

ASX Announcement

12 October 2022

## AIR-CORE DRILLING PROGRAM COMMENCES AT MURRIN MURRIN AS EXPLORATION RAMPS-UP AT CARDINIA

*Diamond and RC drilling scheduled to commence later in October to follow up recent strong drilling results at the emerging Rangoon deposit within the Eastern Corridor*

### Highlights

- 8,800m air-core drilling program underway at the Murrin Murrin Project, located 45km east of Leonora and 15km south of the Murrin Murrin nickel-cobalt mine.
- The AC drilling will provide an initial test (400m line spacing) of auger anomalies delineated in 2021, up to 1200m along strike from historic Reverse Circulation holes which returned significant results, including:
  - 25m at 3.16g/t Au from 63m (MM13RC013)
  - 17m at 1.11g/t Au from 6m and 8m at 3.52g/t Au from 28m (MM13RC017)
  - 4m at 4.81g/t Au from 20m (MM13RC021)
- Resource expansion drilling to commence at the 1.41Moz Cardinia Gold Project, with RC and diamond drilling scheduled to commence later this month at the Rangoon deposit – where recent drilling returned significant results including:
  - 32m at 2.98g/t Au from 129m (RN22RC161) including 12m at 5.62 g/t from 129m and 12m at 2.25g/t from 149m
  - 15m at 3.03g/t Au from 162m (RN22RC162)
  - 7m at 2.77g/t Au from 76m (RN22RC166)
  - 4m at 6.19g/t Au from 121m (RN22RC167)
- Genesis Minerals (ASX: GMD) has provided notification that it has withdrawn from the Desdemona South JV due to other priorities at its 100%-owned projects. Genesis has not earned an interest in the tenements, which remain 100%-owned by Kin Mining.

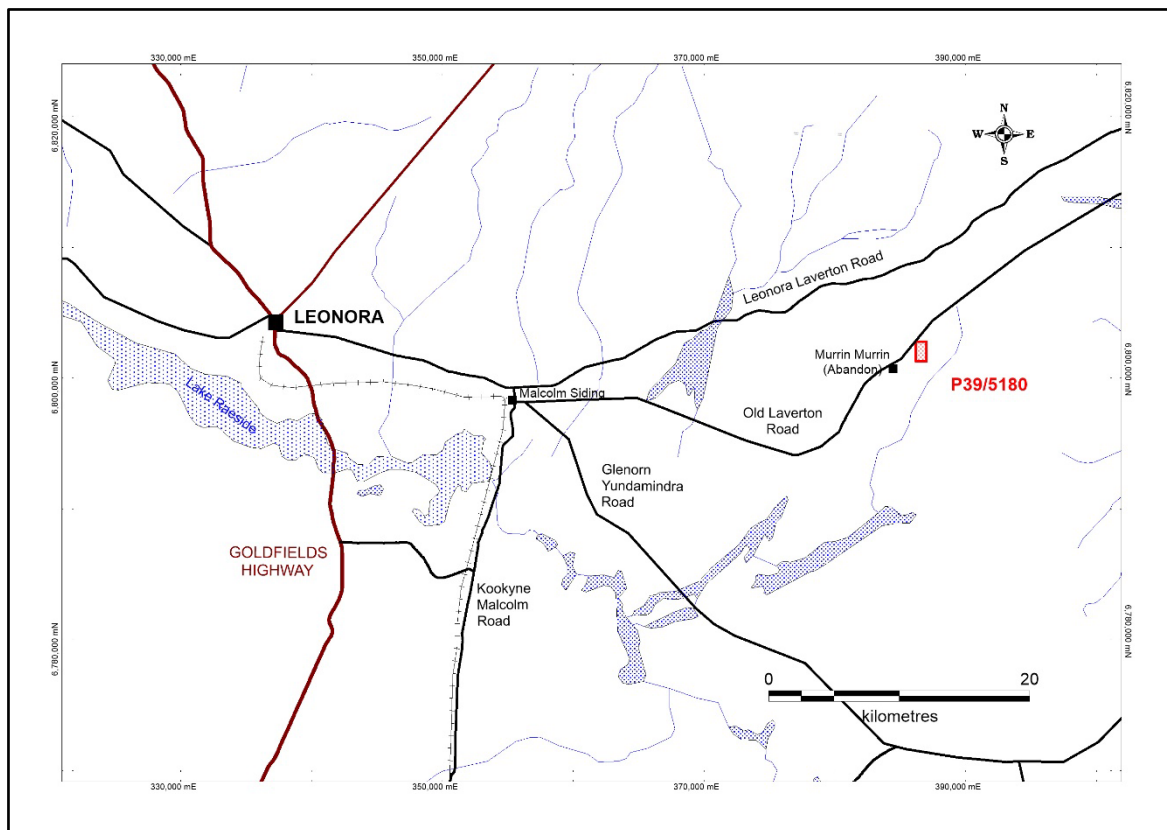
**Kin Mining NL** (ASX: KIN or “the Company”) is pleased to provide an update on exploration activities at its 100%-owned 1.41Moz Cardinia Gold Project (CGP), located near Leonora in Western Australia.

