

## MDD054 “JEWELLERY BOX” DRILLHOLE DELIVERS EXCEPTIONAL GOLD INTERCEPT

- Spectacular assay results returned from MDD054 at Rise and Shine Deposit (RAS) with an aggregate drill width of **43.3m @ 11.2 g/t Au** at a lower cut-off grade of 0.5 g/t Au in 3 zones:
  - **29.3m @ 13.8 g/t Au from 165.8m**
  - **8.0m @ 5.2 g/t Au from 200m**
  - **6.0m @ 6.7 g/t Au from 222m**
- The upper high-grade zone includes **20.3m @ 18.3 g/t Au from 165.8m** at a 1.5 g/t Au cut-off grade, with **2 assays returning >100g/t Au** (final assays pending).
- The results from MDD054 confirm expectations previously flagged by coarse visible gold logged in the hole as the “jewellery box” and eclipses recently reported MDD051 (42.9m @ 7.3g/t Au) located 80 metres to the SW.
- MDD056 drilled at RAS approximately 130m SW of MDD051 (up plunge and on the axis of the RAS shoot) has returned 8m @ 4.1 g/t from 161m at a 0.5 g/t cut-off grade.
- Drillholes MDD054 and MDD051 together are building on a significant high-grade zone within the RAS shoot towards its eastern margin in the south.
- The RAS Deposit, now defined over 1,500 metres down plunge with a width of 300 - 400 metres prior to latest drill intercepts comprised 85% of the recently announced ~2Moz inferred resources in four deposits extending 4 km along the RSSZ.
- The numerous well-defined targets along the RSSZ continue to be drill tested with three diamond drill (DD) rigs currently focusing on the eastern margin of the RAS shoot and down plunge extensions of RAS and Shreks (SHR).

**25 July 2022** Santana Minerals Limited (ASX: SMI) (“Santana” or “the Company”) is pleased to announce further significant results from the 100% owned Bendigo-Ophir Project (“the Project”).

Resource extension drilling since September 2021 has resulted in a 6-fold increase in RAS inferred resources and a 3-fold increase in the overall Global Rise and Shine Shear Zone (RSSZ) mineral resource estimate (MRE) to 1.9Moz @ 1.8g/t Au (top-cut, 0.5g/t lower cut-off) at RAS, Come-in-Time (CIT), Shreks (SHR) and Shreks East (SRE) deposits (ASX announcement on 11 July 2022).

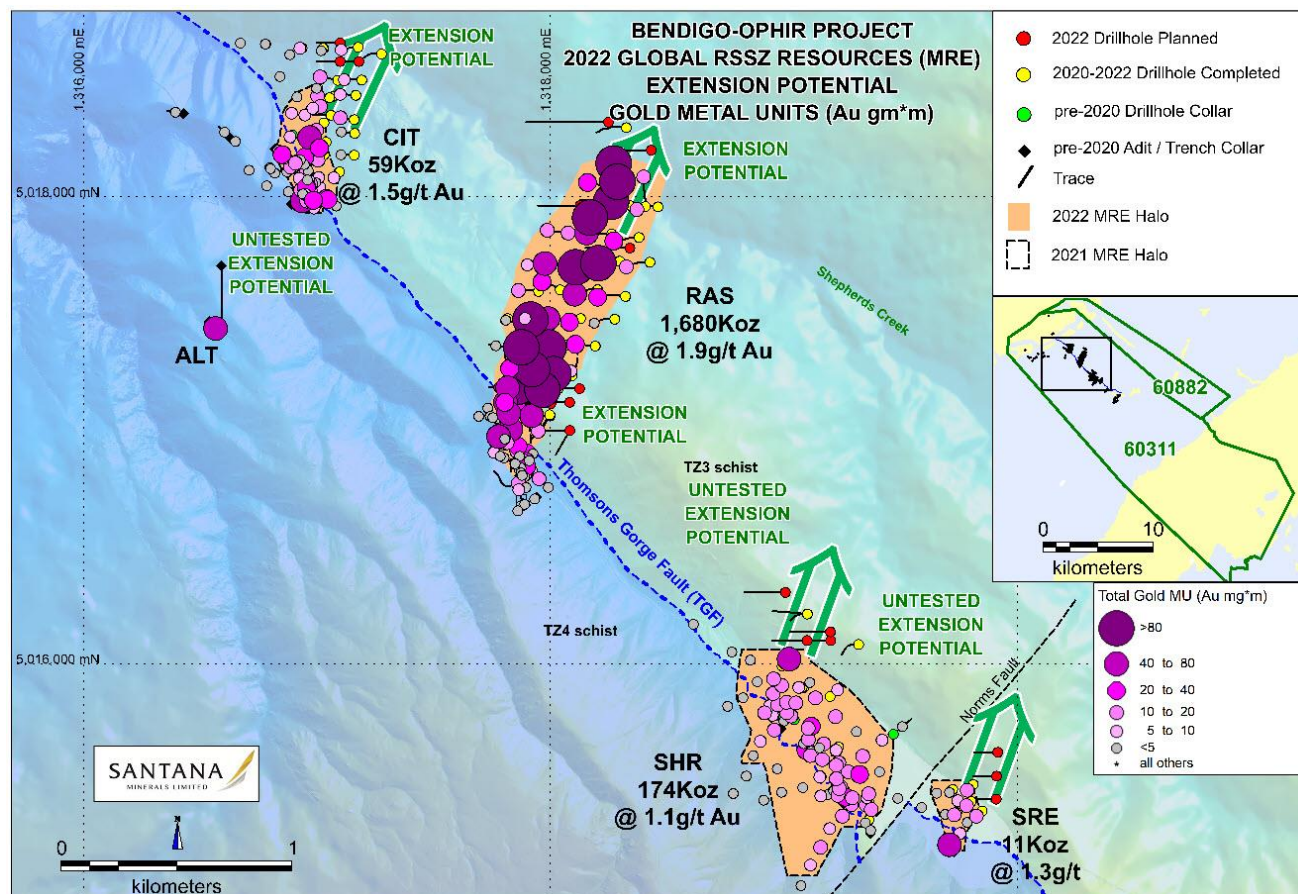
Drilling is continuing to expand the resource potential beyond this new 1.9Moz MRE platform. MDD051 drill intercept (ASX announcement on 20 July 2022) and assay results from 2 further holes MDD054 and MDD056 at RAS have been received adding to the considerable impetus for potential RAS resource growth.

Commenting on the results Executive Director Dick Keevers said:

*“The first assays from drill hole MDD054 are certainly spectacular and confirmation of the “sweet spot” in this SE part of the RAS gold deposit. These assays confirm our expectation of high-grade gold, as illustrated in the drill core photograph from MDD054, in our ASX release dated 20 July 2022, issued prior to the new assays being available. We look forward to continued drilling success at RAS and elsewhere in the Bendigo-Ophir project.”*

## RSSZ Deposits - Extension Drilling

Four RSSZ deposits, CIT, RAS, SHR and SRE extend 4 kilometres NW-SE along strike and contain the current 1.9Moz inferred gold resources (Figure 1). All deposits remain open at depth.



**Figure 1 RSSZ Deposits / Resource Halos / Gold Metal Units (MU)**

The new global MRE forms a robust platform for additional resources and presently drilling is primarily focusing on expanding the 1.7Moz inferred resource at RAS and testing the down plunge extensions at the CIT and SHR deposits (Figures 1, & 3). Three DD rigs are now operating and a total of 12,772 metres have been completed since January 2022 (Appendix 2).

## Latest Drill Assay Results from RAS

Assays have been received for 2 further drill holes MDD054 and MDD056 within the 2022 MRE envelope in the southern (up-plunge) sector of the RAS shoot (Table 1, Appendix 1, Appendix 2). MDD054 has delivered an exceptional result which was flagged when significant coarse visible gold (VG) was logged resulting in the drillhole intercept being appropriately titled “jewellery box” (ASX announcement on 20<sup>th</sup> July 2022).

