Macquarie AM) Board and Management (non-look through) 1.5%



**TOTAL** 





+\$2M from MAW:TSXv on closing Scheme late-Dec



68.3%

## Merging: Making in Institutionally investable

#### 2 Clear Objectives

Consolidate Ownership

2 Dual listing



#### Look through Cap Table\*

<b>HNW</b> (Springtide Capital, Firelight Investments, Swiss private bank clients, others)	31.2%
Institutions (Franklin Templeton, Konwave, Ruffer, Merk, Earthlabs, SG Hiscock, CQS, Ixios, Schroders, Mackenzie, Invesco, Firetrail, US Global, Earth Resource, Serafin, Kaplan, Wincrest)	23.7%
Board and Management	3.0% (8.6% FD)
Other	42.1%
TOTAL	100.0%



#### **Summary**

- Simplify ownership structure
- Access to Australian and Nth American capital markets
- Institutional investable
- Cash +30m
- Purchase 1:1 basis
- Tax rollover relief
- Experienced Australian Team remain
- Shareholders to vote
- Complete mid December 2024



## **Exploration and Mining History**



#### History

- 1850s Alluvial mining
- 1860s Surface mining to 30m
- 1880s Shaft mining to 100m, 1890s to 180m
- Early 1900s cyanide
- WW1 Open by Imperial munitions act antimony
- 1960s Eastern Prospectors few drill holes
- 1980s CRA/BHP
- 1986 mid 1990's, Ausminde 29 RC drill holes totalling 960 metres;
- 2008 Beadell Resources 30 RC holes with 7 diamond drill tails – oxide focus

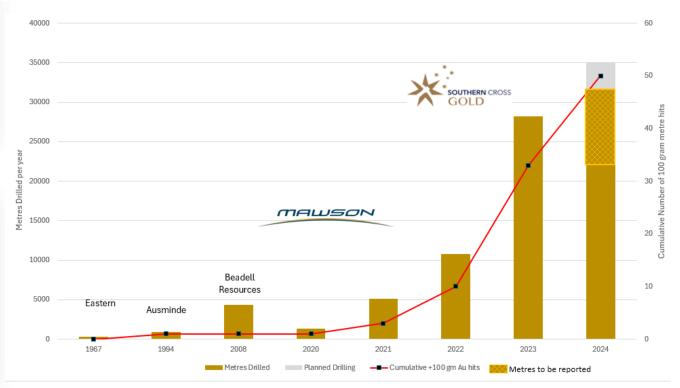


#### Exploration

- Exploration has accelerated year-on-year
- 2021 was the first year with an individual +100 g/t Au assay interval
- 2023 included 28 individual Au assays +100 g/t Au and 6 individual Au assays +1,000 g/t Au.
- 2024 to date has 25 individual Au assays +100 g/t Au and 2 individual Au assays +1,000 g/t Au from 19 drillholes reported.









## Database Analysis: Grade vs Width

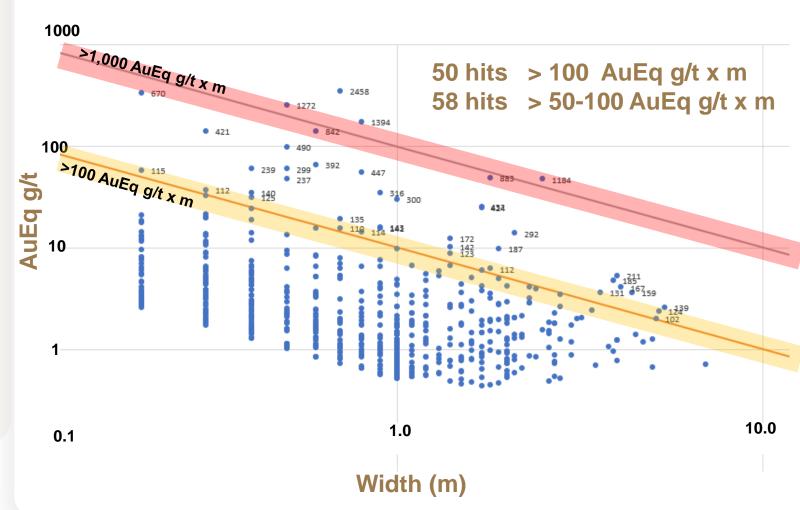


#### **Top 10 intersections at Sunday Creek**

Hole-ID	From	To (m)	Length (m)	Au g/t	Sb%	AuEq g/t	AuEqgtm
SDDSC107	684.3	685.0	0.70	3,511.0	0.4	3,511.8	2,458.3
SDDSC077B	739.9	740.7	0.80	1,736.4	3.3	1,742.5	1,394.0
SDDSC145	876.4	876.9	0.50	2,541.9	1.1	2,544.0	1,272.0
SDDSC091	437.7	440.2	2.50	469.1	2.4	473.6	1,183.9
SDDSC092	683.1	684.9	1.80	484.5	3.1	490.3	882.6
SDDSC082	418.0	418.6	0.60	1,403.3	0.1	1,403.4	842.0
SDDSC118	555.7	556.2	0.50	979.0	0.0	979.0	489.5
SDDSC118	1,120.4	1,121.2	0.80	558.1	0.0	558.2	446.5
SDDSC137W2	208.2	209.9	1.70	250.8	1.7	254.0	431.7
SDDSC082	413.6	415.3	1.70	230.6	9.9	249.1	423.6

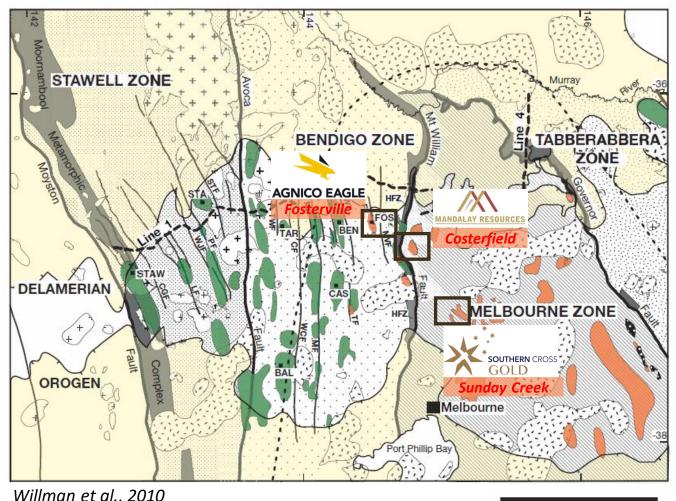


SDDSC107 from 684.7 m within assayed interval 1.0 m @ 2319 g/t AuEq (2318.4 g/t Au, 0.3 % Sb)



<sup>\*</sup>AuEqgtm variations due to rounding

### Regional Setting



Willman et al., 2010

Mesozonal

character

100 km

Sb-As bearing, mainly epizonal character



Late Devonian granite

Early Devonian granite

Ordovician to Devonian sedimentary rocks (Melbourne Zone)

Ordovician to Silurian sedimentary rocks (Tabberabbera Zone)

Ordovician turbidites (Bendigo Zone)

Cambrian turbidites (Stawell Zone)

Cambrian mafic volcanic rocks

Cambrian calc-alkaline volcanic rocks (upper layer of Selwyn Block)

