



AIG Victorian Minerals Round-up 2024



SOUTHERN CROSS  
GOLD

**Sunday Creek** – A significant high-grade Au-Sb discovery in the Melbourne Zone.

28<sup>th</sup> June 2024



Foundation Member



# Important Notice and Disclaimer

## Overview

This presentation (“this Presentation”) has been prepared by Southern Cross Gold Ltd [ACN 652166795] (“SXG” or the “Company”) and is dated 28 June 2024.

## Summary information

This Presentation contains summary information about the current and proposed activities of SXG as at the date of this Presentation. The information in this Presentation is of a general nature and does not purport to be complete. This Presentation does not purport to contain all the information that an investor should consider when making an investment decision nor does it contain all the information which would be required in a disclosure document or prospectus prepared in accordance with the requirements of the Corporations Act. It should be read in conjunction with the Company’s other periodic and continuous disclosure announcements lodged with the ASX, which are available at the ASX website [www.asx.com.au](http://www.asx.com.au) under the code “SXG”. Neither SXG nor its directors, employees or advisers accept any responsibility to inform recipients specifically of any matter arising or coming to its attention after the date of this Presentation. Recipients should monitor SXG’s announcements to ASX, which can be obtained from ASX website as referred to above.

## Investment risk

An investment in SXG’s Shares is subject to investment risks and other known and unknown risks, some of which are beyond the control of the Company. SXG, its directors, employees or advisers do not guarantee any particular rate of return or the performance of SXG, nor does it guarantee the repayment of capital or investments from or in SXG or any particular tax treatment.

## No Offer

This Presentation is for information purposes only. It is not a prospectus, disclosure document, product disclosure statement or other offering document under Australian law or any other law (and is not approved by or registered with any regulator). The Presentation is not and should not be considered an offer or an invitation to acquire shares or any other securities or financial products. This Presentation may not be released or distributed in the United States. This Presentation does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States or in any other jurisdiction in which such an offer would be illegal. The New Shares have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (the “U.S. Securities Act”) or the securities laws of any state or other jurisdiction of the United States. The distribution of this Presentation in other jurisdictions outside Australia may also be restricted by law and any such restrictions should be observed. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

## Not financial product advice

This Presentation does not constitute financial product or investment advice (nor tax, accounting or legal advice) nor is it a recommendation to acquire shares and does not and will not form any part of any contract for the acquisition of shares. This Presentation has been prepared without taking into account the objectives, financial situation or needs of any particular investor.

Before making an investment decision, prospective investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs and seek appropriate advice, including financial, legal and taxation advice appropriate to their jurisdiction. SXG is not licensed to provide financial product advice in respect of SXG shares or any other investment.

## Future performance

This Presentation may contain forward looking statements, opinions or estimates. Any forward looking statements, opinions or estimates contained in this Presentation are not guarantees or predictions of future performance and involve known and unknown risks and uncertainties and other factors, many of which are beyond the control of SXG, and may involve significant elements of subjective judgement and assumptions and contingencies as to future events which may or may not be correct which are subject to change without notice, as are statement about market and industry trends, which are based on interpretations of current market conditions. Those statements reflect views only as at the date of this Presentation. The actual results may differ materially from anticipated results, performance of achievement expressed, projected or implied by these forward-looking statements.

While SXG believes the statements in the Presentation are reasonable, neither SXG nor any other person gives any assurance or guarantee that the occurrence of the events expressed or implied in the Presentation will actually occur and investors are cautioned not to place undue reliance on those statements. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. A number of factors could cause actual results or performance to differ materially from the forward-looking statements, including the risk factors set out in this Presentation. Investors should consider the forward-looking statements contained in this Presentation in light of those disclosures. The forward-looking statements are based on information available to SXG as at the date of this Presentation.

# Important Notice and Disclaimer

## Competent Persons Statement

Information in this presentation that relates to new exploration results contained in this report 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 undertaken 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 in 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](http://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.

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 [www.southerncrossgold.com.au](http://www.southerncrossgold.com.au):

4 October, 2022 [SDDSC046](#), 23 January, 2023 [SDDSC051](#), 3 July, 2023 [SDDSC071](#), 28 August, 2023 [SDDSC078](#), 29 August, 2023 [SDDSC068](#), 5 September, 2023 [SDDSC077B](#), 12 October, 2023 [SDDL003 & 4](#), 23 October, 2023 [SDDSC082](#), 9 November, 2023 [SDDSC091](#), 14 December, 2023 [SDDSC092](#), 5 March, 2024 [SDDSC107](#), 13 June, 2024 [SDDSC118](#).

# 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

**42/48 individual intersections** >100/>50 AuEq g/t m ("AuEq g/t x width in m")

**120 drill holes for 52,435m** reported to date

**49 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

- 1 Demonstrate **Grade**
- 2 Demonstrate **Volume**
- 3 Demonstrate **Scale**



## Local Team & Experiences

Small, but experienced team from a range of Victorian deposits including Fosterville, Costerfield, Bendigo, Ballarat & Stawell Mines



