

**ASX** Announcement

23 September 2021

# GOLD RESOURCE FOR CARDINIA HILL DEPOSIT INCREASES TO 106k OUNCES

Global Mineral Resource for the Cardinia Gold Project rises to 31.1Mt at 1.27g/t Au for 1.28Moz

### **Highlights**

- Updated Mineral Resource Estimate completed for the Cardinia Hill deposit of <u>2.2Mt at 1.5 g/t Au</u> for 106koz of contained gold, representing an increase of 45koz from the previous estimate.
- Updated Mineral Resource Estimate based on a gold price of A\$2,600/oz, utilising cost guidance from the Pre-Feasibility Study with mining cost assumptions increased from previous optimisations and with a lower cut-off grade of 0.4g/t Au.
- Higher-confidence Indicated Resource increased to 38koz.
- Resource includes a maiden UG Inferred Mineral Resource estimate of 125Kt at 2.71g/t for 11koz utilising a 2.0g/t Au cut-off grade.
- Updates pending for multiple deposits across the CGP, which are outside the MRE including Bruno-Lewis, Eagle-Crow, Mt Flora and Iron King.

**Kin Mining NL** (ASX: KIN or "the Company") is pleased to announce an updated Mineral Resource Estimate (MRE) for the Cardinia Hill deposit, part of its flagship 100%-owned Cardinia Gold Project (**CGP**), located near Leonora in Western Australia.

The updated Cardinia Hill Indicated and Inferred Mineral Resource of **2.2Mt at 1.5g/t Au for 106koz** of contained gold represents an increase of 45k ounces from the previous Mineral Resource estimate announced on 17 May 2021 ("CGP Mineral Resource Estimate Increases to 1.23Moz").

This updated MRE includes the same optimisation parameters used for all existing mineralisation models using a gold price and operating cost assumptions in line with recent experience for open pit extraction. All open pit Mineral Resource Estimates are reported within optimised shells using the same stringent criteria for costs, recoveries and geotechnical parameters as established in the 2019 Pre-Feasibility Study (PFS) for the CGP, and the application of a 2021 mining cost and gold price assumption of A\$2,600/oz.



Stope optimisation studies have not been undertaken for material below the optimised pits. Underground resources have been constrained to the main lode that displays mineralisation continuity that is amenable to underground extraction methods. A cut-off grade of 2.0g/t Au has been utilised.

Kin Mining Managing Director Andrew Munckton said the Company was continuing to regularly update its Mineral Resource inventory as drilling results were progressively received from its Phase 4 drilling program across the Cardinia Gold Project.

"This is another pleasing update to the Cardinia Hill Project Resource, delivering a 72 per cent increase in contained ounces, while also ensuring the project-wide MRE is constrained by optimised pit shells and is based on the latest gold price and operating cost assumptions," Mr Munckton said.

"We are pleased to have delivered a Mineral Resource of over 100,000 ounces for the recently-discovered Cardinia Hill deposit, including a maiden Underground Mineral resource estimate. We believe that Cardinia Hill and several of our other deposits hold potential for similar underground estimates where we see strong potential for MRE growth and category upgrades with further drilling.

"We also have a strong pipeline of deposits that are yet to be fully assessed which are outside the latest Mineral Resource Estimate, including Eagle-Crow, Mt Flora, Iron King and further depth extensions to Bruno-Lewis deposit with further updates expected during 2022."

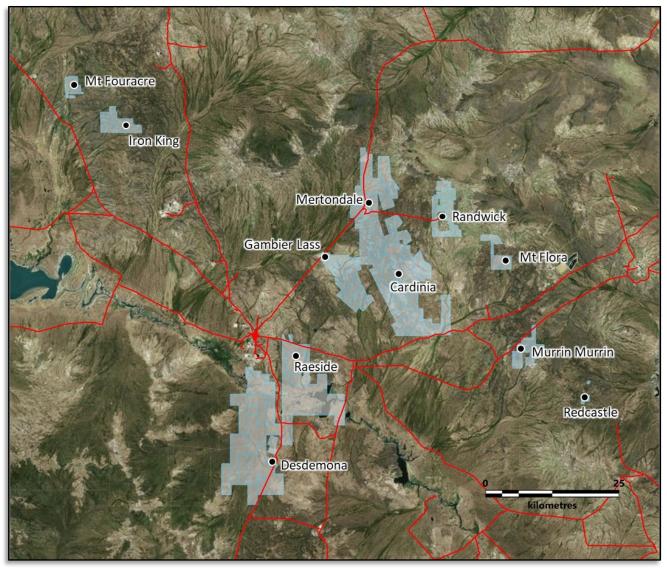


Figure 1: CGP location map.



				Cardini	a Gold Pr	oject: M	ineral Re	sources: S	eptemb	er 2021						
				Meas	ured Reso	urces	Indica	ated Reso	urces	Infei	red Reso	urces	Tot	tal Resour	ces	
Project Area	Project Area	Resource Gold Price (AUD)	Lower Cut off (g/t Au)	Tonnes (Mt)	Au (g/t Au)	Au (k Oz)	Date Announced									
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. \*\*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 2.0g/t Au cut-off for material below the optimised open pit for an underground Mineral Resource Estimate.

## **Cardinia Hill Mineral Resource**

Cardinia Hill is located approximately 2.5km north-east of the Cardinia office and the centre of the Cardinia Gold Project. Details of the Cardinia Hill Mineral Resource Estimate and classification are summarised in Table 2 which details the open pit (0.4g/t Au COG) and underground (2.0g/t Au COG) components of the estimate.

As shown in Figures 2, 3, 4 and 5, Cardinia Hill mineralisation consist of a number of steeply dipping lodes with mineralisation open down dip and to the north.

The 45koz Au increase in the updated MRE is attributed to these factors:

- 1. Depth extension of the high-grade mineralisation in the Southern lode has been confirmed by additional drilling, delivering a deeper Optimisation shell and Underground component to the MRE;
- 2. Depth extension of the high-grade mineralisation in the Northern lode has been confirmed by additional drilling, delivering an Underground component to the MRE;
- 3. Extensions of the Cardinia Hill deposit along strike to the north; and
- 4. Closer spaced drilling in the near surface environment at the Southern Lode has allowed upgrade of the MRE classification to include a proportion of Indicated Resource.



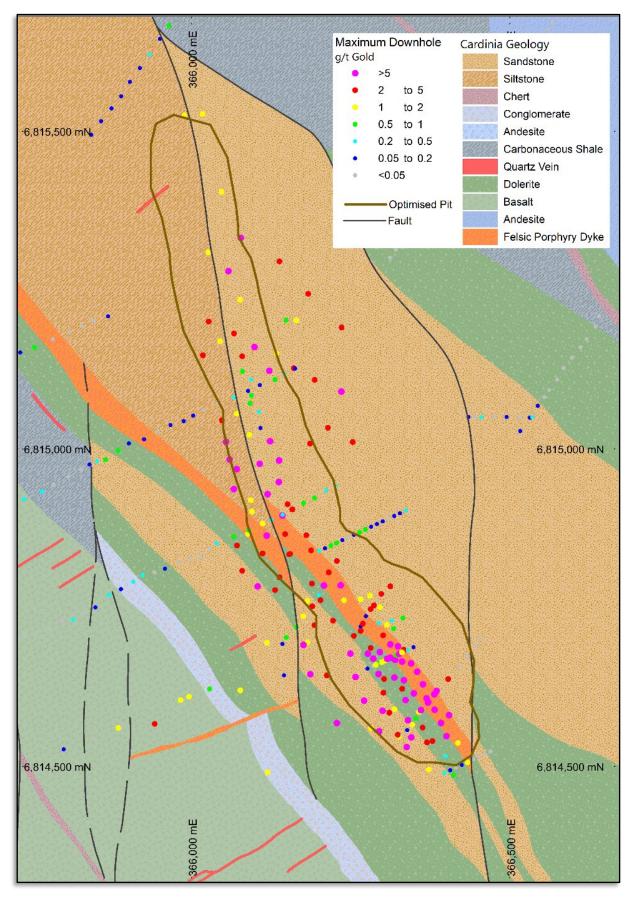


Figure 2: Geology map of the Cardinia Hill area, showing the crest position of the \$2,600AUD gold optimised pit shell.