Goldfields formed in 380 - 370 Ma event

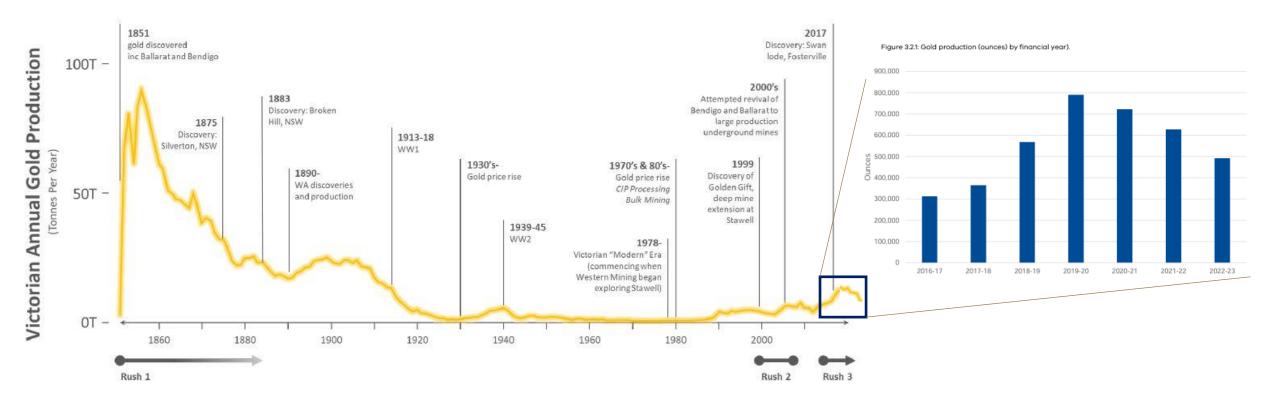
Goldfields formed in 440 Ma and 420 - 400 Ma events





## Victorian Gold Production – Rocking Because of a Change in Geology

- ✓ Today, Victoria is producing more gold than it has for 100 years
- ✓ 5 Gold Mines Operating Today 500Koz/yr





## Victoria a Gift That Keeps on Giving

Epizonal

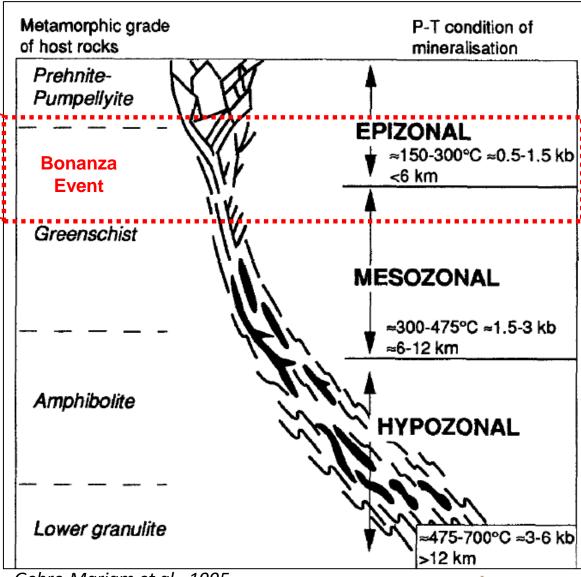
70 Million
years

Mesozonal

Devonian Sunday Costerfield Creek 2Moz Fosterville **Brittle - Ductile** 9Moz **Transition** Silurian Stawell (Wonga) Stawell **Ballarat** Ordovician (Magdala) Bendigo 82 Moz Gold Melbourne Stawell **Bendigo** Often Zone Zone Zone Unreconcilable **East** West Space -

SDDSC107 from uncut core from 684.7 m within assayed interval 1.0 m @ 2319 g/t AuEq (2318.4 g/t Au, 0.3 % Sb)

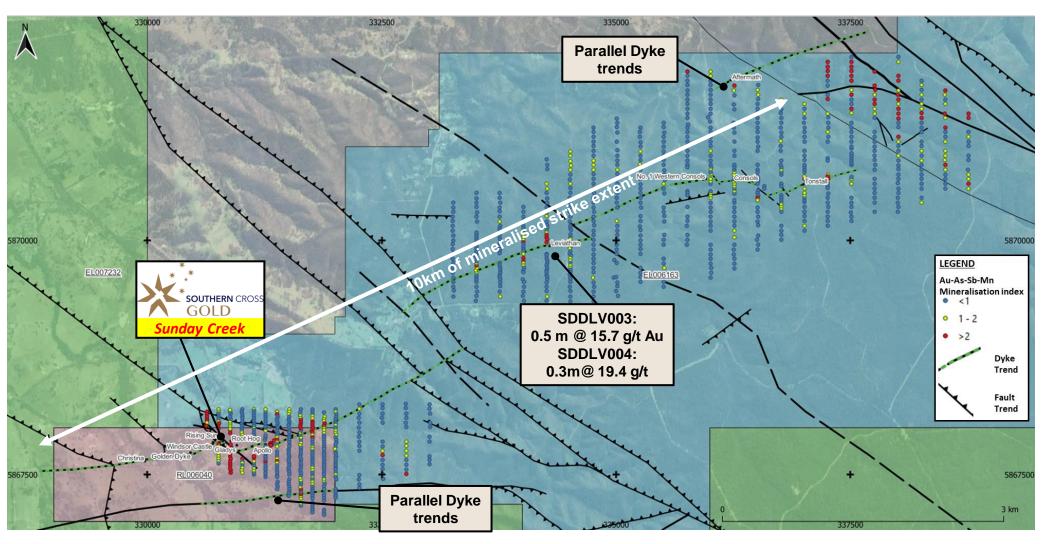




Gebre-Mariam et al., 1995

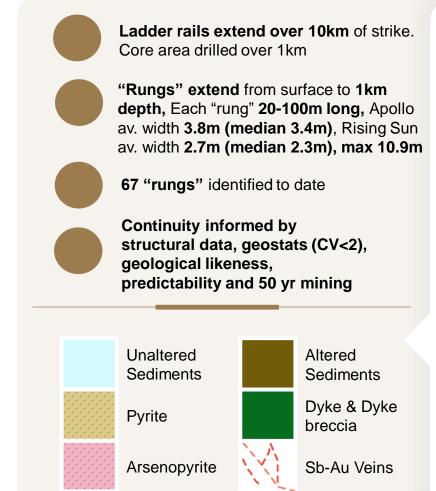
## Regional Trends

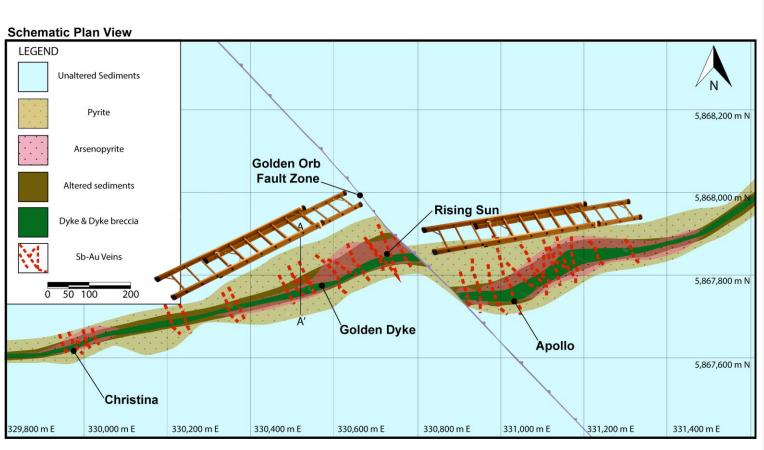
- Clear geochemical anomalies can be identified from a combined trace element additive index using Au, As, Sb and Mn.
- Parallel dyke trends identified in outcrop and historic mining occurrences.





