

## **Board of Directors**

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## **David Sproule**

**Technical Director** 

#### Joe Graziano

Non-Executive Director & Company Secretary

#### **Contact Details**

#### Post

PO Box 565 Mount Hawthorn Western Australia 6915

## Office

342 Scarborough Beach Road Osborne Park Western Australia 6017

#### Phone

08 9242 2227

## Fax

08 9242 1277

## **Email**

info@kinmining.com.au

### Website

www.kinmining.com.au

## Shares on Issue:

167,312,684

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23,249,250

ASX: KIN

# Kin Defines +1 Million ounces of Gold at the Leonora Gold Project

75% of Resources now classified in the Indicated category providing a strong foundation for the Definitive Feasibility Study due this quarter.

## **HIGHLIGHTS**

- Kin's highly successful 2016-2017 exploration and Resource definition drilling program has delivered a 42% increase in Mineral Resources at the Leonora Gold Project.
- The total Mineral Resources exceed one million ounces of gold:

22.3 Mt @ 1.43 g/t Au for 1.02 Moz Au

reported at a 0.5 g/t Au cut-off grade, with Resources constrained within an A\$2,200/oz optimised pit shell.

- 75% of Resources in the Indicated Resource category with the remainder in the Inferred category
- The Indicated Resources will form the basis of the Maiden Ore Reserve to be completed as part of the LGP Definitive Feasibility Study scheduled for completion this quarter
- Additional gold mineralisation remains outside of the optimised pit shell used to constrain the reported resource estimate

**Kin Mining NL** (ASX: KIN) is pleased to announce an upward revision of the Company's Mineral Resources for the Leonora Gold Project (LGP). The Resources have increased by 42% on the previous estimate, and now total **22.3 Mt @ 1.43 g/t Au for 1.02 Moz of gold.** 

Kin Managing Director Don Harper said, "This is an outstanding result which gives Kin a clear pathway to project development, production and cashflow."

"The new Resource estimate provides a strong foundation for the estimation of the maiden Ore Reserve at the LGP, which will form part of the Definitive Feasibility Study set for completion later this quarter."

"There is also immense potential to continue growing our inventory within the Tier-1 Leonora district and we will pursue that upside in parallel with our project development plan."

The increase in the resources is largely attributed to the highly successful 43,000m Reverse Circulation (RC) resource drilling program that has recently been completed, which extended mineralised domains at multiple deposits. Recent primary gold discoveries at Lewis and Helens-Fiona have also been incorporated into the Mineral Resource.

The Leonora Gold Project consists of three principle Mining Centres (Figure 1). The total Mineral Resource of 22.3 Mt @ 1.43 g/t Au for 1.02 Moz Au is distributed among these Mining Centres as follows:

Mertondale: 11.6Mt @ 1.40 g/t Au for 521,000 oz Au,
Cardinia: 6.91Mt @ 1.33 g/t Au for 296,000 oz Au, and
Raeside: 3.82Mt @ 1.68 g/t Au for 206,000 oz Au.

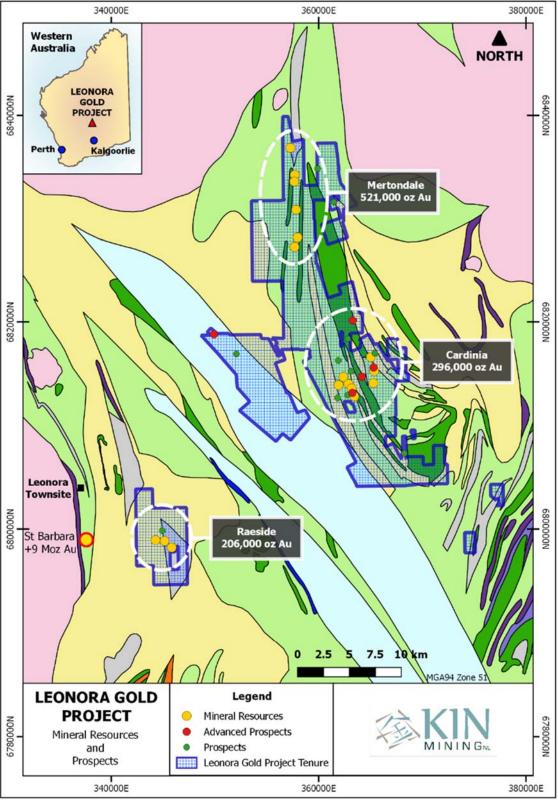


Figure 1 Regional Interpreted geology (GSWA) of the Leonora Gold Project highlighting the three Mining Centres

## **Mertondale Mining Centre**

Kin Mining is pleased to report the completion of a Mineral Resource Estimation at the Mertondale Mining Centre in compliance with the JORC 2012 reporting standard. The resources consist of six deposits (Figure 2), four of the deposits (Merton's Reward, Mertondale 3-4, Tonto and Mertondale 5) have undergone extensive work and reinterpretation by independent resource geologists Carras Mining Pty Ltd (CM). Results from the Pre-feasibility study highlighted these four Resources as key areas for a future mining operation and subsequently have been the main focus of resource development over the last nine months at Mertondale.