## News flow continuous



## Funded with permits

**\$13.5 m**

Fully funded and permitted

**133.3 ha** of freehold land, two properties



Zac

Claudia

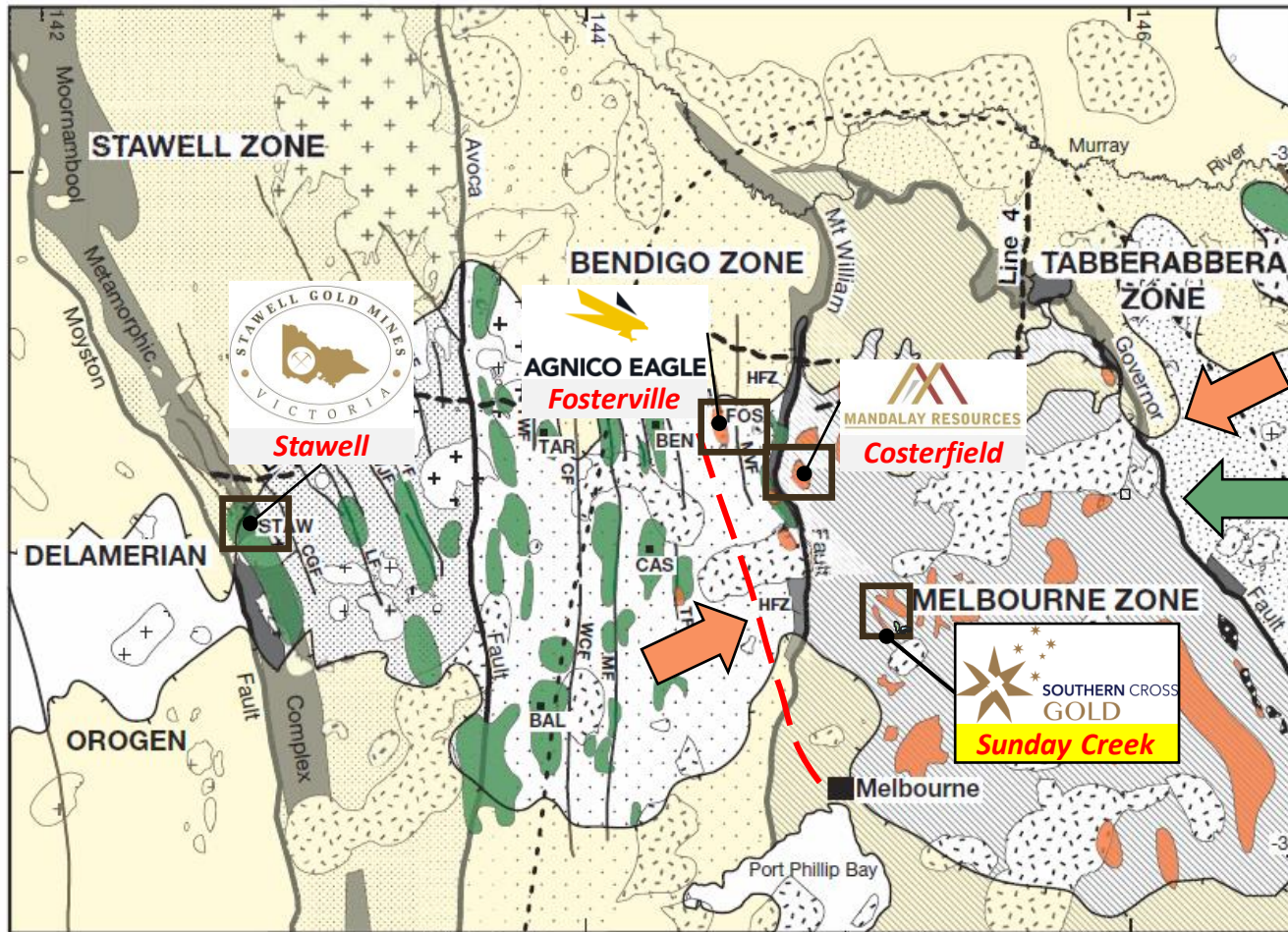
Kenny

Angus

Andrew



# Regional geology of Victoria's largest gold deposits



- Cenozoic cover rocks
- 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

Willman et al., 2010

**Mesozonal character**

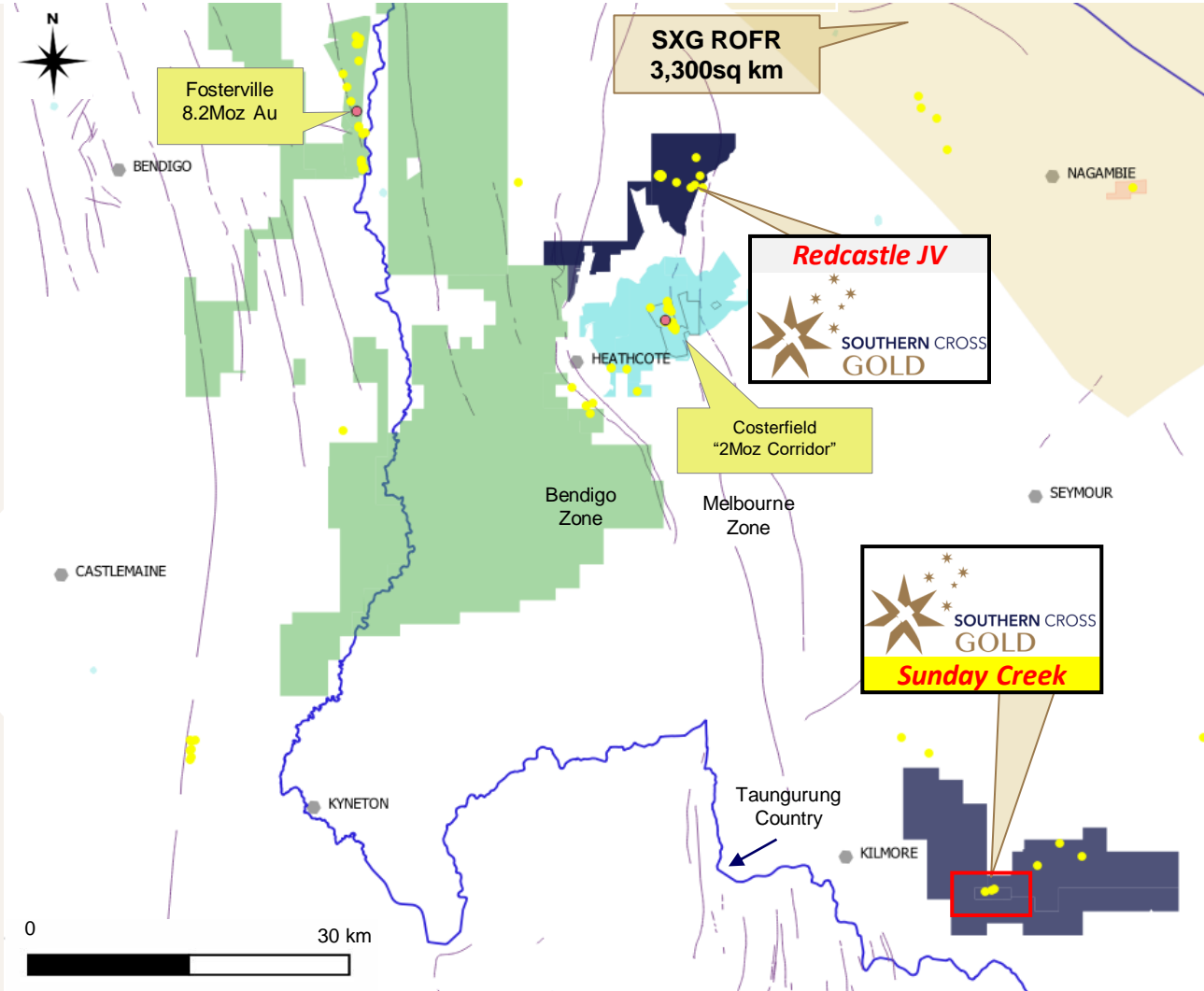
**Sb-As bearing, mainly epizonal character**



# Tenure held by Southern Cross Gold

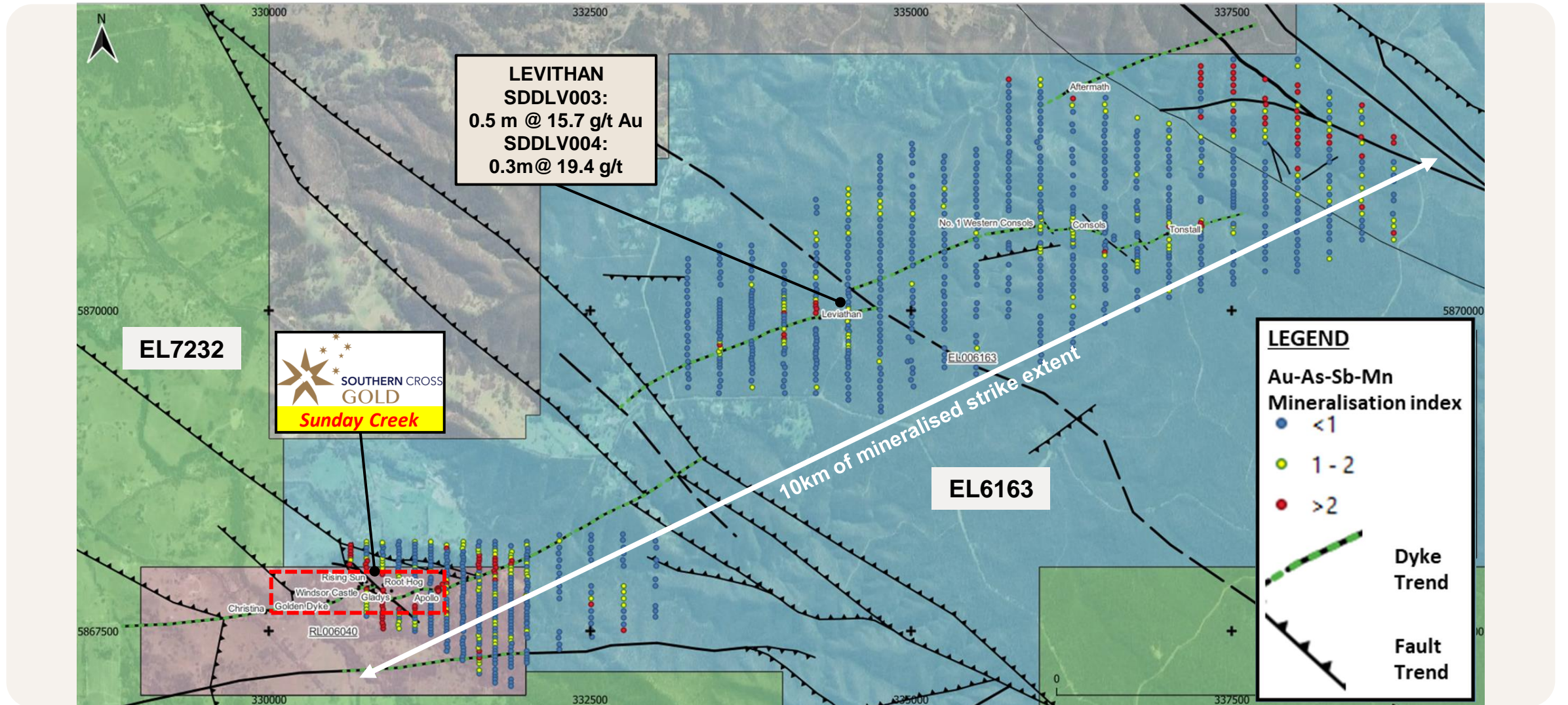


- Epizonal Gold Occurrences
- SXG Projects
- SXG Nagambie Right of First Refusal (ROFR)
- Agnico Eagle Mines (Fosterville)
- Mandalay Resources (Costerfield)