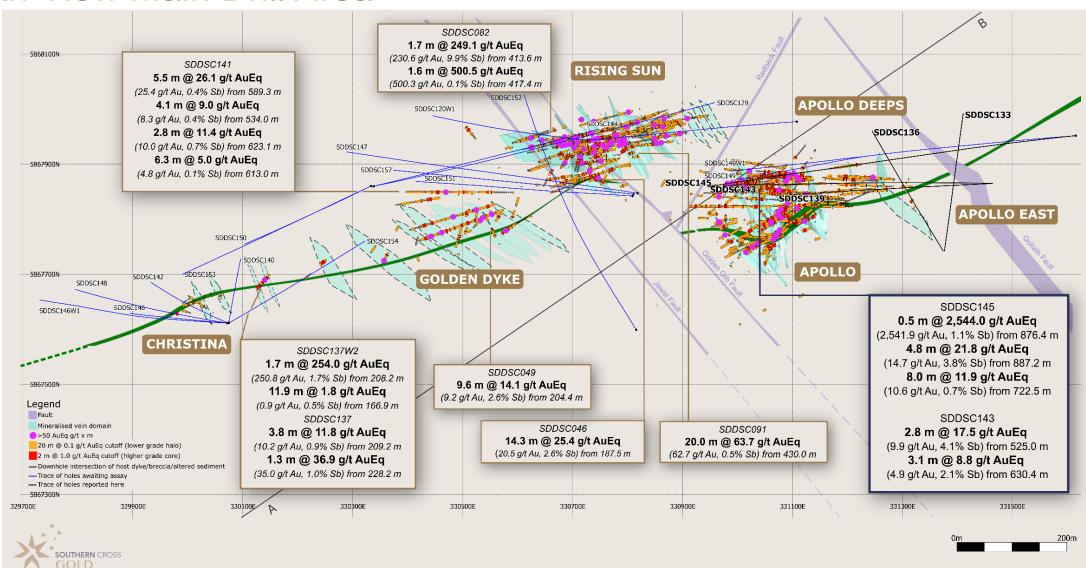
#### Schematic Plan View Main Drill Area – The Golden Ladder



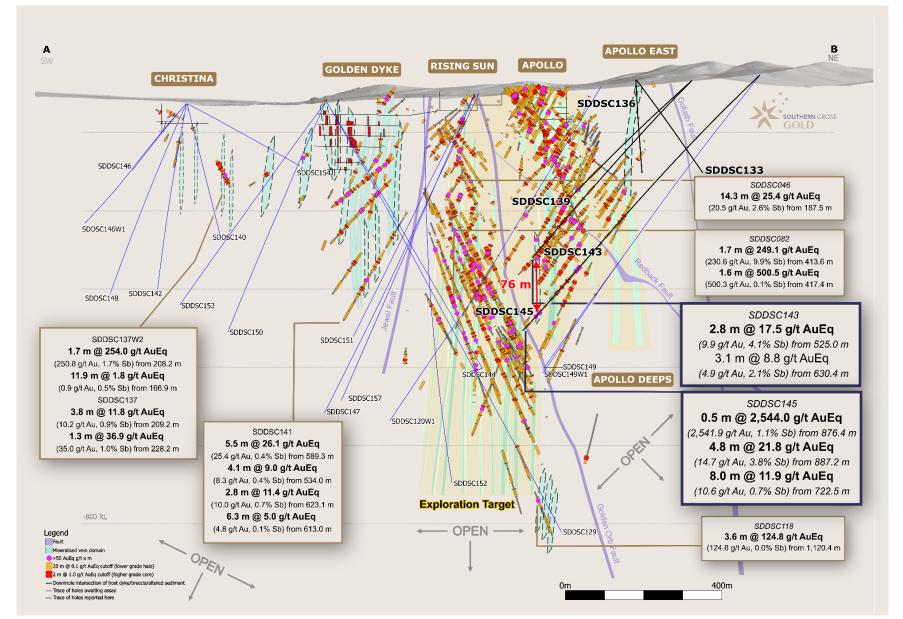




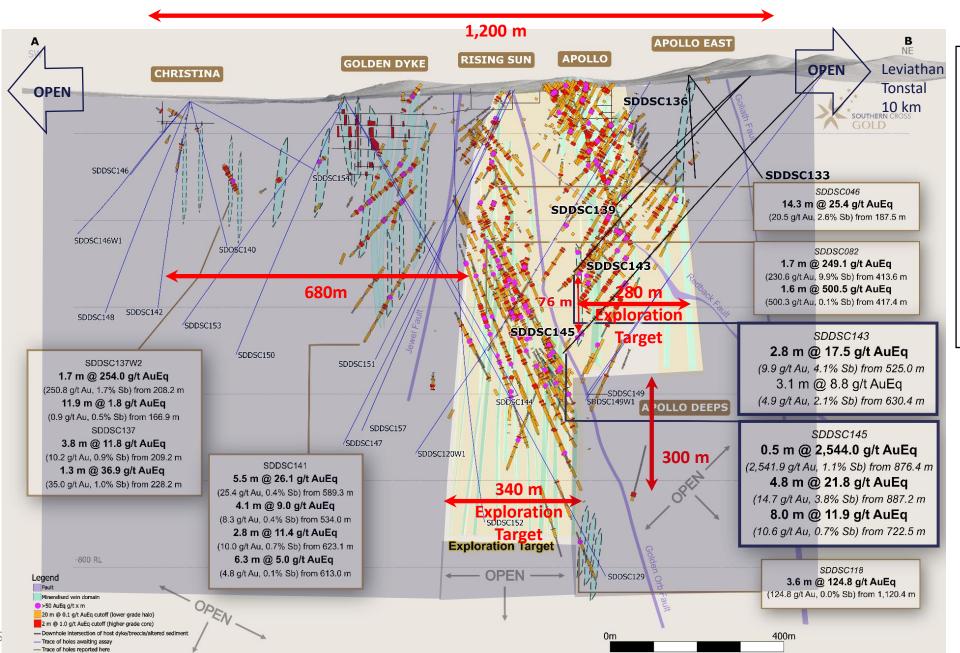
#### Plan View Main Drill Area



## Long Section View Main Drill Area



#### **Exploration Target (Jan 24)**



#### Maiden Exploration Target for Sunday Creek – January 2024

4.4 - 5.1 million tonnes grading at 7.2 g/t AuEq to 9.7 g/t AuEq for 1.0Moz AuEq to 1.6Moz AuEq

The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

For further exploration target information see SXG News Release dated 23/01/24: <a href="https://wcsecure.weblink.com.au/clients/southerncrossgold/headline.aspx?headline">https://wcsecure.weblink.com.au/clients/southerncrossgold/headline.aspx?headline</a> id=3635026.



Maiden Exploration Target



Drilling Area Outside Maiden Exp. Target



## 50 Vein Sets: Geological Likeness Informs Continuity

Vein array / vein set: 0.5 – 10m wide, Average grade 1.8-12.5 g/t Au & 0.1-5.2 % Sb **High-grade core:** 0.1 – 1.5m Wide, Average Grade +20 - >1,000 g/t Au & +5 % Sb Schematic View - Looking north-west \*Estimated true widths quoted → Increasing pyrite intensity Increasing pyrite intensity -



Shear vein – high-grade core



Vein arrays – extension veins



Disseminated pyrite



9.0 m @ 16.5 g/t AuEq (14.6 g/t Au, 1.0% Sb) from 565.8m (SDDSC082)



#### Coefficient of Variation

Understanding grade continuity is crucial for high-grade gold deposits.

Low variability or coefficients of variations (CV, standard deviation over mean) in assay results **lowers geological risk and reduces the cost of capital** (less drilling/more confidence in model).