### **Murrin Murrin Air-core Drilling Program**

As part of its regional exploration program surrounding the CGP, Kin Mining has commenced a substantial air-core drilling program to evaluate the Murrin Murrin Project, located 45km east of Leonora, 80km west of Laverton and 15km south of Kin’s satellite Mt Flora Project (Figure 1).

The Murrin Murrin leases are located adjacent to the historic Murrin Murrin gold mining centre, with mining dating back to the 1890s targeting rich, narrow quartz veins. Total gold production up to 1954 is reported to have been 97,199 oz from 136,512t of ore at an average grade of 22.1g/t Au. (See ASX 30 August 2012 - Kin Prospectus)

A further 31,177oz of lower grade material was produced from open pit operations during 1988 to 1994, from the Hills Proprietary, Malcolm and Challenger Mines, which are situated to the west of Kin’s Murrin Murrin leases. (See ASX 30 August 2012 - Kin Prospectus)



*Figure 1 – Regional Location Plan of the Murrin Murrin Project tenement group.*

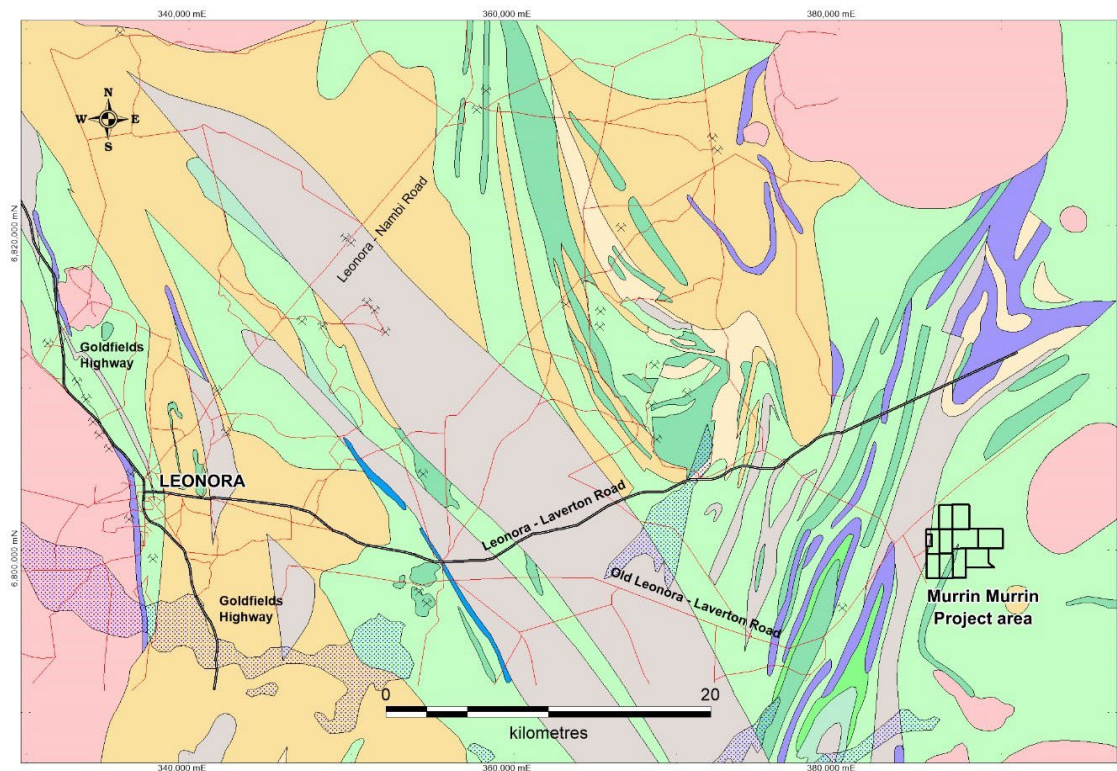
### ***Geology and Mineralisation***

The Murrin Murrin area covers a suite of NNE trending tholeiitic mafic volcanics, dolerites, gabbro and minor sedimentary units including BIF and chert. Stratigraphy dips to the west. HFSE granites in the area have formed due to tectonic events such as extension. See Figure 2.

