

ASX Announcement

2 June 2022

STRONG RESULTS FROM METALLURGICAL TESTWORK ON CARDINIA'S SULPHIDE ORES

*Gold recovery up to 96.9% achieved from flotation, re-grinding and leaching.
Recovery improvement by between 4.5% and 10.9%*

Amendment – The earlier announcement did not include the JORC Code tables

Highlights

- Outstanding metallurgical recovery achieved from sulphide ores at Cardinia Hill:
 - Overall recovery of 96.9% using flotation-regrind-leach from 3.3 g/t Au and 2.4% S feed grade.
 - Flotation results in 95.1% gold recovery and 95.2% sulphide recovery to Rougher concentrate at 10.7% mass recovery.
 - 97.6% gold recovery via regrinding and cyanide leaching of Rougher concentrate.
 - 6.3% increase in gold recovery compared with conventional Whole Ore grind-gravity-leach process.
 - Moderate cyanide and lime consumption.
- Encouraging results from Sighter metallurgical testwork on sulphide ores from the Helens:
 - Overall recovery of 91.0% using flotation-regrind-leach from 3.2 g/t gold and 2.6% S feed grade.
 - Flotation results in 88.4% gold recovery and 92.3% sulphide recovery to Rougher concentrate at 11.6% mass recovery.
 - 91.1% gold recovery via regrinding and cyanide leaching of the Rougher concentrate.
 - 10.9% increase in recovery compared with conventional Whole Ore grind-gravity-leach process.
 - Moderate cyanide and lime consumption.
- Positive results from Sighter metallurgical testwork on sulphide ores from the Lewis:
 - Overall recovery of 87.4% using flotation-regrind-leach from 2.2 g/t gold and 1.3% S feed grade.
 - Flotation results in 82.1% gold recovery and 93.3% sulphide recovery to Rougher concentrate at 6.4% mass recovery.
 - 89.5% gold recovery via regrinding and cyanide leaching of the Rougher concentrate
 - 4.5% increase in recovery compared with conventional Whole Ore grind-gravity-leach process.
 - Moderate cyanide and lime consumption.

Kin Mining NL (ASX: KIN or “the Company”) is pleased to report positive metallurgical testwork results from sulphide ores from the Cardinia Hill, Helens and Lewis deposits, all located within the Cardinia area of its 100%-owned **1.275Moz Cardinia Gold Project (CGP)** located near Leonora in Western Australia.

ASX Code: KIN
Shares on issue: 866 million
Market Capitalisation: \$70 million
Cash: \$6.1 million (31 March 2022)

Kin Mining NL
342 Scarborough Beach Road
Osborne Park WA 6017
P: +61 9 9242 2227
E info@kinmining.com.au
kinmining.com.au

The metallurgical testwork program was designed to confirm the most cost-effective processing route for each ore type confirmed within the large, rapidly developing Western and Eastern Corridor mineralised complex which make up the Cardinia area.

Mineralisation discovered at Cardinia extends over an area of approximately 1km by 5km on the western and eastern side of Cardinia. Cardinia contains a number of exciting development prospects, including Cardinia Hill, Helens, Bruno, Lewis, Fiona, Rangoon and East Lynne, which collectively contain in excess of 650koz of Mineral Resources.

Where sulphide ore has been drilled below the oxidation depth, common features of all the mineralised locations have been noted in geological logging and multi-element assays. These features include strong associations between gold mineralisation and pyrite, moderate levels of silver mineralisation and anomalous copper, lead, molybdenum, tellurium and zinc. These pathfinder minerals are also expected to report to flotation concentrates as they are associated with the sulphide style of mineralisation dominant at Cardinia.

Kin Mining Managing Director, Andrew Munckton, said: *"The metallurgical testwork program undertaken on sulphide ore from key Cardinia deposits has delivered some very positive and important outcomes for the Cardinia Gold Project. Importantly, the testwork has confirmed that strong gold recoveries can be achieved with flotation, re-grinding and leaching of the sulphide ores. The improvement in recovery over the conventional grind, gravity and leach process is substantial, increasing recoveries by 6.3% at Cardinia Hill, 10.9% at Helens and up to 12.6% at Lewis. These results indicate that sulphide ores from Cardinia, if treated using the flotation and re-grind process, are likely to result in significantly improved gold production and financial returns.*

"As our exploration programs advance, particularly across the Eastern Corridor, we are continuing to discover significant extensions of this large mineralised system – particularly deeper, higher grade sulphide ores. The process selected to treat these sulphide ores and the resulting metallurgical performance will therefore be increasingly important.

"Oxide ores that lie near surface and above the sulphide ores show uniform high rates of metallurgical recovery ranging from 90.5% to 95.5% using the conventional grind, gravity and leach process.

"With the release of recent drilling results from Rangoon, Cardinia Hill and Helens East where sulphide intersections at depth were significantly higher in grade, coupled with these strong metallurgical recovery results from Cardinia Hill and Helens - the Eastern Corridor is firming as a significant centre for development at the CGP. The Eastern Corridor is proving to be highly mineralised with numerous deposits and mineralised positions already identified. We see significant potential to discover new high-grade lodes, delineate new resources and grow our overall inventory across this corridor. Strong metallurgical performance from these deposits gives confidence that the Eastern Corridor and the Cardinia area more generally will continue to be a big focus for us moving forward."