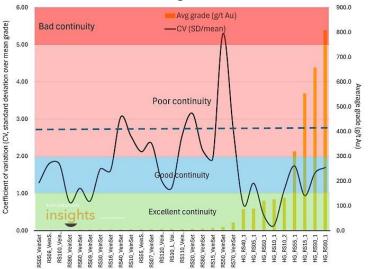
#### **Rising Sun:**

- 636 samples from 29 vein sets
- Average true thickness 2.7m, median 2.3m
- Average 25 g/t gold (up to 808 g/t gold)
- Average CV is 2.7

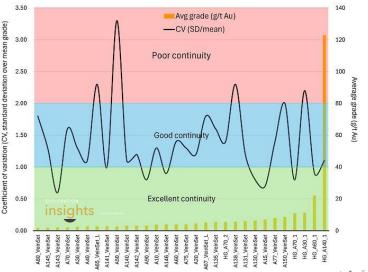
#### Apollo:

- 994 samples in 30 vein sets
- Average true thickness 3.8m, median 3.4m
- Average 3.8 g/t gold.
- Average CV is 1.8
- More data = declining CV

#### Rising Sun



#### Apollo



## Does High-Grade Mean High Nugget? No!

- 1. Victorian epizonal Au-Sb is high-grade and not nuggety
  - = reconcilable, high-margin mines
- 2. Repeatable data in lab and in core (visible gold both sides of core)
  - = confidence
- 3. Understanding and constraining geology leads to low CV (<2)
  - = predictability and continuity

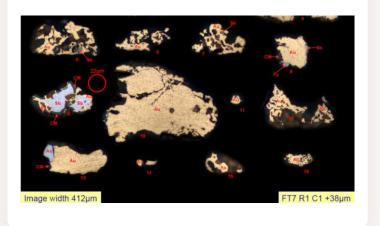


SDDSC107 from 684.7 m within assayed interval 1.0 m @ 2319 g/t AuEq (2318.4 g/t Au, 0.3 % Sb)



## Metallurgy

## Preliminary Metallurgical Test Work

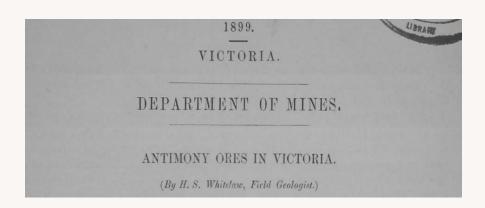


#### Non-refractory, simple gravity-flotation flow sheet

- Utilised Costerfield flow sheet
- Mineralogical investigations demonstrated a high proportion of non-refractory native gold (82% - 84%).
- Gravity (18-33%) with bulk flotation resulted in 93.3% 97.6% recovery of gold.
- Flotation alone resulted in 88.9% 95.0% recovery of gold in an antimony-gold 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 2.6%)
  - Opportunities to blend or float sulphide concentrate
  - 96% 98% of the contained gold was native gold
- Next Steps:
  - Optimise for gold into gravity and minimising As into Sb-Au con (blending, sequential flotation)



## Antimony - Yesterday's and Today's Critical Metal





Historically and economically, antimony is the second most important metallic commodity in Victoria after gold.



The Victoria gold mining industry practically closed at the onset of WW1. Except antimony, mandated by the Imperial Government under the Munitions Act, 1915 to ship concentrates to the St. Helens Smelting and Refining Company in the UK

#### The Critical Minerals Institute Identifies the 14 Most **Elusive Critical Minerals in the World and Launches New Website**

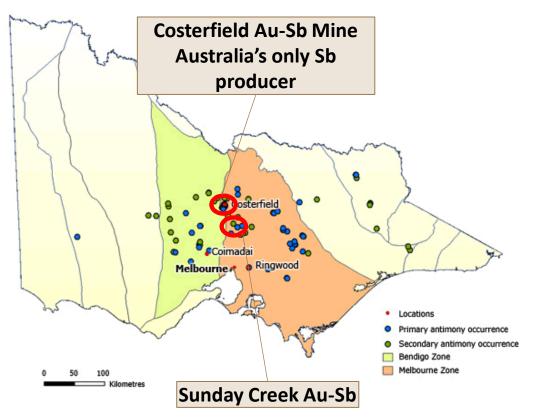
- January 18, 2023(https://criticalmineralsinstitute.com/2023/01/18/)
- News Releases (https://criticalmineralsinstitute.com/category/news-releases/)



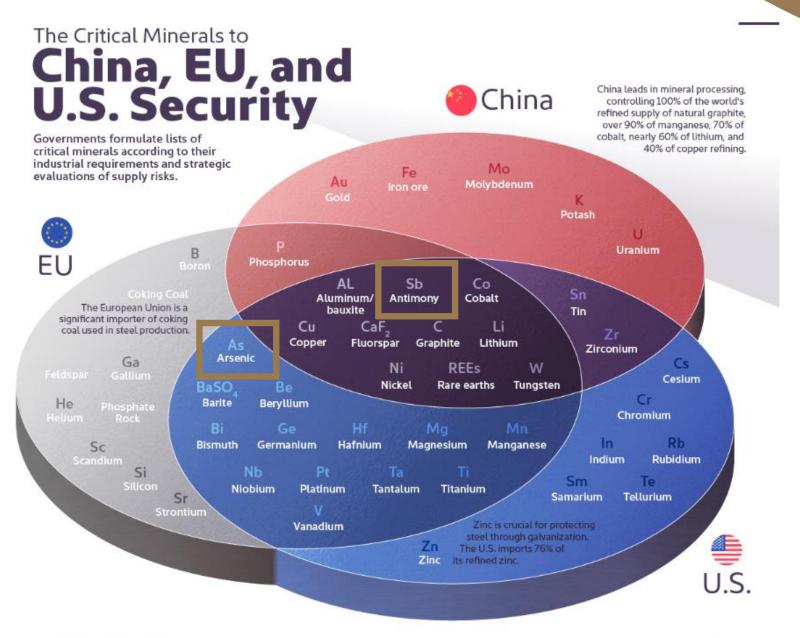
1. Antimony (sb)	6. Indium (In)	11. Rare Earth Elements – of 17
2. Bismuth (Bi)	7. Lithium (Li)	REEs: neodymium, praseodymium, dysprosium, Terbium
3. Cobalt (Co)	8. Magnesium (Mg)	12. Tantalum (Ta)
4. Gallium (Ga)	9. Niobium (Nb)	13. Tungsten (W)
5. Graphite (C)	10. Platinum group of metal	14. Vanadium (V)



## Antimony from Greek "anti" (not) and "monos" (alone)



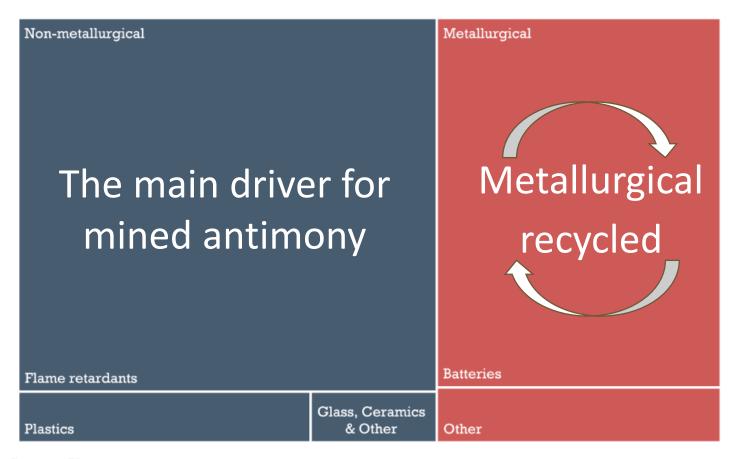
- Second most important metal in Victoria
  - 1870s: European wars
  - WW1: Imperial Munitions Act to ship concentrates to the UK