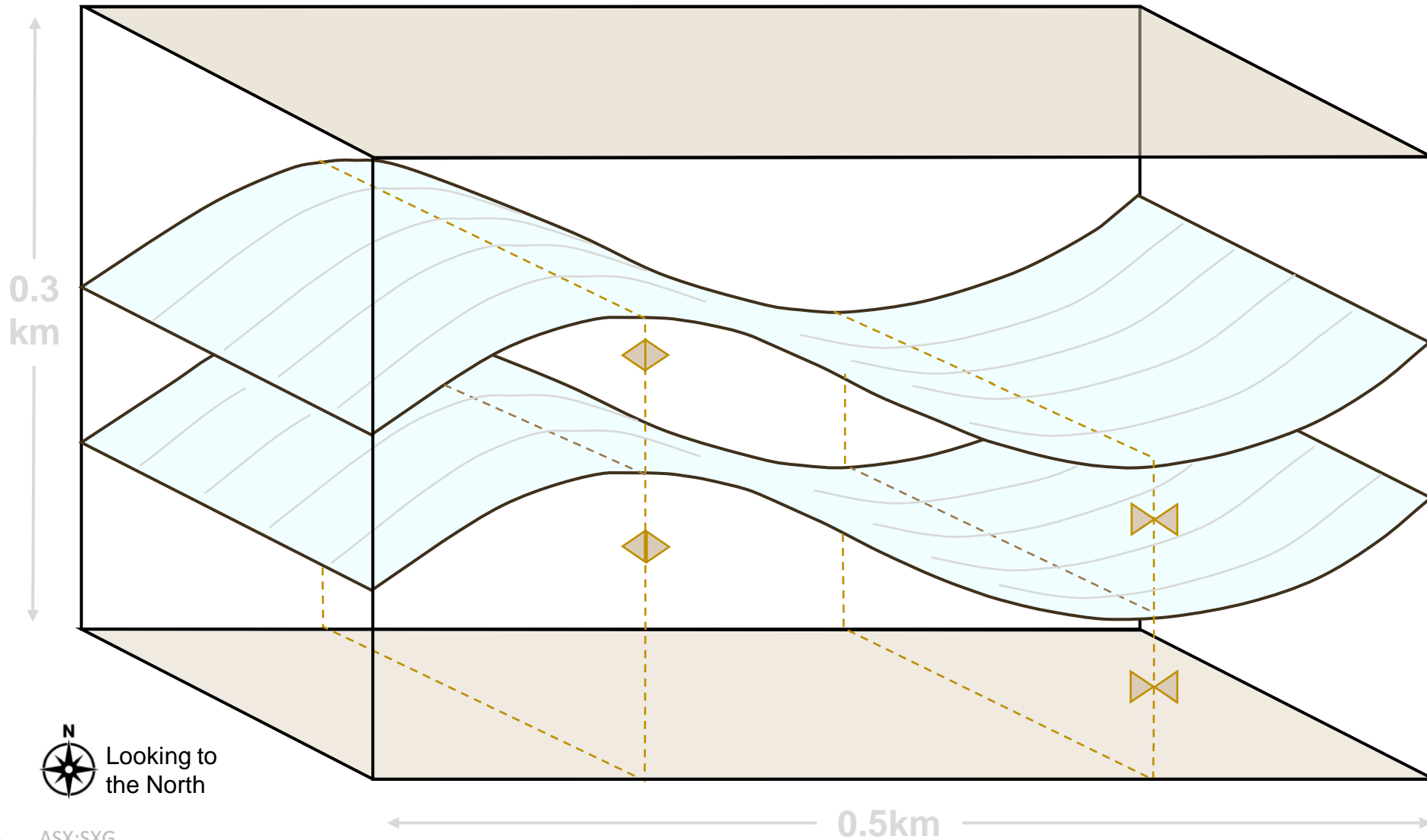




# Regional Scale – Plan View




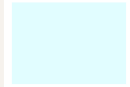



# Paragenesis of Sunday Creek Au-Sb mineralisation



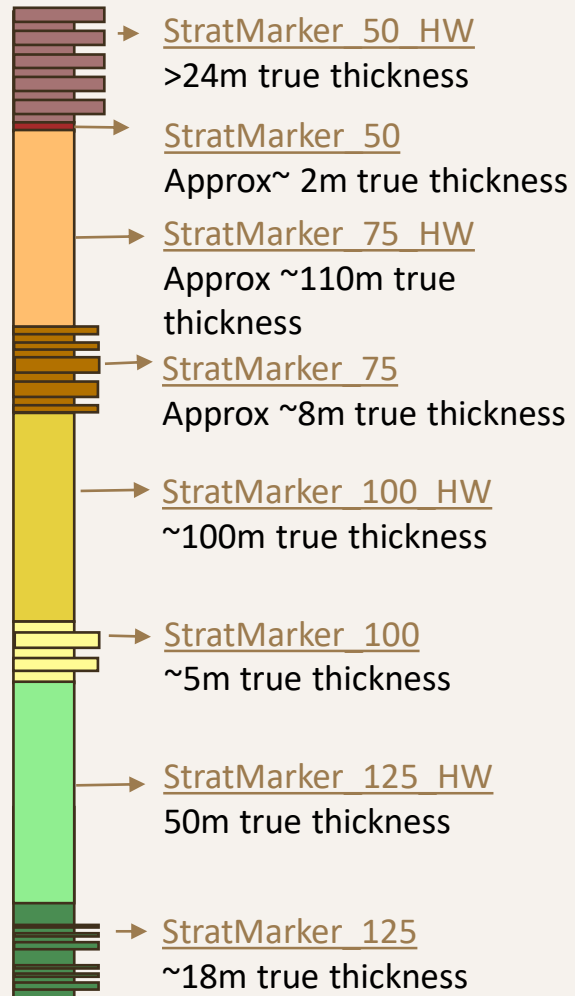
**DESCRIPTION:**  
 Northeast/southwest compression during the Middle Devonian Tabberabberan Orogeny creates gentle to open folding of sediments

## LEGEND

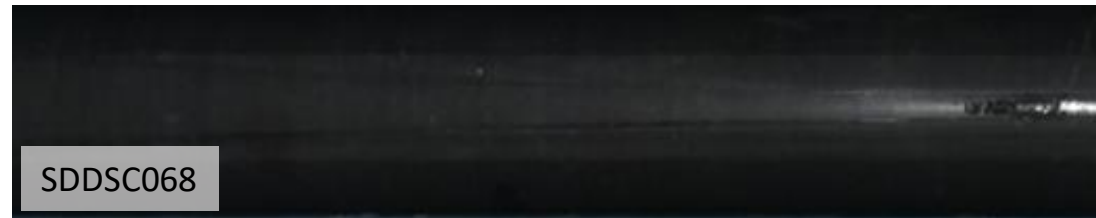
-  Syncline fold hinge
-  Anticline fold hinge
-  Sb Au bearing Shear Veins & Vein sets
-  Stratigraphic package - Sandstone
-  Major Fault
-  Minor Fault
-  Alteration, Dyke & Dyke Breccia



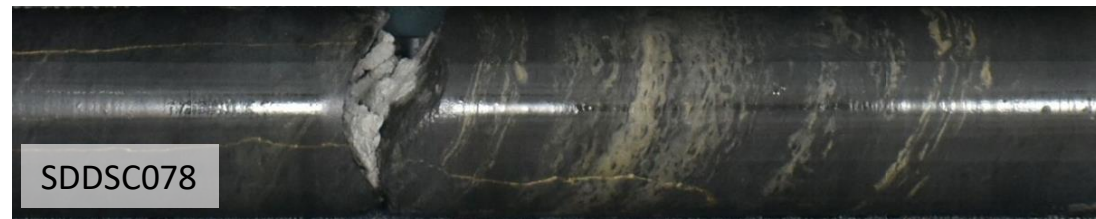
# Six stratigraphic units identified to date