Small, monzogranitic stocks and sills have intruded the greenstone sequence at several locations in the Murrin Murrin region and appear to have had an important influence in the introduction of gold-bearing fluids during the main phase of tectonic deformation and metamorphism of the layered greenstone sequence.

Outcrop is reasonably good south of Mt Nangeroo to the south-west of the tenement. Elsewhere, extensive lateritic cap rock and associated iron-rich gravels and soils obscure most of the Archaean lithologies. Limited outcrop and extensive laterite cover overlies much of the western side of the project. Several shallow old gold workings are contained within the tenements.

Despite its proximity to numerous abandoned mines and historic mining centres in the Murrin Murrin district, the tenements have not been subject to systematic, modern-day exploration and hence the potential has not been fully appraised.



**Figure 2** – Location Plan of the Murrin Murrin Project tenement group, on the GSWA 1:500,000 Geological Plan.

### Previous Exploration Results

Auger drilling was undertaken by Kin Mining at Murrin Murrin in September 2021. A strong Gold-in-soil anomaly is located on the western side of tenements along strike to the north of previous RC drilling. Anomalous results were also encountered in the north central and southern block of tenements. See Figure 5.

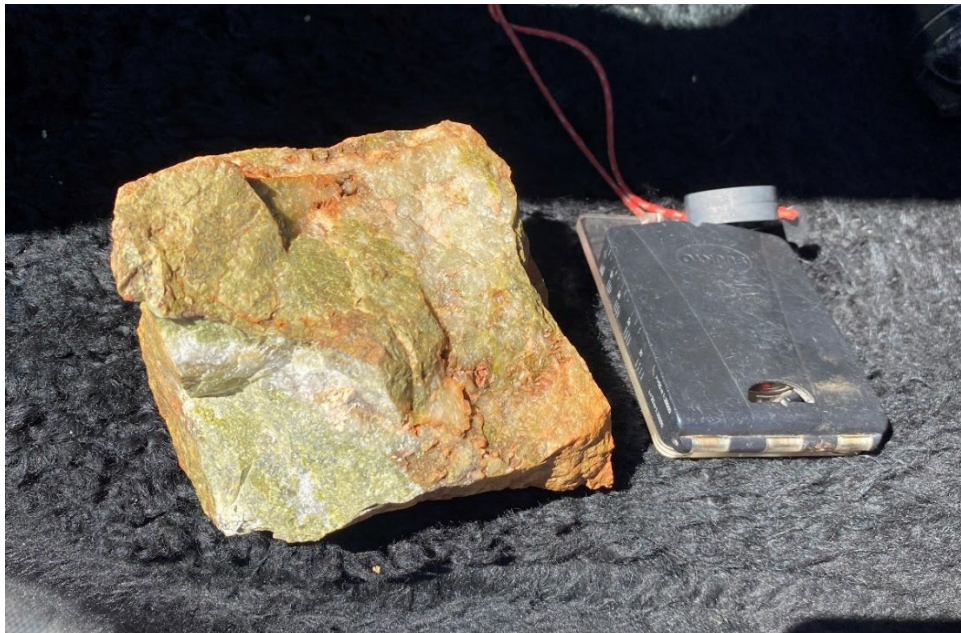
Anomalous results often coincide with contact boundaries of lithological units where extension has occurred, in particular at the western side of tenements M39/279 and M39/1141.