The Cardinia Hill deposit lies within the Welcome Well Formation, a package of intermediate to felsic volcanic rocks and derived sediments. The geology consists of a discordant structure with footwall andesitic volcanic rocks and dominantly hanging-wall dolerite and mafic intrusive rocks (Figure 3.)

The Northern lode of Cardinia Hill is controlled by the discordant Cardinia Hill Fault, with the Southern lode controlled by a felsic porphyry in the hanging-wall of the fault. Both lodes have extensive carbonate replacement alteration, where the dolerite host rock is completely replaced by siderite and dolomite.

High grade gold mineralisation is coincident with strongly anomalous and occasionally high-grade Silver, Bismuth, Copper, Molybdenum, Lead, Antimony, Tellurium, Tungsten and Zinc.

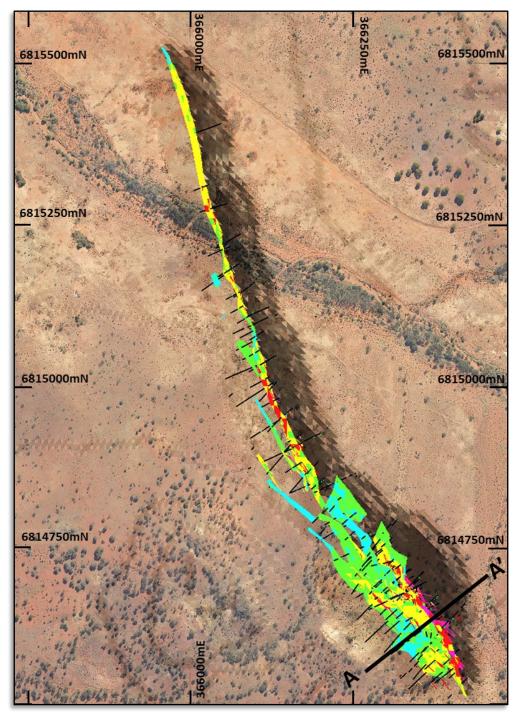
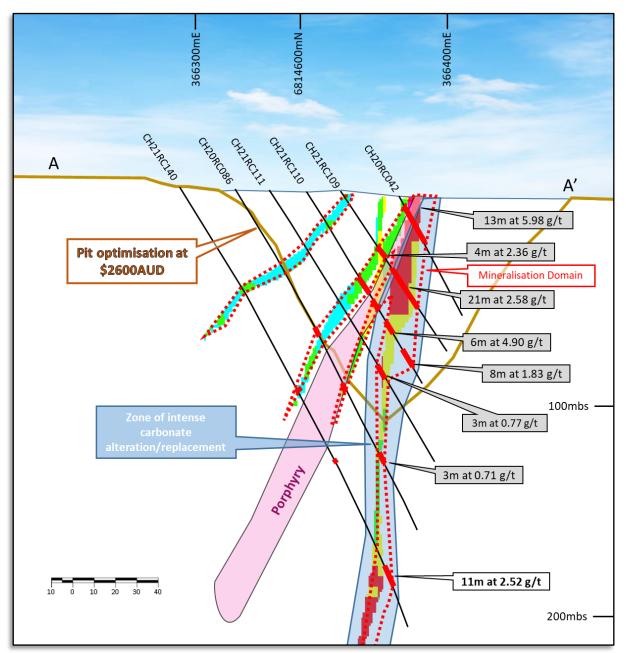


Figure 3: Plan of the Cardinia Hill optimisation with cross section location A-A'.





*Figure 4:* Section A-A' through Cardinia Hill – Cross section showing estimated grades and optimal pit shell that constrains the MRE (Brown - A\$2,600 Au and 0.4g/t lower cut).

Basaurea	Cut-off		Indicated		I	nferred			Total	
Resource	Grade	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
OP	0.4	533,036	2.21	37,883	1,583,757	1.12	56,859	2,116,793	1.39	94,742
UG	2.0				125,026	2.71	10,906	125,026	2.71	10,906
							Total	2,241,819	1.47	105,648

Table 2: Details of Cardinia Hill Mineral Resource Estimate



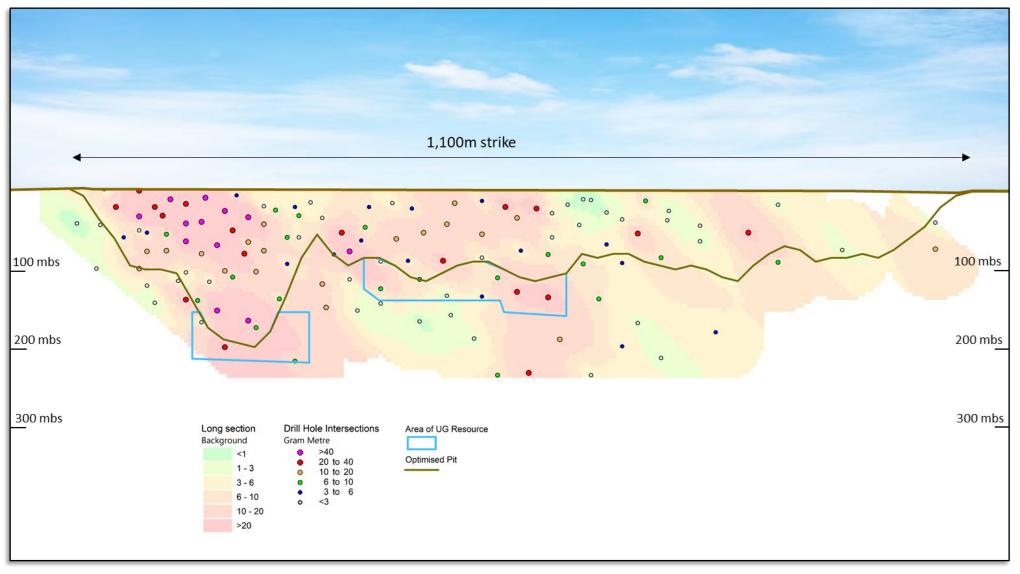


Figure 5: Long Section of Cardinia Hill deposit showing the \$2,600AUD gold optimised pit shell and underground Mineral Resource area at a 2.0g/t Au cut off constrain the MRE.



### -ENDS-

### Authorised for release by the Board of Directors

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#### COMPETENT PERSONS STATEMENT

#### **Resource Estimation**

The information contained in this report relating to Resource Estimation results for deposits including Cardinia Hill, Bruno, Lewis and Hobby relates to information compiled by Cube consulting (Mr Mike Millad). Mr Millad is a member of the Australian Institute of Geoscientists and a full-time employee of Cube Consulting. Mr Millad 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".

The information contained in this report relating to Resource Estimation results for the remainder of the deposits including Kyte, Helens, Fiona, Rangoon, Merton's Reward, Mertondale 3-4, Tonto, Mertondale 5, Eclipse, Quicksilver, Michelangelo, Leonardo, Forgotten Four and Krang relates to information compiled by Mr Jamie Logan. Mr Logan is a member of the Australian Institute of Geoscientists and was till recently a full time employee of the company. Mr Logan 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".