Cardinia Area Metallurgical Testwork Program

Metallurgical testwork programs were conducted and supervised by Independent Metallurgical Operations (IMO) during 2020, 2021 and early 2022 on samples provided from exploration drilling programs and special metallurgical drilling programs. All samples supplied were either whole or half PQ and HQ sized diamond drill core. The scope of this work included:

1. Sample Characterisation
 - a) Comminution test work
 - b) Head Assay
2. Gravity Concentration
3. Whole of Ore cyanide leaching
4. Sulphide Flotation
5. Flotation product re-grinding and leaching
6. Variability testwork

Master Composite samples were generated from weighted averages of variability composites which covered the range of depths and locations within each ore body and a range of head grades of gold and sulphide mineralisation. Mineralisation in general is characterised by zones with quartz carbonate veining, fine pyrite mineralisation and sericite alteration.

Water for the testwork program was supplied as Cardinia area site water, which was also analysed.

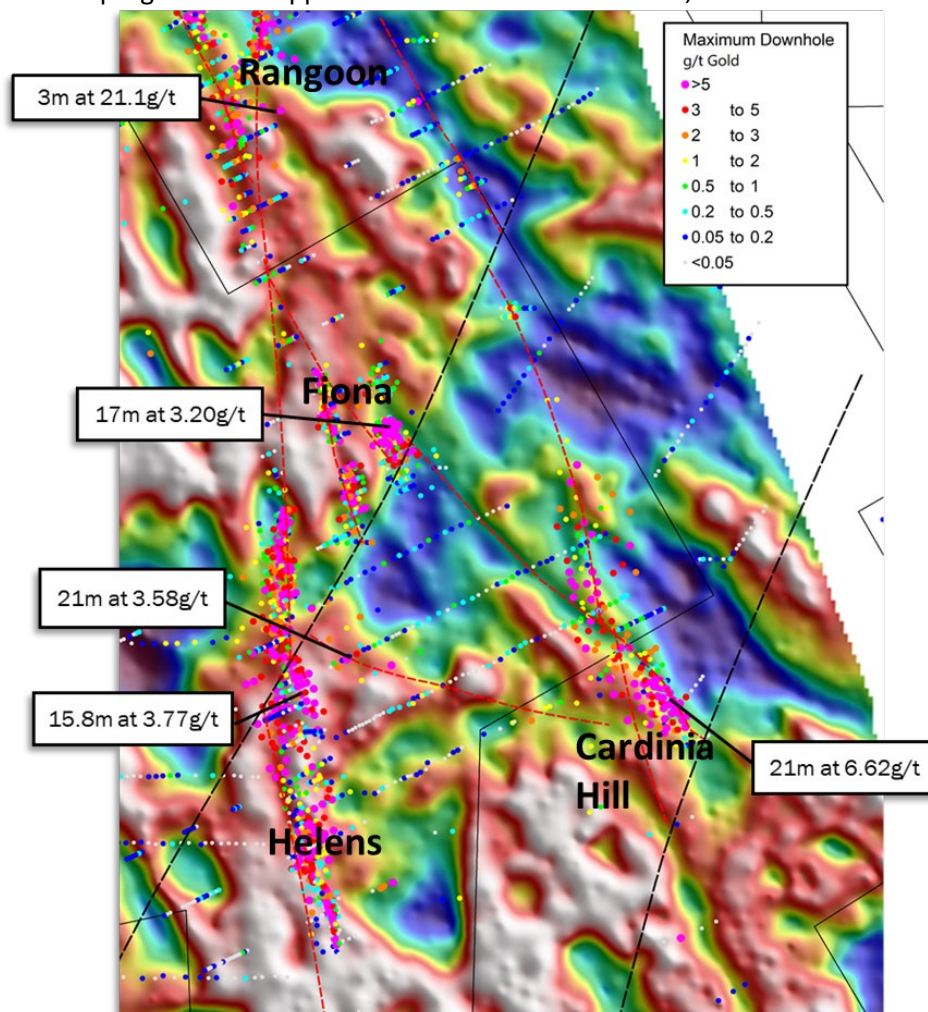


Figure 1. Kin Mining's Eastern Corridor deposits, part of the Cardinia Gold Project. Sulphide mineralisation tested was taken from below the Cardinia Hill and Helens deposits in the Eastern Corridor and from the Lewis deposit on the western side of the CGP. Highlighted intersections at each deposit are all high grade sulphide intersections.

Cardinia Hill Sulphide Ores

IMO ran a series of variability tests on five composite samples (IC3 to IC8) created from drill cores within the Cardinia Hill Mineral Resource, with individual composite assay head grades ranging from 1.37g/t Au to 8.55g/t Au. Conventional grinding, gravity and cyanide leaching tests under optimal conditions were undertaken for each Variable Composite, which yielded gravity recoveries ranging from 4.3% to 46.7% and overall recoveries with a 48-hour leach residence time of between 81.2% and 95.7%, as detailed in Table 1. Weighted average Whole Ore composite recovery of 90.68% was achieved as summarised in Table 2.

Residue Grades varied between 0.20g/t Au and 0.65g/t Au after 48-hour leach to average 0.35g/t Au for a conventional grind, gravity and leach process. Cyanide and Lime consumptions were low.