**Table 1: RAS Drillholes MDD054 & MDD056 Composite Intercepts**

Deposit	EW Section	Drillhole	From (m)	Drill intercept (m)	Average Gold Grade (g/t) (min 0.50 g/t Au)	Comments
RAS	N5017240	MDD054	165.8	29.3	13.80	includes two >100 g/t Au over limit assays (Appendix 1). A re-assay request is with the lab to determine actual quantitative levels. 100g/t Au has been provisionally used in the composite grade calculation
			200.0	8.0	5.24	
			216.0	6.0	6.72	
			Aggregate	43.3	11.24	
	N5017120	MDD056	161.0	8.0	4.10	104.2m assays pending
			Continuous	8.0	4.10	



The MDD054 VG interval from 180 metres depth is one of two adjacent 1 metre samples that reported >100g/t Au which is beyond the reporting limit of the standard fire assay method. Final determination of grade is still pending but in the interim 100g/t Au has been used for composite grade calculations. Assays are currently expected within two weeks. These are two of **nine 1 metre intervals with bonanza grades (>10g/t Au)** in MDD054 between 174m and 221m (Appendix 1):

- 14.7, 14.5, >100, >100, 65.5, 14.8, 11.4, 22.6 and 38.1 g/t Au over individual 1-metre intervals

At a 1.5g/t Au lower cut-off the MDD054 intercept is:

- 20.3 metres @ 18.7g/t Au from 165.8 metres (1.5g/t Au lower cut-off)

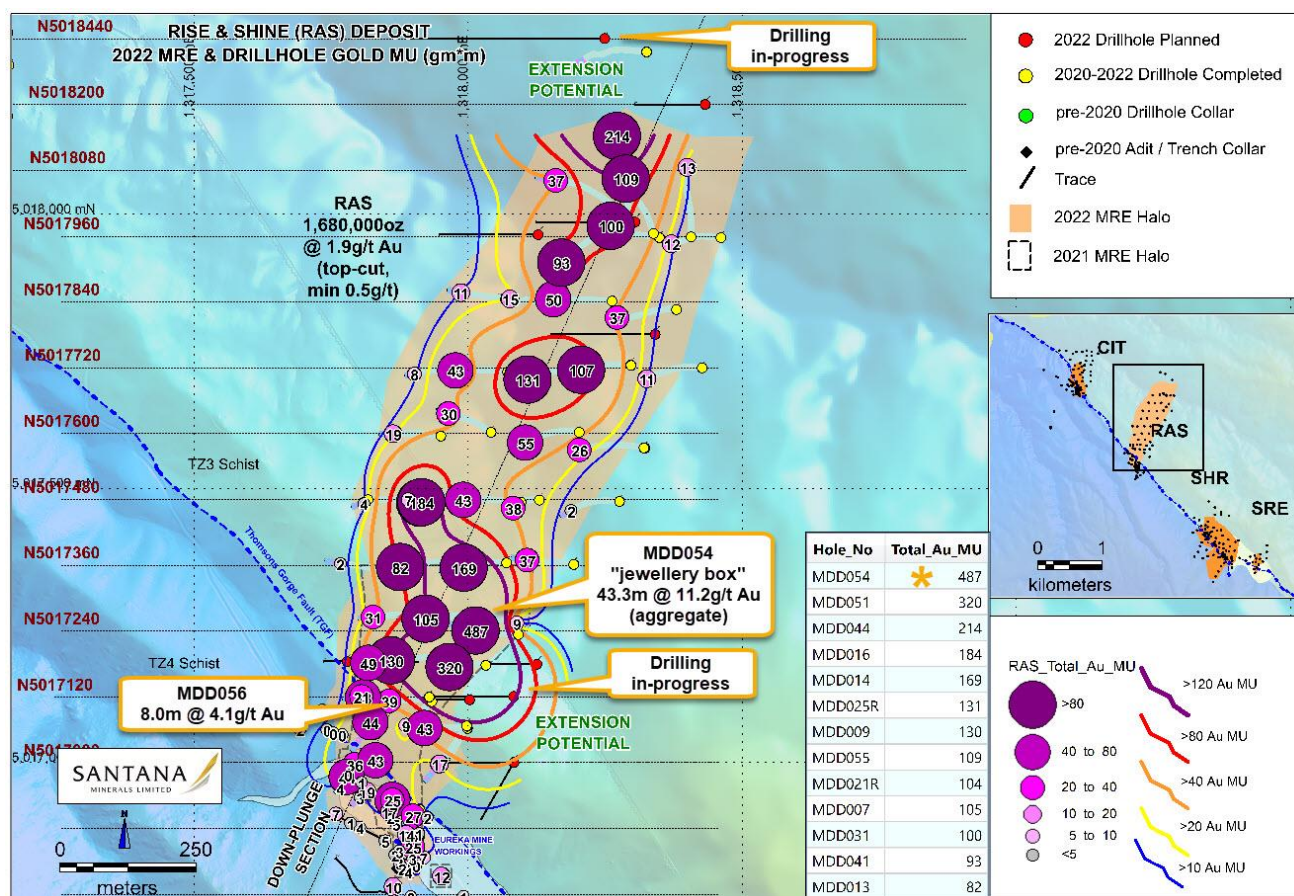


Figure 2 RAS Resource Extension Drilling - New Results / Gold Distribution

Drillhole MDD054 results of 487 gold MU (metres\*Au grams) are the strongest from the Project area to date, eclipsing recent high-grade results reported from MDD051 (80 metres south-south-west) and MDD044 (1 kilometre to the north). MDD051 and MDD044 returned respective results of 42.9 metres @ 7.3 g/t Au from 152.1 metres (ASX announcement on 20<sup>th</sup> July 2022) and 42.1 metres @ 5.07 g/t Au (aggregate) between 356 and 404 metres (ASX announcement on 2<sup>nd</sup> June 2022).

The MDD054 mineralisation occurs over 56.2 metres from 165.8 metres below collar (Table 1) with 110.4 metres of assays pending from the lower section of the drillhole. The most continuous and higher grades occur in the upper section of the RSSZ directly below the low-angle regional Thomson Gorge Fault (TGF), (Figure 3) and are associated with flood silica and arsenopyrite laminated veinlet concentrations.

MDD056 (Table 1, Appendix 1, Appendix 2), is on the axis of the RAS shoot 130 metres south-west of MDD051. The mineralised intercept of 8 metres @ 4.10 g/t Au from 161.0 metres is lower in the RSSZ sequence (33 metres below the TGF). A total of 104.2 metres of assays are yet to be reported for the upper and lower sections.

MDD051 and MDD054 are towards the inferred eastern margin of the RAS shoot and appear to lie within a zone of higher-grade mineralisation defined by the 80 m.mg/t (MU) isopach that trends NNW across the axis of the shoot (Figure 2). The zone, combined with clustering of higher-grade holes down plunge, suggests potential for an en-echelon series of high-grade zones separated by lower grade zones going down the axis of the RAS shoot. This has significant implications for drilling down plunge at Shreks and other exploration targets.