#### **Exploration Results**

The information contained in this report relating to exploration results relates to information compiled or reviewed by Glenn Grayson. Mr Grayson is a member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of the company. Mr Grayson 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* Millad, *Mr* Logan and *Mr*. Grayson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.



## **Table 1 Contents**

- Section 1 Cardinia
- Section 2 Cardinia
- Section 3 Cardinia Hill



# Appendix A

# JORC 2012 TABLE 1 REPORT

# **Cardinia Gold Project - Section 1**

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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 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.	DiamondHistoric (pre-2014) diamond core (DD) sampling utilised half core or quarter core sample intervals; typically varying from 0.3m to 1.4m in length. 1m sample intervals were favoured and sample boundaries principally coincided with geological contacts.Recent (2014-2018) diamond core (DD) samples, either HQ3 or NQ2 in size diameter, were either cut in half longitudinally or further cut into quarters, using a powered diamond core drop saw centered over a cradle holding 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.2019 diamond core samples, either HQ3 or NQ2 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.RCHistoric reverse circulation (RC) drill samples were collected over 1m downhole intervals beneath a cyclone and typically riffle split to obtain a sub-sample (typically 3-4kg). 1m sub-samples were typically collected in pre-numbered calico bags and 1m sample rejects were commonly stored at the drill site. 3m or 4m composited interval samples were often collected by using a scoop (dry samples) or spear (wet samples). If composite samples were retrieved and submitted for individual gold analysis.



Criteria	JORC Code explanation	Commentary
		Recent reverse circulation (RC) drill samples were collected by passing through a cyclone, a sample collection box, and riffle or cone splitter. All RC sub-samples were collected over one metre downhole intervals and averaged 3-4kg.
		2019-20 RC drilling samples were collected in 1m downhole intervals by passing through a cyclone, a collection box and then dropping through a cone splitter. All RC sub-samples were collected over one metre downhole intervals and averaged 3-4kg.
		<u>AC/RAB</u>
		Historic air core (AC) and rotary air blast (RAB) were typically collected at 1 metre intervals and placed on the ground with 3-4kg sub-samples collected using a scoop or spear. Three metre or four metre composited interval samples were often collected by using a scoop (dry samples) or spear (wet samples). If composite samples returned anomalous results once assayed, the single metre sub-samples of the anomalous composite intervals were retrieved and submitted for individual gold analysis.
		Assay Methodology
		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.
		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.
		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.
		Rock Chips
		All rock chip samples are taken using a pick. The samples are taken from outcrop where possible. Samples are also taken from in situ float material or waste rock around historic workings, where outcrop is not present. Care is taken to ensure all samples are representative of the medium being sampled. For example, if a 1m sediment unit is being sampled, a channel sample will be taken across the entire unit.
		All recent drilling, sample collection and sample handling procedures were conducted and/or supervised by KIN geology personnel to high level industry standards. QA/QC procedures were



Criteria	JORC Code explanation	Commentary
		implemented during each drilling program to industry standards.
Drilling techniques	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	Drilling carried out since 1986 and up to the most recent drill programs completed by KIN Mining was obtained from a combination of reverse circulation (RC), diamond core (DD), air core (AC), and rotary air blast (RAB) drilling.
	tails, face-sampling bit or other type, whether core is	Data prior to 1986 is limited due to lack of exploration.
	oriented and if so, by what method, etc).	Diamond
		Historic DD was carried out using industry standard 'Q' wireline techniques, with the core retrieved from the inner tubes and placed in core trays. Core sizes include NQ/NQ3 (Ø 45-48mm) and HQ/HQ3 (Ø 61-64mm). At the end of each core run, the driller placed core blocks in the tray, marked with hole number and depth. Core recovery was usually measured for each core run and recorded onto the geologist's drill logs.
		2017 – 2018 DD was carried out by contractor Orbit Drilling Pty Ltd ("Orbit Drilling") with a Mitsubishi truck-mounted Hydco 1200H 8x4 drill rig, using industry standard 'Q' wireline techniques. 2019-20 DD was carried out by Topdrill Pty Ltd. With a Sandvick DE840 mounted on a Mercedes Benz 4144 Actros 8x8 Carrier. The rig is fitted with Sandvik DA555 hands free diamond drilling rod handler and Austex hands free hydraulic breakout.
		Drill core is retrieved from the inner tubes and placed in plastic core trays and each core run depth recorded onto core marker blocks and placed at the end of each run in the tray. Core sizes include NQ2 (Ø 47mm) and HQ3 (Ø 64mm).
		Recent DD core recovery and orientation was obtained for each core run where possible, using electronic core orientation tools (e.g. Reflex EZ-ACT) and the 'bottom of core' marked accordingly.
		2017 -18 drilling was measured at regular downhole intervals, typically at 10-15m from surface and then every 30m to bottom of hole, using electronic multi-shot downhole survey tools (i.e. Reflex EZ-TRAC or Camteq Proshot). Independent programs of downhole deviation surveying were also carried out to validate previous surveys. These programs utilised either electronic continuous logging survey tool (AusLog A698 deviation tool) or gyroscopic survey equipment.
		2019-20 DD was surveyed at regular downhole intervals (every 30m with an additional end-of-hole survey) using electronic gyroscopic survey equipment.
		<u>RC</u>
		Historic RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, or face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm.
		2017-18 RC drilling was carried out by Orbit Drilling's truck-mounted Hydco 350RC 8x8 Actross drill rigs with 350psi/1250cfm air compressor, with auxiliary and booster air compressors (when



Criteria	JORC Code explanation	Commentary
		required). Drilling utilised mostly downhole face-sampling hammer bits (Ø 140mm), with occasional use of blade bits for highly oxidized and soft formations. The majority of drilling retrieved dry samples, with the occasional use of the auxiliary and booster air compressors beneath the water table, to maintain dry sample return as much as possible. RC drillhole deviations were surveyed downhole, typically carried out inside a non-magnetic stainless steel (s/s) rod located above the hammer, using electronic multi-shot downhole tool (e.g. Reflex EZ-TRAC). In some instances, drillholes were surveyed later in open hole. Independent programs of downhole deviation surveying were also carried out to validate previous surveys. These programs utilised either electronic continuous logging survey tool (AusLog A698 deviation tool) or gyroscopic survey equipment.
		2019-20 RC drilling was carried out by Swick Mining Services truck-mounted Swick version Schramm 685 RC Drill Rig (Rod Handler & Rotary Cone Splitter) with support air truck and dust suppression equipment. Drilling utilised downhole face-sampling hammer bits (Ø 140mm). The majority of drilling retrieved dry samples, with the occasional use of the auxiliary and booster air compressors beneath the water table, to maintain dry sample return as much as possible.
		2019-20 RC was surveyed at regular downhole intervals (every 30m with an additional end-of-hole survey) using electronic gyroscopic survey equipment.
		AC/RAB
		Historic AC drilling was conducted utilising suitable rigs with appropriate compressors (eg 250psi/600cfm). AC holes were drilled using 'blade' or 'wing' bits, until the bit was unable to penetrate ('blade refusal'), often near the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate further into the fresh rock profile or through notable "hard boundaries" in the regolith profile. No downhole surveying is noted to have been undertaken on AC drillholes.
		Historic RAB drilling was carried out using small air compressors (eg 250psi/600cfm) and drill rods fitted with a percussion hammer or blade bit, with the sample return collected at the drillhole collar using a stuffing box and cyclone collection techniques. Drillhole sizes generally range between 75-110mm. No downhole surveying is noted to have been undertaken on RAB drillholes.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred	Diamond Historic core recovery was recorded in drill logs for most of the diamond drilling programs since 1985. A review of historical reports indicates that core recovery was generally good (>80%) with lesser recoveries recorded in zones of broken ground and/or areas of mineralisation. Overall recoveries are considered acceptable for resource estimation.
	due to preferential loss/gain of fine/coarse material.	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