There exists 40 historic RC holes within P39/5179, several of which returned significant assay results:

- MM13RC013 – 25m @ 3.16 g/t from 63m
- MM13RC017 – 17m @ 1.11 g/t Au from 6m and 8m @ 3.52 g/t from 28m
- MM13RC021 – 4m @ 4.81 g/t Au from 20m and 3m @ 2.46 g/t from 28m

Refer ASX announcements 19 December 2013, 14 January 2014 and 20 March 2014.

Mapping was undertaken by Kin Mining in January 2022. Areas where anomalous gold results were intersected by historic RC drilling and the 2021 auger programme and where prospectors encountered gold were investigated during the mapping. Rock float within the soil anomaly appears to be felsic, highly siliceous and have pervasive epidote alteration as illustrated in Figure 3.



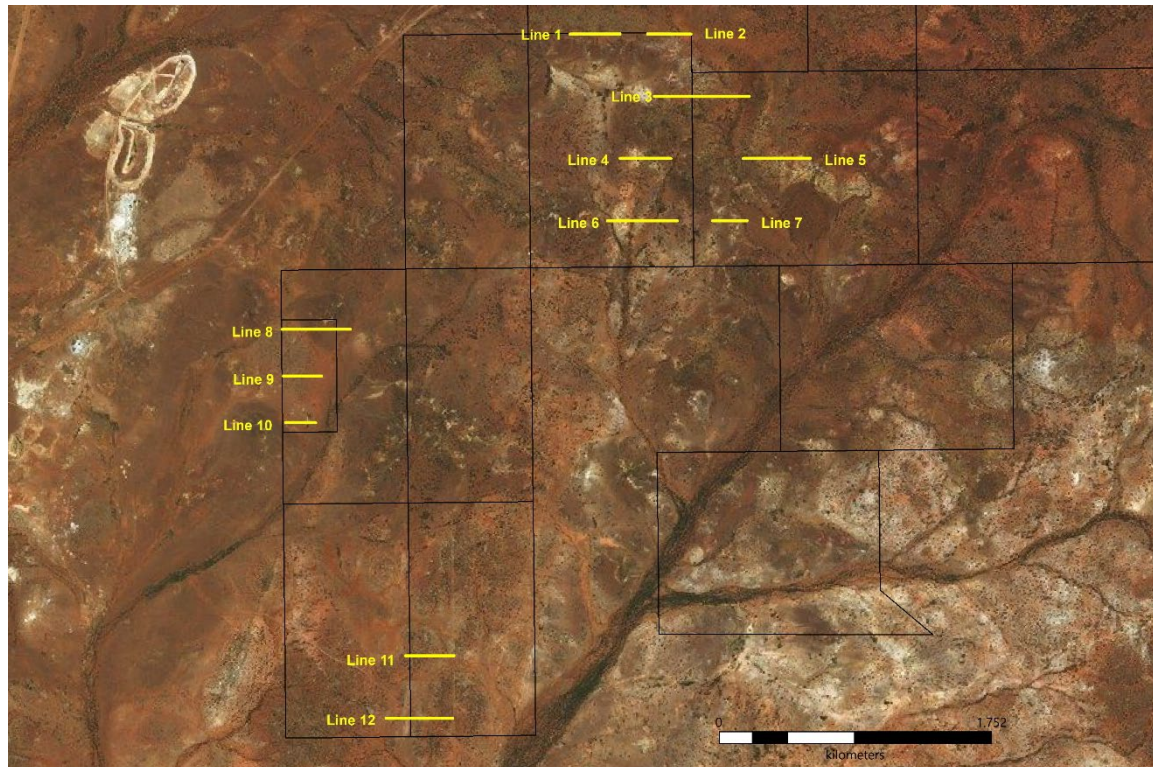
*Figure 3 – Float sample encountered in M39/279 at 385470E/6800521N.*