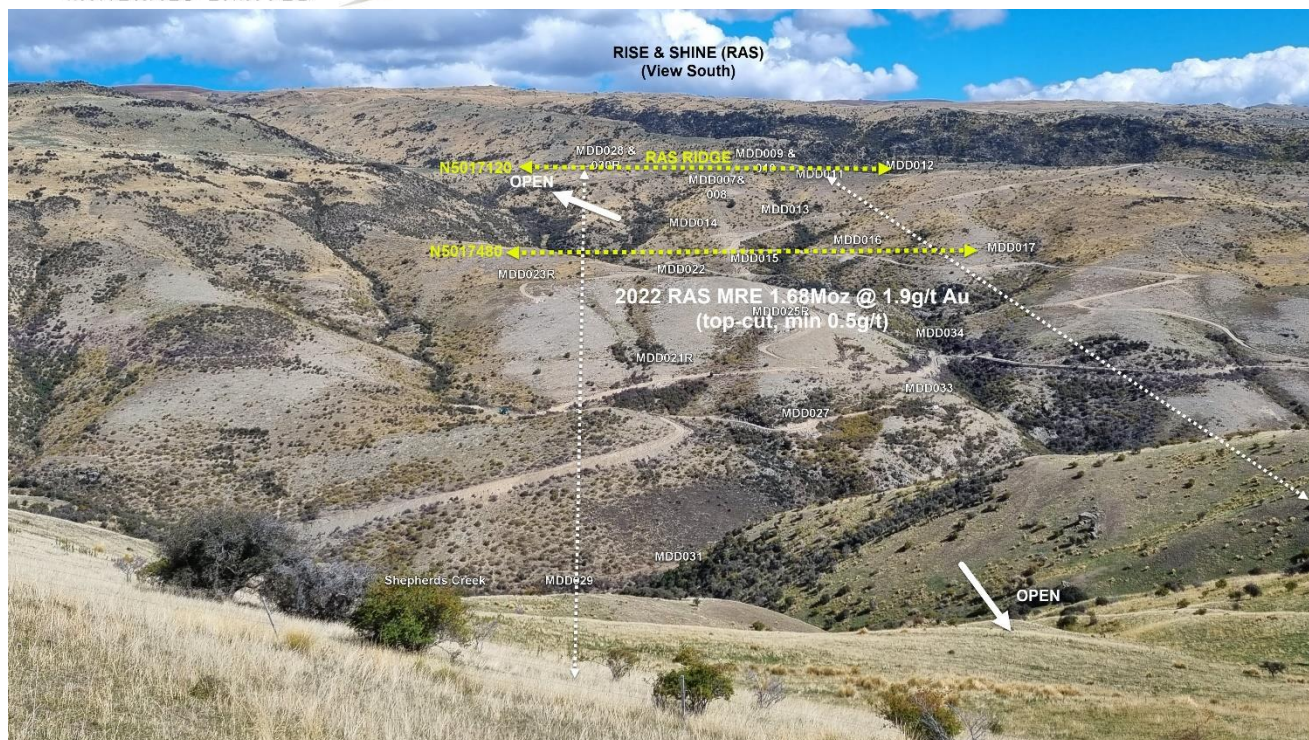


Figure 3 RAS Deposit – Dunstan Range (View south)

Both MDD051 and MDD054 return significantly greater widths and grade of mineralisation than resource modelling in the MRE 2022 would imply which suggests potential upside in future resource estimates with the MRE 2022 resource envelope (E-W cross-sections Figures 5 & 6). Furthermore, MDD051 remains open to the east.

Mineralisation in drillhole MDD056 to the SW also remains open to the east (E-W cross-section Figure 7) in an area south of the significant MDD051 and MDD054 intercepts.

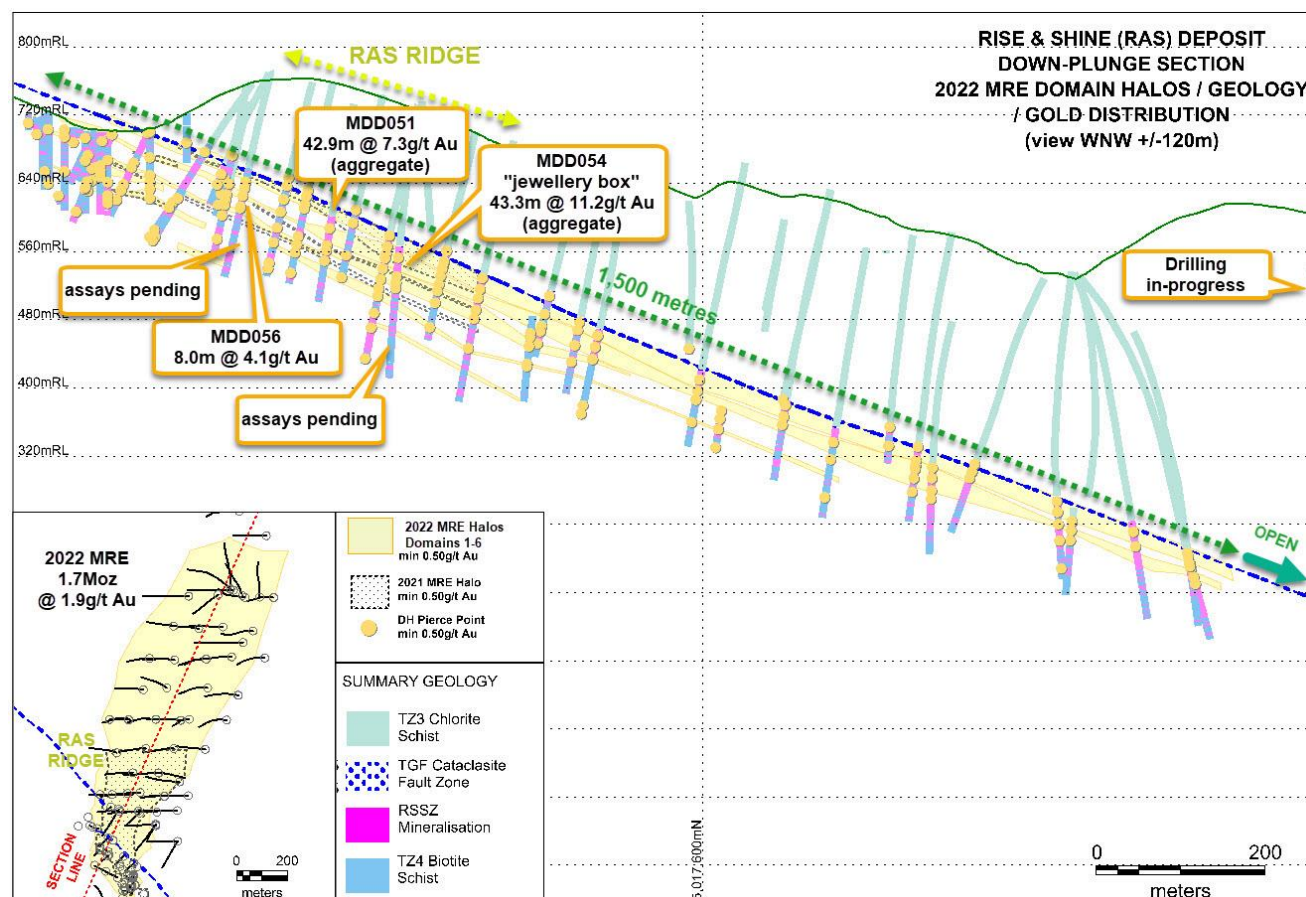


Figure 4 RAS Deposit – Down-Plunge Section (View WNW)



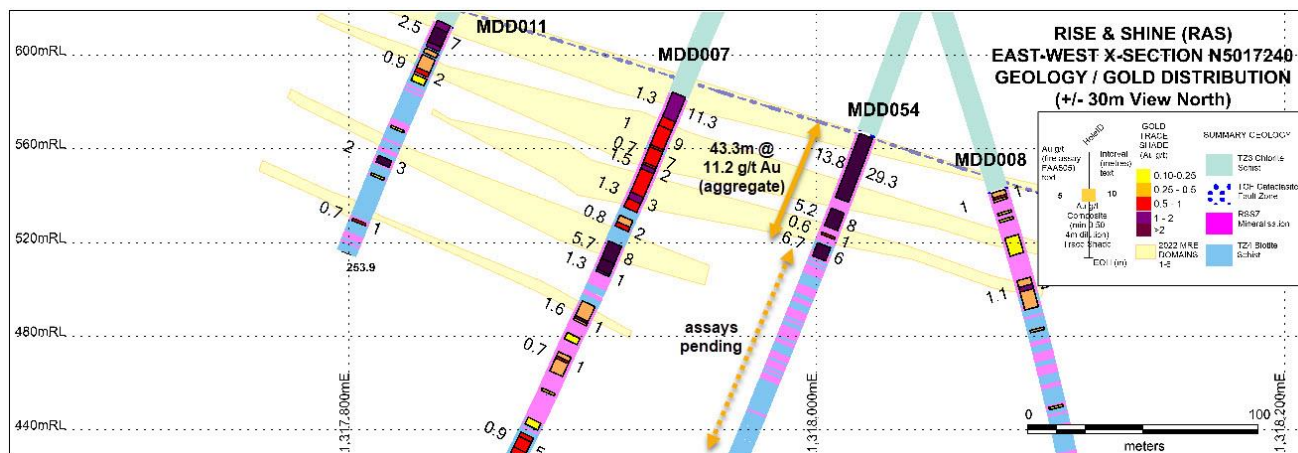


Figure 5 RAS Deposit – X Section N5017240 (View N)