Lenticular bedding;  
StratMarker\_50



Massive siltstones

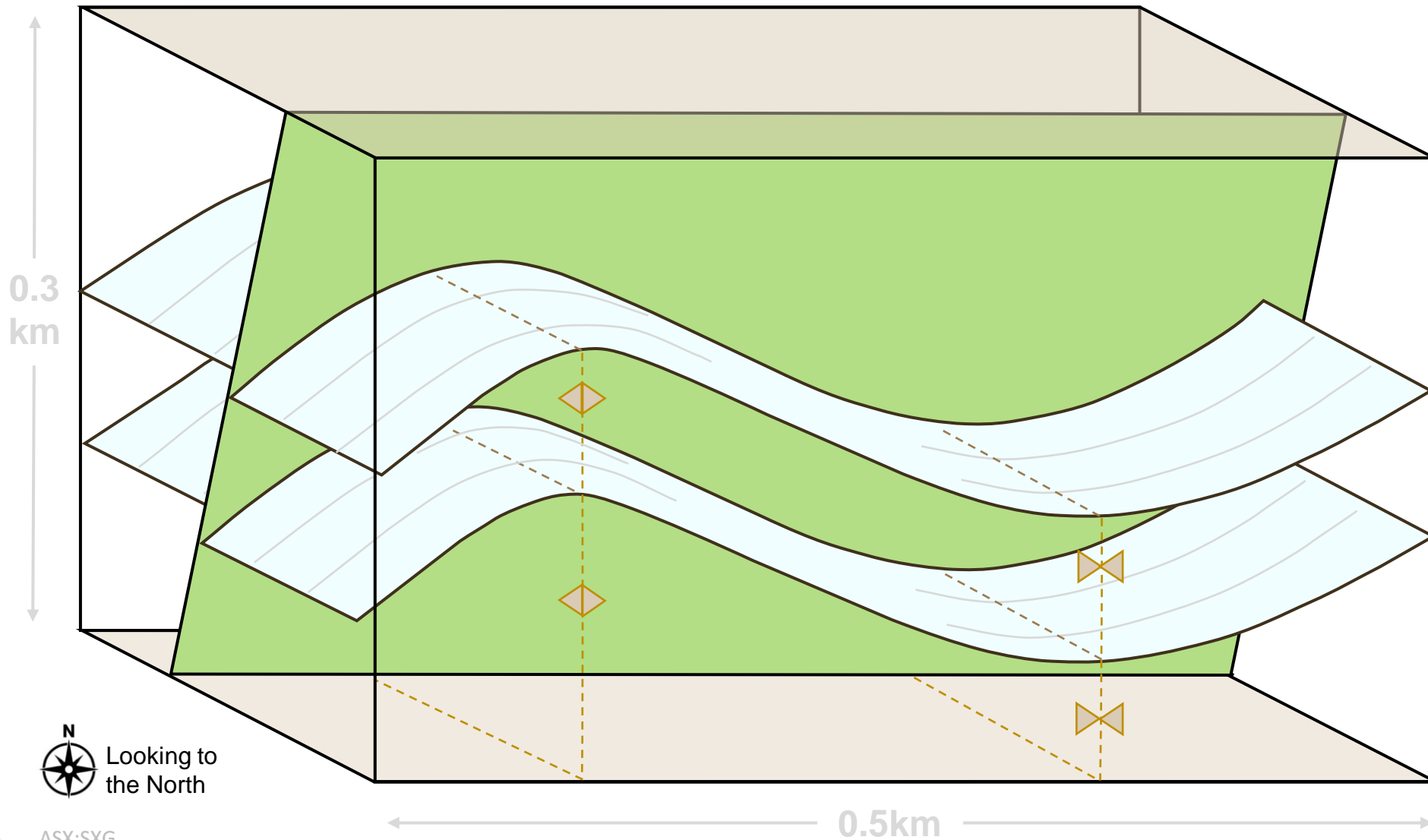


Mud flakes / lithic  
clasts or  
Bioturbation



Interbedded Cross  
bedded & laminated  
sandstone;  
StratMarker\_125

# Paragenesis of Sunday Creek Au-Sb mineralisation



## DESCRIPTION:

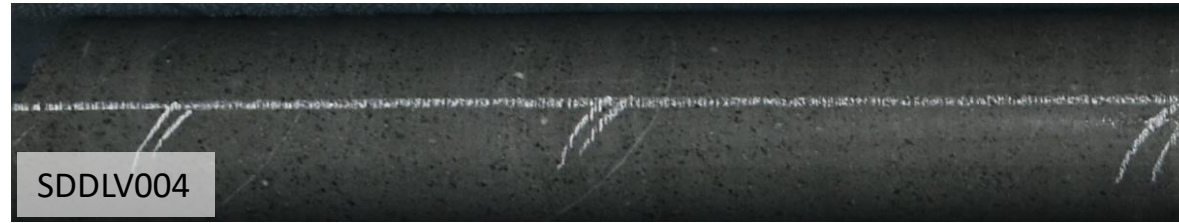
A quartz-diorite dyke trending approx.  $080^\circ$  intruded into pre-existing fault architecture at Sunday Creek, bisecting folds.

## LEGEND

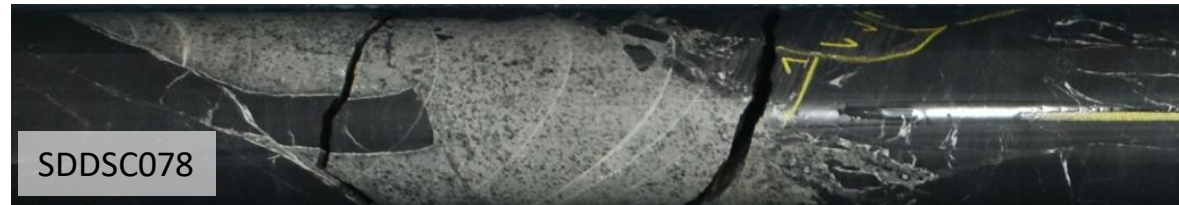
-  Syncline fold hinge
-  Anticline fold hinge
-  Sb Au bearing Shear Veins & Vein sets
-  Stratigraphic package - Sandstone
-  Major Fault
-  Minor Fault
-  Alteration, Dyke & Dyke breccia

# Dyke emplacement ( $\pm$ Alteration?)

- Dyke intrudes preexisting fault architecture, forming subvertical to vertical intrusive body, dipping to the north.
- Dyke can be up to 50m in thickness. Dyke has localised weak magnetism, porphyritic textures and amygdales.
- An alteration zone around the dyke occurs, typically 10 to 30 m. wide, occurs in and adjacent to the dyke. In the dyke, sericite-carbonate-silica-fuchsite is common, while adjacent to the dyke it is mainly sericite-carbonate  $\pm$  silica.



Porphyritic dyke intruding silt



Weakly altered dyke



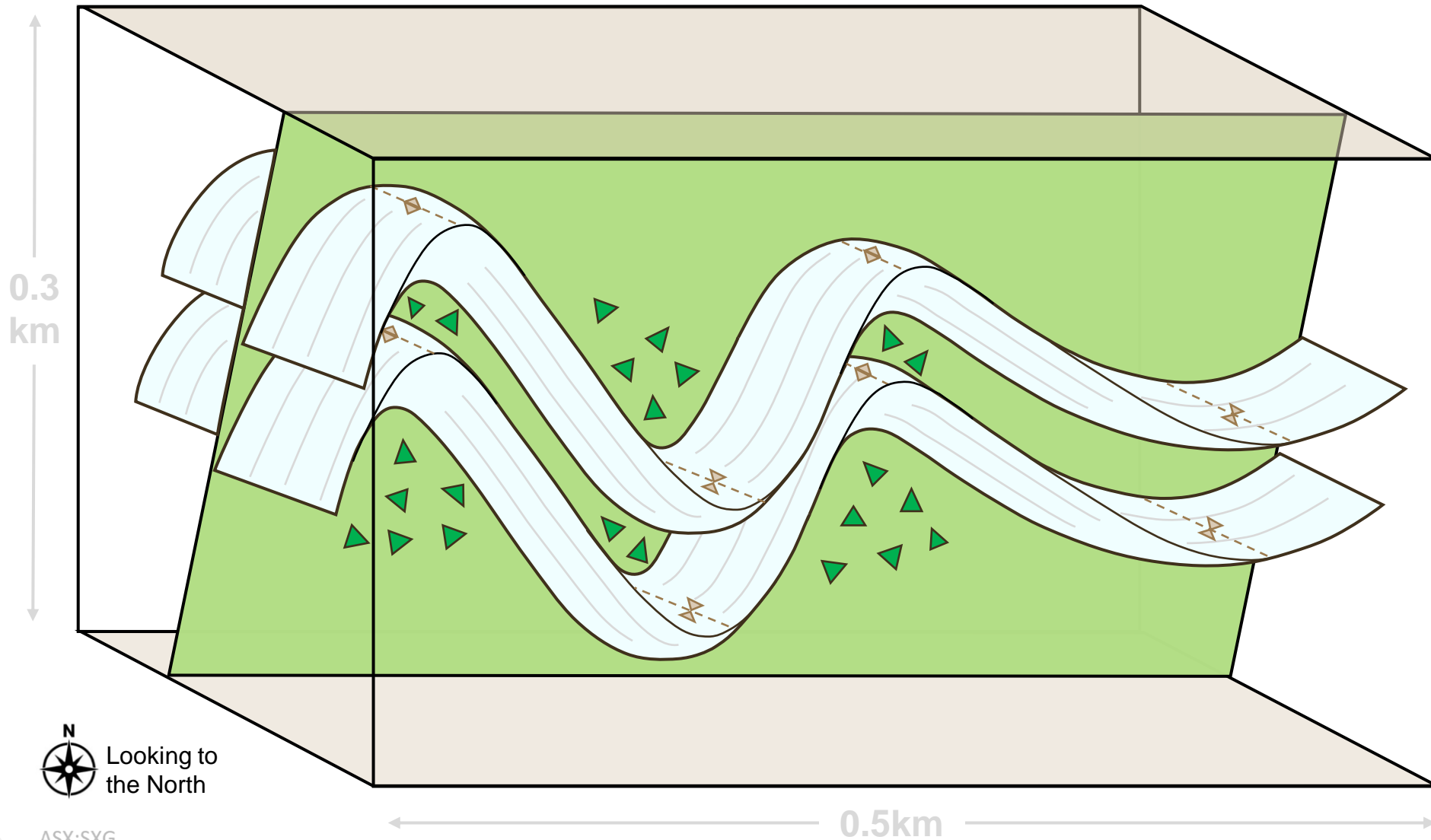
Qtz carbonate Veined dyke



Dyke with Qtz carbonate amygdales



# Paragenesis of Sunday Creek Au-Sb mineralisation



## 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

- X-- Syncline fold hinge
- ◇-- Anticline fold hinge
- Sb Au bearing Shear Veins & Vein sets
- Stratigraphic package - Sandstone
- Major Fault
- Minor Fault
- Alteration, Dyke & Dyke breccia

