

## BONANZA GOLD GRADES CONTINUE BEYOND NEW RISE & SHINE RESOURCES

- Bonanza drillhole assays to 57.5g/t gold in high-angle stockwork veins together with broad (20-40 metre) robust upper shear mineralisation (0.5 to 3.1 g/t Au) extends 400 metres north at a low-angle down-plunge from existing Rise & Shine (RAS) gold resources.
- MDD015:
  - 23.7 metres @ 1.35 g/t of gold from 195.4 metres and:
  - 11.0 metres @ 0.48 g/t of gold from 231.0 metres
- MDD016:
  - 13.0 metres @ 12.06 g/t of gold from 192.9 metres including
    - 57.5, 47.3 and 43.5 g/t of gold between 194.7 and 198.7 metres and:
  - 8.9 metres @ 0.64 g/t of gold from 210.1 metres
- MDD017:
  - 1.0 metre @ 15.01 g/t of gold from 208.0 metres
- MDD018:
  - 2.0 metres @ 8.91 g/t of gold from 190.5 metres
- MDD020:
  - 23.0 metres @ 0.87 g/t of gold from 183.0 metres with:
  - further assays pending from 210.1 metres
- MDD021R:
  - 25.6 metres @ 3.11 g/t of gold from 269.4 metres with:
  - further assays pending from 295.0 metres
- Drilling at RAS on nominal 120 x 80 metre centres confirms continuity of gold mineralization at least 400 metres down plunge from the 2021 MRE resource in a north-east trending 200-metre-wide shoot which remains open to the east and north.
- Assay results are pending from four drillholes and diamond drilling (DD) is continuing with an additional DD rig commissioned to fast-track definition of gold resources in down-plunge extensions at RAS and Come-in-Time (CIT) Deposits.

**23 December 2021** Santana Minerals Limited (ASX: SMI) (“Santana” or “the Company”) is pleased to announce further significant assay results from the 100% owned Bendigo-Ophir Project (“the Project”) where drilling since November 2020 has increased Inferred Gold Resources (MRE) to 643Koz (>0.25g/t Au, uncut) at four Rise and Shine Shear Zone (RSSZ) Deposits (ASX announcement on 28<sup>th</sup> September 2021).

Bonanza high-grade gold assays in two drillholes (MDD016 and MDD017) and robust gold mineralisation over 20-40 metre widths in three DD holes (MDD015, MDD020 and MDD021R) demonstrates mineralisation continues at least 400 metres north-east of that intersected in drillholes within the newly defined 2021 MRE.

Commenting on the results Executive Director Dick Keevers said:

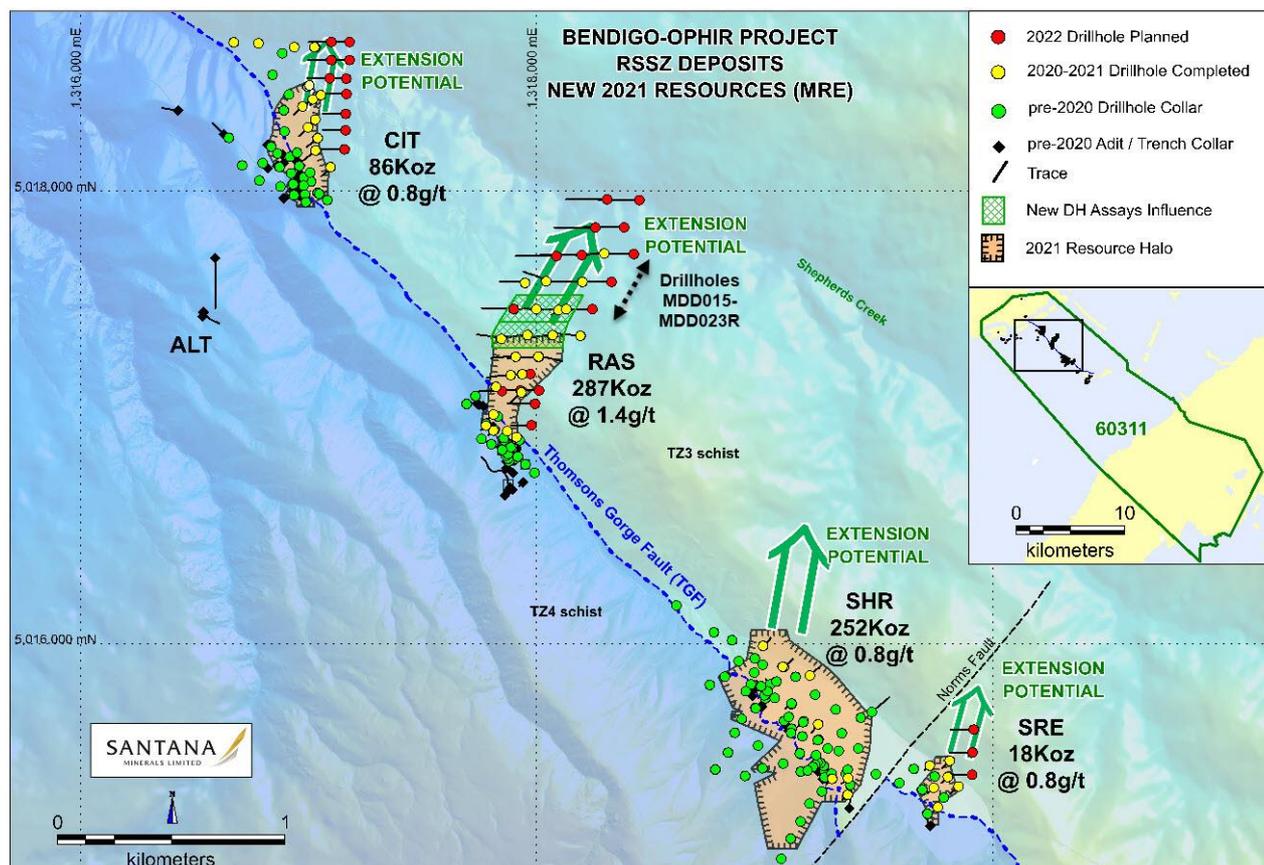
*“Our diamond drilling at the RAS deposit has continued to intersect shear and stockwork gold mineralisation, where the frequent occurrence of free gold, often visible in the drill core, has added definition to this gently NE plunging mineralised body. This mineralisation, now known to extend about 400 metres further down plunge from the NE limit of the last Mineral Resource Estimate (MRE), for a total length of about 1000 metres from surface outcrop, is still open in this direction where our drilling will continue to probe for new gold in 2022.*”

*Our drilling is presently based upon bold step-outs for defining a new body of Orogenic gold mineralisation. As our future drilling closes drill hole spacing in critical areas, we expect to enhance our understanding of the distribution and continuity of high-grade zones.”*

**RAS Deposit - Extension drilling north beyond existing MRE**

Resource drilling on 120 metre spaced east-west sections has extended mineralisation northwards in the RAS shoot at least 400 metre down-plunge beyond the limit of the 2021 MRE resource envelope area. (Figures 1 & 2). Hole spacing on the cross sections is approximately 80 metres. MDD012 and MDD017 appear to close off mineralisation to the west but mineralisation remains open to the north and east.

Mineralisation within the RAS shoot occurs over a vertical interval of 40-80 metres with concentration of gold in the 10-20-metre-thick Hanging Wall Shear (HWS) with grades of 1-5 g/t gold and also in high-grade stockwork zones below the HWS including the 13 metres at an average grade of 12.6 g/t Au intersected in MDD016. The RAS shoot has now been defined over 1000 metres down plunge with the current drill programme designed to test mineralisation a further 300 metres northwards as well as define the eastern margin.



**Figure 1 RSSZ 2021 Deposits & Resource Halos**

RAS drilling since the current campaign commenced in November 2020 totals 5,930 metres (26 holes) representing 66% of the total 8,922 metres (59 holes) drilled over the four RSSZ Deposits.

Drilling, accelerated from early October with double-shifting, has seen 2,504 metres completed in 8 holes beyond the RAS 2021 MRE with one hole in-progress (Table 1).

**Table 1: MDD015 to MDD023R co-ordinates and downhole survey detail**

Hole ID	East (NZTM)	North (NZTM)	RL (m)	Azimuth (T Avg)	Dip (Avg)	Length (m)	Method	Status
MDD015	1318096	5017475	656.5	271.9	-63	294.9	DD	Completed
MDD016	1317999	5017479	666.0	263.6	-66	271.0	DD	Completed
MDD017	1317950	5017596	650.5	271.5	-66	280.0	DD	Completed
MDD018	1318042	5017603	620.0	292.4	-68	287.4	DD	Completed
MDD019R	1318192	5017361	660.4	276.4	-68	300.0	DD	Completed
MDD020	1318130	5017479	645.3	248.8	-75	287.4	DD	Completed
MDD021R	1318296	5017725	606.4	264.7	-71	380.0	DD	Completed
MDD022	1318200	5017600	664.6	256.6	-70	353.4	DD	Completed
MDD023R	1318328	5017600	649.8	275.0	-60	32.3	DD	In-Progress

Assay results have been received and reported for four drillholes (two partial) with assays pending for a further four. Drilling will be halted for an end of year break, recommencing on 10<sup>th</sup> January 2022 with an additional rig.