Note: Data as of September 2023

#### Demand

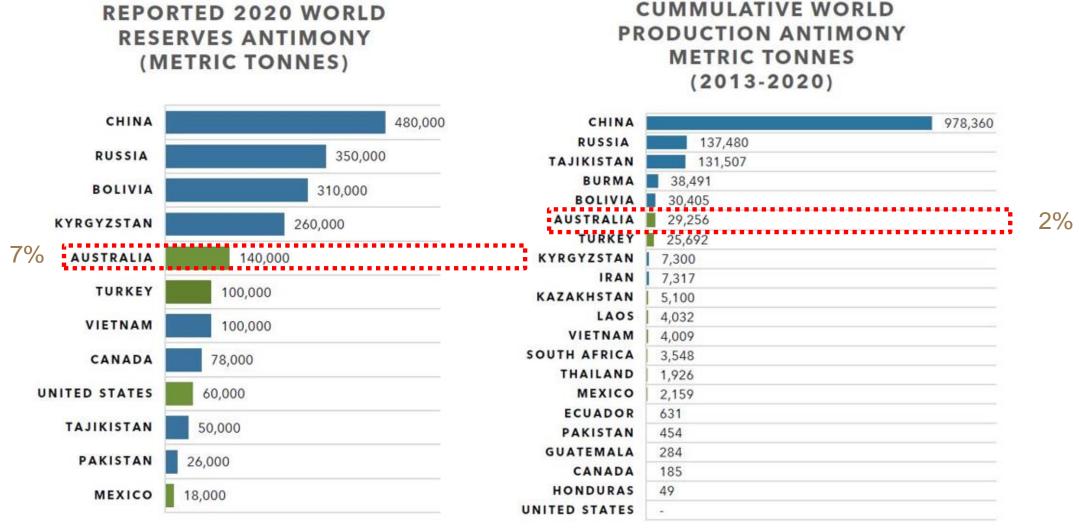


## **Critical and Strategic**

- Defence critical
- Semiconductors
- Solar panels (17% global in 2022)
- Battery metal for its role in liquid metal (Sb-Ca Ambri – Reliance/Gates)

Source: Blue

## Supply (Russia + China = 82%)



## **AUKUS** and China Export Restrictions

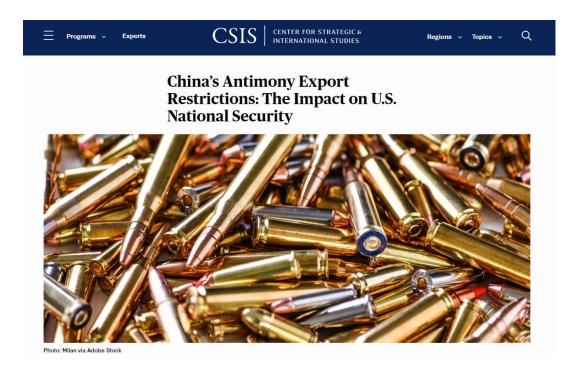


Defence Ministers



15 DECEMBER 2023

Adds Australia and the United Kingdom to Title III of the US Defense Production Act.
 This Act allows the US Government to incentivise its industrial base to expand the production and supply of critical materials and goods. Australia's addition will open new opportunities for Australian based industry to directly compete for business with the US Government.



SXG are members of Defense Industrial Base Consortium (DIBC) https://www.dibconsortium.org/

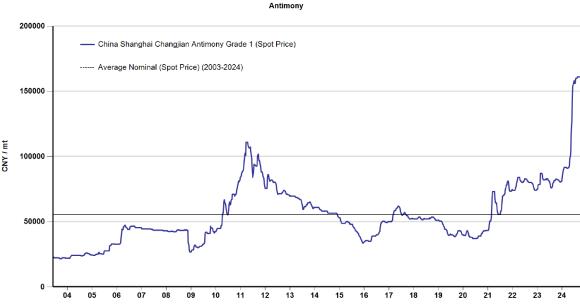


## Not only strategic, also valuable

## Gold



## **Antimony**





## Location, Location: Positioning for Development

The company is actively de-risking the project through pre-development activities to be in an optimal position for design, feasibility studies and permitting





## Positioning For Development with Victoria Open for Business

Our primary focus is to target grade, build volume and demonstrate regional scale, however the company is actively derisking the project through pre-development activities to be in an optimal position for design, feasibility studies and permitting

Daniel Thompson, Director, Resources Victoria Approvals Coordination, July 15, 2024



Victorian Sustained Mine Permitting and Development **VICTORIAN GOVERNMENT INITIATIVES** 5 Gold Mines Operating Today **Approvals Coordination** Development Facilitation "A\$23.3m to drive investment by Program ("DFP") removing uncertainty around resource "Faster decisions for priority projects" Stawell Costerfield **Fosterville** Tarnagulla Costerfield Mining Mining Mining Surface Mining **UG** Mining Fosterville + Sustained 1981 - Today 1990 - today 1994 - 2000 1996 - 2005 2005 - today **A1** Bendigo EES Preparation Costerfield 2021 Mining Mining Au Third Tailings Dam Approval Au Au Au **Morning Star** Sb Big Hill Sb 1999 - 2014 2009 - Today 2024 - 5 months DFP Sb **EES Rejection** Mining Au **WRP** Goschen Nagambie Baileston AuMaldon 2019 - 2023 2014 Au Ballarat EES - Public Hearing Underway Mining Fiddlers Mining Mining Mining Mining 2012 - 2015 2024 Permitted 1989 - 1997 1995 - 1998 Au 2001 - 2004 Donald 2005 - Today 2021 **EES Approval** Au Au Ti Τi 2008 Au Au **Avonbank** Benambra Kulwin Big Hill Ti Wemen Benambra Douglas EES - Public Hearing Complete Mining **EES Approved** Mining **EES Review** Mined Mining 2009 - 2012 2014 2017 2004 - 2012 1992 - 1996 2001 - 2004 **Fingerboards** EES Rejection Ti Τi Ti Cu Ti Au Hamilton Zn 2021 Cu Echo - Iluka Wimmera - Iluka Zn Processing **EES Scoping** Mining 2007 - 2017 2010 - 2013 Ti Ti 2020 2025 1990 2000 2010 **Operating Mines Today Permitting Pathways in Victoria** Gold Labour https://resources.vic.gov.au/about-us/our-role/resources-victoria-approvals-coordination https://wcsecure.weblink.com.au/pdf/SXG/02669418.pdf **Mineral Sands** Liberal Municipal 2 ASX:SXG **Base Metals** SOUTHERN CROSS

## Our People



**Locally based staff –** living in the communities in which we work



Australian based board – focused on creating an ethical, shared value company with strong ESG credentials that employees and investors can be proud of



Strong relationships:
Community Reference Group,
Shire, Taungurung Lands and
Waters Council, State and
Federal Government



## **Directors and Key Management**



Tom Eadie Non- Executive Chairman

Explorer, mining executive and company director with many significant mineral discoveries and several successful companies to his name (Pasminco, Syrah, Copper Strike)
Geologist with over 40 years' experience in the resources industry



Michael Hudson Managing Director

Explorationist and entrepreneur, developed and financed mineral exploration properties globally over 30 years. Key member behind multiple discoveries Co-founder and director of Mawson Gold Ltd (TSXv:MAW) and Hannan Metals Ltd (TSXV:HAN)



Georgina Carnegie
Non-Executive

Director

Experienced executive within Australian government and global corporate sectors Advisory roles in public and private mining and insurance sectors, OECD, Asian business councils and Australian university sector



**David Henstridge** 

Non-Executive Director

Geologist with over 50 years' experience in the mining industry including 20 years in managing public-listed companies
Associated with many mineral discoveries worldwide including in Australia, Peru & Finland



**Lisa Gibbons General Manager** 

30+ years' experience as a geologist in exploration & resource development Won the MCA Victoria 2022 Exceptional Woman in Victorian Resources Award for her career achievements, advocacy of women and contribution to social licence and the community



#### Timetable Next Steps







11km of strike with old workings, early-stage drill hits and soil sampling.
Regional scale geophysical survey over this trend. One rig

to focus on regional drilling.