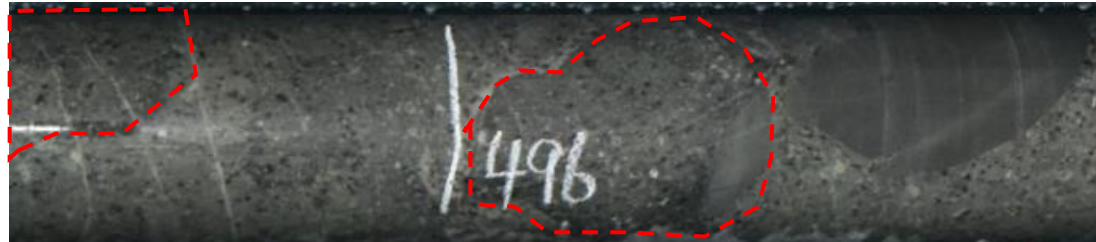
# Compressional event tightens folds and brecciates dyke

● Displaying an evolving system, brecciation of the dyke, unaltered sediments and altered sediments show evidence of multiple events of dyke emplacement and fluid addition to the system

● Overprinting relationships show Au Sb bearing Qtz Carbonate veins overprinting dyke brecciation event



Mixture of dyke and qtz matrix surround altered & unaltered sediment clasts



Dyke clasts surrounded by dyke matrix

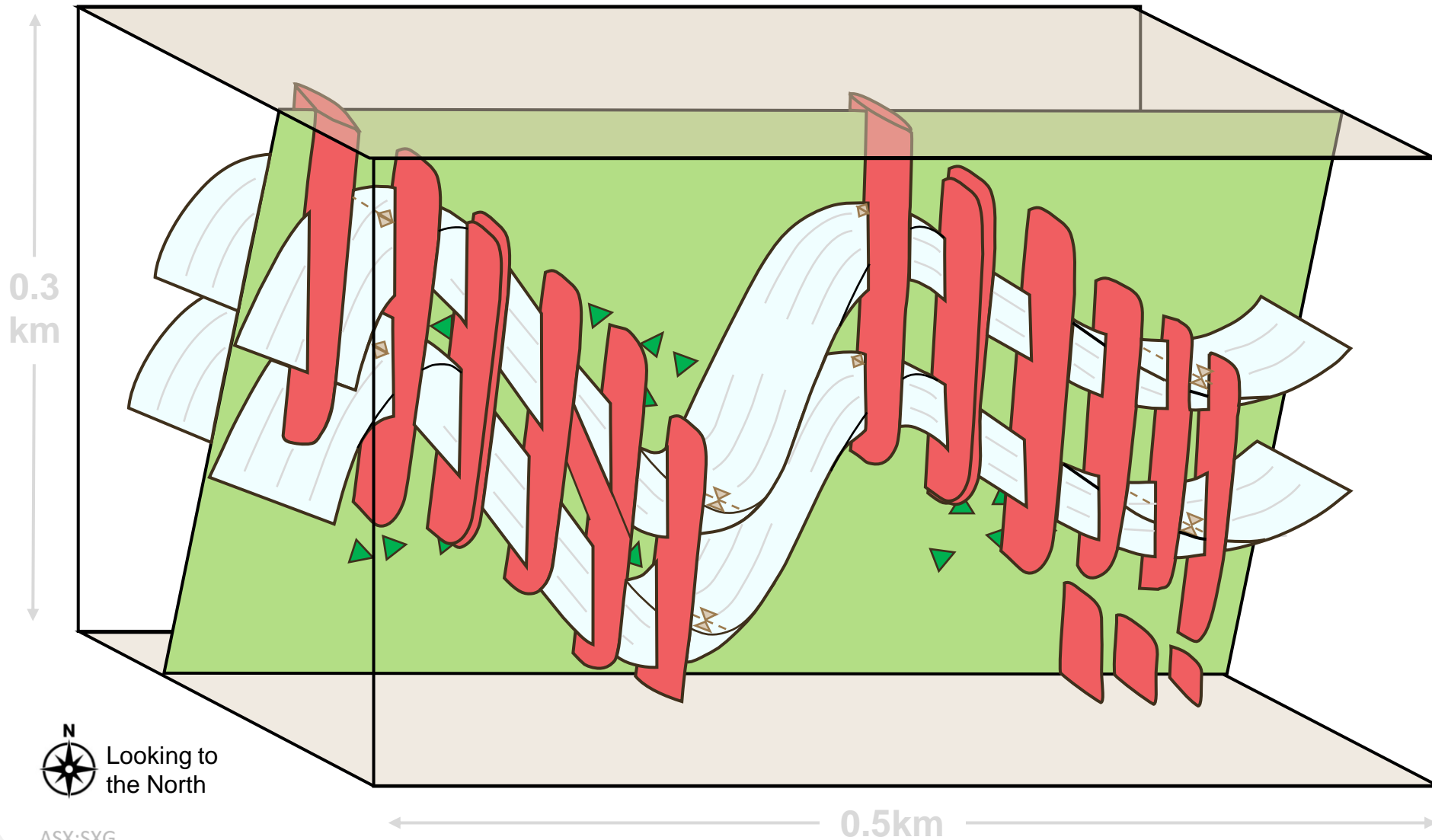


Dyke breccia with clasts displaying uniform & irregular alteration halos



Overprinting relationship – Au Sb bearing Qtz veins overprint breccia

# Paragenesis of Sunday Creek Au-Sb mineralisation



## DESCRIPTION:

Mineralisation forms within NNW striking vein sets, varying from centimeter - scale crack-seal veins, to veins with sheared margins, to messy, vein-breccias 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