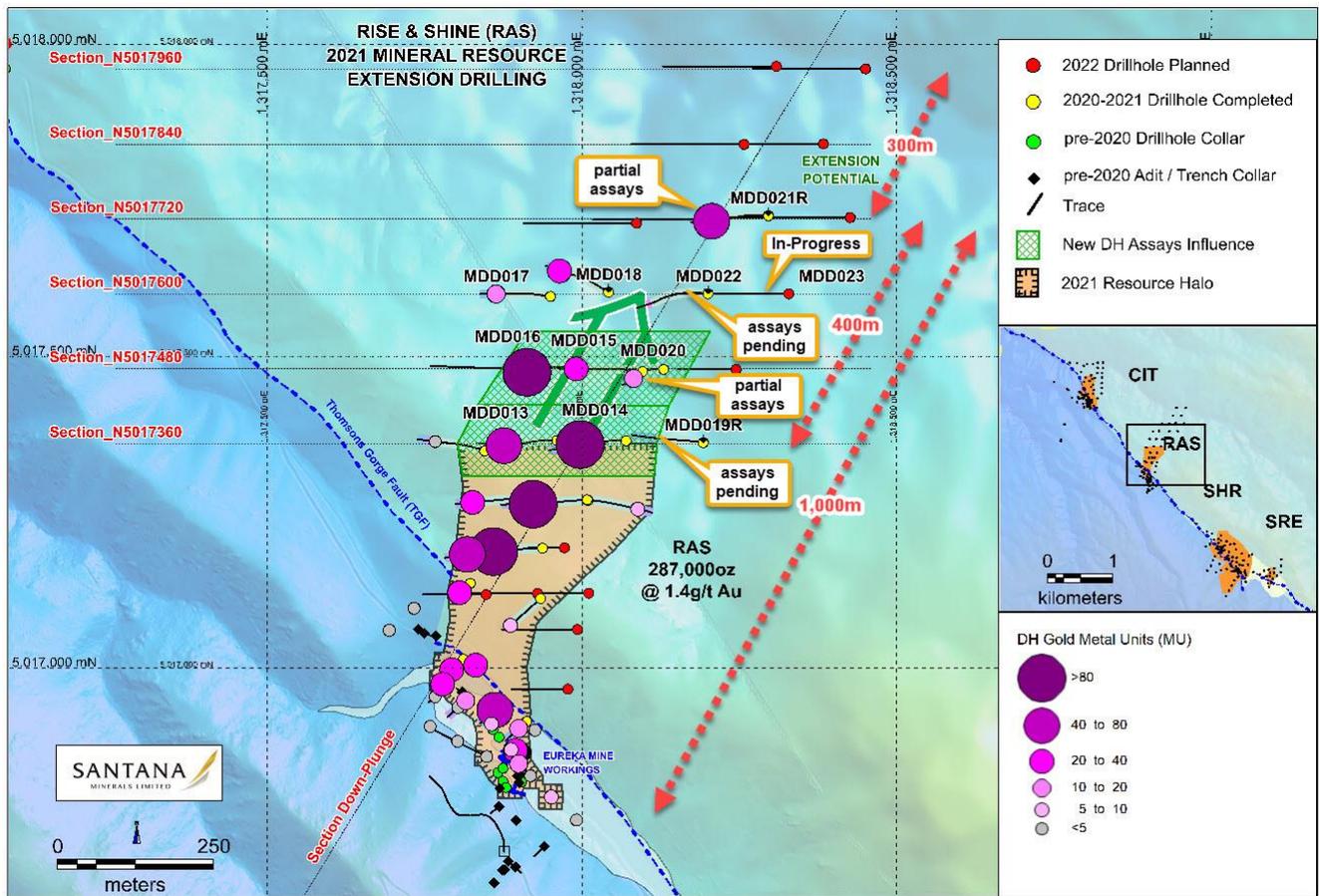


Figure 2 RAS Resource Extension Drilling -Section Influence & Gold Metal Units

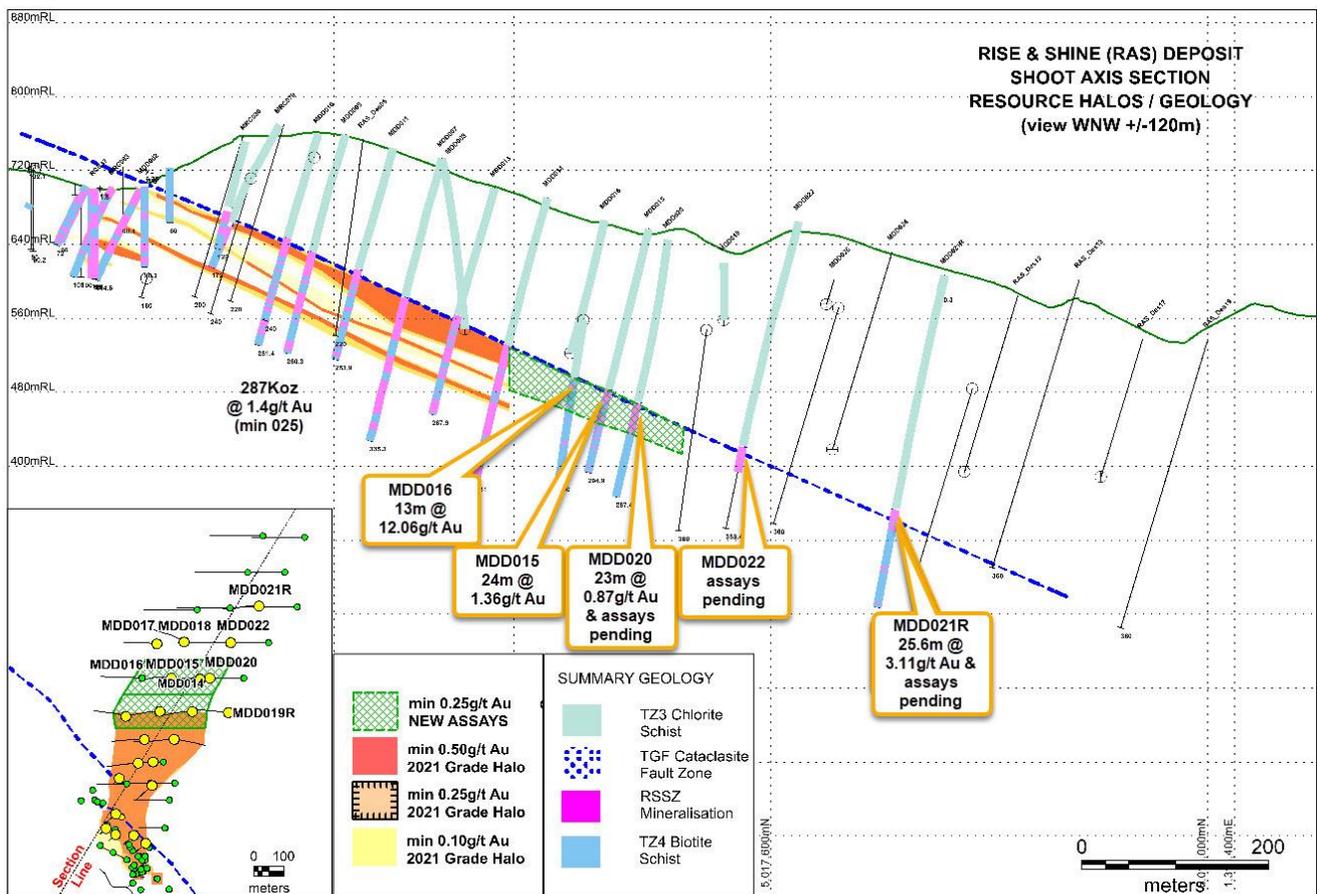


Figure 3 RAS Down-plunge Section (shoot axis geology & new intercepts)

**RAS Drill Results MDD015, MDD016 & MDD020**

DD holes MDD015, MDD016 and MDD020 (Table 1, Figures 1, 2, 3 & 4) are collared 120 metres north of the RAS 2021 MRE halos on east-west drill section N5017480 on the projected continuation of the RAS shoot.

New mineralisation was intersected in all three drillholes with continuity thicker but lower grade in the upper RSSZ HWS to the east (MDD015 [Appendix 1a] & MDD020 [Appendix 1e]).

To the west (MDD016 [Appendix 1b]) upper HWS mineralisation was sub-grade (<0.25 g/t Au) with deeper bonanza intercepts influencing grades over a 13-metre zone at depth.