Criteria	JORC Code explanation	Commentary
		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
		RC/AC/RAB
		Historic sample recovery information for RC, AC, and RAB drilling is limited.
		Recent RC drilling samples are preserved as best as possible during the drilling process. At the end of each 1 metre downhole interval, the driller stops advancing, retracts from the bottom of hole, and waits for the sample to clear from the bottom of the hole through to the sample collector box fitted beneath the cyclone. The sample is then released from the sample collector box and passed through either a 3-tiered riffle splitter or cone splitter fitted beneath the sample box.
		Drilling prior to 2018 utilised riffle split collection whereas sample collection via a cone splitter was conducted for drilling undertaken since March 2018; cyclone cleaning processes remained the same.
		Sample reject is collected in plastic bags, and a 3-4kg sub-sample is collected in pre-marked calico bags for analysis. Once the samples have been collected, the cyclone, sample collector box and riffle splitter are flushed with compressed air, and the splitter cleaned by the off-sider using a compressed air hose at both the end of each 6 metre drill rod and then extensively cleaned at the completion of each hole. This process is maintained throughout the entire drilling program to maximise drill sample recovery and to maintain a high level of representivity of the material being drilled. From 2020 sample rejects are placed on the ground.
		RC drill sample recoveries are not recorded in the database however a review by Carras Mining Pty Ltd (CM) in 2017, of RC drill samples stored in the field, and ongoing observations of RC drill rigs in operation by KIN representatives, suggests that RC sample recoveries were mostly consistent and typically very good (>90%).
		Collected samples are deemed reliable and representative of drilled material and no material discrepancy, that would impede a mineral resource estimate, exists between collected RC primary and sub-samples.
Logging	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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging data coded in the database, prior to 2014, illustrates at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, Metana, CIM, MEGM, Pacmin, SOG, and Navigator). Correlation between codes is difficult to establish however, based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time. KIN has attempted to validate historical logging data and to standardize the logging code system by



Criteria	JORC Code explanation	Commentary
	The total length and percentage of the relevant intersections logged.	incorporating the SOG and Navigator logging codes into one. Diamond
		Historical diamond core logging was recorded into drill logs for most of the diamond drilling programs since 1985. A review of historical reports indicates that logging noted core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features. Core was then marked up for cutting and sampling.
		Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core orientations), then recording of core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features. Core was then marked up for cutting and sampling. Navigator DD logging is predominantly to geological contacts.
		Navigator logging information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
		Drill core photographs, for drilling prior to 2014, are available only for diamond drillholes completed by Navigator.
		KIN DD logging is carried out on site once geology personnel retrieve core trays from the drill rig site. Core is collected from the rig daily. The entire length of every hole is logged. Recorded data includes lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded. KIN DD logging is to geological contacts.
		Qualitative logging includes classification and description of lithology, weathering, oxidation, colour, texture and grain size. Quantitative logging includes percentages of identified minerals, veining, and structural measurements (using a kenometer tool). In addition, logging of diamond drilling includes geotechnical data, RQD and core recoveries.
		Drill core is photographed at the Cardinia site, prior to any cutting and/or sampling, and then stored at Cardinia. Photographs are available for every diamond drillhole completed by KIN and a selection of various RC chip trays. SG data is also collect
		All information collected is entered directly into laptop computers or tablets, validated in the field, and then transferred to the database.
		The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies, and metallurgical studies.
		Diamond drillholes completed for geotechnical purposes were independently logged for structural data by geotechnical consultants.
		RC/AC/RAB



Criteria	JORC Code explanation	Commentary
		Historical RC, AC, and RAB logging (including Navigator) was entered on a metre by metre basis. Logging consisted of lithology, alteration, texture, mineralisation, weathering, and other features
		For the majority of historical drilling (pre-2004) the entire length of each drillhole have been logged from surface to 'end of hole'.
		KIN RC logging of was carried out in the field and logging has predominantly been undertaken on a metre by metre basis. KIN logging is inclusive of the entire length of each RC drillhole from surface to 'end of hole'.
		Recorded data includes lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded.
		Qualitative logging includes classification and description of lithology, weathering, oxidation, colour, texture and grain size. Quantitative logging includes identification and percentages of mineralogy, sulphides, mineralisation, and veining.
		Photographs are available for a selection of recent KIN RC drillholes.
		All information collected is entered directly into laptop computers or tablets, validated in the field, and then transferred to the database.
		The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies, and metallurgical studies.
		Rock Chips
		All rock chip samples are inspected by the sampling geologist and logged for lithology, alteration, mineralisation, veining, and structural fabric. This is a combination of qualitative and quantitative data.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling	Diamond Historic diamond drill core (NQ/NQ3 or HQ/HQ3) samples collected for analysis were longitudinally cut in half, and occasionally in quarters for the larger (HQ/HQ3) diameter holes, using a powered diamond core drop saw centered over a cradle holding the core in place. Half core or quarter core sample intervals typically varied from 0.3m to 1.4m in length. 1m sample intervals were favoured and are the most common method of sampling, however sample boundaries do principally coincide with geological contacts. The remaining core was retained in core trays.
	stages to maximise representivity of samples. 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.	2017-18 diamond drill core samples collected for analysis were longitudinally cut in half, with some samples cut into quarters, using a powered diamond core drop saw blade centered over a cradle 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



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	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 KIN Leonora Yard.
		2019-20 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.
		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.
		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.
		RC/AC/RAB
		Historic sampling was predominantly conducted by collecting 1m samples from beneath a cyclone and either retaining these primary samples or passing through a riffle splitter to obtain a 3-4kg sub- sample for analysis. First pass sampling often involved collecting composite samples by using a scoop (dry samples) or spear/tube (wet samples) to obtain 3m or 4m composited intervals, with the single metre split samples being retained at the drill site as spoil or in sample bags. If composite sample assays returned anomalous results, the single metre samples for this composite were retrieved and submitted for analysis. RC/AC/RAB sampling procedures are believed to be consistent with the normal industry practices at the time.
		Samples obtained from conventional RC drilling techniques with cross-over subs often suffered from down hole contamination, especially beneath the water table. Samples obtained from RC drilling techniques using the face sampling hammer suffered less from down hole contamination and were more likely to be kept dry beneath the water table, particularly if auxiliary and booster air compressors were used. These samples are considered to be representative.
		The vast majority of Reverse Circulation (RC) drill samples were collected at 1m downhole intervals from beneath a cyclone and then riffle split to obtain a sub-sample (typically 3-4kg). After splitting, 1m sub-samples were typically collected in pre-numbered calico bags, and the 1m sample rejects were commonly stored at the drill site in marked plastic bags, for future reference. First pass sampling often involved collecting composite samples by using a scoop (dry samples) or spear/tube (wet samples) to obtain 3m or 4m composited intervals, with the single metre split sub-samples