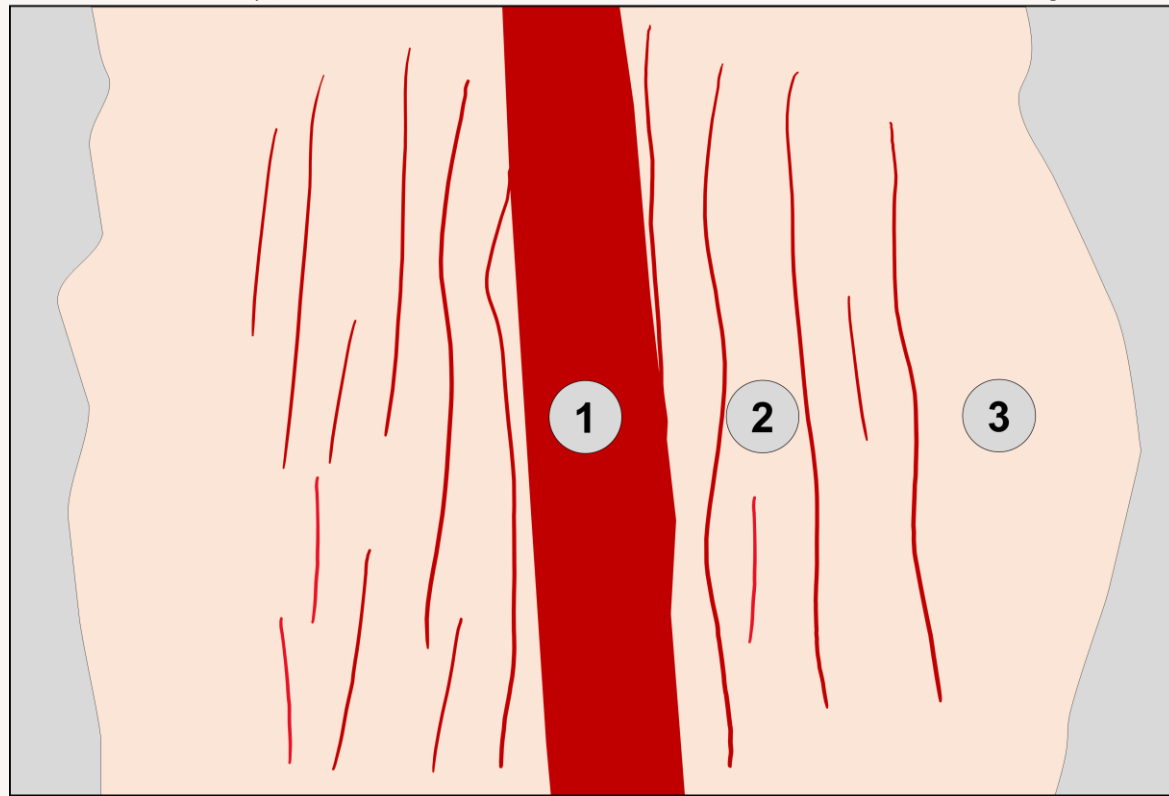
# Vein Morphology

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

\*Estimated true widths quoted

Schematic View – Looking north-west



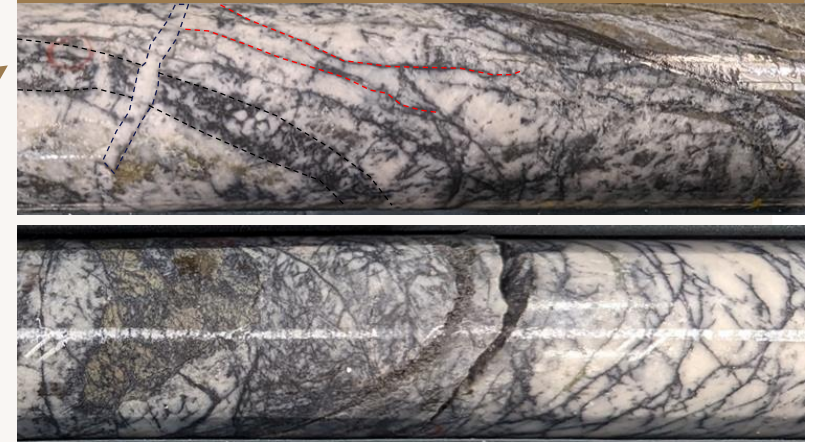
→ Increasing pyrite intensity

→ Increasing vein frequency

← Increasing pyrite intensity

← Increasing vein frequency

## Ductile Features



1

Shear vein –  
high-grade core

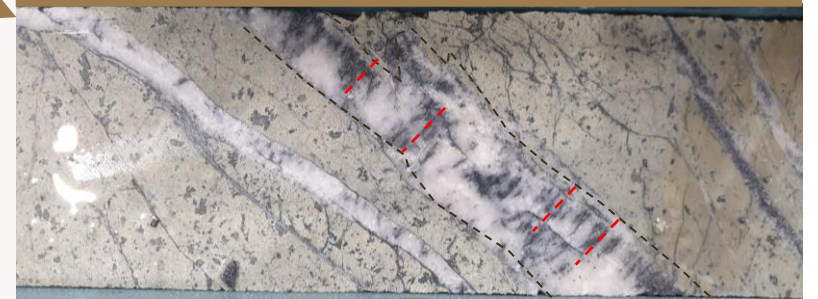
2

Vein arrays –  
extension veins

3

Disseminated  
pyrite

## Brittle Features



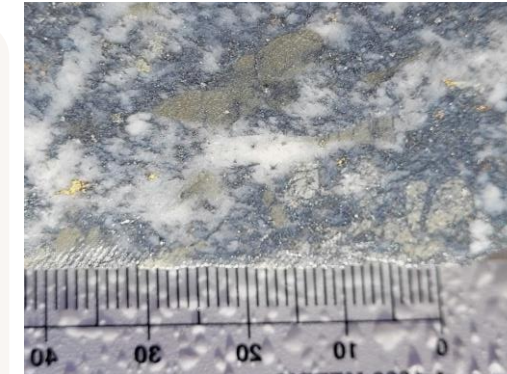
Quartz-carbonate-stibnite extension veins in altered dyke

# Great Projects Keep Getting Better

All of the 5 best intersections on the project have been drilled recently

## Top 10 intersections at Sunday Creek:

Rank	Date`	Hole-ID	From (m)	To (m)	Length (m)	Au g/t	Sb%	AuEq g/t	AuEq g/t * m
1	5-Mar-24	SDDSC107	684.3	685.4	1.0	2,318.4	0.3	2,318.9	2,389
2	5-Sep-23	SDDSC77B	737.1	740.7	3.6	391.9	0.8	393.4	1424
3	9-Nov-23	SDDSC091	430.0	450.0	20.0	62.7	0.5	63.7	1274
4	14-Dec-23	SDDSC092	681.6	684.9	3.3	267.8	1.8	271.1	889
5	23-Oct-23	SDDSC082	417.4	419.0	1.6	500.3	0.1	500.5	801
6	13-Jun-24	SDDSC118	1120.4	1124.0	3.6	124.8	0.0	124.8	449
7	13-Jun-24	SDDSC118	555.7	556.4	0.7	604.0	0.0	604.0	441
8	23-Oct-23	SDDSC082	413.6	415.4	1.7	230.6	9.9	249.1	429
9	5-Mar-24	SDDSC107	566.9	576.0	9.1	39.1	0.6	40.2	368
10	4-Oct-22	SDDSC046	187.5	201.8	14.3	20.5	2.6	25.4	363



Zoomed in SDDSC091 from 439 m (within assayed interval 0.5 m @ 1,497.4 g/t AuEq (1490.0 g/t Au, 4.7% Sb) from 438.8 m to 439.3 m showing cut core with brecciated dioritic dyke, with stibnite and quartz-carbonate veining with fine, disseminated frequent visible gold. mm scale.



SDDSC107 from 684.7 m (within assayed interval 1.03 m @ 2319 g/t AuEq (2318.4 g/t Au, 0.3 % Sb) from 684.32 m to 685.35 m) showing cut core, with stibnite and quartz-carbonate veining with fine, disseminated frequent visible gold.



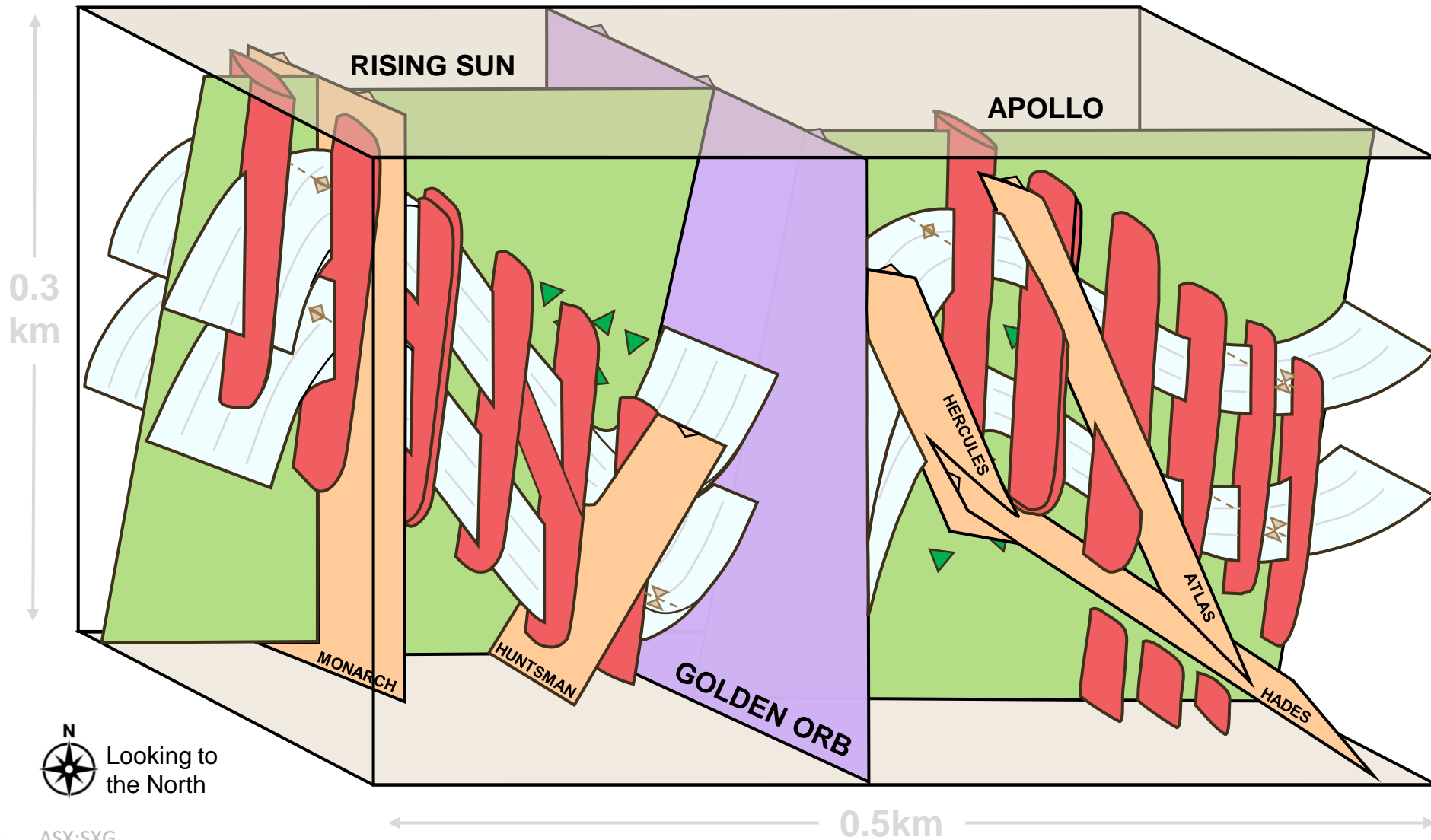
SDDSC082 from 592 m (within assayed interval 0.9 m @ 351.3 g/t AuEq (351.2 g/t Au, 0.0% Sb) from 591.4 m to 592.3 m) showing uncut core with quartz-carbonate massive vein with visible gold. mm scale