Composite		IC3	IC4	IC5	IC7	IC8
Gravity Recovery	%	46.7%	17.0%	10.4%	4.3%	18.6%
2 Hour Recovery	%	59.6%	76.1%	74.4%	62.9%	73.2%
4 Hour Recovery	%	80.3%	80.7%	80.0%	71.1%	82.3%
8 Hour Recovery	%	91.4%	85.0%	80.6%	77.1%	88.3%
24 Hour Recovery	%	95.5%	86.8%	84.4%	78.3%	88.1%
48 Hour Recovery	%	95.7%	87.0%	84.9%	81.2%	90.5%
Calculated Head Grade	g/t	5.97	1.83	1.46	3.43	5.44
Assayed Head Grade	g/t	8.55	1.72	1.37	3.43	5.69
Residue Grade	g/t	0.20	0.24	0.22	0.65	0.51
Total Recovery	g/t	5.72	1.59	1.24	2.79	4.93
24 Hour Cyanide Cons'	kg/t	0.26	0.18	0.14	0.16	0.11
48 Hour Cyanide Cons'	kg/t	0.33	0.31	0.13	0.09	0.15
24 Hour Lime Cons'	kg/t	0.45	0.55	0.51	0.52	0.59
28 Hour Lime Cons'	kg/t	0.45	0.73	0.51	0.52	0.59

Table 1. Cardinia Hill sulphide ore Variability Composite test work results

To determine flotation and leaching comparison metrics, IMO ran flotation tests on all five Variability Composites and assayed each flotation concentrate for both gold, sulphur and a range of other metals with the results summarised in Table 3 and Table 4 below.

Mass Recovery to concentrate varied between 7.2% and 17.1% to averaged 10.9%.

Rougher concentrate recovery varied between 71.7% and 94.5% for gold and 89.6% to 95.5% for sulphur. Rougher concentrate averaged 26.2 g/t gold and 23% sulphur.

The weighted average of the Variability Composites using flotation, re-grinding of the flotation concentrate and leaching with elevated levels of cyanide resulted in 97.6% recovery of gold from the Rougher concentrate.

Standard 48-hour leaching was undertaken on the Rougher Tails resulting in 88.0% recovery for this portion.

Overall recovery of 96.9% was achieved using the Grind-Flotation-Regrind-Leach process, on average a 6.3% improvement over conventional Grind-Gravity-Leach process (see Table 2).

Composite		Overall Float Products Leach Rghr Tail + RghrCon 17.3 µm	RghrCon 17.3 µm	Rghr Tail	Whole Ore Composite Calculated
Mass Ratio in Composite		100%	10.65%	89.35%	100%
2 Hour Recovery	%		79.2%	52.2%	71.9%
4 Hour Recovery	%		93.9%	63.8%	80.8%
8 Hour Recovery	%		103.8%	69.8%	85.6%
24 Hour Recovery	%		105.6%	86.6%	87.5%
48 Hour Recovery	%		97.6%	88.0%	88.8%
Calculated Head Grade	g/t	3.33	29.07	0.26	3.77
Assayed Head Grade	g/t	4.14	36.94	0.23	4.16
Residue Grade	g/t	0.10	0.69	0.03	0.35
Total Recovery	g/t	3.23	28.38	0.23	3.42
Total Recovery	%	96.95%	97.63%	88.05%	90.68%
24 Hour Cyanide Cons	kg/t	0.77	4.98	0.27	0.14
48 Hour Cyanide Cons	kg/t	1.06	6.86	0.37	0.19
24 Hour Lime Cons	kg/t	1.26	2.14	1.16	0.54
48 Hour Lime Cons	kg/t	1.70	2.14	1.65	0.56

Table 2. Cardinia Hill sulphide ore Comparative Recovery test results

	IC3	IC4	IC5	IC7	IC8
	% Distribution				
Rougher Con	7.2%	8.5%	9.2%	9.4%	17.1%
Rougher Tail	92.8%	91.5%	90.8%	90.6%	82.9%
Calculated Head	100%	100%	100%	100%	100%

Table 3: Variability Flotation Mass Recovery Results Summary

Gold										
	IC3		IC4		IC5		IC7		IC8	
	Grade	Dist'n	Grade	Dist'n	Grade	Dist'n	Grade	Dist'n	Grade	Dist'n
	g/t	%	g/t	%	g/t	%	g/t	%	g/t	%
Rougher Con	42.79	94.5%	17.77	93.9%	15.94	92.8%	27.77	71.7%	26.77	93.8%
Rougher Tail	0.19	5.5%	0.11	6.1%	0.12	7.2%	1.13	28.3%	0.37	6.2%
Calculated Head	3.25	100%	1.61	100%	1.57	100%	3.62	100%	4.88	100%
Sulphur										
	IC3		IC4		IC5		IC7		IC8	
	Grade	Dist'n	Grade	Dist'n	Grade	Dist'n	Grade	Dist'n	Grade	Dist'n
	%	%	%	%	%	%	%	%	%	%
Rougher Con	17.45	92.5%	21.41	89.6%	22.96	95.5%	21.64	94.1%	31.65	93.0%
Rougher Tail	0.11	7.5%	0.23	10.4%	0.11	4.5%	0.14	5.9%	0.49	7.0%
Calculated Head	1.36	100%	2.03	100%	2.20	100%	2.15	100%	5.82	100%

Table 4: Variability Flotation Gold and Sulphide Results Summary

Sighter Testwork Program Helens and Lewis

In 2020 and 2021, IMO ran a series of Sighter flotation tests on Cardinia sulphide ores to determine potential future testwork parameters following reduced metallurgical recovery on sulphides ores from the August 2019 Pre-Feasibility Study (2019 PFS) metallurgical testwork program. These tests included flotation optimisation tests on Lewis and Helens composite sulphide ores derived from HQ sized core taken from exploration drill programs.