60 km now to Sept 2025 Cost A\$20m

### **Progress**



Highest hit rate globally, grade increasing at depth:

- 50 intersections > 100 AuEq g/t x m from 67.6 km drilling
- 455.3 m @ 7.2 g/t Au including 1.0 m @ 2,318 g/t Au
- 331.5 m @ 6.8 g/t Au including 13.1 m @ 91.7 g/t Au



Free milling gold, 20% antimony by-product (defence critical)



Large exploration upside, only 3% of trend tested



152 drill holes for 67.6 km reported to date, 60 km drill program to Q3 2025



Seasoned discovery team focussed on value creation per share



Supportive shareholders to underpin value creation lifecycle Cash A\$31.4m\*, 1,055 ha freehold (subject to FIRB)

\*\$10.6m (cash Aug 31, 24) + \$18.75m on closing property transaction midDec + +\$1.6M from MAW:TSXv on closing Scheme late-JAN





#### **Contact Us**



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www.southerncrossgold.com.au



**Corporate Development** 

Nicholas Mead Level 6 350 Collins St Melbourne Vic 3000 **Registered Office** 

Level 21 459 Collins St Melbourne Vic 3000



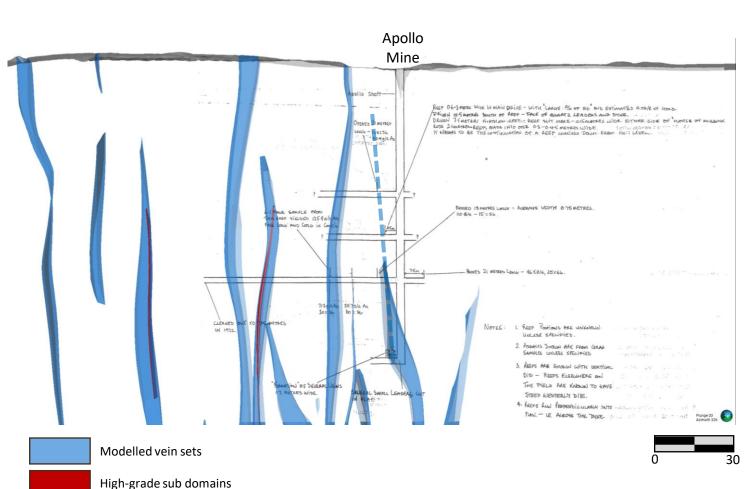


## Appendices



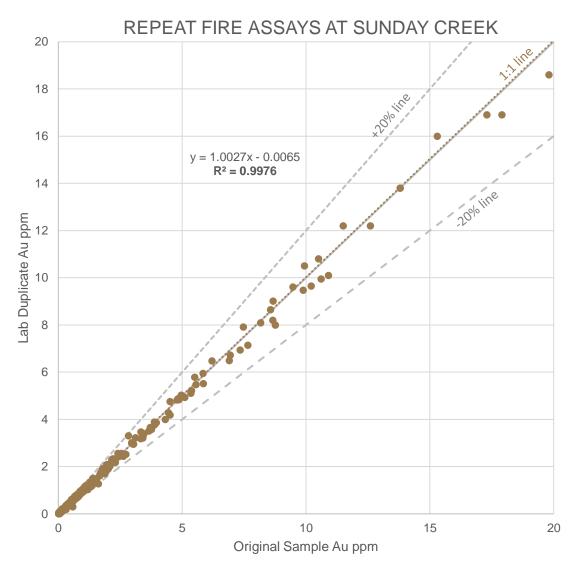
## How to model and predict this style?

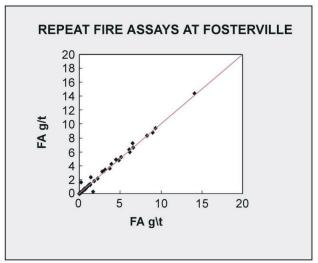
- Continuity of vein sets and grades are described in three dimensions across multiple datasets including:
  - ✓ Fifty years of historic mining records and drilled continuity below mined areas
  - ✓ Geological likeness
  - Structural oriented drill core data, quality control data and structural controls on mineralization trends
  - Geostatistics that demonstrate a low coefficient of variation



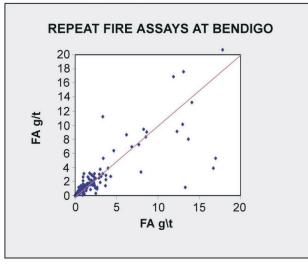


## Lab Duplicates Demonstrate Homogeneity of Samples









Bendigo - GBM gold

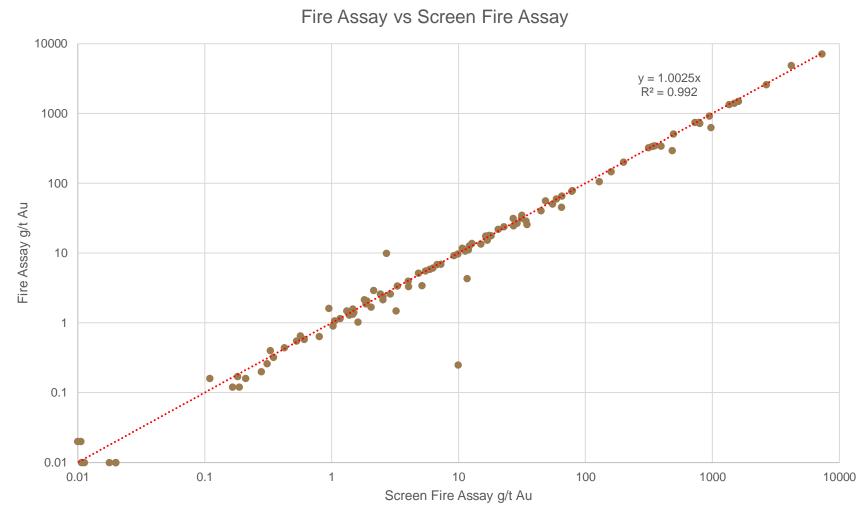
✓ Comparison of repeat fire assay data at Sunday Creek, Bendigo and Fosterville. All samples prepared in an LM5 pulveriser to nominal -75 micron with two samples taken from each pulp



## High Grade is Not Always Nuggetty: SFA and FA Duplicates



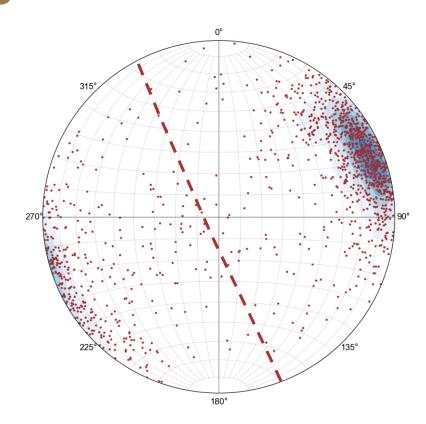
SDDSC117: 0.5 m @ 473.1 g/t AuEq (473.0 g/t Au, 0.0% Sb) from 913.6 m

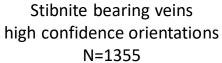


Highly repeatable results between Fire Assay (25g charge) and Screen Fire Assay (entire sample to extinction)