SDDSC077B from 739.9 m (0.8 m @ 1,741.5 g/t AuEq (1,736.4 g/t Au, 3.3% Sb) showing quartz-carbonate stockwork with visible gold, stibnite and sulphosalts in an altered dyke. Millimetre scale.






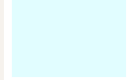



# Paragenesis of Sunday Creek Au-Sb mineralisation



## DESCRIPTION:

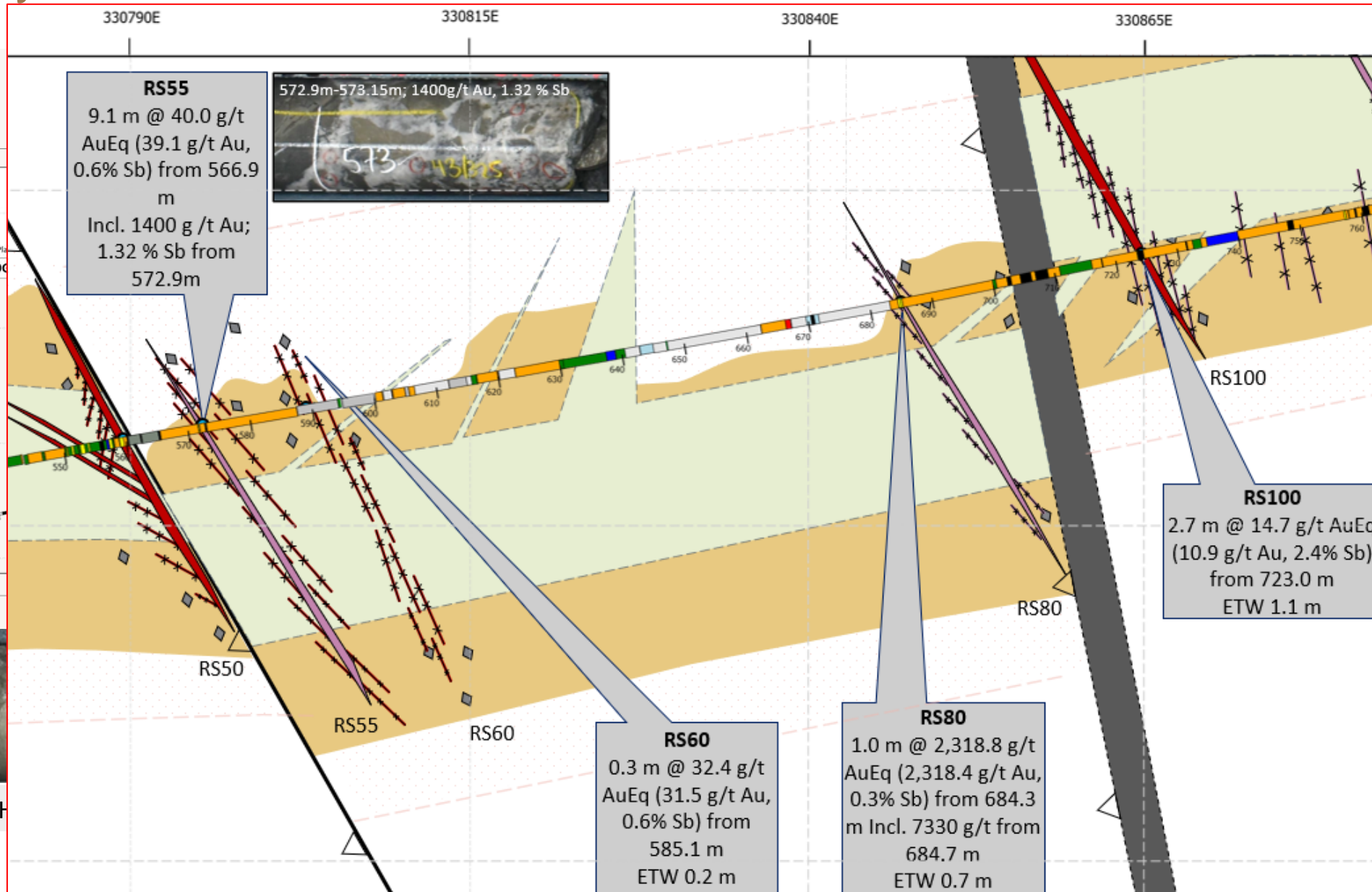
Regional dextral shear bisects diorite dyke, along with a series of minor late gouge faults that displace the dyke and mineralisation.

## 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



# Sunday Creek – Inclined Plan View of SDDSC107



SDDSC107 PLAN VIEW GEOLOG

**LEGEND**

- Apparent fault movement sense
- ✖ Stibnite extension vein
- ✖ Quartz extension vein
- ✖ Stibnite shear vein
- ✖ Quartz shear vein
- ◆ Arsenopyrite



SDDSC107 – H

ASX:SXG



# Sunday Creek - Longitudinal Section

APOLLO ✨

APOLLO EAST ✨

RISING SUN ✨

GOLDEN DYKE ✨

CHRISTINA ✨

**Maiden Exploration Target for Sunday Creek**  
 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.

SDDSC046  
**14.3 m @ 25.4 g/t AuEq**  
 (25.4 g/t Au, 2.6% Sb) from 187.5 m

SDDSC082  
**1.6 m @ 500.5 g/t AuEq**  
 (500.3 g/t Au, 0.1% Sb) from 417.4 m  
**1.7 m @ 249.1 g/t AuEq**  
 (230.6 g/t Au, 9.9% Sb) from 413.6 m

SDDSC107  
**9.1 m @ 40.2 g/t AuEq**  
 (39.1 g/t Au, 0.6% Sb) from 566.9 m

SDDSC118  
**0.7 m @ 604.0 g/t AuEq**  
 (604.0 g/t Au, 0.0% Sb) from 55.7 m

SDDSC107  
**1.0 m @ 2318.9 g/t AuEq**  
 (2318.4 g/t Au, 0.8% Sb) from 684.3 m

*Not included in Exploration Target*

SDDSC091  
**20.0 m @ 63.7 g/t AuEq**  
 (62.7 g/t Au, 0.5% Sb) from 430.0 m

SDDSC092  
**3.3 m @ 271.1 g/t AuEq**  
 (267.8 g/t Au, 1.8% Sb) from 681.6 m

SDDSC077B  
**3.6 m @ 393.4 g/t AuEq**  
 (391.9 g/t Au, 0.8% Sb) from 737.1 m

SDDSC118  
**3.6 m @ 124.8 g/t AuEq**  
 (124.8 g/t Au, 0.0% Sb) from 1120.4 m

*Not included in Exploration Target*

*Not included in Exploration Target*

## ASSAYS

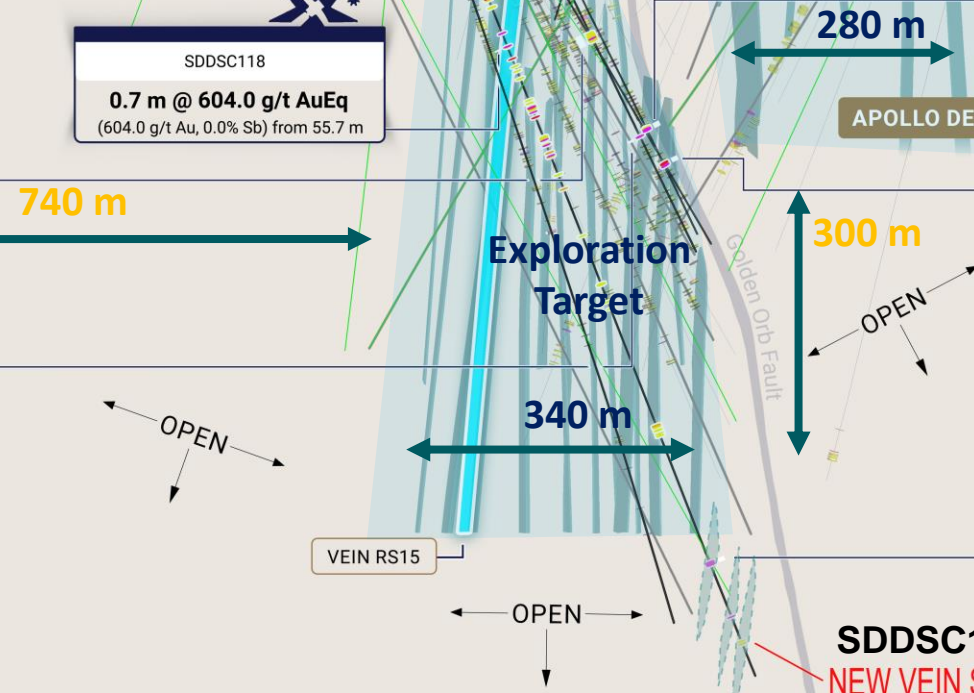
- AuEq g/t
- > 20
  - 10 - 20
  - 5 - 10
  - 1 - 5