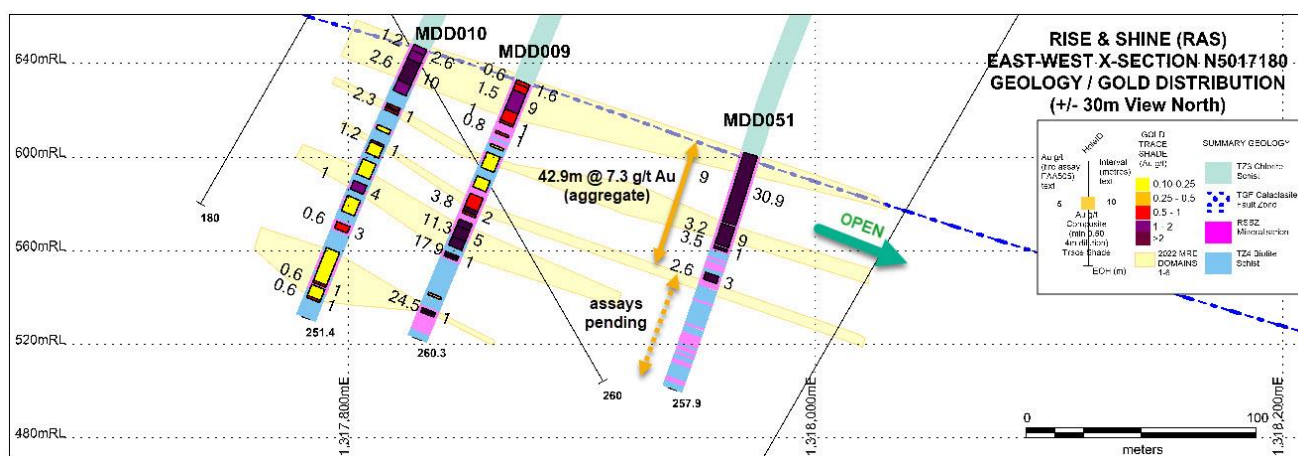


Figure 6 RAS Deposit – X Section N5017180 (View N)

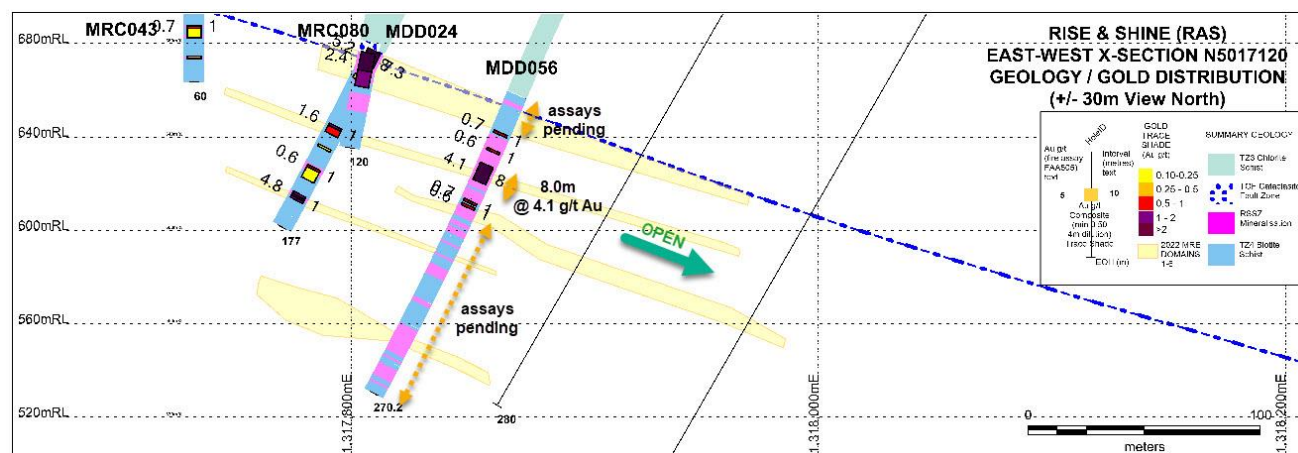


Figure 7 RAS Deposit – X Section N5017120 (View N)

### **Key Conclusions & Forward Programme**

The exceptional MDD054 mineralised intercept together with that of MDD051 are building on a high-grade zone in the south-east sector of the RAS shoot. These twin results bolster the 2022 MRE domains and grade in this area which have further eastern extension possibilities.

Similar excellent recent results encountered in MDD044 (1 kilometre to the north) have raised the profile of RAS further with mineralisation extending 1,500m down-plunge from outcrop and remaining open to the north.

Extension diamond drilling is continuing at RAS deposit with reconnaissance holes also in progress to test the down plunge extensions of SHR deposit (the largest surface footprint of the 3 main deposits).

Recent drilling results have added continued weight to the impressive RSSZ multi-million-ounce system.

This announcement has been authorised for release to the ASX by the Board.

For further information, please contact:

Richard Keevers  
Executive Director  
+61 408 873 353  
[rkeevers@westnet.com.au](mailto:rkeevers@westnet.com.au)

Cameron Peacock  
Investor Relations & Business Development  
+61 439 908 732  
[cpeacock@santanaminerals.com](mailto:cpeacock@santanaminerals.com)

## About Santana Minerals Limited Bendigo-Ophir Project

The Bendigo-Ophir Project is located on the South Island of New Zealand within the Central Otago Goldfields. The 292km<sup>2</sup> project area comprises Minerals Exploration Permit (MEP) 60311 (252km<sup>2</sup>) and Minerals Prospecting Permit Application (MPPA) 60882 (40km<sup>2</sup>) issued to 100% owned subsidiary Matakanui Gold Ltd. The Project is located ~90 kilometres northwest of Oceana Gold Ltd (OGC) Macraes Gold Mine (Figure 8).

The Company embarked on diamond drilling (DD) and reverse circulation (RC) drilling programmes in November 2020 with the immediate objective to fast-track an increase to the existing Resources by drill testing the down plunge extensions of known mineralisation.