Two composite samples for Helens and three composite samples for Lewis were created and were ground to either 150µm or 106µm and subject to flotation to produce Rougher concentrate and Flotation Tails. Rougher concentrate was reground to approximately 10µm and leached with high concentrations of cyanide, while the Rougher Tail was leached in a conventional 48hr test. Standard Grind-Gravity-Leach tests were also undertaken on these samples to allow comparison.

Results show gold recoveries of between 83.1% and 90.8% for Lewis sulphide ores and 90.2% and 91.7% for Helens sulphide ores from the Grind-Flotation-Regrind-Leach process.

The Grind-Flotation-Regrind-Leach process resulted in recovery improvement between -0.3% and 12.4% for individual Lewis composites (Lewis 2, Lewis 3 and Lewis 4) and between 9.3% and 12.6% improvement for Helens composites (Helens North and Helens South). The Sighter testwork favoured coarser primary grind (generally 150µm) and coarser re-grind (generally around 20µm rather than 10µm), resulting in improved overall recovery, with these parameters considered the optimal conditions for future testwork.

Results are summarised in Table 5 and a comparison between Grind-Gravity-Leach tests is shown in Table 6.

Stage	Composite	Units	Lewis 2	Lewis 3	Lewis 4	Helens North	Helens South
	Flotation Test	FT	FT21	F22	F18	F23	F24
	Tails Leach Test	LT	LT6	LT7	LT8	LT9	LT10
	Concentrate Leach Test	LT	LT16	LT17	LT13*	LT18	LT19
Feed	Composite Head Grade	g/t	0.97	1.07	4.58	2.38	4.02
Flotation	Au Reporting to Flotation Concentrate	%	79.6	75.63	91.18	87.86	89.00
		g/t	0.78	0.81	4.18	2.09	3.58
	Au Reporting to Flotation Tailings	%	20.4	24.4	8.8	12.1	11.0
		g/t	0.20	0.26	0.40	0.29	0.44
Cyanide Leach of Float Concentrate	Au Recovered through Leach	%	83.2	92.7	92.5	90.5	91.7
		g/t	0.65	0.75	3.87	1.89	3.28
	Au Reporting to Leach Tailings	%	16.8	7.3	7.5	9.5	8.3
		g/t	0.13	0.06	0.31	0.20	0.30
Cyanide Leach of Float Tailings	Au Recovered through Leach	%	82.8	75.1	72.8	88.0	91.6
		g/t	0.16	0.20	0.29	0.25	0.40
	Au Reporting to Leach Tailings	%	17.2	24.9	27.2	12.0	8.4
		g/t	0.03	0.06	0.11	0.03	0.04
Overall Recovery	Overall Recovered Au	%	83.1	88.4	90.8	90.2	91.7
		g/t	0.81	0.94	4.16	2.15	3.68
	Overall Loss of Au to Tailings	%	16.9	11.6	9.2	9.8	8.3
		g/t	0.16	0.12	0.42	0.23	0.33

*L4 Composite results based on Round 1 testing with a concentrate regrind size of 19.9 µm

Table 5. Lewis and Helens Sighter testwork results on Cardinia area sulphide ores

Process	Units	Lewis 2	Lewis 3	Lewis 4	Helens North	Helens South
CN Leach of Flotation Tails & Ultrafine 5-9µm Concentrate	%	83.1	88.4	90.8*	90.2	91.7
	g/t	0.81	0.94	4.16*	2.15	3.68
Gravity Concentration & CN Leach	%	81.6	76.0	91.1	77.6	82.4
	g/t	0.83	0.57	3.93	2.10	3.75
Current Work Variation	%	+1.6	+12.4	-0.3	+12.6	+9.3
	g/t	-0.02	+0.37	+0.23	+0.04	-0.07

*L4 Composite results based on Round 1 testing with a concentrate regrind size of 19.9 µm

Table 6. Lewis and Helens Sighter testwork results. Comparison between Grind-Flotation-Regrind-Leach and Grind-Gravity-Leach treatment.

Interpretation and Implications

A number of metallurgical testwork programs were undertaken at Cardinia up until 2019, including the completion of the 2019 Pre-Feasibility Study which showed high metallurgical recoveries generally based on oxide and transitional ore samples available up until that point in time. Optimisation work by IMO showed conventional 150µm grind, gravity and 48-hour leaching resulting in, on average, 94.5% recovery for Oxide and Transitional ore types across Cardinia.

Test work at that time also showed generally lower metallurgical recovery for fresh ores associated with sulphide mineralisation. Metallurgical recovery of Variability Composites showed recoveries of between 68.7% and 91.1% for Helen's sulphide ores and between 76.6% and 91.1% for Lewis sulphide ores using the conventional grind-gravity-leach process. Weighted average recovery for Fresh sulphide ores from Cardinia averaged 81.5%.

When applied as modifying factors to mining and processing production estimates during the 2019 PFS, these results significantly reduced the proportion of fresh sulphide ore able to be economically extracted and reduced pit design depth, ore supply and estimated economic return in the 2019 PFS.