**Maiden Exploration Target Area**

- Mineralised Vein Set
- Fault
- Assays Pending
- Previous Drill Holes

VEIN RS15

**SDDSC118**  
 NEW VEIN SETS



A  
SW

B  
NE

+ 0 m RL

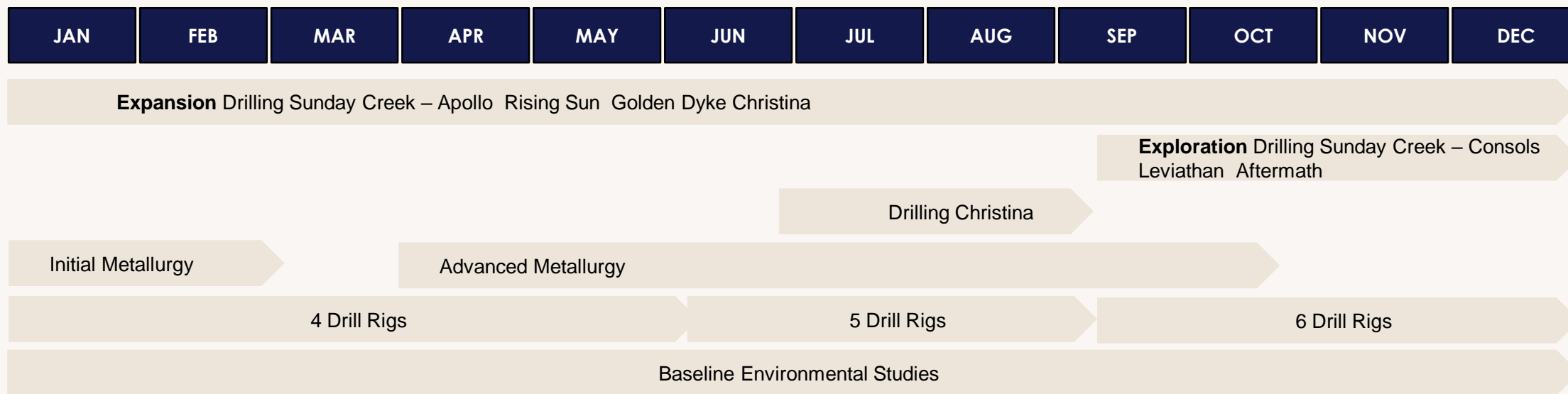
- 200 m RL

- 400 m RL

- 600 m RL

# Our Exploration Program – Staying on the Lassonde Curve

2024



**Drilling plan has 3 clear objectives that will have the largest emphasis over the next six months**

Demonstrate grade, demonstrate volume, demonstrate scale



**4 diamond drill rigs operating at site**

Aim to increase rigs each quarter, 10km per rig p.a., drill cost A\$200/m incl assays



Plan to drill 60 km now to Sept 2025



## Contact Us



[info@southerncrossgold.com.au](mailto:info@southerncrossgold.com.au)



[www.southerncrossgold.com.au](http://www.southerncrossgold.com.au)



### **Corporate Development**

Nicholas Mead

Level 21

459 Collins St

Melbourne Vic 3000

### **Registered Office**

Level 21

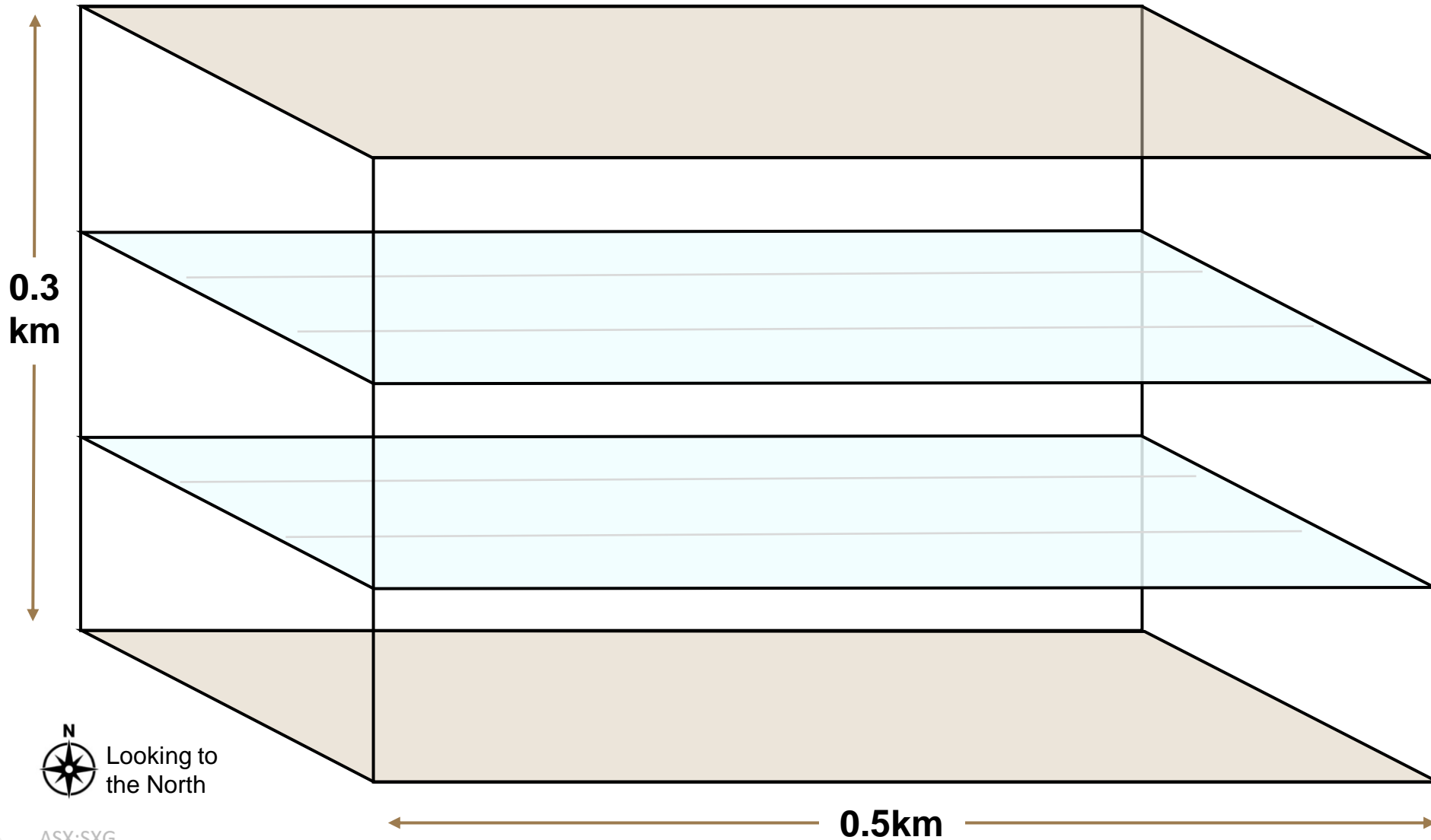
459 Collins St

Melbourne Vic 3000



SOUTHERN CROSS  
GOLD

# 3D Paragenesis of Sunday Creek Au-Sb mineralisation



**DESCRIPTION:**  
Deposition of clastic sediments in the Melbourne Zone during the Silurian – Late Devonian period occurs.

## LEGEND

- Shear/Linking Veins & Vein sets
- Stratigraphic package - Sandstone
- Major Fault
- Minor Fault
- Dyke & Dyke breccia