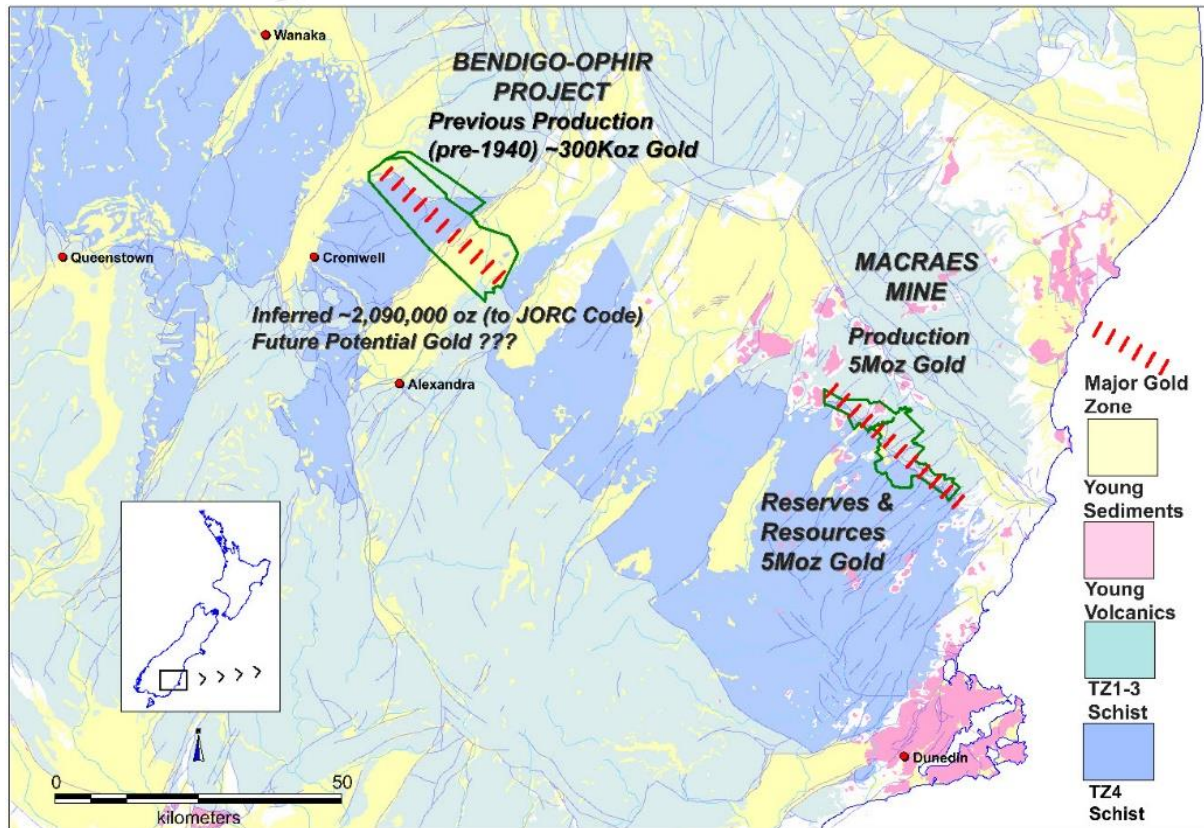
The Project contains Inferred Global Mineral Resource Estimates (MRE) to 1.5, 0.5 and 0.25g/t Au lower cut-offs:

RSSZ Global Mineral Resource by lower cutoff (top-cut)					
Deposit	cutoff (Au g/t)	category	tonnes (Mt)	Au grade (g/t)	ounces (koz)
GRAND TOTAL	1.5	Inferred	11.9	3.5	1,320
	0.5		33.4	1.8	1,920
	0.25		46.7	1.4	2,090

85 percent of the gold resource is within the RAS deposit including higher grade resources of 10.6Mt containing 1.2 million ounces at an average grade of 3.6 g/t using a 1.5 g/t cut-off.

RAS Mineral Resource by lower cutoff (top-cut)					
Deposit	cutoff (Au g/t)	category	tonnes (Mt)	Au grade (g/t)	ounces (koz)
RAS	1.5	Inferred	10.6	3.6	1,230
	0.5		27.2	1.9	1,680
	0.25		33.1	1.7	1,760

These estimates are based on drill results to May 2022 and reported in July 2022 which the Company interprets has the potential to be further expanded and developed into a low cost per ounce heap leach or gravity-leach operation, with ore from bulk tonnage open pits or underground sources.



**Figure 8 Bendigo-Ophir Project in the Otago Goldfield, ~90km NW of Macraes**

The Bendigo-Ophir Resources occur in 4 deposits (Figure 1) that are inferred to extend in a northerly direction within the RSSZ which hosts gold mineralisation over a recognised strike length of >20km (Figure 8).

The RSSZ occurs at the contact with TZ3 and TZ4 schist units separated by a regional fault (Thomsons Gorge Fault-TGF) and dips at a low angle (25°) to the north-east. The RSSZ is currently interpreted to have upper shear-hosted gold mineralisation (HWS) 10-40 metres in width above quartz vein and stockwork related gold mineralisation extending >120 metres below the HWS.

The Company is focusing on advanced precious metals opportunities in New Zealand and Mexico.



### **Previous Disclosure - 2012 JORC Code**

Information relating to Mineral Resources, Exploration Targets and Exploration Data associated with the Company's projects in this announcement is extracted from the following ASX Announcements:

- ASX announcement titled "Rise and Shine (RAS) mineralisation expands North" dated 2 June 2022.
- ASX announcement titled "A new 2 Million Ounce Global Inferred Gold Resource Platform" dated 11 July 2022.
- ASX announcement titled "Strong mineralisation intercepts continue at Bendigo-Ophir" dated 20 July 2022.

A copy of such announcement is available to view on the Santana Minerals Limited website [www.santanaminerals.com](http://www.santanaminerals.com). The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changes. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### **Current Disclosure - Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Richard Keevers, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Keevers is a Director of Santana Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is 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.' Mr Keevers consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified.

### **Forward Looking Statements**

Forward-looking statements in this announcement include, but are not limited to, statements with respect to Santana's plans, strategy, activities, events or developments the Company believes, expects or anticipates will or may occur. By their very nature, forward-looking statements require Santana to make assumptions that may not materialize or that may not be accurate. Although Santana believes that the expectations reflected in the forward-looking statements in this announcement are reasonable, no assurance can be given that these expectations will prove to have been correct, as actual results and future events could differ materially from those anticipated in the forward-looking statements. Accordingly, viewers are cautioned not to place undue reliance on forward-looking statements. Santana does not undertake to update publicly or to revise any of the included forward-looking statements, except as may be required under applicable securities laws.