Flotation, Rougher concentrate regrinding and leaching under optimal conditions has shown significant improvement in sulphide ore metallurgical recovery, increasing recoveries by up to 12.4% at Lewis, 12.6% at Helens and 6.3% at Cardinia Hill on samples tested to date. These results indicate that coarse Primary Grind, Rougher Flotation and regrinding of concentrates prior to leaching is likely to be included in the flow sheet for treatment of sulphide ores from Cardinia.

Metallurgical recovery is likely to be approximately 97% for Cardinia Hill sulphide ores based on optimal conditions testwork, 91% for Helens and 87% for Lewis sulphide ore based on Sighter testwork completed to date.

Further testwork programs are likely as drilling penetrates deeper sulphide dominant ores at the Rangoon, Fiona and Helens East deposits.

-ENDS-

Authorised for release by the Board of Directors

For further information, please contact:

Investor enquiries

Andrew Munckton
Managing Director, Kin Mining NL
+61 8 9242 2227

Media enquiries

Nicholas Read
Read Corporate
+61 419 929 046

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 1.23Moz 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 2021¹

Cardinia Gold Project: Mineral Resources: September 2021															
Project Area	Resource Gold Price (AUD)	Lower Cut off (g/t Au)	Measured Resources			Indicated Resources			Inferred Resources			Total Resources			Date Announced
			Tonnes (Mt)	Au (g/t Au)	Au (k Oz)	Tonnes (Mt)	Au (g/t Au)	Au (k Oz)	Tonnes (Mt)	Au (g/t Au)	Au (k Oz)	Tonnes (Mt)	Au (g/t Au)	Au (k Oz)	
Mertondale															
Mertons Reward	\$ 2,600	0.4				0.9	2.17	66	1.9	0.65	41	2.9	1.15	106	26-Nov-20
Mertondale 3-4	\$ 2,600	0.4				1.4	1.85	81	1.0	0.97	31	2.3	1.48	111	26-Nov-20
Tonto	\$ 2,600	0.4				1.8	1.14	67	1.1	1.24	43	2.9	1.18	111	26-Nov-20
Mertondale 5	\$ 2,600	0.4				0.5	1.67	26	0.8	1.24	32	1.3	1.40	59	26-Nov-20
Eclipse	\$ 2,600	0.4							0.6	1.01	19	0.6	1.01	19	26-Nov-20
Quicksilver	\$ 2,600	0.4							1.1	1.10	39	1.1	1.10	39	26-Nov-20
Subtotal Mertondale						4.6	1.61	240	6.5	0.98	205	11.1	1.24	445	
Cardinia															
Bruno*	\$ 2,600	0.4	0.3	1.26	10	2.8	1.13	102	1.1	1.05	36	4.1	1.12	148	17-May-21
Lewis*	\$ 2,600	0.4	0.6	1.24	20	4.7	1.00	151	2.1	0.80	55	7.4	0.95	226	17-May-21
Kyte	\$ 2,600	0.4				0.3	1.53	17	0.1	0.92	3	0.4	1.38	20	26-Nov-20
Helens	\$ 2,600	0.4				0.7	2.14	50	0.3	1.94	19	1.0	2.08	69	26-Nov-20
Fiona	\$ 2,600	0.4				0.6	1.35	25	0.2	1.21	8	0.8	1.32	32	26-Nov-20
Rangoon	\$ 2,600	0.4				0.5	1.24	21	0.3	1.07	12	0.9	1.17	32	26-Nov-20
Hobby *	\$ 2,600	0.4							0.5	1.31	22	0.5	1.31	22	17-May-21
Cardinia Hill **	\$ 2,600	0.4				0.5	2.21	38	1.6	1.12	57	2.1	1.39	95	22-Sep-21
Cardinia Hill UG**		2.0							0.1	2.71	11	0.1	2.71	11	22-Sep-21
Subtotal Cardinia			0.8	1.16	30	10.2	1.23	402	6.4	1.08	222	17.4	1.17	655	
Raeside															
Michaelangelo	\$ 2,600	0.4				1.1	2.00	73	0.4	2.19	25	1.5	2.04	98	26-Nov-20
Leonardo	\$ 2,600	0.4				0.4	2.39	30	0.2	2.20	14	0.6	2.32	44	26-Nov-20
Forgotten Four	\$ 2,600	0.4				0.1	2.09	7	0.1	1.96	6	0.2	2.03	14	26-Nov-20
Krang	\$ 2,600	0.4				0.3	1.74	17	0.0	2.59	2	0.3	1.80	19	26-Nov-20
Subtotal Raeside						2.0	2.04	128	0.7	2.17	47	2.6	2.07	175	
TOTAL			0.8	1.16	30	16.7	1.43	770	13.6	1.09	474	31.1	1.27	1275	

Table 1: Mineral Resource Estimate Table September 2021. 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 * 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 Hill 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 for open pit resource, and using a 2g/t Au cut-off for material below the optimised open pit for an underground Mineral Resource estimate.

¹The 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 2021 "Cardinia Gold Project Mineral Resource Increases to 1.28Moz", 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 Andrew Munckton. Mr. Munckton is a member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of the company. Mr Munckton 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".