- **MDD015:**
  - 23.7 metres @ 1.35 g/t of gold from 195.4 metres and:
  - 11.0 metres @ 0.48 g/t of gold from 231.0 metres
- **MDD016:**
  - 13.0 metres @ 12.06 g/t of gold from 192.9 metres including
    - 57.5, 47.3 and 43.5 g/t of gold between 194.7 and 198.7 metres and:
  - 8.9 metres @ 0.64 g/t of gold from 210.1 metres
- **MDD020:**
  - 23.0 metres @ 0.87 g/t of gold from 183.0 metres with:
  - further assays pending from 210.1 metres

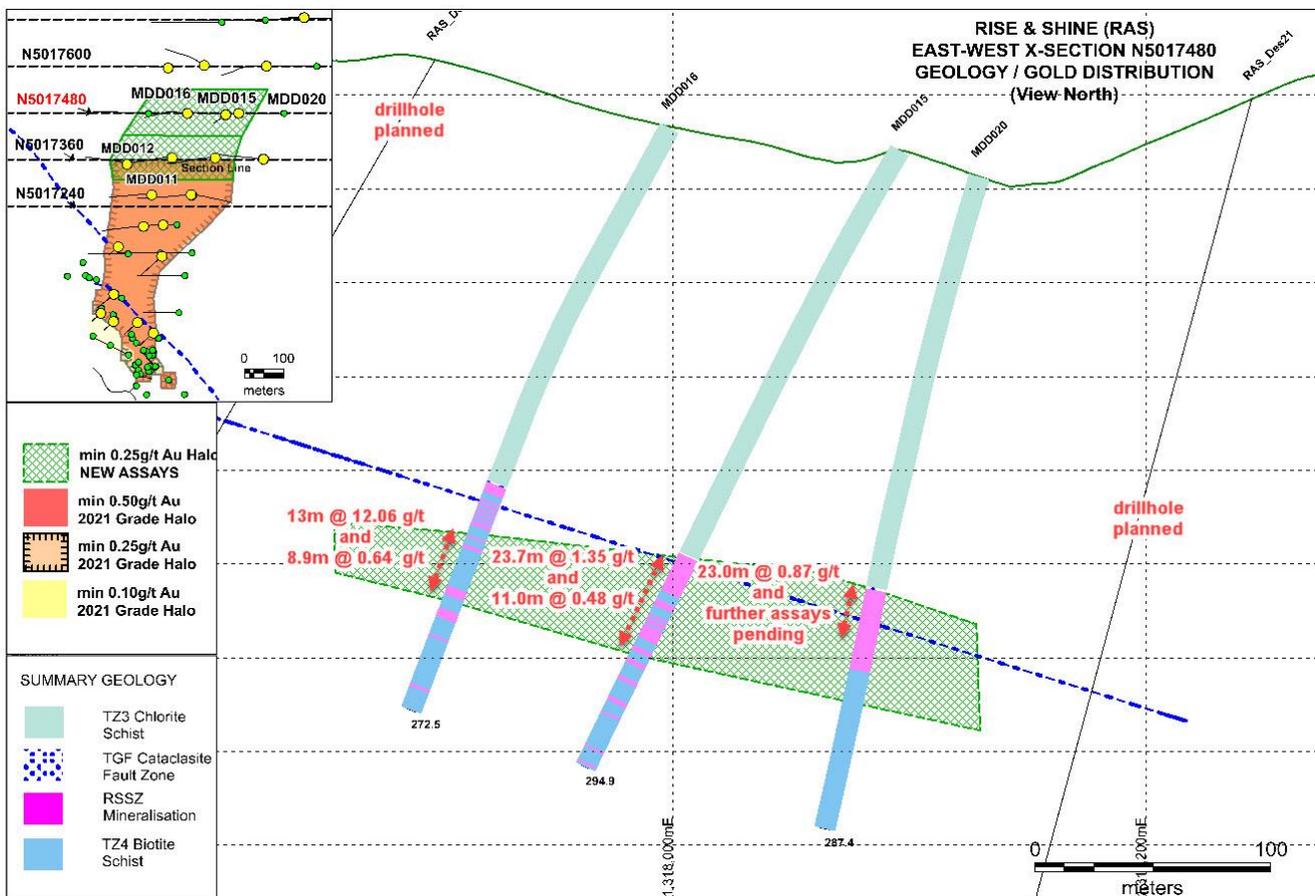


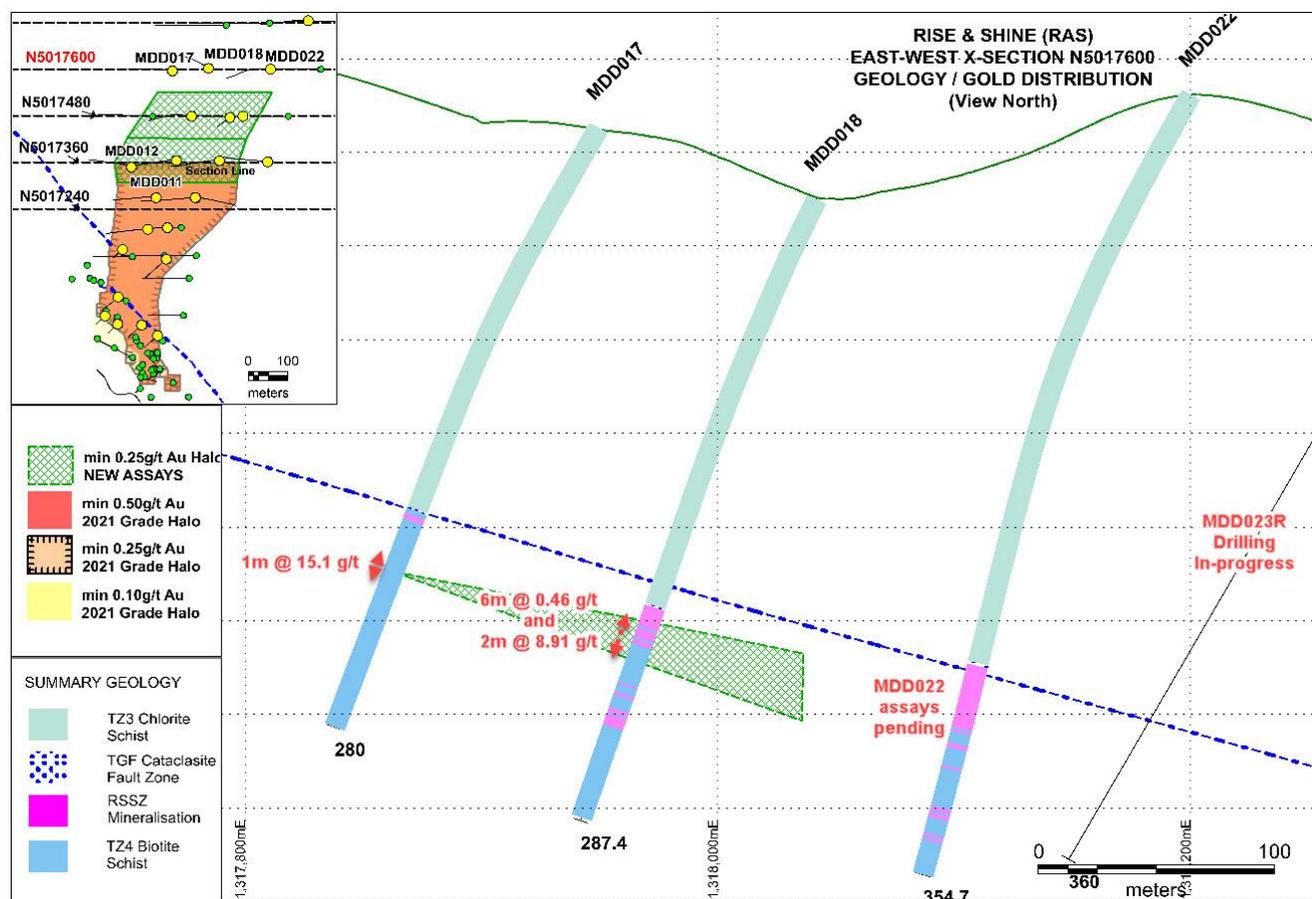
Figure 4 RAS East-West-Section N5017480

**RAS Drill Results MDD017 & MDD018**

DD holes MDD017 and MDD018 (Table 1, Figures 1, 2, 3 & 5) were collared 240 metres north of the RAS 2021 MRE halos on east-west drill section N5017600 on the projected continuation of the RAS shoot.

New HWS mineralisation intersected in both MDD017 [Appendix 1c] and MDD018 [Appendix 1d] was weak with narrow higher-grade intercepts at depth associated with high angle arsenopyrite rich quartz vein stockwork.