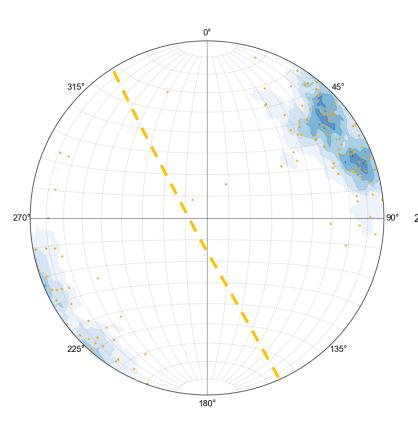


## Structural Geology: Stereonets Inform Continuity



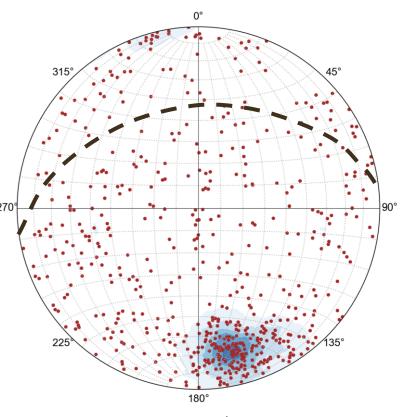


Subvertical vein arrays and shear veins



Visible Gold bearing veins – high confidence orientations N=118

Consistent with Sb bearing veins

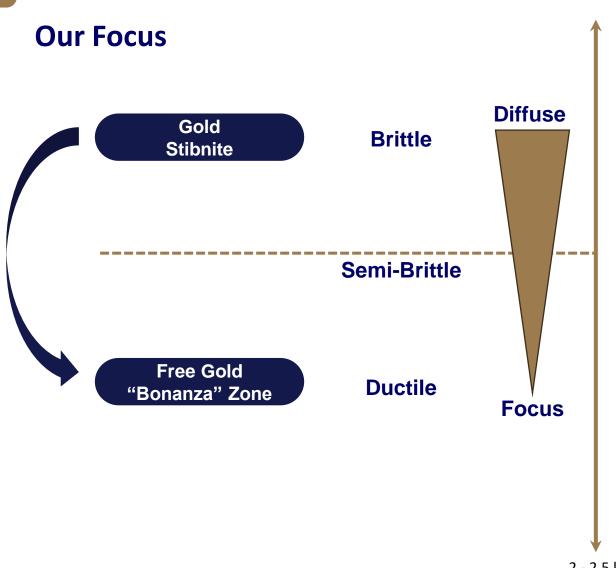


Pyrite veinlets N = 609

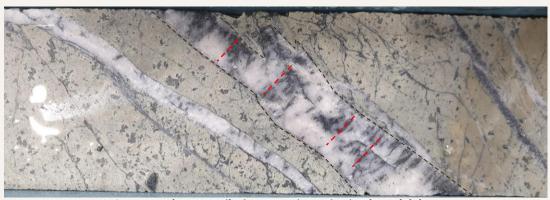
Early lithological control
– follows dyke trend



#### Brittle to Ductile Transition

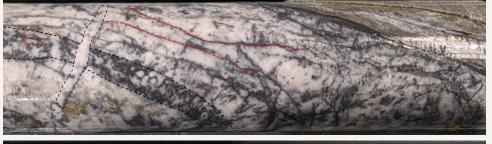


#### **Brittle Features**



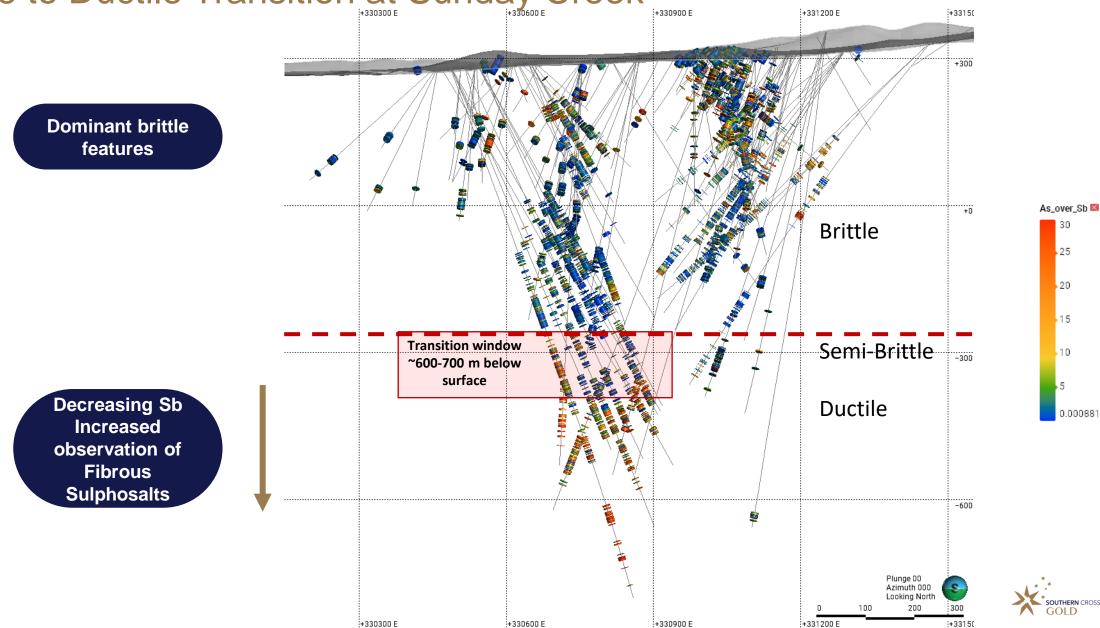
Quartz-carbonate-stibnite extension veins in altered dyke

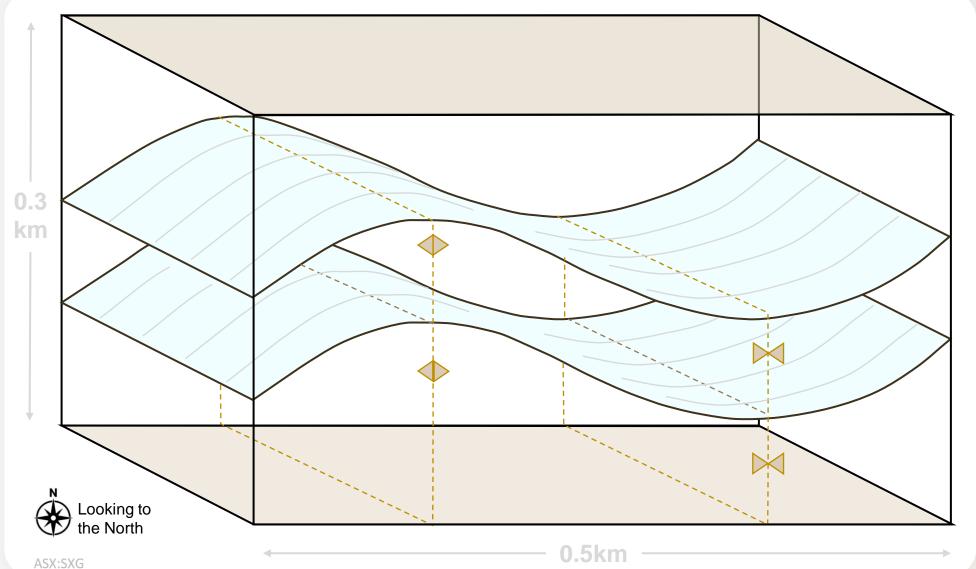
#### **Ductile Features**





Brittle to Ductile Transition at Sunday Creek





#### **DESCRIPTION:**

Northeast/southwest compression during the Middle Devonian Tabberabberan Orogeny creates gentle to open folding of sediments

#### **LEGEND**

Syncline fold hinge



Anticline fold hinge



Sb Au bearing Shear Veins & Vein sets

Stratigraphic package - Sandstone



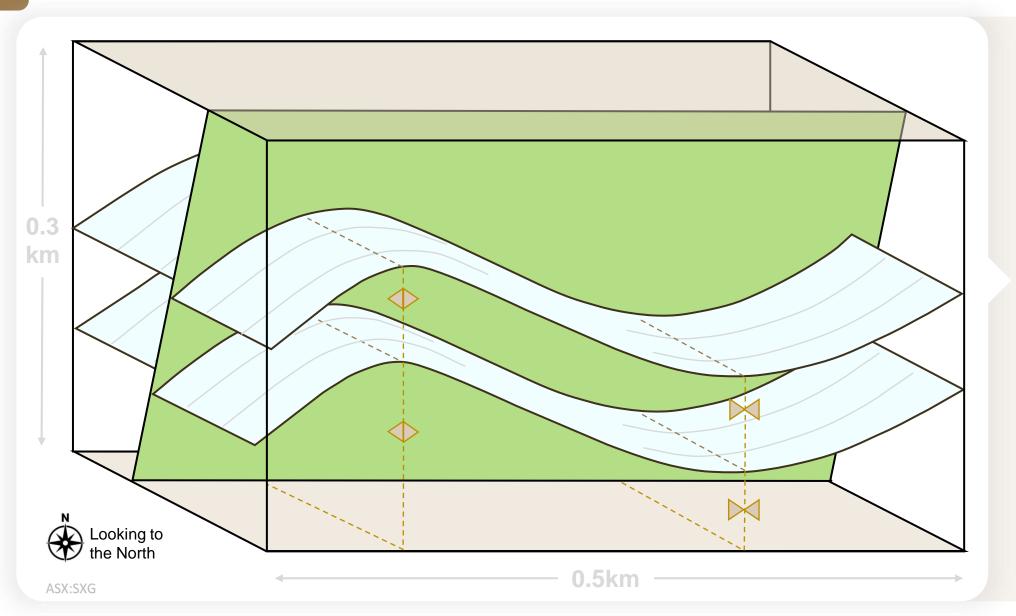
Major Fault



Minor Fault



Alteration, Dyke & Dyke Breccia



#### **DESCRIPTION:**

A quartz-diorite dyke trending approx. 080° intruded into pre-existing fault architecture at Sunday Creek, bisecting folds. During localised periods of extension