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

Appendix A

JORC 2012 TABLE 1 REPORT

Cardinia Gold Project - Section 1 & 2

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<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 30g charge for fire assay’). In other</i></p>	<p><u>Diamond</u></p> <p>2019 to 2021 diamond core samples, either PQ or HQ3 in size diameter, were either cut in half longitudinally or a third longitudinally, using an automated Corewise core saw Core was placed in boats, holding core in place. Core sample intervals varied from 0.3 to 1.3m in length but were predominantly aligned to 1m intervals or with sample boundaries which respected geological contacts.</p> <p><u>RC</u></p> <p>Not used for recent metallurgical testwork</p> <p><u>Assay Methodology</u></p> <p>Historic sample analysis typically included a number of commercial laboratories with preparation as per the following method, oven drying (90-110°C), crushing (<-2mm to <-6mm), pulverizing (<-75µm to <-105µm), and riffle split to obtain a 30, 40, or 50gram catchweight for gold analysis. Fire Assay fusion, with AAS finish was the common method of analysis however, on occasion, initial assaying may have been carried out via Aqua Regia digest and AAS/ICP finish. Anomalous samples were subsequently re-assayed by Fire Assay fusion and AAS/ICP finish.</p> <p>Recent sample analysis typically included oven drying (105-110°C), crushing (<-6mm & <-2mm), pulverising (P90% <-75µm) and sample splitting to a representative 50gram catchweight sample for gold only analysis using Fire Assay fusion with AAS finish.</p> <p>Multi element analysis was also conducted on approximately 10% of samples, predominantly through ore zones. This was conducted via a 4-acid digest with ICP-MS/OES determination for a 48 element suite.</p>

Criteria	• JORC Code explanation	Commentary
	<i>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>	
Drilling techniques	<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><u>Diamond</u></p> <p>2019 to 2021 DD was surveyed at regular downhole intervals (every 30m with an additional end-of-hole survey) using electronic gyroscopic survey equipment.</p>
Drill sample recovery	<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><u>Diamond</u></p> <p>Recent core recovery data was recorded for each run by measuring total length of core retrieved against the downhole interval actually drilled and stored in the database. KIN representatives continuously monitor core recovery and core presentation quality as drilling is conducted and issues or discrepancies are rectified promptly to maintain industry best standards. Core recoveries averaged >95%, even when difficult ground conditions were being encountered. When poor ground conditions were anticipated, a triple tube drilling configuration was utilised to maximize core recovery</p>
Logging	<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</i></p>	

Criteria	JORC Code explanation	Commentary
	<p><i>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>	
Sub-sampling techniques and sample preparation	<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><u>Diamond</u></p> <p>2019 to 2021 diamond drill core samples collected for analysis were longitudinally cut in half, with some samples cut into thirds, using an automated Corewise powered diamond core saw with the blade centered over a boat holding the core in place. Core sample intervals varied from 0.2 to 1.25m in length but were predominantly aligned to 1m intervals or with sample boundaries which respected geological contacts. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference. All KIN diamond drill core is securely stored at the Cardinia coreyard.</p> <p>All sub-sampling techniques and sample preparation procedures conducted and/or supervised by KIN geology personnel are to standard industry practice. Sub-sampling and sample preparation techniques used are considered to maximise representivity of drilled material. QA/QC procedures implemented during each drilling program are to industry standard practice.</p> <p>Samples sizes are considered appropriate for this style of gold mineralisation and as an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia.</p>
Quality of assay data and laboratory tests	<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</i></p>	<p>From late 2018 samples have been analysed by Intertek Genalysis, with sample preparation either at their Kalgoorlie prep laboratory or the Perth Laboratory located in Maddington. Sample preparation included oven drying (105°C), crushing (<6mm), pulverising (P90% passing 75µm) and split to obtain a 50 gram catchweight. Analysis for gold only was carried out by Fire Assay fusion technique with AAS finish.</p> <ul style="list-style-type: none"> KIN regularly insert blanks and CRM standards in each sample batch at a ratio of 1:25. Kin accepts that this ratio of QAQC is industry standard. Field duplicates are typically collected at a ratio of 1:25 samples and test sample assay repeatability. Blanks and CRM standards assay result performance is predominantly within acceptable limits for this style of gold mineralisation. KIN requests laboratory pulp grind and crush checks at a ratio of 1:50 or less since May 2018 in order to better qualify sample preparation and evaluate laboratory performance. Samples have generally illustrated appropriate crush and grind size