- **MDD017:**
  - 1.0 metre @ 15.01 g/t of gold from 208.0 metres
- **MDD018:**
  - 6.0 metres @ 0.46 g/t of gold from 199.0 metres and
  - 2.0 metres @ 8.91 g/t of gold from 213.0 metres



**Figure 5 RAS East-West-Section N5017600**

With the RAS shoot axis now appearing to plunge north-east (NE) from the previously interpreted north-north-east (NNE) direction two drillholes have been collared on this N5107600 drill section further east; MDD022 (assays pending) and MDD023R (in-progress).

**RAS Drill Results MDD021R**

DD hole MDD021R (Table 1, Figures 1, 2, 3, 6 & 7) was collared 360 metres north (400 metres north-east) of the RAS 2021 MRE halos on east-west drill section N5017720 to intersect the newly interpreted north-east orientation for the RAS shoot high-grade axis. Further holes on this section are yet to be drilled.

Coarse visible gold (VG) logged over 18 intervals in MDD021R HWS, immediately below the Thomsons Gorge Fault (TGF), translated into a robust 25.6 metres @ 3.11 g/t Au [Appendix 1f] with assays pending for the remainder of the drillhole. Some of the VG was very coarse as evident in cut drill core (Figure 7, for 8.34 g/t Au).

- **MDD021R:**
  - 25.6 metres @ 3.11 g/t of gold from 269.4 metres with:
  - further assays pending from 295.0 metres



**Metallurgical Testwork Follow Up**

Further studies are being scheduled to follow encouraging preliminary leach and gravity recoverable gold (GRG) tests on fresh sulphide bearing mineralisation previously reported. Presently KCAA consultants are reviewing geochemical characteristics of the mineralisation intersected in the four RSSZ Deposits to tailor the next stage of Metallurgical testwork.

**Key Conclusions**

Results from these reported drillholes over a 400-metre down-plunge extent from the existing RAS 2021 MRE with bonanza grades to 57.5g/t Au and thick HWS mineralisation (25.6 metres @ 3.11 g/t Au in MDD021R, the northernmost drillhole) add further to the extraordinary sets of results since RAS drilling first identified the northerly shallow plunging mineralised shoot in February.

Drilling further north and east at RAS in early January 2022 will focus on determining the limits of the shear hosted and quartz-arsenopyrite stockwork vein sets (Appendix 2) evident throughout and north of the 2021 RAS MRE which together are confirming the emergence of a new major mineralised system.

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

For further information, please contact:

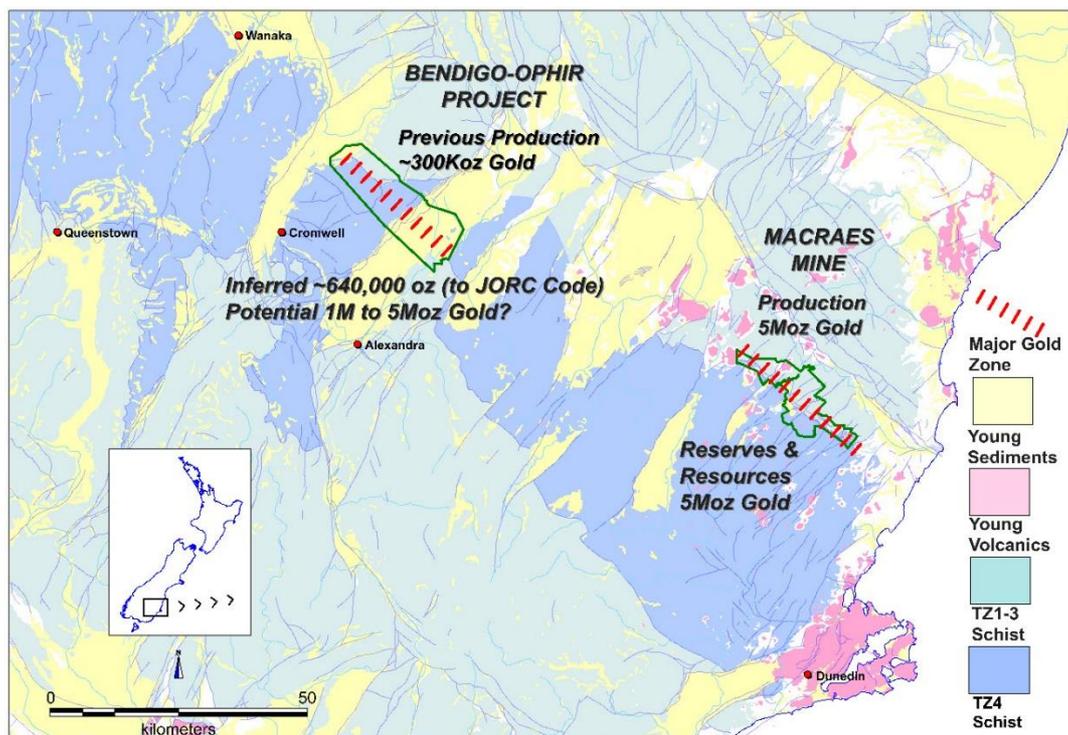
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**About Santana Minerals Limited Bendigo-Ophir Project**

The Bendigo-Ophir Project is located on the South Island of New Zealand within the Central Otago Goldfields. The Project is located ~90 kilometres northwest of Oceana Gold Ltd (OGC) Macraes Gold Mine (Figure 8).

The Project contains a new Inferred Mineral Resource Estimate (MRE2021) of 643K ounces of gold @ 1.0g/t (0.25 g/t Au lower cut-off grade, no top-cut), an estimate based on drill results to June 2021 and reported in September 2021 which the Company interprets has the potential to be further expanded and developed into a low cost per ounce heap leach operation, with ore from bulk tonnage open pits.



**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 mineralization over a recognised strike length of >20km.

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 mineralization (HWS) 10-40 metres in width above quartz vein and stockwork related gold mineralization extending >120 metres below the HWS which is largely untested down-plunge and at depth.

The Company embarked on diamond drilling (DD) and reverse circulation (RC) drilling programmes in November 2020 with the immediate objective to increase the existing resources by drill testing the down plunge extensions of known mineralisation. 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 “Gold Resources Increased 155% to 643Koz” dated 28 September 2021

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. 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.

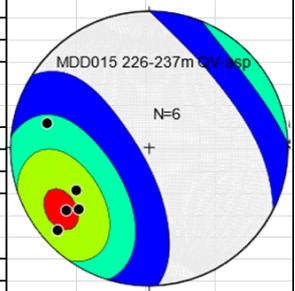
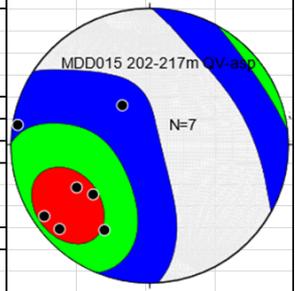
The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified.

**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.

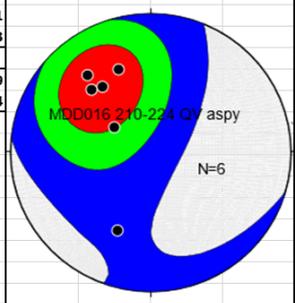
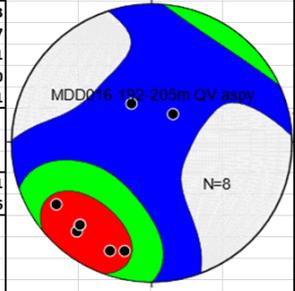
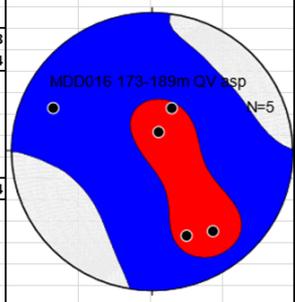
**Appendix 1a RAS MDD015 Mineralised Intercept – Assay results, quartz-arsenopyrite veins, geology**