Criteria	JORC Code explanation	Commentary
		being retained at the drill site. If the composite sample assays returned anomalous results, single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
		Navigator included standards, fields duplicate splits (since 2009), and blanks within each drill sample batch, at a ratio of 1 for every 20 samples, with the number of standards being inserted at a ratio of 1 for every 50 samples.
		Recent RC sub-samples were collected over 1 metre downhole intervals and retained in pre-marked calico bags, after passing through a cyclone and either a riffle splitter, prior to March 2018, or cone splitter, after March 2018. The majority of RC sub-samples consistently averaged 3-4kg. Sample reject from the riffle splitter were retained and stored in plastic bags, and located near each drillhole site. When drilling beneath the water table, the majority of sample returns were kept dry by the use of the auxiliary and booster air compressors. Very few wet samples were collected through the splitter, and the small number of wet or damp samples is not considered material for resource estimation work.
		KIN RC drill programs utilise field duplicates, at regular intervals at a ratio of 1:25, and assay results indicate that there is reasonable analytical repeatability; considering the presence of nuggety gold.
		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.
		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.
		No duplicates are taken for rock chip sampling. Sample sizes are approximately 3kg, this is considered appropriate for the material being sampled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF	Numerous assay laboratories and various sample preparation and assay techniques have been used since 1981. Historical reporting and descriptions of laboratory sample preparation, assaying procedures, and quality control protocols for the samples from the various drilling programs are variable in their descriptions and completeness.
	instruments, etc, the parameters used in determining the analysis including instrument make and model, reading	Assay data obtained prior to 2001 is incomplete and the nature of results could not be accurately quantified due to the combinations of various laboratories and analytical methodologies utilised.
	times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg	Since 1993, the majority of samples submitted to the various laboratories were typically prepared for analysis firstly by oven drying, crushing and pulverizing to a nominal 85% passing 75 $\mu$ m.
	standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias)	In the initial exploration stages, Aqua Regia digest with AAS/ICP finish, was generally used as a first pass detection method, with follow up analysis by Fire Assay fusion and AAS/ICP finish. This was a



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	and precision have been established.	common practice at the time. Mineralised intervals were subsequently Fire Assayed (using 30, 40 or 50 gram catchweights) with AAS/ICP finish.
		Approximately 15-20% of the sampled AC holes may have been subject to Aqua Regia digest methods only, however AC samples were predominantly within the oxide profile, where aqua regia results would not be significantly different to results from fire assay methods.
		Limited information is available regarding check assays for drilling programs prior to 2004.
		During 2004-2014, Navigator utilised six different commercial laboratories during their drilling programs, however Kalgoorlie Assay Laboratories conducted the majority of assaying for diamond, RC, and AC samples using Fire Assay fusion on 40 gram catchweights with AAS/ICP finish.
		Since 2009 Navigator regularly included field duplicates and Certified Reference Material (CRM), standards and blanks, with their sample batch submissions to laboratories at average ratio of 1 in 20 samples. Sample assay repeatability and blank and CRM standard assay results were typically within acceptable limits.
		KIN sample analysis from 2014 to 2018 was conducted by SGS Australia Pty Ltd's ("SGS") Kalgoorlie and Perth laboratories. Sample preparation included oven drying (105°C), crushing (<6mm), pulverising (P90% passing 75μm) and riffle split to obtain a 50 gram catchweight. Analysis for gold only was carried out by Fire Assay fusion technique with AAS finish (SGS Lab Code FAA505).
		• KIN regularly insert blanks and CRM standards in each sample batch at a ratio of 1:50. This allows for at least one blank and one CRM standard to be included in each of the laboratory's fire assay batch of 50 samples. Field duplicates are typically collected at a ratio of 1:50 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 percentages since the addition of this component to the sample analysis procedure.
		• SGS 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.
		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.



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		• 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 percentages since the addition of this component to the sample analysis procedure.
		• 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.
		The nature and quality of the assaying and laboratory procedures used are considered to be satisfactory and appropriate for use in mineral resource estimations.
		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
		Aqua Regia is considered a partial extraction technique, where gold encapsulated in refractory sulphides or some silicate minerals may not be fully dissolved, resulting in partial reporting of gold content.
		No other analysis techniques have been used to determine gold assays.
		Ongoing QAQC monitoring program identified one particular CRM returning spurious results. Further analysis demonstrated that the standard was compromised and was subsequently removed and destroyed. A replacement CRM of similar grade was substituted into the QAQC program.
		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 an annual basis. This measure will ensure that all aspects of KIN QAQC practices are adhered to and align with industry best practice.
		All rock chip samples have been submitted to Intertek Genalysis (Perth) for analysis by 50g Fire assay, with multi-element analysis via a 4-acid digest for a 48-element suite. Sample preparation included oven drying (105°C), crushing (<6mm), pulverising (P90% passing 75µm). Blanks and standards are inserted by the lab at a minimum rate of 1 in 50. Lab repeats are performed for samples with particularly high gold values. Due to the nature and intended uses of this data, this QAQC procedure is intentionally less rigorous than that used for drilling samples.



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Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.	Verification of sampling, assay techniques, and results prior to 2004 is limited due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	During 2009, a selection of significant intersections had been verified by Navigator's company geologists and an independent consultant McDonald Speijers ("MS"). MS were able to validate 92% of the assay records in 50 randomly selected check holes, and only 6 assay discrepancies were detected (< 0.2%), only 2 of those were considered significant. MS concluded that the very small proportion of discrepancies indicated that the assay database was probably reliable at that time.
		In 2009, Runge Ltd ("Runge") completed a mineral resource estimate report for the Cardinia Project area, including the Helens, Rangoon, Kyte and Bruno-Lewis deposits. Runge's database verification included basic visual validation in Surpac and field verification of drillhole positions in February 2009. Runge did not report any significant issues with the database.
		Since 2014, significant drill intersections have been verified by KIN company geologists during the course of the drilling programs.
		During 2017, Carras Mining Pty Ltd ("CM") carried out an independent data verification. 38,098 assay records for KIN 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 6 errors were found, which are not considered material and which represented only 0.03% of all database records verified for KIN 2014-2017 drilling programs
		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.
		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.
		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.
		KIN diamond holes drilled for metallurgical and geotechnical test work illustrate assay results with adequate correlation to both nearby historical and recent drilling results.
		No adjustment or calibration has been made to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings	Several local grids were established and used by previous project owners. During the 1990s, SOG transformed the surface survey data firstly to AMG and subsequently to MGA (GDA94 zone51).
	and other locations used in Mineral Resource estimation. Specification of the grid system used.	Navigator recognised errors in the collar co-ordinates resulting from transformations and as a result, a significant number of holes were resurveyed and a new MGA grid transformation generated.



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	Quality and adequacy of topographic control.	Historical collars have been validated against the original local grid co-ordinates and independently transformed to MGA co-ordinates and checked against the database. Navigator's MGA co-ordinates were checked against the surveyor's reports.
		Drilling was carried out using these various local grids. Since 2004, All Navigators drill hole collars were surveyed on completion of drilling in the Australian MGA94, Zone51 grid using RTK-DGPS equipment by licensed surveyors, with more than 80% of the pickups carried out by independent contractors.
		Almost all the diamond and at least 70% of Navigator RC holes were downhole surveyed. Pre- Navigator, single shot survey cameras were used, with typical survey intervals of 30-40 metres.
		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 ±50mm). Location data was collected in the GDA94 Zone51 grid coordinate system.
		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.
		Downhole surveying in 2019 has been conducted by the drilling contractors (Topdrill Pty Ltd and Swick Mining Services Pty Ltd) 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.
		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.
		Considering the history of grid transformations and surviving documentation, there might be some residual risk of error in the MGA co-ordinates for old drillholes, however this is not considered to be material for the resource estimation.
		Azimuth data was historically recorded relative to magnetic north. Much of the historical drilling data was recorded relative to magnetic north. Variation in magnetic declination for the Cardinia Project area is calculated at +0.823° East (1985) to +1.301° East (2017), with a maximum variation of +1.575°