Criteria	JORC Code explanation	Commentary
	<p><i>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>percentages since the addition of this component to the sample analysis procedure.</p> <ul style="list-style-type: none"> Genalysis include laboratory blanks and CRM standards as part of their internal QA/QC for sample preparation and analysis, as well as regular assay repeats. Sample pulp assay repeatability, and internal blank and CRM standards assay results are typically within acceptable limits. <p>The nature and quality of the assaying and laboratory procedures used are considered to be satisfactory and appropriate for use in mineral resource estimations.</p> <p>Fire Assay fusion is considered to be a total extraction technique. The majority of assay data used for the mineral resource estimations were obtained by the Fire Assay technique with AAS or ICP finish. AAS and ICP methods of detection are both considered to be suitable and appropriate methods of detection for this style of mineralisation</p> <p>KIN continues to both develop and reinforce best practice QAQC methods for all drilling operations and the treatment and analysis of samples. Regular laboratory site visits and audits have been introduced since April 2018 and will be conducted on a quarterly basis. This measure will ensure that all aspects of KIN QAQC practices are adhered to and align with industry best practice.</p>
Verification of sampling and assaying	<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>No adjustments, averaging or calibrations are made to any of the assay data recorded in the database. QA/QC protocol is considered industry standard with standard reference material submitted on a routine basis.</p> <p>Recent (2014-2018) RC and diamond drilling by KIN included twinning of some historical holes within the Helens and Rangoon resource areas. There is no significant material difference between historical drilling information and KIN drilling information.</p> <p>Areas without twinned holes illustrate a drill density that is considered sufficient to enable comparison with surrounding historic information. No material difference of a negative nature exists between historical drilling information and KIN drilling information.</p> <p>KIN diamond holes drilled for metallurgical and geotechnical test work illustrate assay results with adequate correlation to both nearby historical and recent drilling results.</p> <p>No adjustment or calibration has been made to assay data.</p>
Location of data points	<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>Recent KIN drill hole collars are located and recorded in the field by a contract surveyor using RTK-DGPS (with a horizontal and vertical accuracy of $\pm 50\text{mm}$). Location data was collected in the GDA94 Zone51 grid coordinate system.</p> <p>Downhole surveying was predominantly carried out by the drilling contractor which, prior to late 2018, was Orbit Drilling Pty Ltd. This was conducted using a downhole electronic single shot magnetic tool. (Relfex EZ-shot), which is industry standard practice. This is considered sufficiently accurate except where significant magnetic interference is encountered. The magnetic field is recorded on every survey and flagged when likely to interfere with the reading. These surveys are downgraded in the database. In addition, if the downhole survey tool is located within 15 metres of the surface, there is risk of influence from the drill rig affecting the azimuth readings. This was observed for the survey readings, which include total magnetic intensity (TMI) measurements, where TMI is spurious for readings taken at downhole depths less than 20 metres. These spurious readings are included in the database, but are not used.</p> <p>Downhole surveying in 2019 has been conducted by the drilling contractors (Topdrill Pty Ltd and Swick Mining Services Pty Ltd)</p>

Criteria	JORC Code explanation	Commentary
		<p>utilizing downhole electronic gyroscopic survey tools. These are considered very accurate and not susceptible to magnetic interference. No further surveying required to check drill hole deviation.</p> <p>A small selection of drillhole collars, which do not have DGPS collar surveys, were picked up with a handheld GPS and individually appraised in regards to their location prior to modelling; the position of these collars is deemed appropriate for the resource estimation work.</p> <p>The accuracy of drill hole collars and downhole data are located with sufficient accuracy for use in resource estimation work.</p>
Data spacing and distribution	<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>Drill hole spacing within the resource areas for metallurgical testwork samples is sufficient to establish an acceptable degree of geological and grade continuity and is appropriate for both the mineral resource estimation and the resource classifications applied. Metallurgical samples from geologically consistent mineralized intervals have been composited to form bulk samples and variability samples for metallurgical testwork.</p> <p>Composited samples and variability samples are head assayed and then compared and analysed to ensure the expected range and variability of the deposit mineralization is represented. Master composite samples are selected to approximate the average grade and style of mineralization encountered across the deposit.</p>
Orientation of data in relation to geological structure	<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 Cardinia greenstone sequence displays a NNW to NW trend. Drilling and sampling programs were carried out to obtain unbiased locations of drill sample data, generally orthogonal to the strike of mineralisation.</p> <p>At Helens mineralisation is structurally controlled in sub-vertical shear zones, with supergene components of varying lateral extensiveness present in the oxide profile.</p> <p>The vast majority of historical drilling, pre-Navigator (pre-2004), and KIN drilling is orientated at -60°/245° (WSW) and -60°/065° (ENE).</p> <p>At Bruno-Lewis and Kyte, mineralisation is either stratigraphy parallel (trending NNW, steep to moderately W-dipping) or cross-cutting and dipping shallowly to the NE (striking NW). The vast majority of the drilling is therefore predominantly orientated at -60°/225-250° or -60°/090°. Grade Control drillholes were drilled vertically. Since late 2018, Kin's drilling has been largely oriented to 070° to target contact lodes and 225-250° to target the NE-dipping potassic lodes.</p> <p>The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in data thus far.</p>
Sample security	<i>The measures taken to ensure sample security.</i>	<p>2019 to 2021 samples were obtained by KIN personnel in pre-numbered calico bags at the core yard located at the Cardinia office. Samples were then stacked into 'bulkabag sacks' at the yard location and stored securely until being transported to the laboratory.</p> <p>For metallurgical testwork samples whole core is transported to IMO for processing</p>

Criteria	JORC Code explanation	Commentary
		<p>Transport contractors are utilised to transport samples to the laboratory. No perceived opportunity for samples to be compromised from collection of samples at the drill site, to delivery to the laboratory, where they were stored in their secure compound, and made ready for processing is deemed likely to have occurred.</p> <p>On receipt of the samples, the laboratory independently checked the sample submission form to verify samples received and readied the samples for sample preparation. SGS and Genalysis sample security protocols are of industry standard and deemed acceptable for resource estimation work.</p>
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<p>Drilling, sampling methodologies, and assay techniques used in these drilling programs are considered to be appropriate and to mineral exploration industry standards of the day.</p> <p>Laboratory site visits and audits were introduced in April 2018 and are conducted on a quarterly basis. This measure ensures that all aspects of KIN QAQC practices are adhered to and align with industry best practice.</p>