Hole_No	From m	To m	Interval m	Sample_ID	Au g/t	Composite metres min025	Composite Au g/t min025	Composite metres min050	Composite Au g/t min050	Geol Log	Visible Gold	QV-asy Dip	QV-asy Dip-Dir	Stereonet Plots of Poles to QV-Aspy Planes (Kamb Contours)
MDD015	0.0	190.0	190.0	MDD015_NS	0.00									
MDD015	190.0	191.0	1.0	MG10450	-0.01									
MDD015	191.0	192.0	1.0	MG10451	0.03					TZ3				
MDD015	192.0	193.0	1.0	MG10452	-0.01									
MDD015	193.0	194.0	1.0	MG10453	-0.01									
MDD015	194.0	194.8	0.8	MG10454	-0.01									
MDD015	194.8	195.4	0.6	MG10455	0.03					TGF				
MDD015	195.4	196.0	0.6	MG10456	2.14									
MDD015	196.0	197.0	1.0	MG10457	0.79									
MDD015	197.0	198.0	1.0	MG10458	0.41									
MDD015	198.0	199.0	1.0	MG10459	1.52									
MDD015	199.0	200.0	1.0	MG10460	2.38					P				
MDD015	200.0	201.0	1.0	MG10461	1.42									
MDD015	201.0	202.0	1.0	MG10462	1.87					P				
MDD015	202.0	203.0	1.0	MG10464	0.66							51	60	
MDD015	203.0	204.0	1.0	MG10465	4.12									
MDD015	204.0	205.0	1.0	MG10466	3.72			18.6	1.65	RSSZ	P			
MDD015	205.0	206.0	1.0	MG10467	2.03									
MDD015	206.0	207.0	1.0	MG10468	0.10					P				
MDD015	207.0	208.0	1.0	MG10471	0.38	23.6	1.36			P		59	28	
MDD015	208.0	209.0	1.0	MG10472	0.75					P		78	47	
MDD015	209.0	210.0	1.0	MG10474	5.41							45	49	
MDD015	210.0	211.0	1.0	MG10475	0.27									
MDD015	211.0	212.0	1.0	MG10476	0.48									
MDD015	212.0	213.0	1.0	MG10477	1.00									
MDD015	213.0	214.0	1.0	MG10478	1.83									
MDD015	214.0	215.0	1.0	MG10479	0.29							29	146	
MDD015	215.0	216.0	1.0	MG10480	0.17					TZ4				
MDD015	216.0	217.0	1.0	MG10481	0.04							81	56	
MDD015	217.0	218.0	1.0	MG10484	0.37							86	99	
MDD015	218.0	219.0	1.0	MG10485	0.49					RSSZ				
MDD015	219.0	220.0	1.0	MG10486	0.13									
MDD015	220.0	221.0	1.0	MG10487	0.03									
MDD015	221.0	222.0	1.0	MG10488	0.23									
MDD015	222.0	223.0	1.0	MG10489	0.08					TZ4				
MDD015	223.0	224.0	1.0	MG10490	0.42									
MDD015	224.0	225.0	1.0	MG10491	0.13					RSSZ				
MDD015	225.0	226.0	1.0	MG10492	0.08					TZ4				
MDD015	226.0	227.0	1.0	MG10493	0.18							51	60	
MDD015	227.0	228.0	1.0	MG10495	0.16					RSSZ		65	104	
MDD015	228.0	229.0	1.0	MG10496	0.04					TZ4				
MDD015	229.0	230.0	1.0	MG10497	0.06									
MDD015	230.0	231.0	1.0	MG10498	0.09									
MDD015	231.0	232.0	1.0	MG10499	1.97					RSSZ	P	64	53	
MDD015	232.0	233.0	1.0	MG10502	0.21							78	48	
MDD015	233.0	234.0	1.0	MG10503	0.45			4.0	0.85		P	57	49	
MDD015	234.0	235.0	1.0	MG10504	0.77									
MDD015	235.0	236.0	1.0	MG10505	0.21									
MDD015	236.0	237.0	1.0	MG10506	0.11									
MDD015	237.0	238.0	1.0	MG10507	0.40					TZ4		78	48	
MDD015	238.0	239.0	1.0	MG10508	0.07									
MDD015	239.0	240.0	1.0	MG10509	0.26					RSSZ				
MDD015	240.0	241.2	1.2	MG10510	0.35									
MDD015	241.2	242.0	0.8	MG10511	0.48									
MDD015	242.0	243.0	1.0	MG10512	0.04					TZ4				
MDD015	243.0	244.0	1.0	MG10513	-0.01									
MDD015	244.0	245.0	1.0	MG10514	0.01									
MDD015	245.0	246.0	1.0	MG10516	0.06					RSSZ				
MDD015	246.0	247.0	1.0	MG10517	0.03									
MDD015	247.0	248.0	1.0	MG10518	-0.01									
MDD015	248.0	249.0	1.0	MG10519	-0.01									
MDD015	249.0	250.0	1.0	MG10520	-0.01									
MDD015	250.0	251.0	1.0	MG10523	-0.01					TZ4				
MDD015	251.0	252.0	1.0	MG10524	-0.01									
MDD015	252.0	253.0	1.0	MG10525	-0.01									
MDD015	253.0	254.0	1.0	MG10526	0.20									
MDD015	254.0	255.0	1.0	MG10527	1.60					RSSZ				
MDD015	255.0	256.0	1.0	MG10528	-0.01									
MDD015	256.0	257.0	1.0	MG10529	-0.01									
MDD015	257.0	258.0	1.0	MG10531	-0.01									
MDD015	258.0	259.0	1.0	MG10532	-0.01									
MDD015	259.0	260.0	1.0	MG10533	-0.01					TZ4				
MDD015	260.0	261.0	1.0	MG10534	0.05									
MDD015	261.0	262.0	1.0	MG10535	0.08									
MDD015	262.0	263.0	1.0	MG10536	0.06									
MDD015	263.0	264.0	1.0	MG10537	0.19									
MDD015	264.0	265.0	1.0	MG10538	0.21					RSSZ				

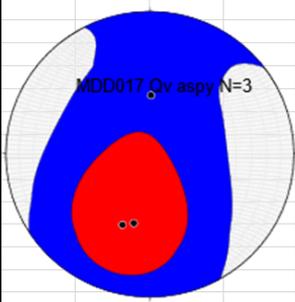


**Appendix 1b RAS MDD016 Mineralised Intercept – Assay results, quartz-arsenopyrite veins, geology**

Hole_No	Depth_From	Depth_To	Interval m	Sample_ID	Au g/t	Comp m (min025)	Comp Au g/t (min025)	Comp m (min050)	Comp Au g/t (min050)	Geol Sum Log	QV-asy Dip	QV-asy Dip-Dir	
MDD016	0.00	165.00	165.00	Not sampled									
MDD016	165.00	166.00	1.00	MG10575	-0.01					TZ3			
MDD016	166.00	167.00	1.00	MG10576	-0.01								
MDD016	167.00	168.00	1.00	MG10577	-0.01					TGF			
MDD016	168.00	169.00	1.00	MG10578	-0.01								
MDD016	169.00	169.55	0.55	MG10579	0.03					RSSZ			
MDD016	169.55	170.00	0.45	MG10580	0.30								
MDD016	170.00	171.00	1.00	MG10581	0.14							61	323
MDD016	171.00	172.00	1.00	MG10582	0.40								
MDD016	172.00	173.00	1.00	MG10583	0.15					TZ4			
MDD016	173.00	174.00	1.00	MG10584	0.13								
MDD016	174.00	175.00	1.00	MG10586	0.04					RSSZ			
MDD016	175.00	176.00	1.00	MG10587	0.01							55	338
MDD016	176.00	177.00	1.00	MG10588	0.95					TZ4			
MDD016	177.00	178.00	1.00	MG10589	0.13							66	114
MDD016	178.00	179.00	1.00	MG10590	0.12					RSSZ			
MDD016	179.00	180.00	1.00	MG10591	0.23								
MDD016	180.00	181.00	1.00	MG10592	0.17					TZ4			
MDD016	181.00	182.00	1.00	MG10593	0.15								
MDD016	182.00	183.00	1.00	MG10594	0.03					RSSZ			
MDD016	183.00	184.00	1.00	MG10595	0.13							28	204
MDD016	184.00	185.00	1.00	MG10596	0.07					TZ4			
MDD016	185.00	186.00	1.00	MG10597	0.15								
MDD016	186.00	187.10	1.10	MG10598	-0.01					RSSZ			
MDD016	187.10	188.10	1.00	MG10599	0.11								
MDD016	188.10	189.00	0.90	MG10600	0.02					TZ4			
MDD016	189.00	190.00	1.00	MG10601	0.07							12	198
MDD016	190.00	191.00	1.00	MG10603	0.03					RSSZ			
MDD016	191.00	192.00	1.00	MG10604	0.04								
MDD016	192.00	193.00	1.00	MG10605	0.30					TZ4			
MDD016	193.00	193.80	0.80	MG10606	0.37							26	153
MDD016	193.80	194.70	0.90	MG10607	2.84					RSSZ			
MDD016	194.70	195.80	1.10	MG10608	57.50							70	57
MDD016	195.80	196.50	0.70	MG10609	47.30					TZ4			
MDD016	196.50	197.00	0.50	MG10610	0.12							67	41
MDD016	197.00	197.75	0.75	MG10613	0.08					RSSZ			
MDD016	197.75	198.70	0.95	MG10614	43.50							72	40
MDD016	198.70	199.35	0.65	MG10615	6.64	13.00	12.06	11.20	13.95	TZ4			
MDD016	199.35	200.40	1.05	MG10616	2.99							67	41
MDD016	200.40	201.00	0.60	MG10617	0.11					RSSZ			
MDD016	201.00	202.00	1.00	MG10618	0.04							72	21
MDD016	202.00	203.00	1.00	MG10619	0.15					TZ4			
MDD016	203.00	204.00	1.00	MG10620	0.73							21	216
MDD016	204.00	205.00	1.00	MG10621	7.41					RSSZ			
MDD016	205.00	205.50	0.50	MG10623	-0.01								
MDD016	205.50	206.50	1.00	MG10624	0.01					TZ4			
MDD016	206.50	207.50	1.00	MG10625	0.11							69	14
MDD016	207.50	208.50	1.00	MG10626	0.07					RSSZ			
MDD016	208.50	209.50	1.00	MG10627	0.24							75	31
MDD016	209.50	210.10	0.60	MG10628	0.07					TZ4			
MDD016	210.10	211.00	0.90	MG10629	1.15							61	141
MDD016	211.00	212.10	1.10	MG10630	0.04					RSSZ			
MDD016	212.10	213.00	0.90	MG10631	0.04							51	23
MDD016	213.00	214.00	1.00	MG10632	1.96					TZ4			
MDD016	214.00	215.00	1.00	MG10633	0.01							54	159
MDD016	215.00	216.00	1.00	MG10634	0.87	8.90	0.64	8.90	0.64	RSSZ			
MDD016	216.00	217.00	1.00	MG10637	0.03							49	144
MDD016	217.00	218.00	1.00	MG10638	0.85					TZ4			
MDD016	218.00	219.00	1.00	MG10639	0.87								
MDD016	219.00	220.00	1.00	MG10640	0.11					RSSZ			
MDD016	220.00	221.00	1.00	MG10641	0.50								
MDD016	221.00	222.00	1.00	MG10642	0.55	2.00	0.53	2.00	0.53	TZ4			
MDD016	222.00	223.00	1.00	MG10643	0.08								
MDD016	223.00	224.00	1.00	MG10645	0.08					RSSZ			
MDD016	224.00	225.00	1.00	MG10646	0.02							26	125
MDD016	225.00	226.00	1.00	MG10647	-0.01					TZ4			
MDD016	226.00	227.00	1.00	MG10648	0.08							52	137
MDD016	227.00	228.00	1.00	MG10649	0.49					RSSZ			
MDD016	228.00	229.00	1.00	MG10650	0.28							79	49
MDD016	229.00	230.00	1.00	MG10651	0.13					TZ4			
MDD016	230.00	231.00	1.00	MG10652	0.08								
MDD016	231.00	232.00	1.00	MG10653	-0.01					RSSZ			