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		in 2005. The difference between true north and magnetic north, and the annual variation in magnetic declination since 1985 is not significant, therefore magnetic north measurements have been used, where true north data is unavailable, for all survey data used in resource estimation processes.
		The accuracy of drill hole collars and downhole data are located with sufficient accuracy for use in resource estimation work.
		For rock chip samples, locations are recorded at the time of sampling using a handheld GPS in the GDA94 Zone51 grid coordinate system.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to	Drill hole spacing patterns vary considerably throughout the Cardinia Gold Project area and are deposit specific, depending on the nature and style of mineralisation being tested.
	establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Drill hole spacing within the resource areas 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.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	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.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to	At Helens mineralisation is structurally controlled in sub-vertical shear zones, with supergene components of varying lateral extensiveness present in the oxide profile.
	have introduced a sampling bias, this should be assessed and reported if material.	The vast majority of historical drilling, pre-Navigator (pre-2004), and KIN drilling is orientated at - 60°/245° (WSW) and -60°/065° (ENE).
		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.
		The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in data thus far.
Sample security	The measures taken to ensure sample security.	No sample security details are available for pre-Navigator (pre-2004) drill or field samples.
		Navigator drill samples (2004-2014) were collected in pre-numbered calico bags at the drill rig site. Samples were then collected by company personnel from the field and transported to the secure Navigator yard in Leonora. Samples were then batch processed (drillhole and sample numbers logged into the database) and then packed into 'bulkabag sacks'. The bulkabags were tied off and stored securely in the Navigator yard until being transported to the selected laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site



Criteria	JORC Code explanation	Commentary
		to delivery to the laboratory.
		2017 -18 KIN RC drill samples were collected in pre-numbered calico bags at the drill rig site. The samples were then batch processed (drillhole and sample numbers encoded onto a hardcopy sample register) in the field, and then transported and stacked into 'bulkabag sacks' at the secure KIN yard location in Leonora. Bulkabags were tied off and stored securely in the yard until being transported to the laboratory.
		2019-20 RC drill samples were collected in pre-numbered calico bags at the drill rig site. The samples were then batch processed (drillhole and sample numbers encoded onto a hardcopy sample register) in the field, and then transported and stacked into 'bulkabag sacks' at the Cardinia office.
		2017-18 KIN DD samples were obtained by KIN personnel in pre-numbered calico bags at the KIN yard location in Leonora. Samples were then stacked into 'bulkabag sacks' at the yard location and stored securely until being transported to the laboratory.
		2019-20 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.
		Both transport contractors and KIN personnel 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.
		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.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to current standards. In house reviews of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to industry best practice and standards of the day.
		Independent geological consultants Runge Ltd completed a review of the Cardinia Project database, drilling and sampling protocols, and so forth in 2009. The Runge report highlighted issues with bulk density and QA/QC analysis within the supplied database. Identified issues were subsequently addressed by Navigator and KIN.
		Carras Mining Pty Ltd (CM), an independent geological consultant, reviewed and carried out an audit on the field operations and database in 2017. Drilling and sampling methodologies observed during the site visits were to industry standard. No issues were identified for the supplied databases which could be considered material to a mineral resource estimation. During the review, Carras Mining logged the oxidation profiles (base of complete oxidation and top of fresh rock) for each of the



Criteria	JORC Code explanation	Commentary
		deposit areas, based on visual inspection of selected RC drill chips from KIN's recent drilling programs, and a combination of historical and KIN drillhole logging. Final adjustments were made with input from KIN geologists. The oxidation profiles were used to assign bulk densities and metallurgical recoveries to the 2017 resource models.
		Past bulk density test work has been inconsistent with incorrect methods employed, to derive specific gravity or in-situ bulk density, rather than dry bulk density. Navigator (2009) and recent KIN (2017) bulk density test work was carried out using the water immersion method on oven dried, coated samples to derive dry bulk densities for different rock types and oxidation profiles. This information has been incorporated into the database for resource estimation work. CM conducted site visits during 2017 to the laboratory to validate the methodology.
		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.
		Laboratory site visits and audits were introduced in April 2018 and are conducted on an annual basis. This measure ensures that all aspects of KIN QAQC practices are adhered to and align with industry best practice.



## Cardinia

## 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	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title	The Cardinia Project, 35-40km NE of Leonora is managed, explored and maintained by KIN, and constitute a portion of KIN's Cardinia Gold Project (CGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.
	interests, historical sites, wilderness or national park and environmental settings.	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.
	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.	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:
		<ol> <li>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.</li> </ol>
		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.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	At Cardinia, from 1980-1985, Townson Holdings Pty Ltd ("Townson") mined a small open pit over selected historical workings at the Rangoon prospect. Localised instances of drilling relating to this mining event are not recorded and are considered insubstantial and immaterial for resource modelling Companies involved in the collection of the majority of the gold exploration data since 1985 and prior to 2014 include: Thames Mining NL ("Thames") 1985; Mt Eden Gold Mines (Aust) NL (also Tarmoola Aust Pty Ltd "MEGM") 1986-2003; Centenary International Mining Ltd ("CIM") 1986-1988, 1991-1992; Metana Minerals NL ("Metana") 1986- 1989; Sons of Gwalia Ltd ("SOG") 1989, 1992-2004; Pacmin Mining Corporation ("Pacmin") 1998-2001, and Navigator Resources Ltd ("Navigator") 2004-2014. In 2009 Navigator commissioned Runge Limited ("Runge") to complete a Mineral Resource estimate for the Bruno, Lewis, Kyte, Helens and Rangoon deposits. Runge reported a JORC 2004 compliant Mineral Resource estimate, at a cut-off grade of 0.7g/t Au, totaling 1.45Mt @ 1.3 g/t
		au (61,700 oz Au) for Helens and Rangoon, and totaling 4.34Mt @ 1.2 g/t au (169,700 oz Au) for Bruno, Lewis and Kyte.



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		A trial pit (Bruno) was mined by Navigator in 2010, and a 'test parcel' of ore was extracted and transported firstly to Sons of Gwalia's processing plant in Leonora, and finally to Navigator's processing plant located at Bronzewing, where approximately 100,000 tonnes were processed at an average head grade of 2.33 g/t au (7,493 oz Au).
Geology	Deposit type, geological setting and style of mineralisation.	The Cardinia Project area is located in the central part of the Norseman-Wiluna Greenstone Belt, which extends for some 600km on a NNW trend across the Archean Yilgarn Craton of Western Australia.
		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.
		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.
		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.
		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 volcaniclastics 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.
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul>	Material drilling information for exploration results has previously been publicly reported in numerous announcements to the ASX by Navigator (2004-2014) and KIN since 2014.



Criteria	JORC Code explanation	Commentary
	• hole length. 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.	
Data aggregation methods	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.	When exploration results have been reported for the resource areas, the intercepts are reported as weighted average grades over intercept lengths defined by geology or lower cut-off grades, without high grade cuts applied. Where aggregate intercepts incorporated short lengths of high grade results, these results were included in the reports.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the	Since 2014, KIN have reported RC drilling intersections with low cut off grades of >= 0.5 g/t Au and a maximum of 2m of internal dilution at a grade of <0.5g/t Au.
	procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent	There is no reporting of metal equivalent values.
Relationship between	values should be clearly stated. These relationships are particularly important in the reporting	The orientation, true width, and geometry of mineralised zones have been primarily determined
mineralisation widths and	of Exploration Results.	by interpretation of historical drilling and continued investigation and verification of KIN drilling.
intercept lengths	If the geometry of the mineralisation with respect to the drill	Drill intercepts are reported as downhole widths not true widths.
	hole angle is known, its nature should be reported. 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').	Accompanying dialogue to reported intersections normally describes the attitude of mineralisation.
Diagrams	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.	Appropriate maps and sections are included in the main body of this report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high	Public reporting of exploration results by KIN and past tenement holders and explorers for the resource areas are considered balanced.
	grades and/or widths should be practiced to avoid misleading	Representative widths typically included a combination of both low and high grade assay results.
	reporting of Exploration Results.	All meaningful and material information relating to this mineral resource estimate is or has been previously reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk	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



Criteria	JORC Code explanation	Commentary
	samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	database.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	KIN intend to continue exploration and drilling activities at in the described area, with the intention to increase the project's resources.