#### **LEGEND**

Syncline fold hinge



Anticline fold hinge



Sb Au bearing Shear Veins & Vein sets

Stratigraphic package - Sandstone



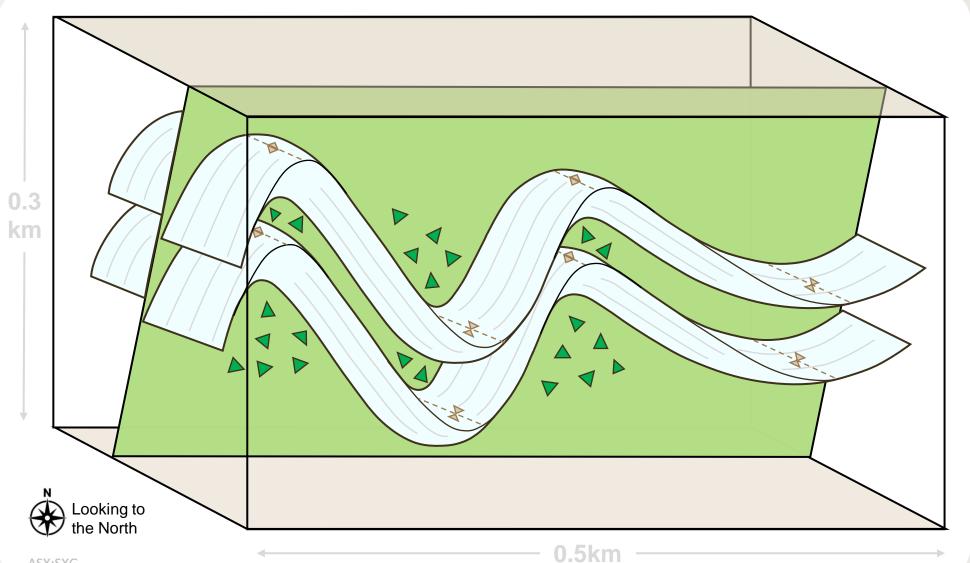
Major Fault



Minor Fault



Alteration, Dyke & Dyke breccia



#### **DESCRIPTION:**

Compression of dyke and sediments causes tightening and parasitic folding of sediments and brecciation of preexisting dyke. Novel addition of dyke and fluids to brecciated areas.

#### **LEGEND**

Syncline fold hinge



Anticline fold hinge



Sb Au bearing Shear Veins & Vein sets

Stratigraphic package - Sandstone



Major Fault

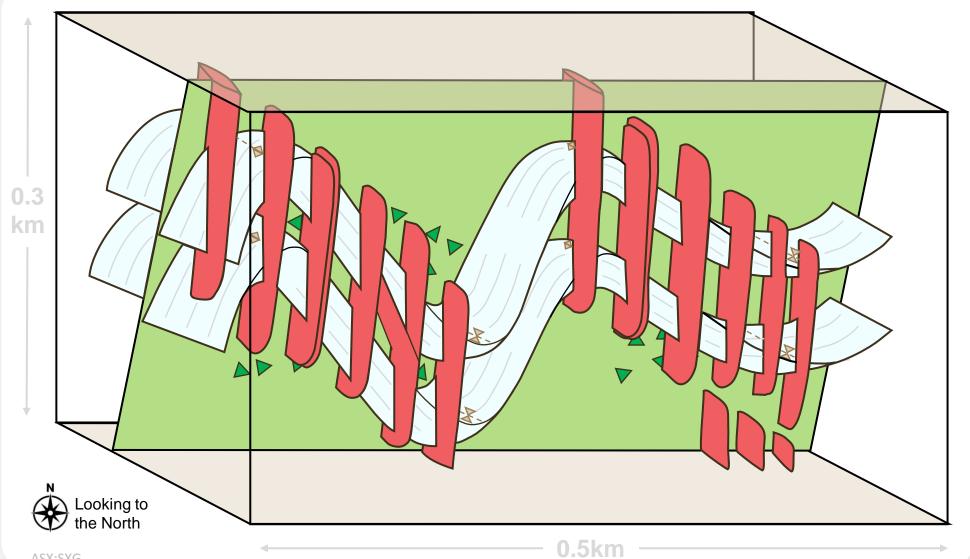


Minor Fault



Alteration, Dyke & Dyke breccia

ASX:SXG



#### **DESCRIPTION:**

Mineralisation forms within NNW striking vein sets, varying from centimeter scale crack-seal veins, to veins with sheared margins, to messy, veinbreccias often carrying higher grades.

#### **LEGEND**

Syncline fold hinge



Anticline fold hinge



Sb Au bearing Shear Veins & Vein sets

Stratigraphic package - Sandstone



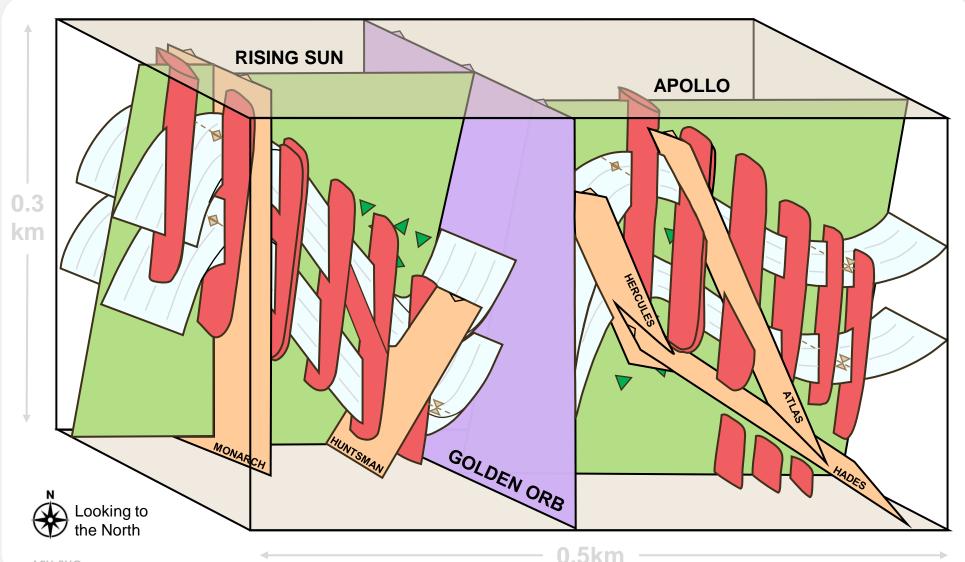
Major Fault



Minor Fault



Alteration, Dyke & Dyke breccia



#### **DESCRIPTION:**

Regional series of late gouge faults that displace the dyke and mineralisation.

#### **LEGEND**

- <del>-</del> - Sv

Syncline fold hinge



Anticline fold hinge



Sb Au bearing Shear Veins & Vein sets

Stratigraphic package - Sandstone



Major Fault



Minor Fault



Alteration, Dyke & Dyke breccia

ASX:SXG