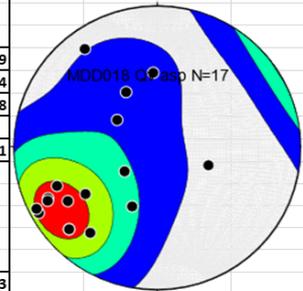


**Appendix 1c RAS MDD017 Mineralised Intercept – Assay results, quartz-arsenopyrite veins, geology**

Hole ID	From m	To m	Interval m	Sample No	Au g/t	Comp m (min010)	Comp Au g/t (min010)	Comp m (min025)	Comp Au g/t (min025)	Geol Sum Log	QV-asy Dip	QV-asy Dip-Dir	Stereonet Plots of Poles to QV-Aspy Planes (Kamb Contours)
MDD017	0.0	175.0	175.0	Not sampled									
MDD017	175.0	176.1	1.1	MG10705	-0.01					TZ3			
MDD017	176.1	176.6	0.5	MG10706	-0.01								
MDD017	176.6	177.7	1.1	MG10707	-0.01								
MDD017	177.7	178.7	1.0	MG10708	-0.01								
MDD017	178.7	179.5	0.8	MG10709	-0.01								
MDD017	179.5	180.0	0.5	MG10710	-0.01								
MDD017	180.0	180.7	0.7	MG10711	-0.01								
MDD017	180.7	181.5	0.8	MG10712	0.01								
MDD017	181.5	182.4	0.9	MG10713	0.23								
MDD017	182.4	183.1	0.7	MG10714	0.31	5.5	0.19	0.7	0.31		TZ4		
MDD017	183.1	183.8	0.7	MG10715	0.20								
MDD017	183.8	185.0	1.2	MG10716	0.18					RSSZ	49	256	
MDD017	185.0	186.2	1.2	MG10717	0.13					TZ4			
MDD017	186.2	187.0	0.8	MG10718	0.12								
MDD017	187.0	188.0	1.0	MG10719	0.03								
MDD017	188.0	189.0	1.0	MG10721	0.01								
MDD017	189.0	190.0	1.0	MG10722	0.01								
MDD017	190.0	191.0	1.0	MG10723	-0.01								
MDD017	191.0	192.0	1.0	MG10726	-0.01								
MDD017	192.0	193.0	1.0	MG10727	-0.01								
MDD017	193.0	194.0	1.0	MG10728	0.02								
MDD017	194.0	195.0	1.0	MG10729	-0.01								
MDD017	195.0	196.0	1.0	MG10731	-0.01								
MDD017	196.0	197.0	1.0	MG10732	-0.01								
MDD017	197.0	198.0	1.0	MG10733	-0.01								
MDD017	198.0	199.0	1.0	MG10734	0.10								
MDD017	199.0	200.0	1.0	MG10735	-0.01								
MDD017	200.0	201.0	1.0	MG10736	0.33	1.0	0.33	1.0	0.33	RSSZ			
MDD017	201.0	202.0	1.0	MG10737	-0.01					TZ4			
MDD017	202.0	203.0	1.0	MG10738	-0.01								
MDD017	203.0	204.0	1.0	MG10739	-0.01								
MDD017	204.0	205.0	1.0	MG10740	-0.01								
MDD017	205.0	206.0	1.0	MG10741	-0.01								
MDD017	206.0	207.0	1.0	MG10742	-0.01								
MDD017	207.0	208.0	1.0	MG10743	0.06								
MDD017	208.0	209.0	1.0	MG10744	15.10	1.0	15.10	1.0	15.10				
MDD017	209.0	210.0	1.0	MG10747	0.04								
MDD017	210.0	211.0	1.0	MG10748	-0.01								
MDD017	211.0	212.0	1.0	MG10749	-0.01								
MDD017	212.0	213.0	1.0	MG10750	0.03								
MDD017	213.0	214.0	1.0	MG10751	-0.01								
MDD017	214.0	215.0	1.0	MG10753	-0.01								
MDD017	215.0	216.0	1.0	MG10754	0.01								
MDD017	216.0	217.0	1.0	MG10755	-0.01								

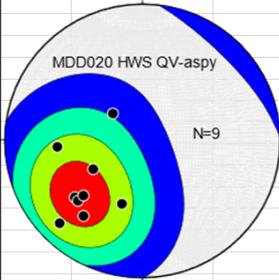
**Appendix 1d RAS MDD018 Mineralised Intercept – Assay results, quartz-arsenopyrite veins, geology**