#### *Air-core Program*

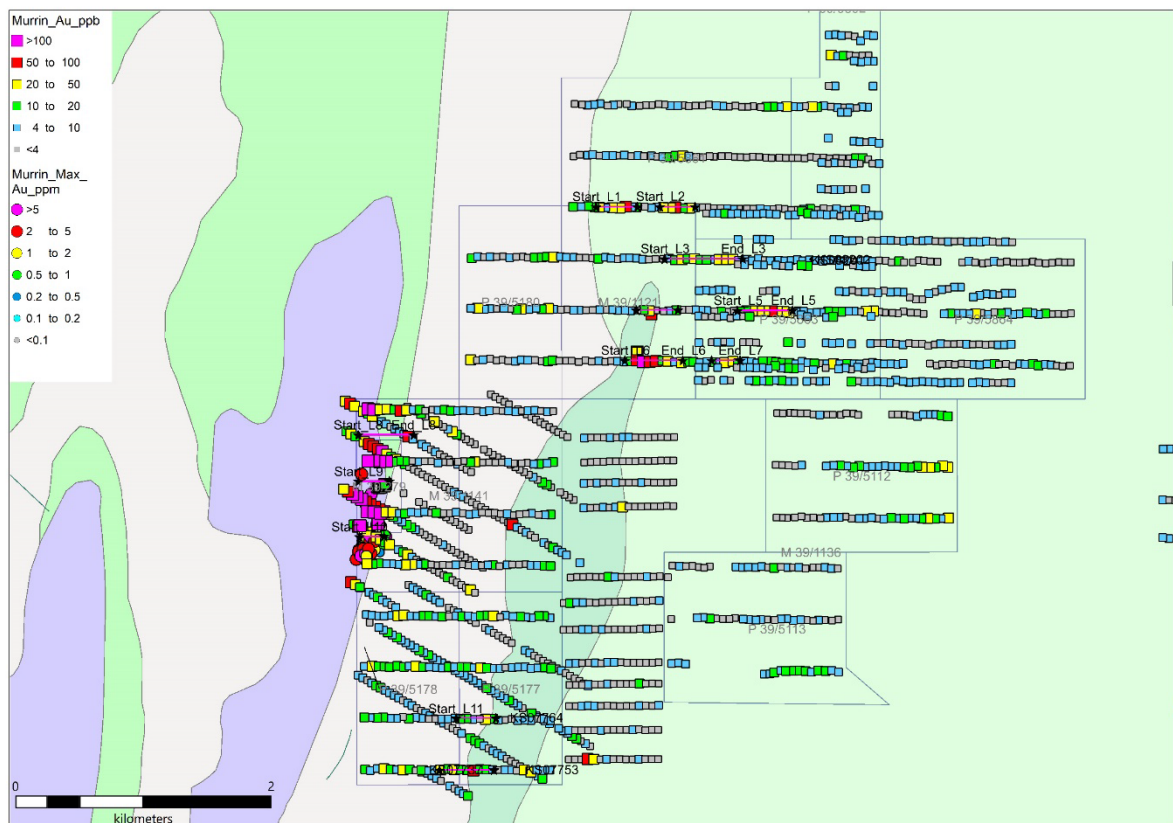
A total of 12 air-core (AC) lines are planned as part of the initial drilling program, totalling 8,800m. The program will test the soil anomalies identified in the 2021 soil sampling program at a 400m line spacing as well as test for strike extensions of areas where previous RC drilling adjacent to historical surface workings returned significant results.