**Appendix 1 Mineralised Intercepts – Assay results MDD054, MDD056**

Hole_No	from (m)	to (m)	interval (m)	Au (g/t)	As (ppm)	Geol Unit		Hole_No	from (m)	to (m)	interval (m)	Au (g/t)	As (ppm)	Geol Unit
MDD054	162.0	163.0	1.0	-0.01	5	TZ3		MDD056	145.0	146.0	1.0	0.44	117	TZ4
MDD054	163.0	164.4	1.4	0.01	0			MDD056	146.0	147.0	1.0	0.67	824	
MDD054	164.4	165.8	1.3	-0.01	19	TGF		MDD056	147.0	148.0	1.0	0.03	59	RSSZ
MDD054	165.8	167.0	1.3	3.96	7,250	RSSZ		MDD056	148.0	149.0	1.0	0.02	109	
MDD054	167.0	168.0	1.0	7.88	10,530			MDD056	149.0	150.0	1.0	-0.01	29	
MDD054	168.0	169.0	1.0	6.22	6,379			MDD056	150.0	151.0	1.0	-0.01	43	
MDD054	169.0	170.0	1.0	7.23	4,726			MDD056	151.0	152.0	1.0	0.13	400	
MDD054	170.0	171.0	1.0	3.17	2,899			MDD056	152.0	153.0	1.0	0.38	257	
MDD054	171.0	172.0	1.0	0.46	2,764			MDD056	153.0	154.0	1.0	0.11	969	
MDD054	172.0	173.0	1.0	0.62	1,286			MDD056	154.0	155.0	1.0	0.56	3,609	
MDD054	173.0	174.0	1.0	0.35	1,542			MDD056	155.0	156.0	1.0	0.44	1,359	
MDD054	174.0	175.0	1.0	14.70	911			MDD056	156.0	157.0	1.0	-0.01	39	
MDD054	175.0	176.0	1.0	0.66	2,192			MDD056	157.0	158.0	1.0	0.22	3,685	
MDD054	176.0	177.0	1.0	6.87	1,345			MDD056	158.0	159.0	1.0	0.04	584	
MDD054	177.0	178.0	1.0	4.04	1,715			MDD056	159.0	160.0	1.0	0.04	128	
MDD054	178.0	179.0	1.0	14.50	1,820			MDD056	160.0	161.0	1.0	0.07	311	
MDD054	179.0	180.0	1.0	>100.00	4,104			MDD056	161.0	162.0	1.0	0.81	588	
MDD054	180.0	181.0	1.0	>100.00	2,134			MDD056	162.0	163.0	1.0	0.66	1,980	
MDD054	181.0	182.0	1.0	6.07	3,450			MDD056	163.0	164.0	1.0	0.16	2,547	
MDD054	182.0	183.0	1.0	65.50	3,894			MDD056	164.0	165.0	1.0	0.12	386	
MDD054	183.0	184.0	1.0	9.77	1,202			MDD056	165.0	166.0	1.0	10.10	5,135	
MDD054	184.0	185.0	1.0	14.80	2,778			MDD056	166.0	167.0	1.0	1.13	1,074	
MDD054	185.0	186.0	1.0	11.40	1,764			MDD056	167.0	168.0	1.0	0.05	57	
MDD054	186.0	187.0	1.0	0.66	259			MDD056	168.0	169.0	1.0	19.80	3,543	
MDD054	187.0	188.0	1.0	1.96	2,833			MDD056	169.0	170.0	1.0	0.18	1,184	
MDD054	188.0	189.0	1.0	2.66	2,700	RSSZ		MDD056	170.0	171.0	1.0	0.07	40	
MDD054	189.0	190.0	1.0	1.69	317			MDD056	171.0	172.0	1.0	-0.01	47	TZ4
MDD054	190.0	191.0	1.0	5.16	1,353			MDD056	172.0	173.0	1.0	0.09	1,082	
MDD054	191.0	192.0	1.0	3.81	2,111			MDD056	173.0	174.0	1.0	-0.01	101	RSSZ
MDD054	192.0	193.0	1.0	0.02	375			MDD056	174.0	175.0	1.0	-0.01	19	
MDD054	193.0	194.0	1.0	0.11	615			MDD056	175.0	176.0	1.0	0.03	269	
MDD054	194.0	195.0	1.0	8.43	1,956			MDD056	176.0	177.0	1.0	0.04	125	
MDD054	195.0	196.0	1.0	0.13	651			MDD056	177.0	178.0	1.0	0.09	497	TZ4
MDD054	196.0	197.0	1.0	0.30	1,263			MDD056	178.0	179.0	1.0	0.72	3,809	
MDD054	197.0	198.0	1.0	0.25	161			MDD056	179.0	180.0	1.0	0.10	1,434	
MDD054	198.0	199.0	1.0	0.08	742			MDD056	180.0	181.0	1.0	0.58	3,737	
MDD054	199.0	200.0	1.0	0.27	921			MDD056	181.0	182.0	1.0	0.16	2,334	RSSZ
MDD054	200.0	201.0	1.0	0.50	1,767			MDD056	182.0	183.0	1.0	0.05	686	
MDD054	201.0	202.0	1.0	7.44	2,644			MDD056	183.0	184.0	1.0	0.03	435	
MDD054	202.0	203.0	1.0	7.82	2,987			MDD056	184.0	185.0	1.0	0.32	1,658	
MDD054	203.0	204.0	1.0	0.19	950	RSSZ		MDD056	185.0	186.0	1.0	0.07	585	
MDD054	204.0	205.0	1.0	0.11	1,045									
MDD054	205.0	206.0	1.0	0.18	2,070									
MDD054	206.0	207.0	1.0	22.60	2,515									
MDD054	207.0	208.0	1.0	3.08	1,504									
MDD054	208.0	209.0	1.0	0.31	534									
MDD054	209.0	210.0	1.0	0.10	535									
MDD054	210.0	211.0	1.0	0.07	175									
MDD054	211.0	212.0	1.0	0.59	140									
MDD054	212.0	213.0	1.0	0.05	35									
MDD054	213.0	214.0	1.0	0.02	16									
MDD054	214.0	215.0	1.0	0.01	16									
MDD054	215.0	216.0	1.0	-0.01	7									
MDD054	216.0	217.0	1.0	1.01	88									
MDD054	217.0	218.0	1.0	0.04	227									
MDD054	218.0	219.0	1.0	0.03	20									
MDD054	219.0	220.0	1.0	0.06	653									
MDD054	220.0	221.0	1.0	38.10	1,722									
MDD054	221.0	222.0	1.0	1.06	1,395									



## Appendix 2 - 2022 Drillhole co-ordinates, downhole survey detail and Status

Deposit	Hole_No	East_NZTM	North_NZTM	RL	Azimuth (T Avg)	Dip (Avg)	Length	Method	Status	Results
RAS	MDD023R	1,318,320.6	5,017,574.0	658.47	266.6	-68	359.2	DD	Completed	Reported
RAS	MDD024	1,317,854.8	5,017,118.0	756.71	268.5	-61	176.9	DD	Completed	Reported
RAS	MDD025	1,318,195.1	5,017,716.5	632.55	256.4	-68	265.7	DD	Re-Drilled	Reported
RAS	MDD025R	1,318,196.5	5,017,715.5	632.65	255.8	-72	360.7	DD	Completed	Reported
RAS	MDD026	1,317,853.4	5,017,125.5	756.82	211.5	-56	221.7	DD	Completed	Reported
RAS	MDD027	1,318,262.2	5,017,842.0	582.64	271.5	-69	365.6	DD	Completed	Reported
RAS	MDD028	1,317,998.5	5,017,062.0	773.89	270.4	-62	250.0	DD	Completed	Reported
RAS	MDD029	1,318,460.9	5,017,957.5	537.69	259.8	-75	398.2	DD	Completed	Reported
RAS	MDD030	1,317,997.9	5,017,066.5	773.85	210.0	-55	115.3	DD	Re-Drilled	No assays
RAS	MDD030R	1,317,997.0	5,017,067.0	773.95	217.0	-58	242.6	DD	Completed	Reported
RAS	MDD031	1,318,348.9	5,017,957.5	536.72	292.0	-73	380.1	DD	Completed	Reported
RAS	MDD033	1,318,167.1	5,017,835.5	581.95	277.6	-71	336.5	DD	Completed	Reported
RAS	MDD034	1,318,071.8	5,017,712.0	597.71	269.0	-66	233.7	DD	Re-Drilled	Reported
RAS	MDD034R	1,318,071.6	5,017,712.5	597.79	268.1	-67	300.5	DD	Completed	Reported
RAS	MDD036	1,318,426.5	5,017,720.0	603.71	250.9	-73	372.5	DD	Completed	Reported
RAS	MDD037	1,318,379.9	5,017,826.5	607.16	267.1	-73	425.2	DD	Completed	Reported
RAS	MDD039	1,317,973.9	5,017,719.0	626.20	260.9	-69	256.1	DD	Completed	Reported
RAS	MDD041	1,318,243.5	5,017,969.5	528.53	232.5	-68	323.5	DD	Completed	Reported
RAS	MDD042	1,318,068.0	5,017,845.0	561.41	279.3	-69	293.0	DD	Completed	Reported
RAS	MDD044	1,318,291.8	5,017,992.0	532.34	351.1	-68	469.8	DD	Completed	Partial reported
RAS	MDD045	1,317,891.6	5,017,477.5	696.49	259.0	-66	251.9	DD	Completed	Reported
RAS	MDD047	1,318,406.6	5,017,959.0	535.93	360.9	-69	446.3	DD	Completed	Partial reported
RAS	MDD048	1,317,816.2	5,017,478.5	702.19	87.7	-64	101.9	DD	Re-Drilled	No assays
RAS	MDD048R	1,317,817.2	5,017,479.5	702.19	100.6	-74	285.0	DD	Completed	Partial reported
RAS	MDD050	1,318,276.1	5,017,476.5	688.83	251.3	-72	368.4	DD	Completed	Partial reported
RAS	MDD051	1,318,032.2	5,017,177.5	740.38	265.0	-70	257.9	DD	Completed	Partial reported
RAS	MDD053	1,318,292.0	5,017,990.5	532.25	291.0	-62	395.3	DD	Completed	Partial reported
RAS	MDD054	1,318,091.6	5,017,233.5	714.73	279.6	-67	332.4	DD	Completed	Partial reported
RAS	MDD055	1,318,333.8	5,017,972.0	533.65	331.5	-71	431.0	DD	Completed	Partial reported
RAS	MDD056	1,317,948.1	5,017,110.5	770.42	266.5	-64	270.2	DD	Completed	Partial reported
RAS	MDD060	1,318,325.2	5,018,296.5	630.42	256.4	-77	558.4	DD	Completed	Assays pending
RAS	MDD061	1,318,002.4	5,017,114.5	767.62	267.3	-64	314.6	DD	Completed	Assays pending
<b>SubTotal</b>							<b>10,160.1</b>			
CIT	MDD032	1,317,089.5	5,018,499.5	503.38	279.7	-64	197.9	DD	Completed	Reported
CIT	MDD035	1,317,192.1	5,018,500.0	501.69	265.3	-66	236.5	DD	Completed	Reported
CIT	MDD038	1,317,166.4	5,018,435.5	517.58	274.6	-67	213.0	DD	Completed	Reported
CIT	MDD040	1,317,160.0	5,018,331.0	546.28	279.5	-66	194.0	DD	Completed	Reported
CIT	MDD043	1,317,161.9	5,018,272.5	556.02	276.9	-67	184.3	DD	Completed	Reported
CIT	MDD046	1,317,159.6	5,018,179.0	594.19	270.9	-67	178.4	DD	Completed	Partial reported
CIT	MDD049	1,317,177.2	5,018,641.0	442.93	257.8	-65	232.0	DD	Completed	Partial reported
CIT	MDD052	1,317,277.0	5,018,612.5	446.77	251.9	-69	223.4	DD	Completed	Assays pending
CIT	MDD057	1,317,066.4	5,018,427.0	517.97	271.9	-62	179.0	DD	Completed	Partial reported
CIT	MDD058	1,317,053.6	5,018,346.5	536.66	270.1	-61	159.3	DD	Completed	Assays pending
<b>SubTotal</b>							<b>1,997.8</b>			
SHR	MDD059	1,319,320.0	5,016,083.0	854.42	229.3	-75	347.9	DD	Completed	Assays pending
SHR	MDD062	1,319,100.0	5,016,214.0	859.51	243.0	-72	266.2	DD	Re-Drilled	Assays pending
<b>SubTotal</b>							<b>614.1</b>			
<b>TOTAL</b>							<b>12,772.0</b>			