Hole ID	From m	To m	Interval m	Sample No	Au g/t	Comp m (min025)	Comp Au g/t (min025)	Comp m (min050)	Comp Au g/t (min050)	Geol Sum Log	QV-asy Dip	QV-asy Dip-Dir	Stereonet Plots of Poles to QV-Aspy Planes (Kamb Contours)		
MDD018	0.0	180.0	180.0	Not Sampled											
MDD018	180.0	181.0	1.0	MG10828	-0.01					TZ3					
MDD018	181.0	182.0	1.0	MG10829	-0.01										
MDD018	182.0	183.0	1.0	MG10830	-0.01										
MDD018	183.0	184.0	1.0	MG10831	-0.01										
MDD018	184.0	185.0	1.0	MG10832	-0.01										
MDD018	185.0	186.0	1.0	MG10833	-0.01										
MDD018	186.0	187.0	1.0	MG10834	-0.01										
MDD018	187.0	188.0	1.0	MG10835	-0.01										
MDD018	188.0	188.5	0.5	MG10836	-0.01										
MDD018	188.5	189.8	1.3	MG10837	-0.01										
MDD018	189.8	190.5	0.6	MG10838	0.09						TGF				
MDD018	190.5	191.0	0.6	MG10839	1.26	1.6	0.68	0.6	1.26		RSSZ				
MDD018	191.0	192.0	1.0	MG10840	0.36										
MDD018	192.0	193.0	1.0	MG10841	0.03										
MDD018	193.0	194.0	1.0	MG10842	0.13								73	65	
MDD018	194.0	195.0	1.0	MG10843	0.16								31	289	
MDD018	195.0	196.0	1.0	MG10844	0.21										
MDD018	196.0	197.0	1.0	MG10845	0.13										
MDD018	197.0	198.0	1.0	MG10849	0.25										
MDD018	198.0	199.0	1.0	MG10850	0.14										
MDD018	199.0	200.0	1.0	MG10851	0.58										
MDD018	200.0	201.0	1.0	MG10852	0.91	6.0	0.46	2.0	0.75						
MDD018	201.0	202.0	1.0	MG10853	0.29										
MDD018	202.0	203.0	1.0	MG10854	0.14										
MDD018	203.0	204.0	1.0	MG10855	0.49										
MDD018	204.0	205.0	1.0	MG10856	0.36										
MDD018	205.0	206.0	1.0	MG10857	0.04										
MDD018	206.0	207.0	1.0	MG10858	0.26										
MDD018	207.0	208.0	1.0	MG10859	0.03										
MDD018	208.0	209.0	1.0	MG10860	0.02										
MDD018	209.0	210.0	1.0	MG10861	0.10										
MDD018	210.0	211.0	1.0	MG10862	0.03						62	59			
MDD018	211.0	212.0	1.0	MG10863	0.21						74	64			
MDD018	212.0	213.0	1.0	MG10864	0.09						65	38			
MDD018	213.0	214.0	1.0	MG10865	4.92										
MDD018	214.0	215.0	1.0	MG10866	12.90	2.0	8.91	2.0	8.91		84	61			
MDD018	215.0	216.0	1.0	MG10870	0.04										
MDD018	216.0	217.0	1.0	MG10871	-0.01										
MDD018	217.0	218.0	1.0	MG10872	-0.01										
MDD018	218.0	219.0	1.0	MG10873	0.01										
MDD018	219.0	220.0	1.0	MG10874	0.11										
MDD018	220.0	221.0	1.0	MG10875	0.64						37	23			
MDD018	221.0	222.0	1.0	MG10876	0.04						84	63			
MDD018	222.0	223.0	1.0	MG10877	0.05										
MDD018	223.0	224.0	1.0	MG10878	0.02										
MDD018	224.0	225.0	1.0	MG10879	-0.01										
MDD018	225.0	225.6	0.6	MG10880	0.08										
MDD018	225.6	226.3	0.7	MG10881	0.28					RSSZ	50	57			
MDD018	226.3	227.0	0.7	MG10882	0.07										
MDD018	227.0	228.0	1.0	MG10883	-0.01										
MDD018	228.0	229.0	1.0	MG10884	-0.01					TZ4					
MDD018	229.0	230.0	1.0	MG10885	-0.01										
MDD018	230.0	231.2	1.2	MG10886	0.12					RSSZ	44	177			
MDD018	231.2	232.0	0.8	MG10887	-0.01						37	151			
MDD018	232.0	233.0	1.0	MG10890	-0.01						23	54			
MDD018	233.0	234.0	1.0	MG10891	-0.01										
MDD018	234.0	235.2	1.2	MG10892	-0.01										
MDD018	235.2	236.0	0.8	MG10893	0.26										
MDD018	236.0	237.0	1.0	MG10895	0.03										
MDD018	237.0	238.0	1.0	MG10896	0.02										
MDD018	238.0	238.5	0.5	MG10897	0.07					RSSZ					
MDD018	238.5	239.1	0.6	MG10898	0.31										
MDD018	239.1	240.0	0.9	MG10899	-0.01					TZ4					
MDD018	240.0	241.0	1.0	MG10900	0.10										
MDD018	241.0	242.0	1.0	MG10901	0.24						64	69			
MDD018	242.0	243.0	1.0	MG10902	0.07					RSSZ					
MDD018	243.0	244.0	1.0	MG10903	1.54	2.0	1.44	2.0	1.44		73	47			
MDD018	244.0	245.0	1.0	MG10904	1.34									73	47
MDD018	245.0	246.3	1.3	MG10905	0.06										
MDD018	246.3	247.6	1.3	MG10906	0.06										
MDD018	247.6	248.5	0.9	MG10907	0.04										
MDD018	248.5	249.3	0.8	MG10908	0.01										
MDD018	249.3	250.0	0.7	MG10912	-0.01										



**Appendix 1e RAS MDD020 Mineralised Intercept – Assay results, quartz-arsenopyrite veins, geology**

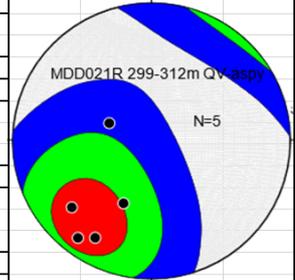
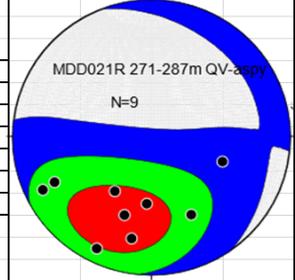
Hole_No	From m	To m	Interval m	Sample_ID	Au g/t	Composite metres min025	Composite Au g/t min025	Composite metres min050	Composite Au g/t min050	Geol Log	Visible Gold	QV-asy Dip	QV-asy Dip-Dir	Stereonet Plots of Poles to QV-Aspy Planes (Kamb Contours)
MDD020	176.0	177.0	1.0	MG11341										
MDD020	177.0	178.0	1.0	MG11342										
MDD020	178.0	179.0	1.0	MG11343										
MDD020	179.0	180.0	1.0	MG11344										
MDD020	180.0	181.5	1.5	MG11345										
MDD020	181.5	182.5	1.0	MG11346	-0.01					TGF				
MDD020	182.5	183.0	0.5	MG11347	0.24									
MDD020	183.0	184.0	1.0	MG11348	0.32									
MDD020	184.0	185.0	1.0	MG11349	0.45									
MDD020	185.0	186.0	1.0	MG11350	0.75									
MDD020	186.0	187.0	1.0	MG11351	1.60									
MDD020	187.0	188.0	1.0	MG11352	0.80									
MDD020	188.0	189.0	1.0	MG11353	0.77									
MDD020	189.0	190.0	1.0	MG11357	0.39									
MDD020	190.0	191.0	1.0	MG11358	0.41							40	18	
MDD020	191.0	192.0	1.0	MG11359	0.71					P		34	60	
MDD020	192.0	193.0	1.0	MG11360	0.83							54	50	
MDD020	193.0	194.0	1.0	MG11361	0.33							74	45	
MDD020	194.0	195.0	1.0	MG11362	2.56	23.0	0.87							
MDD020	195.0	196.0	1.0	MG11363	0.28			21.0	0.92					
MDD020	196.0	197.0	1.0	MG11364	0.69									
MDD020	197.0	198.0	1.0	MG11365	0.47					P				
MDD020	198.0	199.0	1.0	MG11366	1.81							54	47	
MDD020	199.0	200.0	1.0	MG11367	0.52									
MDD020	200.0	201.0	1.0	MG11368	0.34					RSSZ				
MDD020	201.0	202.0	1.0	MG11369	0.46									
MDD020	202.0	203.0	1.0	MG11370	0.95							49	47	
MDD020	203.0	204.0	1.0	MG11371	0.94							24	133	
MDD020	204.0	205.0	1.0	MG11372	2.68							52	86	
MDD020	205.0	206.0	1.0	MG11373	0.94							59	38	
MDD020	206.0	207.0	1.0	MG11375										
MDD020	207.0	208.0	1.0	MG11376										
MDD020	208.0	209.0	1.0	MG11379										
MDD020	209.0	210.0	1.0	MG11380										
MDD020	210.0	211.0	1.0	MG11381										
MDD020	211.0	212.0	1.0	MG11382										
MDD020	212.0	213.0	1.0	MG11383										
MDD020	213.0	214.0	1.0	MG11384										
MDD020	214.0	215.0	1.0	MG11385										
MDD020	215.0	216.0	1.0	MG11386										
MDD020	216.0	217.0	1.0	MG11387										
MDD020	217.0	218.0	1.0	MG11388										
MDD020	218.0	219.0	1.0	MG11389										
MDD020	219.0	220.0	1.0	MG11390										
MDD020	220.0	221.0	1.0	MG11391										
MDD020	221.0	222.0	1.0	MG11392						TZ4				
MDD020	222.0	223.0	1.0	MG11393										
MDD020	223.0	224.0	1.0	MG11394										
MDD020	224.0	225.0	1.0	MG11395										