The location of the proposed AC lines is shown in Figures 4 and 5 below.





*Figure 4 – Plan showing proposed air-core lines at the Murrin Murrin prospect.*



*Figure 5 – Map of proposed air-core lines and gold in RC holes and soils at the Murrin Murrin prospect.*

## RC and Diamond Drilling – Rangoon and Eastern Corridor

The Company is also ramping up other exploration activities as part of its on-going exploration campaign at the CGP.

A combination of Reverse Circulation (RC) and diamond drilling is scheduled to commence later this month to further evaluate the under-explored Rangoon area, located within the Eastern Corridor area at Cardinia.

Drilling results from Rangoon and other prospects within this corridor over the past 12 months have reinforced the substantial endowment of the Eastern Corridor as a priority focus for exploration at the CGP.

The Eastern Corridor contains a number of exciting exploration and development prospects including Cardinia Hill, Helens, Fiona and Rangoon. The Eastern Corridor deposits collectively host in excess of 338koz of Mineral Resources (refer to Table A1 for details) and are interpreted to be structurally linked as part of a significantly larger mineralised system located on the eastern side of the CGP.

The initial target for resource expansion drilling is the Rangoon prospect, where an Inferred Mineral Resource of 2.28Mt at 1.3g/t for 95Koz of gold was recently estimated.

Recent Rangoon RC drilling results, illustrated in Figure 6 and requiring follow up include:

- **32m at 2.98g/t Au from 129m (RN22RC161) including 12m at 5.62 g/t from 129m and 12m at 2.25g/t from 149m**
- **15m at 3.03g/t Au from 162m (RN22RC162)**
- **7m at 2.77g/t Au from 76m (RN22RC166)**
- **4m at 6.19g/t Au from 121m (RN22RC167)**

Refer ASX announcement 27 June 2022 for details of Rangoon and other Eastern Corridor drilling results.

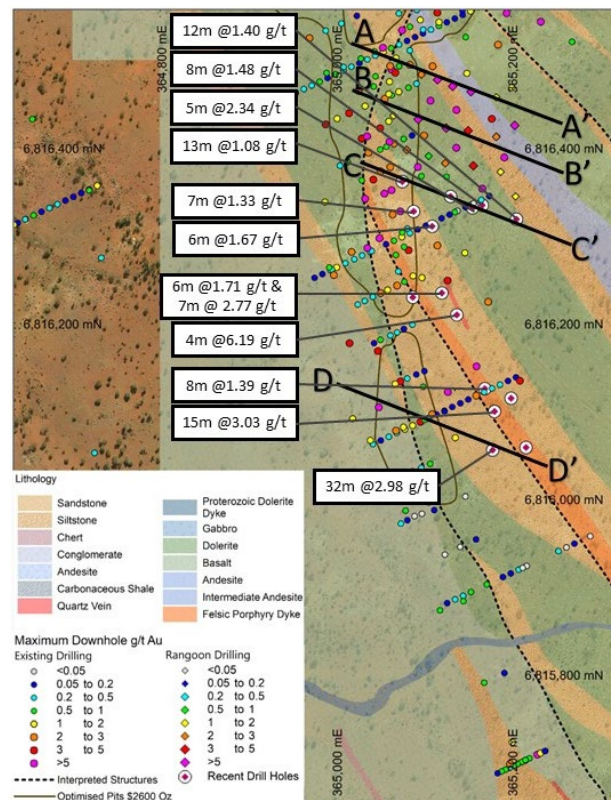


Figure 6. Kin Mining's Rangoon RC drilling results, part of the Eastern Corridor Project.

### **Desdemona South Joint Venture**

Genesis Minerals (ASX: GMD) has provided notification to Kin that it has withdrawn from the Desdemona South Joint Venture. Genesis has advised that it intends to focus on its 100%-owned projects in the Leonora region.