**JORC Code, 2012 Edition – Table 1**

**Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b><i>Sampling techniques</i></b>	<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p>	<p>Diamond drill (DD) core samples for laboratory assay are typically 1 metre samples of diamond saw cut ½ diameter core. Where distinct mineralisation boundaries are logged, sample lengths are adjusted to the respective geological contact.</p> <p>Samples are crushed at the receiving laboratory to minus 2mm (80% passing) and split to provide 1kg for pulverising to -75um. Pulps are fire assayed using a 50g charge.</p>



Criteria	JORC Code explanation	Commentary
<b><i>Drilling techniques</i></b>	<i>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).</i>	<p>Current drilling techniques are diamond coring (DD) PQ3 and HQ3 size triple tube. Where PQ3 core size (83mm diameter) is commenced this is maintained throughout the DD hole until drilling conditions dictate reduction in size to HQ3 core (61mm diameter).</p> <p>Drillholes are oriented to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable.</p> <p>All drill core is oriented to assist with interpretation of mineralisation and structure using a Trucore orientation tool.</p>
<b><i>Drill sample recovery</i></b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p>DD core sample recoveries are recorded by the drillers at the time of drilling by measuring the actual distance of the drill run against the actual core recovered. The measurements are checked by the site geologist.</p> <p>When poor core recoveries are recorded the site geologist and driller endeavour to immediately rectify any problems to maintain maximum core recoveries.</p> <p>DD core logging to date indicate &gt;97% recoveries.</p> <p>The drilling contract used states for any given run, a level of recovery is required otherwise financial penalties are applied to the drill contractor to ensure sample recovery priority along with production performance.</p>

Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All DD holes have been logged for their entire sampled length below upper open hole drilling (nominally 0-320 metres below collar). Data is recorded directly into digital spreadsheets and then uploaded into an Access cloud database with sufficient detail that supports Mineral Resource estimations (MRE).</p> <p>Logging is mostly qualitative but there are estimations of quartz and sulphide content and quantitative records of geological / structural unit, oxidation state and water table boundaries.</p> <p>Oriented DD core allows alpha / beta measurements to determine structural element detail (dip / dip direction) to supplement routine recording of lithologies / alteration / mineralisation / structure / oxidation / colour and other features for MRE reporting.</p> <p>All core is photographed wet and dry before cutting.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Industry standard laboratory sample preparation methods are suitable for the mineralisation style and involve, oven drying, crushing and splitting of samples to 1kg for pulverising to -75um. Pulps are fire assayed using a 50g charge.</p> <p>50g charge is considered minimum requirement for the coarse nature of the gold. Larger screen fire assays and 1kg Leachwell determinations are conducted periodically as a QAQC check.</p> <p>Large diameter (83mm) PQ3 core was maintained (where conditions allow) for DD holes to MDD016 and subsequently HQ3 (61mm) for drillholes MDD017 to MDD051.</p> <p>DD core drill samples are sawn in 1/2 along the length of the core on cut lines marked by geologists' perpendicular to structure / foliation or to bisect vein mineralisation for representative samples whilst preserving the orientation line. Intervals required for QAQC checks are 1/4 core from 1/2 sections of core to be sent for assay.</p> <p>QAQC procedures include field replicates, standards, and blanks at a frequency of ~4% and also cross-lab assay checks at an umpire laboratory.</p>



Criteria	JORC Code explanation	Commentary
<b><i>Quality of assay data and laboratory tests</i></b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>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.</i></p>	<p>DD core for gold assays undergo sample preparation by SGS laboratory Westport and 50g fire assay with an AAS finish (SGS method FAA505, DDL 0.01ppm Au) by SGS laboratory Waihi.</p> <p>Portable XRF (pXRF) instrumentation is used onsite (Olympus Innov-X Delta Professional Series model DPO-4000 equipped with a 4 W 40kV X-Ray tube) primarily to identify arsenical samples (arsenic correlates well with gold grade in these orogenic deposits). The pXRF analyses a 31-element suite (Ag, As, Bi, Ca, Cd, Cl, Co, Cr, Cu, Fe, Hg, K, Mn, Mo, Nb, Ni, P, Pb, Rb, S, Sb, Se, Sn, Sr, Th, Ti, V, W, Y, Zn, Zr) utilising 3 beam Soil mode, each beam set for 30 secs (90 secs total).</p> <p>pXRF QAQC checks involve 2x daily calibration and QAQC analyses of SiO<sub>2</sub> blank and NIST standards (NIST 2710a &amp; NIST 2711a).</p> <p>For laboratory QAQC, samples (3*certified standards, blanks and field replicates) are inserted into laboratory batches at a frequency of ~4% and ~5% respectively. Once 1,000 samples have been assayed a ~6% selection of retained lab pulps across a range of grades are sent for re-assay and to an umpire laboratory for cross-lab check assays.</p>
<b><i>Verification of sampling and assaying</i></b>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Significant gold assays and pXRF arsenic analyses are checked by alternative senior company personnel. Original lab assays are initially reported and where replicate assays and other QAQC work require re-assay or screen fire assays, the results from the larger samples are adopted. To date results are accurate and fit well with the mineralisation model.</p> <p>Some DD core holes have been sited adjacent to previous RC drillholes to provide twinned data.</p> <p>pXRF multi-element analyses are directly downloaded from the pXRF analyser as csv electronic files. These and laboratory assay csv files are imported into the database, appended and merged with previous data.</p> <p>The database master is stored off-site and periodically updated and verified by an independent qualified person.</p> <p>There have been no adjustments to analytical data presented.</p>

Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<p><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>DD drillhole collar locations are accurate (+/- 50mm) xyz coordinates when captured by a licensed surveyor using RTK-GPS equipment.</p> <p>All drillholes to MDD062 have been surveyed by RTK-GPS equipment with subsequent and planned collar locations based on hand-held GPS coordinates with xy accuracy of +/-3 metres and RL accuracy to 0.5 metres from detailed LiDAR DTM.</p> <p>All drill holes reference the NZTM map projection and collar RLs the NZVD2016 vertical datum.</p> <p>DD down hole surveys are recorded at 12m intervals using a Reflex multi-shot camera.</p>
<b>Data spacing and distribution</b>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Drillhole collar spacing is variable and considered appropriate for determination of geological and grade continuity during this phase of the drilling programme. Site locations in steep terrain are dictated by best access allowed by contour tracks with gentle gradients to allow safe working drill pad excavations.</p> <p>No compositing of samples is being undertaken for analysis. Sampling and assaying are in one metre intervals or truncated to logged features.</p>
<b>Orientation of data in relation to geological structure</b>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<p>The majority of drillholes in this campaign are inclined (-60° or -75°) to 270°T to intercept mineralisation at a reasonable angle and facilitate core orientation measurements. Drillholes MDD044, MDD047, MDD053 and MDD055 at RAS were, oriented north (-60° dip) due to topographical constraints to facilitate testing of northern mineralisation extents. True mineralisation widths in these two drillholes will be less than downhole intervals. As the deposits are tabular and lie at low angles, there is not anticipated to be any introduced bias for resource estimates.</p>

Criteria	JORC Code explanation	Commentary
<b><i>Sample security</i></b>	<i>The measures taken to ensure sample security.</i>	<p>Company personnel manage the chain of custody from sampling site to laboratory.</p> <p>DD drill core samples are transported daily from DD rig by the drilling contractor in numbered core boxes to the Company secure storage facility for logging and sample preparation. After core cutting, the core for assay is bagged, securely tied, and weighed before being placed in polyweave bags which are securely tied. Retained core is stored on racks in secure locked containers.</p> <p>Polyweave bags with the calico bagged samples for assay are placed in steel cage pallets, sealed with a wire-tied tarpaulin cover, photographed, and transported to local freight distributor for delivery to the laboratory. On arrival at the laboratory photographs taken of the consignment are checked against despatch condition to ensure no tampering has occurred.</p>
<b><i>Audits or reviews</i></b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<p>An independent competent Person (CP) conducted a site audit in January 2021 of all sampling techniques and data management. No major issues were identified, and recommendations have been followed. Further CP site audits will be undertaken in 2022.</p>



## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b><i>Mineral tenement and land tenure status</i></b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<p>Exploration is being currently conducted within Mineral Exploration Permit (MEP) 60311 (252km<sup>2</sup>) registered to Matakanui Gold Ltd (MGL) issued on 13<sup>th</sup> April 2018 for 5 years with renewal date on 12<sup>th</sup> April 2023. MGL has the gold rights for this tenement. There are no material issues with third parties.</p> <p>MGL applied for a Minerals Prospecting Permit (MPPA) in March 2022, and this is in process with the Government Ministerial Authority (NZPAM) for issue under MPP 60882.</p> <p>The tenure of the Permits is secure and there are no known impediments to obtaining a licence to operate.</p> <p>The Project is subject to a 1.5% Net Smelter Royalty (NSR) on all production from MEP 60311 (successor permits) payable to an incorporated, private company (Rise and Shine Holdings Limited) which is owned by the prior shareholders of MGL (NSRW Agreement) before acquisition of 100% of MGL shares by Santana Minerals Limited.</p>
<b><i>Exploration done by other parties</i></b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>Early exploration in the late 1800's and early 1900's included small pits, adits and cross-cuts and alluvial mining.</p> <p>Exploration has included soil and rock chip sampling by numerous companies since 1983 with drilling starting in 1986. Exploration in the 1990's commenced with a search for Macraes style gold deposits along the RSSZ. Drilling included 13 RC holes by Homestake NZ Exploration Ltd in 1986, 20 RC holes by BHP Gold Mines NZ Ltd in 1988 (10 of these holes were in the Bendigo Reefs area which is not part of the MRE area), 5 RC holes by Macraes Mining Company Ltd in 1991, 22 shallow (probably blasthole) holes by Aurum Reef Resources (NZ) Ltd in 1996, 30 RC holes by CanAlaska Ventures Ltd from 2005-2007, 35 RC holes by MGL in 2018 and a further 18 RC holes by MGL in 2019.</p>

Criteria	JORC Code explanation	Commentary
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>The RSSZ is a low-angle late-metamorphic shear-zone, presently known to be up to 120m thick. It is sub-parallel to the metamorphic foliation and dips gently to the north- east. It occurs within psammitic, pelitic and meta-volcanic rocks. Gold mineralisation is concentrated in multiple deposits along the RSSZ. In the Project area there are 4 deposits with Mineral Resource Estimates (MRE) – Come-in-Time (CIT), Rise and Shine (RAS), Shreks (SHR) and Shreks-East (SRE). The gold and associated pyrite/arsenopyrite mineralisation at all deposits occur along micro-shears, and in brecciated / laminar quartz veinlets within the highly- sheared schist. There are several controls on mineralisation with apparent NNW, N and NNE trending structures all influencing gold distribution. Shear dominated mineralisation within the top 20-40m of the shear zone is in a unit termed the “Hanging Wall Shear” (HWS) which lies immediately below the Thomsons Gorge Fault (TGF). The TGF is a regional low-angle fault that separates upper barren chlorite (TZ3) schist from underlying mineralised biotite (TZ4) schists. Stacked stockwork vein swarms (SVS) occur deeper in the RSSZ.</p> <p>Unlike Macraes, the gold mineralisation in the oxide, transition and fresh zones is characterised by coarse free gold and silica- poor but extensive ankerite alteration.</p>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<p>Refer to the body of text.</p> <p>No material information has been excluded.</p>

Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<p>Significant gold intercepts are reported using 0.25g/t Au and 0.50g/t Au lower grade cut-offs with 4m of internal dilution included. Broad zonation is:</p> <p>0.10g/t Au cut-off defines the wider low-grade halo of mineralisation, 0.25g/t Au cut-off represents possible economic mineralisation, with 0.50g/t Au defining high-grade axes / envelopes.</p> <p>Metal unit (MU) distribution, where shown on maps and in tables are calculated from total drill hole Au * associated drill hole interval metres. pXRF analytical results reported for laboratory pulp returns are considered accurate for the suite of elements analysed.</p> <p>Where gold assays are pending, minimum 1,000 ppm composited arsenic values provide a preliminary representation of potential mineralised zones and include 4m &lt;1,000 ppm internal dilution.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<p>All intercepts quoted are downhole widths.</p> <p>Intercepts are associated with a major 20-120m thick low-angle mineralised shear that is largely perpendicular to the drillhole traces.</p> <p>Aggregate widths of mineralisation reported are drillhole intervals &gt;0.50g/t Au occurring in apparent low angle stacked zones.</p> <p>There are steeply dipping narrow (1-5m) structures deeper in the footwall and the appropriateness of the current drillhole orientation will become evident and modified as additional drill results dictate.</p>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<p>Refer to figures in the body of the text.</p>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<p>All significant intercepts have been reported.</p>



Criteria	JORC Code explanation	Commentary
<b><i>Other substantive exploration data</i></b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	Not applicable; meaningful and material results are reported in the body of the text.
<b><i>Further work</i></b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<p>DD drilling down dip / down plunge to the north and east of existing resources is continuing at RAS on ~120 metre step-out east-west drill sections.</p> <p>Further work is following at RAS, CIT and SHR deposits as results dictate, which may include infill RC, further DD core drilling, and metallurgical test-work.</p> <p>A 2021 MRE update (to JORC Code 2012) completed in September 2021 increased Inferred Resources 155% to 643Koz from the 252Koz 2019 MRE (uncut &amp; 0.25g/t lower cut-off).</p> <p>A 2022 MRE upgrade of RAS was completed in early July 2022 which increased the Global Inferred resources to 2.1Moz (top-cut &amp; 0.25g/t lower cut-off).</p> <p>Potential extensions to mineralisation and resources currently being drill tested are shown in figures in the body of the text.</p>