## Cardinia Hill

# Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	457 drillholes were drilled in the Cardinia Hill prospect area. 95 new drillholes were drilled during the period of February to July 2021, inclusive of 23 diamond holes and 72 RC holes.
		These data have been uploaded into Maxwell's Datashed application by the Database Administrator (DBA). This application includes quality protocols which must be met in order for uploading to occur (examples: data duplication, validation of geological field).
		Finally, the data are reviewed upon upload to Micromine before final use. (Examples: DHsurveys present, overlapping intervals, 'From' and 'To's concurrent).
		Historical RC drilling consisting of 20 holes were not considered during the estimation process as their location is uncertain.
		Data used in the Mineral Resource Estimate ("MRE") were provided to Cube as a series of .csv exports, which were imported into an Access database, where further database validation was carried out, including the following:
		<ul> <li>Checks for mismatched maximum hole depths between drill hole tables: collar, survey, assay, lithology</li> <li>Sample depth overlaps</li> <li>Duplicate collar ID</li> <li>3D visual validation of holes in plan and section view to check for obvious drillhole trace and hole collar errors.</li> </ul>
		Replacing negative values to half detection values
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	KIN's geological team have an onsite presence which includes supervision and management of drill programs within each of the Resource areas.
	If no site visits have been undertaken indicate why this is the case.	Mr. Andrew Grieve of Cube Consulting conducted a formal site visit during November 2020, visiting Cardinia.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The geological interpretation for Cardinia Hill was updated with the additional information from the infill drilling carried out. The interpretation was carried out on roughly 20m spacing oblique



Criteria	JORC Code explanation	Commentary
		section lines. The shape of the existing interpretation didn't change drastically based on the additional 95 drill holes, which is testament to the robustness of the interpretation. The main shear has been extended another 300m to the NW, and depth extensions to the mineralisation have also been proven by the new drilling.
	Nature of the data used and of any assumptions made	The Cardinia Hill prospect consists of a Dacitic volcaniclastic unit within a bimodal sequence of mafic and felsic volcanics. The Felsic volcaniclastic unit is intruded by a number of dolerite dykes, which are typically sub-vertical. A later Porphyry intrusion of Rhyolitic composition also intrudes the sequence, dipping steeply to the southwest. A sub-vertical, NNW-trending shear zone deforms the stratigraphy and later fault displacement is seen on several NE-trending faults. Significant sericite-albite-carbonate-fuchsite alteration is present proximal to the shear zones, as well as on the margins of the porphyry.
		The mineralised lodes interpreted incorporate lithological, structural, alteration and grade information, and apply a minimum mining width criterion of 2m.
		Topographic surface and weathering surfaces were provided by Kin Mining, which were used to code the block model for oxidation and for assigning density to the blocks
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	No alternative interpretations were carried out.
	The use of geology in guiding and controlling Mineral Resource estimation.	Geological observations, particular the presence of lithologies (contacts) and structural features (faults), support this interpretation.
	The factors affecting continuity both of grade and	The gold mineralisation is interpreted to be structurally and stratigraphically controlled.
	geology.	The interpreted lodes are cross-cut by several NE trending faults which appear to have disrupted the continuity of the mineralisation. This is mainly noticeable for the main shear where the central part (domain 102) is poorly mineralised compared to the north (domain 103) and southern parts (domain 101) of the main shear.
	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	Three types of mineralised lodes were interpreted at Cardinia Hill and consist of the following:
		<ul> <li>Main Shear: which is the predominant host of the gold mineralisation at Cardinia Hill. The shear extends over 1,100m on a NW-SE trend and dips steeply to the west, with an average thickness between 2m and 10m. The shear zone crosscuts all lithologies and is defined by a strong shear fabric and intense sericite-albite-carbonate alteration. The main shear was modelled to</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>approximately 200RL, which equates to approximately 200m vertical depth. A 50% increase in volume was recorded from the MRE 2020 interp which is attributed to the increase in strike extent defined by the additional drilling.</li> <li>FW and HW porphyry lodes consist of mineralisation located at the margins of the porphyry intrusion, on its footwall and hanging wall. The thickness of the mineralisation varies between 2m and 5m. The Porphyry lodes extend approximately 300m in strike length and are oriented NW-SE and intersect the main shear to the SE. Around 25% increase in volume is recorded from the MRE 2020 interp.</li> <li>Minor shears were also interpreted, which run sub-parallel to the main shear but have limited strike extent and are much narrower than the main shear.</li> <li>A smaller western lode was also modelled, which is associated with quartz veining dipping W-SW, and was modelled to 100m vertical depth. 26% increase in volume is recorded from the MRE 2020 Interp.</li> </ul>
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	<ul> <li>172 drill holes were used in the compilation of the MRE and consist of 138 RC and 34 diamond drill holes. No AC or RAB holes were used in the estimation process, nor the historic RC drillholes, due to concerns around survey or sample quality.</li> <li>The mineralised lodes were modelled using Surpac 3D modelling software. The weathering surfaces were modified using Leapfrog Geo.</li> <li>Each object of the interpreted mineralised lodes was given a unique object number, which was used to flag the drill hole database. Samples were composited to 1m downhole within the flagged domains, using "best fit" methodology in Surpac with 50% threshold for flagging "short" samples, meaning the minimum allowable composite size is 0.5m. 1m composites were created for gold as well as for silver per estimation domain.</li> <li>Basic statistically characterise each domain, as well as identify statistical outliers. CV of the domains for the gold grade have slightly increased due to the additional samples from the new drilling and some domains which previously didn't require top cutting have now been top cut. The top cuts for gold range between 1.2g/t and 30g/t, and top cuts for silver are between 2g/t and 5g/t. The selection of the outliers. Local top cutting was also applied to the estimate for a few selected domains which are poorly informed and show limited gold continuity, in order to mitigate the spatial influence of elevated Au grade and to control grade smearing.</li> <li>Cube used Supervisor software to carry out the analysis of the spatial continuity of the data through variography. The analysis was carried out on the top cut 1m composites. As</li> </ul>



Criteria	JORC Code explanation	Commentary
		the gold and silver grade population is positively skewed, a normal scores transformation was applied to the data to convert the data to a standard normal distribution. The normal score transformation reduces the effect of outliers and helps to identify the underlying structure of the variable. The variogram models were back-transformed to real space for use in the estimation process. The nugget effect was defined using downhole variograms for the domain to be assessed.
		A NW steeply plunging structure can be defined for gold as well as for silver in the southern lode of the main shear, domain 101, which is also associated with a strong anisotropy in the variogram model for this domain for gold. The silver wide data spacing didn't allow the definition of any anisotropy in the variogram model for this lode, and an omnidirectional model in the plane of mineralisation was modelled for silver for this domain. A more moderate NW plunging structure is delineated in the northern lode of the main shear (domain 103), however, due to lack of close space data for the gold, an omnidirectional variogram model in the plane of mineralisation was modelled. The FW and HW porphyry lodes record a shallow N plunging structure, but due to lack of close spaced data that delineates short range structures in the variogram model, the models were omnidirectional in the plane of mineralisation for the gold. There were not enough data in the other domains to allow variogram model definition for silver, beside the southern lode of the main shear, domain 101 The modelled nugget values for gold values vary between 25% and 38% of the total sill and the modelled practical range varies between 20m and 30m. Variogram parameters of the main shear were applied to the minor shear and the small west lode. The search ellipse for the well-informed domains were oriented to the direction of maximum continuity as defined by the variogram models. For the smaller lodes, the orientation of the domains were used as the search ellipse orientation.
		The Kriging Neighbourhood Analysis ("KNA") function within Snowden's Supervisor software ("Supervisor v8.8") software was used to assist with assessing the most appropriate block sizes and other estimation parameters such as minimum and maximum samples, discretisation, to be used for the estimation.
		Ordinary Kriging ("OK") and Inverse distance to the power of 2 ("ID2") were used to estimate the gold and silver grades. The ID2 served as a check estimate only, and it is the OK model which has been reported.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	