Under the terms of the JV, Genesis had the right to earn an initial 60% interest and move to 80% under certain conditions (see ASX announcement, 10 December 2019).

While Genesis has met the requirement of \$250,000 of exploration to satisfy the minimum expenditure commitment it has not met the Stage 1 expenditure to earn the initial 60% interest prior to withdrawal.

The Desdemona South project tenements and all exploration information have been returned and remain 100% owned by Kin.

**-ENDS-**

*Authorised for release by the Board of Directors*

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### **ABOUT KIN MINING NL**

Kin Mining NL (ASX: KIN) is a West Australian based gold development and exploration company. Kin's key focus is its 100% owned Cardinia Gold Project (CGP) located in the highly prospective North-Eastern Goldfields region of Western Australia. The CGP has a 1.41Moz gold Mineral Resource (see Table A1) defined in both oxide and deeper primary mineralisation with considerable potential to grow this resource with further drilling.

Kin's exploration effort is the systematic program of exploration across the Cardinia Mining Centre that seeks to advance a number of targets in parallel while developing a pipeline of exploration targets for ongoing Mineral Resource expansion.



**Table A1. Mineral Resource Estimate Table September 2022<sup>1</sup>**

Cardinia Gold Project: Open Pit Mineral Resources: September 2022															
Project Area	Resource Gold Price (AUD)	Lower Cut off (g/t Au)	Measured Resources			Indicated Resources			Inferred Resources			Total Resources			Date Announced
			Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	
Mertondale															
Mertons Reward	\$ 2,600	0.4				893	2.1	62	1,987	0.6	41	2,879	1.1	103	26-Nov-20
Mertondale 3-4	\$ 2,600	0.4				1,345	1.8	80	1,048	1.0	32	2,393	1.5	112	26-Nov-20
Tonto	\$ 2,600	0.4				1,850	1.1	68	1,145	1.2	45	2,996	1.2	113	26-Nov-20
Mertondale 5	\$ 2,600	0.4				536	1.6	27	892	1.2	34	1,428	1.3	62	26-Nov-20
Eclipse	\$ 2,600	0.4				-	0.0	0	765	1.0	24	765	1.0	24	26-Nov-20
Quicksilver	\$ 2,600	0.4				-	0.0	0	1,202	1.1	42	1,202	1.1	42	26-Nov-20
Subtotal Mertondale						4,625	1.6	237	7,039	1.0	219	11,664	1.2	456	
Cardinia															
Bruno/Lewis	\$ 2,600	0.4	769	1.2	31	7,699	1.0	257	3,594	0.9	100	12,063	1.0	388	17-May-21
Kyte	\$ 2,600	0.4				340	1.5	17	114	0.9	3	453	1.4	20	26-Nov-20
Helens	\$ 2,600	0.4				738	2.1	50	337	1.9	21	1,075	2.1	71	26-Nov-20
Fiona	\$ 2,600	0.4				588	1.3	25	215	1.2	8	803	1.3	34	26-Nov-20
Rangoon	\$ 2,600	0.4				1,121	1.1	40	1,153	1.4	53	2,274	1.3	94	26-Sep-22
Hobby	\$ 2,600	0.4				-	0.0	0	582	1.3	23	582	1.3	23	17-May-21
Cardinia Hill	\$ 2,600	0.4				533	2.2	38	1,702	1.1	62	2,235	1.4	100	22-Sep-21
Subtotal Cardinia			769	1.2	31	11,020	1.2	428	7,696	1.1	271	19,485	1.2	729	
Raeside															
Michaelangelo	\$ 2,600	0.4				1,163	2.0	74	449	2.1	31	1,612	2.0	105	26-Nov-20
Leonardo	\$ 2,600	0.4				404	2.4	31	212	1.9	13	615	2.2	44	26-Nov-20
Forgotten Four	\$ 2,600	0.4				111	2.1	7	148	2.1	10	259	2.1	17	26-Nov-20
Krang	\$ 2,600	0.4				383	1.6	20	57	1.8	3	440	1.7	23	26-Nov-20
Subtotal Raeside						2,059	2.0	133	866	2.0	57	2,925	2.0	189	
Open Pit TOTAL			769	1.2	31	17,704	1.4	797	15,601	1.1	547	34,074	1.3	1,374	