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<p><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></p> <p><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></p>	<p>The Cardinia Project, 35-40km NE of Leonora is managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.</p> <p>The Helens and Rangoon area includes granted mining tenements M37/316 and M37/317, The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN.</p> <p>The Bruno-Lewis and Kyte areas includes granted mining tenements M37/86, M37/227, M37/277, M37/300, M37/428 and M37/646. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The following royalty payment may be applicable to the areas within the Cardinia Project's Bruno and Lewis areas that comprise the deposits being reported on:</p> <ol style="list-style-type: none"> 1. Gloucester Coal Ltd (formerly CIM Resources Ltd and Centenary International Mining Ltd) in respect of M37/86 - 1% of the quarterly gross value of sales for gold ounces produced, in excess of 10,000 ounces. <p>There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the outlined current resource areas, and there are no current impediments to obtaining a licence to operate in the area.</p>
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Not applicable
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	The Cardinia Project area is located in the central part of the Norseman-Wiluna Greenstone Belt, which

Criteria	• JORC Code explanation	Commentary
		<p>extends for some 600km on a NNW trend across the Archean Yilgarn Craton of Western Australia.</p> <p>The regional geology comprises a suite of NNE-North trending greenstones positioned within the Mertondale Shear Zone (MSZ) a splay limb of the Kilkenny Lineament. The MSZ denotes the contact between Archaean felsic volcanoclastics and sediment sequences in the west and Archaean mafic volcanics in the east. Proterozoic dolerite dykes and Archaean felsic porphyries have intruded the sheared mafic/felsic volcanoclastic/sedimentary sequence.</p> <p>Locally within the Cardinia Project area, the stratigraphy consists of intermediate, mafic and felsic volcanic and intrusive lithologies and locally derived epiclastic sediments, which strike NNW, dipping steep-to-moderately to the west. Structural foliation of the areas stratigraphy predominantly dips steeply to the east but localised inflections are common and structural orientation can vary between moderately (50-75°) easterly to moderately westerly dipping.</p> <p>Mineralisation at Helens is controlled by a cross-cutting fault, hosted predominantly in mafic rock units, adjacent to the felsic volcanic/sediment contacts. The ore zones are associated with increased shearing, intense alteration and disseminated sulphides. Minor supergene enrichment occurs locally within mineralised shears throughout the regolith profile.</p> <p>Mineralisation at Bruno-Lewis is largely controlled by the stratigraphic contact between basalt and felsic volcanics. Gold is associated with significant sulphide mineralisation in the sediments and volcanoclastics between the 2 volcanic units. Gold is also hosted within shallowly NE-dipping lodes, associated with increased potassic-sericite alteration and quartz stockwork veining. These lodes also host the mineralisation at Kyte. Substantial supergene mineralisation sits above both styles of mineralisation.</p>
Drill hole Information	<p><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></p> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <p><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></p>	<p>Material drilling information for exploration results has previously been publicly reported in numerous announcements to the ASX by KIN since 2014.</p>
Data aggregation methods	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg</i></p>	<p>Since 2014, KIN have reported RC drilling intersections with low cut off grades of ≥ 0.5 g/t Au and a</p>

Criteria	• JORC Code explanation	Commentary
	<p><i>cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><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></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>maximum of 2m of internal dilution at a grade of <0.5g/t Au.</p> <p>There is no reporting of metal equivalent values.</p>
Relationship between mineralisation widths and intercept lengths	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><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></p>	<p>The orientation, true width, and geometry of mineralised zones have been primarily determined by interpretation of historical drilling and continued investigation and verification of KIN drilling.</p> <p>Drill intercepts are reported as downhole widths not true widths.</p> <p>Accompanying dialogue to reported intersections normally describes the attitude of mineralisation.</p>
Diagrams	<p><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></p>	<p>Appropriate maps and sections are included in the main body of this report.</p>
Balanced reporting	<p><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></p>	<p>Public reporting of exploration results by KIN and past tenement holders and explorers for the resource areas are considered balanced.</p> <p>Representative widths typically included a combination of both low and high grade assay results.</p> <p>All meaningful and material information relating to this mineral resource estimate is or has been previously reported.</p>
Other substantive exploration data	<p><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</i></p>	<p>Previous metallurgical testwork results have been received for dominantly oxide and transitional materials from several nearby deposits to the Cardinia area deposits tested. Standard Grind-Gravity and Leach tests at a variety of grind sizes were reported with overall metallurgical performance between 90% to 96% gold extraction.</p> <p>Metallurgical extraction of gold declines to between 68.7% and 91.1% when treating Fresh sulphide ores from the Cardinia area as a result of fine gold particle size and partial refractory metallurgical behaviour of</p>

Criteria	• JORC Code explanation	Commentary
	<i>substances.</i>	<p>Fresh sulphide ores</p> <p>No elements or metals at deleterious levels were detected in testwork.</p> <p>Testwork used Cardinia area groundwater</p> <p>Since 2018, a campaign of determining Bulk Densities has been undertaken. The water displacement method is used on drill samples selected by the logging geologist. These measurements are entered into the logging software interface and loaded to the Datashed database.</p>
Further work	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><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></p>	<p>KIN intend to continue exploration and drilling activities at in the described area, with the intention to increase the project's resources.</p>