\*assays pending from 206m

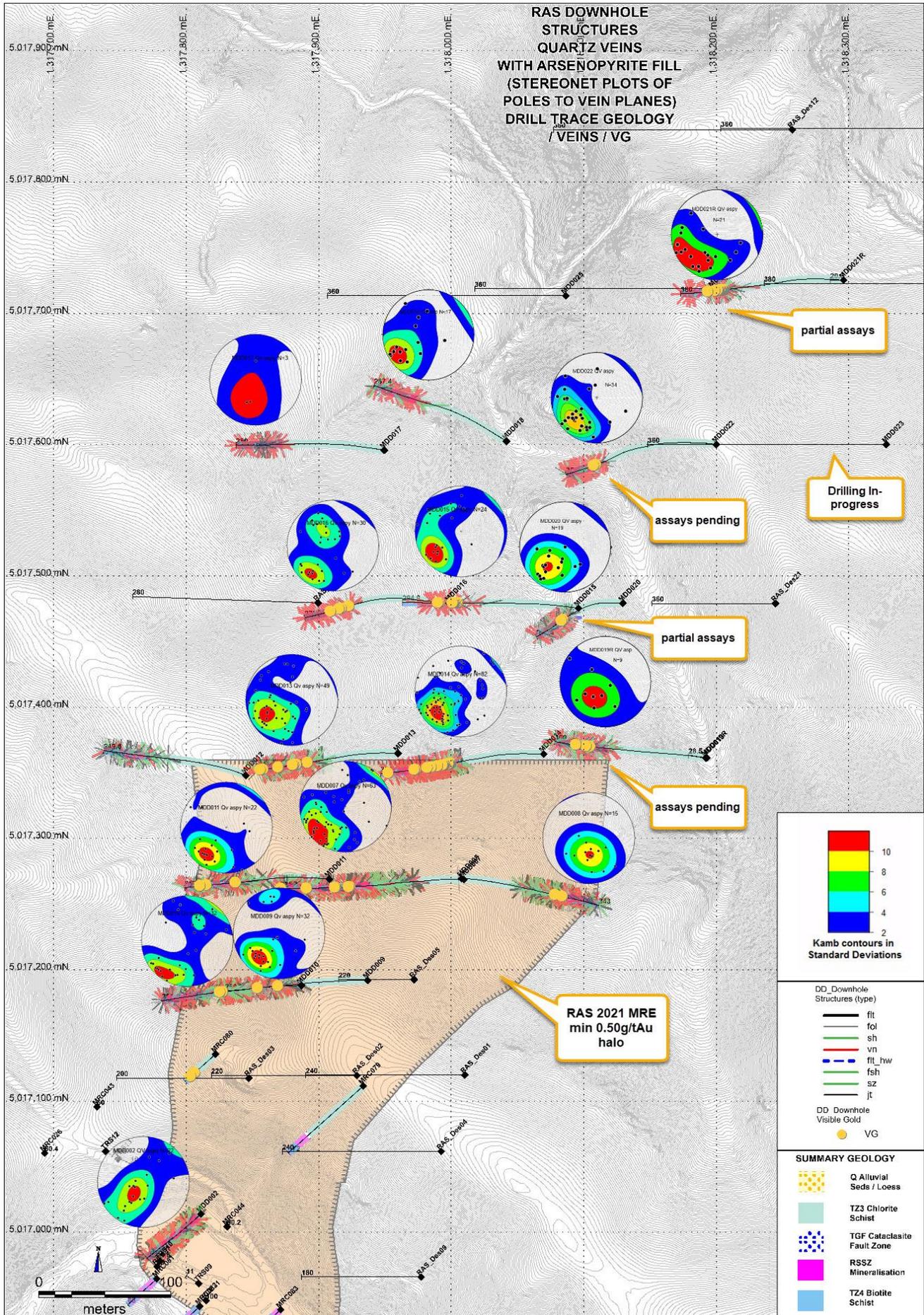
**Appendix 1f RAS MDD021R Mineralised Intercept – Assay results, quartz-arsenopyrite veins, geology**

Hole_No	From m	To m	Interval m	Sample_ID	Au g/t	Composite metres min025	Composite Au g/t min025	Composite metres min050	Composite Au g/t min050	Geol Log	Visible Gold	QV-aspy Dip	QV-aspy Dip-Dir	Stereonet Plots of Poles to QV-Aspy Planes (Kamb Contours)
MDD021R	264.0	265.0	1.0	MG11470	-0.01									
MDD021R	265.0	266.0	1.0	MG11471	-0.01					TZ3				
MDD021R	266.0	267.0	1.0	MG11472	-0.01									
MDD021R	267.0	268.0	1.0	MG11473	-0.01									
MDD021R	268.0	269.4	1.4	MG11474	0.01					TGF				
MDD021R	269.4	270.0	0.6	MG11475	0.31									
MDD021R	270.0	271.0	1.0	MG11476	0.90						p			
MDD021R	271.0	272.0	1.0	MG11477	1.04						p	64	11	
MDD021R	272.0	273.0	1.0	MG11478	2.53						p			
MDD021R	273.0	274.0	1.0	MG11479	4.01						p			
MDD021R	274.0	275.0	1.0	MG11480	3.01						p			
MDD021R	275.0	276.0	1.0	MG11481	2.93						p	76	64	
MDD021R	276.0	277.0	1.0	MG11485	6.67						p	53	333	
MDD021R	277.0	278.0	1.0	MG11486	7.70						p	39	34	
MDD021R	278.0	279.0	1.0	MG11487	1.96						p	66	65	
MDD021R	279.0	280.0	1.0	MG11488	2.75						p	79	26	
MDD021R	280.0	281.0	1.0	MG11489	1.89						p			
MDD021R	281.0	282.0	1.0	MG11490	4.32						p			
MDD021R	282.0	282.7	0.6	MG11492	0.41	25.6	3.11	25.0	3.18		p	45	289	
MDD021R	282.7	283.7	1.0	MG11493	4.97					TZ4				
MDD021R	283.7	284.3	0.7	MG11494	8.34					RSSZ	p			
MDD021R	284.3	285.2	0.8	MG11495	2.65					TZ4	p			
MDD021R	285.2	286.0	0.9	MG11496	2.28						p	50	19	
MDD021R	286.0	287.0	1.0	MG11497	3.27						p			
MDD021R	287.0	288.0	1.0	MG11498	2.87					RSSZ	p	40	4	
MDD021R	288.0	289.0	1.0	MG11499	5.94						p			
MDD021R	289.0	290.0	1.0	MG11500	2.39									
MDD021R	290.0	291.2	1.2	MG11501	1.52									
MDD021R	291.2	292.3	1.1	MG11502	3.23									
MDD021R	292.3	293.0	0.7	MG11503	1.99									
MDD021R	293.0	294.0	1.0	MG11504	2.82									
MDD021R	294.0	295.0	1.0	MG11505	0.90									
MDD021R	295.0	296.0	1.0	MG11509	*assays pending						p			
MDD021R	296.0	297.0	1.0	MG11510										
MDD021R	297.0	298.0	1.0	MG11511										
MDD021R	298.0	299.0	1.0	MG11512										
MDD021R	299.0	300.0	1.0	MG11513								27	113	
MDD021R	300.0	301.0	1.0	MG11514										
MDD021R	301.0	302.0	1.0	MG11515										
MDD021R	302.0	303.0	1.0	MG11516								70	30	
MDD021R	303.0	303.8	0.8	MG11517								41	24	
MDD021R	303.8	305.0	1.2	MG11518										
MDD021R	305.0	306.0	1.0	MG11519										
MDD021R	306.0	307.0	1.0	MG11520										
MDD021R	307.0	308.0	1.0	MG11521								64	50	
MDD021R	308.0	309.0	1.0	MG11522										
MDD021R	309.0	310.0	1.0	MG11523										
MDD021R	310.0	311.0	1.0	MG11524										
MDD021R	311.0	312.0	1.0	MG11525										
MDD021R	312.0	313.0	1.0	MG11526								77	37	
MDD021R	313.0	314.0	1.0	MG11527										
MDD021R	314.0	315.0	1.0	MG11531										



\*assays pending from 295m

**Appendix 2 RAS Deposit – Mineralised quartz-arsenopyrite stockwork vein distribution / structures**



**JORC Code, 2012 Edition – Table 1**

**Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<p><i>Sampling techniques</i></p>	<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 -75µm. 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
<p><b>Logging</b></p>	<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 0-240 metres below collar). Data is recorded directly into spreadsheets and then imported into an Access 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>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<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 MDD023R.</p> <p>DD core drill samples are sawn in ½ 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 ¼ core from ½ 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
<p><b><i>Quality of assay data and laboratory tests</i></b></p>	<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 seconds (90 seconds 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. Samples are selected at the end of each drilling campaign to be sent to an umpire laboratory for cross-lab check assays.</p>
<p><b><i>Verification of sampling and assaying</i></b></p>	<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>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b><i>Location of data points</i></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 MDD021R have been surveyed by RTK-GPS equipment with MDD022 and MDD023R 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><i>Data spacing and distribution</i></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><i>Orientation of data in relation to geological structure</i></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 intercept mineralisation at a reasonable angle and facilitate core orientation measurements. There is not anticipated to be any introduced bias for resource estimates.</p>

Criteria	JORC Code explanation	Commentary
<i>Sample security</i>	<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>
<i>Audits or reviews</i>	<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 conducted within Exploration Permit 60311 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>The tenure 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 EP60311 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. 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 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 drill hole Au (&gt;0.25g/t) * associated drill hole interval metres.</p> <p>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;0.25g/t Au occurring in 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
<i>Other substantive exploration data</i>	<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.
<i>Further work</i>	<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 of existing resources is continuing at RAS on ~120 metre step-out east-west drill sections.</p> <p>Further work will follow at RAS and CIT deposits as results dictate, which may include infill RC, further DD core drilling, and metallurgical test-work.</p> <p>A new 2021 MRE update (to JORC Code 2012) was completed in September 2021 which increased Inferred Resources 155% to 643Koz from the 252Koz 2019 MRE (0.25g/t lower cut-off). Potential extensions to mineralisation and resources are shown in figures in the body of the text.</p>