**Table 1: Cardinia Gold project Open Pit Mineral Resource estimate. Mineral Resources estimated by Jamie Logan, and reported in accordance with JORC 2012 using a 0.4g/t Au cut-off within AUD2,600 optimisation shells. Note \* Cardinia Hill, Hobby and Bruno-Lewis Mineral Resource Estimates completed by Cube Consulting, and also reported in accordance with JORC 2012 using a 0.4g/t Au cut-off within AUD2,600 optimisation shells.**

Cardinia Gold Project: Underground Mineral Resources: September 2022															
Project Area		Lower Cut off (g/t Au)	Measured Resources			Indicated Resources			Inferred Resources			Total Resources			Date Announced
			Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	Tonnes (Kt)	Au (g/t Au)	Au (k Oz)	
Mertondale															
Mertons Reward	2.0				3.7	2.6	0.3	6.8	2.8	0.6	10.5	2.7	0.9	26-Sep-22	
Mertondale 3-4	2.0				2.2	2.2	0.2				2.7	2.2	0.2	26-Sep-22	
Quicksilver	2.0				1.5	2.2	0.1	1.9	2.3	0.1	3.5	2.2	0.2	26-Sep-22	
Subtotal Mertondale					7.4	2.4	0.6	8.8	2.7	0.8	16.7	2.6	1.4		
Cardinia															
Bruno/Lewis	2.0	2.2	3.0	0.2	3.7	2.7	0.3	14.7	2.7	1.3	18.4	3.0	1.8	26-Sep-22	
Helens	2.0				1.8	2.7	0.2	44.9	2.8	4.1	46.6	2.8	4.2	26-Sep-22	
Fiona	2.0							10.0	2.4	0.8	10.0	2.4	0.8	26-Sep-22	
Rangoon	2.0							10.6	2.8	1.0	10.9	2.8	1.0	26-Sep-22	
Cardinia Hill	2.0							126.0	2.6	10.7	126.0	2.6	10.7	22-Sep-21	
Subtotal Cardinia		2.2	3.0	0.2	5.5	2.7	0.5	206.1	2.7	17.8	212.0	2.7	18.5		
Raeside															
Michaelangelo	2.0				5.2	2.4	0.4	56.8	2.4	4.3	62.0	2.4	4.7	26-Sep-22	
Leonardo	2.0				2.2	2.5	0.2	27.0	2.6	2.3	29.2	2.6	2.5	26-Sep-22	
Forgotten Four	2.0				24.9	2.7	2.2				24.9	2.7	2.2	26-Sep-22	
Krang	2.0				31.3	2.5	2.5	9.2	2.6	0.8	40.5	2.5	3.3	26-Sep-22	
Subtotal Raeside					63.5	2.6	5.3	92.9	2.5	7.4	156.5	2.5	12.6		
Underground TOTAL			2	3.0	0.2	76	2.6	6.3	308	2.6	25.9	385	2.6	32.5	

**Table 2: Cardinia Gold Project Underground Mineral Resource estimate. Mineral Resources reported in accordance with JORC 2012 using a 2.0g/t Au cut-off grade outside AUD2,600 optimisation shells.**

<sup>1</sup>The company confirms that it is not aware of any new information or data that materially affects the information included in the ASX Announcement of 23 September 2022 "Cardinia Gold Project Mineral Resource Hits 1.4Moz", and that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.



## **COMPETENT PERSON'S STATEMENT**

The information contained in this report relating to exploration results relates to information compiled or reviewed by Leah Moore. Ms Moore is a member of the Australian Institute of Geoscientists and is a full-time employee of the company. Ms Moore has sufficient experience of relevance to the styles of mineralisation and the types of deposit under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Ms Moore consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