Criteria	JORC Code explanation	Commentary
	The assumptions made regarding recovery of by- products.	No assumptions were made regarding recovery of by-products
		Silver grade was also estimated.
	Estimation of deleterious elements or other non-grade	No deleterious elements were estimated
	variables of economic significance (eg sulphur for acid mine drainage characterisation).	Some sulphide-rich lodes are noted at Cardinia Hill.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Drill spacing at Cardinia Hill is at 20m x 20m spacing in the best informed areas, but can widens to 40m and greater. The parent and estimation block size of the block model was chosen to be 10m x 10m x 5m in the XYZ directions respectively, which is half the drillhole spacing and within industry standard practice. The parent cells were sub- blocked to $1.25mX \times 1.25mY \times 1.25mRL$ , for accurate representation of the volume of the modelled lodes.
		Gold and silver were estimated in a single pass using a search distance between 200 and 220m. The search ellipse was oriented to conform with the observed NW plunging structure with associated anisotropy in the case of the southern lode of the main shear. A minimum and maximum number of samples of 4 and 16 for gold and 4 and 14 for silver, were used for the estimate. Some minor lodes were assigned silver values.
	Any assumptions behind modelling of selective mining units.	No assumptions were made with respect to selective mining units. The model cannot be considered to be a local recoverable estimate, and the estimation block size is somewhat larger than what would reasonably be expected from an eventual grade control and mining selection.
	Any assumptions about correlation between variables.	No assumptions were made on the correlation between variables.
Description of how the geological interpretation was used to control the resource estimates.	Lodes are modeled to represent material mineralised by fluid flow through planar structural and/or stratigraphic features. The mineralised domains act as hard boundaries to control the gold interpolation.	
	The process of validation, the checking process used,	Block model validation was conducted by the following means:
	the comparison of model data to drill hole data, and use of reconciliation data if available.	Visual validation of blocks values vs drill hole data
		<ul> <li>Comparison of global estimated block means by domain vs declustered cut composite means</li> </ul>
		Swath plots showing estimated block means vs composite means in space
		<ul> <li>No reconciliation data are available as the deposit has not yet been mined</li> </ul>
Moisture	Whether the tonnages are estimated on a dry basis or	Tonnages estimated on a dry basis only. Moisture was not considered in the density



Criteria	JORC Code explanation	Commentary				
	with natural moisture, and the method of determination of the moisture content.	assignment				
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied. The basis of the adopted cut-off grade(s) or quality parameters applied. Den Pit The lower cut-off gold grade for reporting mineral resources was 0.4 g/t determined by KIN's management to be appropriate with a gold price of ounce and based on reasonable operating costs.					
		<u>Underground</u> A lower cut-off gold grade for reporti 2.0g/t Au. This was determined by k economic extraction via underground	<ľN's managem			
Mining factors or assumptions	Assumptions made regarding possible mining	No mining method assumptions were made for the estimation of this model.				odel.
	methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining	Assumptions were made for open pit mine design and pit optimisation used to constrain the Mineral Resource for reporting.				
reasonable p to consider p assumptions parameters	reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may	No assumptions were made for an underground mining optimasation. No stope optimisation study was undertaken or assumptions on the method of underground mining.				
	not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.					2020 D 4
					Unit	2020 December Update
			Gold Price		\$/t ore	\$2,600
		Revenue Assumptions	Revenue		\$/g	\$83.59
		Mining Cost Assumptions	Mining Dilution		%	0%
			Mining Recovery		%	100%
			Mining Cost		\$/bcm	Calculated
		Processing Recovery and Cost Assumptions	Recovery	Oxide Trans	%	95% 95%
				Fresh		95%
			Processing Cost	Oxide	\$/t ore	\$14.00
				Trans	<i>,</i> ,	\$16.50
				Fresh		\$20.00
			Haulage		\$/t ore	Not Calculated
			G & A Cost		\$/t ore	\$2.09
				Oxide	deg	50
		Geotechnical Assumptions		Transitional Froch	deg	60 65
				Fresh	deg	65



Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Metallurgical assumptions in line with PFS level test-work at other Cardinia deposits were made for the estimation of this model. A range of recoveries were used for the optimisation to constrain the MRE, depending on material type. (See table above).
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No environmental assumptions have been made for the estimation of this model.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density measurements were collected from diamond drill core (N=440). The data collected were mainly in the transitional and fresh zone and within the porphyry body, dolerite dykes, and volcanic background rocks. There were not enough samples to distinguish between ore and waste and the sub-domaining was carried out based primarily on weathering status. The fresh zone, however, was sub-divided into porphyry, dolerite and volcanic waste rocks. Only four samples were collected in the oxide zone. The transported zone were assigned density values based on Cube's experience.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used	Bulk Density work considered void spaces and were sealed prior to the wet measurement. The average bulk density assigned for the September 2021 MRE is as follows:



Criteria	JORC Code explanation	Commentary
	in the evaluation process of the different materials.	<ul> <li>Transported = 1.8</li> <li>Oxide = 2.12</li> <li>Transition = 2.49</li> <li>Fresh Porphyry = 2.79</li> <li>Fresh Dolerite = 2.83</li> </ul>
		• Fresh Other = 2.79
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	More tightly drilled portions (20m or tighter) of the southern lode of the main shear and the southern lode of the porphyry footwall have been classified as Indicated which is supported by the infill drilling, confirming the geological and grade continuity of these two lodes in this area, and a definition of robust variogram models to support the estimate.
		The remainder of the Mineral Resource has been classified as Inferred, which is supported by the following:
		Current understanding of geological and grade continuity, which is assumed but not proven at a more local scale
		Current understanding of mineralisation continuity: unable to define robust variogram models due to wide spaced data
		<ul> <li>Estimation quality: by means of assessing kriging parameters such as slope of regression</li> </ul>
		<ul> <li>Validation results by comparing global statistics between composited data and the estimated block, and locally through trend plots</li> </ul>
		A portion of the northern lode has been designated unclassified (i.e. will not constitute part of the reportable resource) due to lack of informing samples that support the estimate in this area.
		Classification was discussed with interpreting Geologists to ensure classification represents geological confidence as well as statistical confidence.
	Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values,	All relevant factors affecting classification have been considered.



Criteria	JORC Code explanation	Commentary
	quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person's view of the deposit.	The MRE appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No external audits and reviews have been completed on this MRE.
confidence and confidence level in the Mineral Resource estimate MRE in accordance with the guidelines of the 2012	The relative accuracy of the Mineral Resource Estimate is reflected in the reporting of the MRE in accordance with the guidelines of the 2012 JORC Code.	
	using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	The classification the Mineral Resources as Inferred and Indicated is deemed appropriate by the CP as noted within the criteria used for the classification.
The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The MRE constitutes a global resource estimate.	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Production data are not available.