The modelling method used by CM for each deposit involved a comprehensive geological interpretation carried out on sections followed by wireframing of each domain shape and an allocation to it of its key orientation parameters. Declustering of the drilling data and statistical analysis of the high grade within each individual domain shape was carried out to determine its high grade cut. Blocks within the wireframes were then estimated using a combination of Ordinary Kriging and distance weighting methods (generally Inverse Distance Squared). Due to the "string effect" produced by Ordinary Kriging in very narrow non-planar shapes, extensive validation and visual checking of models was carried out to determine the best interpolator (usually Inverse Distance Squared). A more detailed description of the methodology is to be found in Section 3 of Appendix A.

No new information has been obtained for the two deposits: Quicksilver and Eclipse, these two deposits were not re-modelled since there has been no new material data obtained since 2009. CM carried out an audit review of the 2009 work conducted by McDonald Speijers for these deposits. McDonald Speijers used a pseudo-probabilistic technique called the 'recovered fraction' methodology, which is a probabilistic technique that estimates the volumetric proportion of each block likely to be above a particular cut-off grade. CM is familiar with this methodology, and after reviewing the models, deemed them to be appropriate for use in reporting of JORC 2012 resources (see Appendix B).

Total resources at Mertondale are 11.6Mt @ 1.40 g/t Au for 521,000 oz Au (Tables 1 and 2).

For public reporting Kin has decided to apply an economic constraint to all resource models. The constraint was determined using an AUD\$2,200/oz gold price, in an open pit mining scenario. The Mertondale Mineral Resource estimate lying inside the pit shell using a 0.5 g/t Au cut-off is tabulated in Table 1 and Table 2.

Table 1 Mineral Resources estimated by	/ Carras Mining (JORC 2012	) of the Mertondale area using	a 0.5g/t Au cut-off.

	Cutoff	Indicated			Inferred			Total		
Deposit	Cutoff (g/t Au)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)
Merton's Reward	0.5	2.75	1.37	121	0.36	1.33	15	3.11	1.37	137
Mertondale 3-4	0.5	2.08	1.50	100	0.48	1.33	21	2.56	1.47	121
Tonto	0.5	2.67	1.18	101	0.18	1.30	8	2.85	1.18	109
Mertondale 5	0.5	0.81	1.83	48	0.22	1.71	12	1.03	1.80	60
TOTAL		8.30	1.39	370	1.25	1.39	56	9.55	1.39	426

Reference Appendix A – JORC Table 1 Report, Sections 1-3

Table 2 Mineral Resources estimated by McDonald Speijers in 2009, audited by Carras Mining Pty Ltd in 2017 and Reported in accordance with JORC 2012 using a 0.5g/t Au cut-off.

	Cutoff	Indicated			Inferred			Total		
Deposit	(g/t Au)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)
Quicksilver	0.5				0.81	1.54	40	0.81	1.54	40
Eclipse	0.5				1.23	1.39	55	1.23	1.39	55
TOTAL					2.04	1.45	95	2.04	1.45	95

Reference Appendix B – JORC Table 1 Report, Sections 1-3

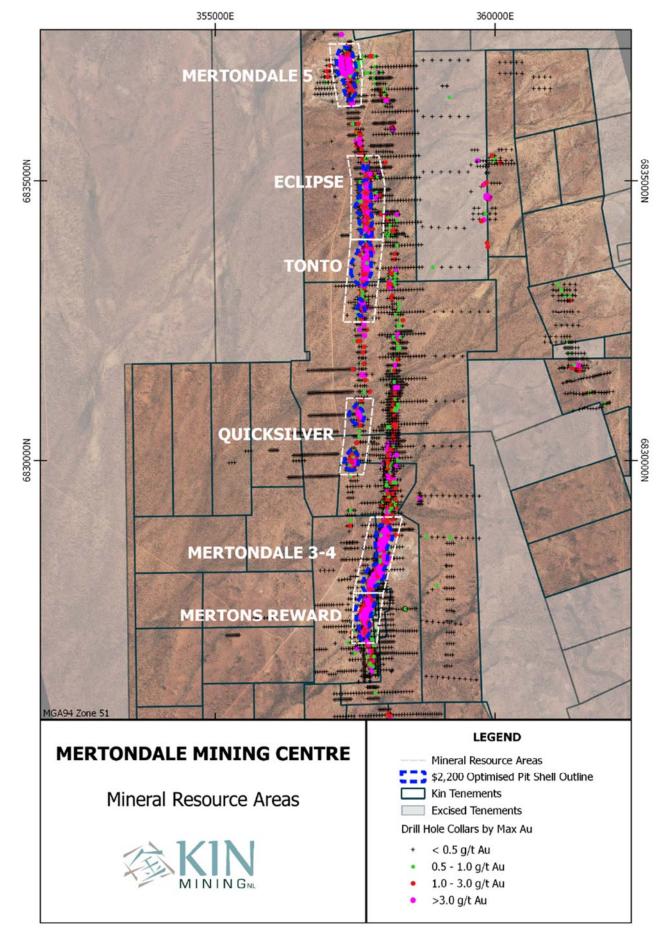


Figure 2 Overview of the Mertondale Mining Centre

## **Mertondale Geology**

The Mertondale geology is comprised of a central felsic volcanic sequence bounded on either side by a tholeiitic basalt-dolerite-carbonaceous shale ± felsic porphyry sequence. The deposits lie along two independent major parallel shear structures that are spatially 500m apart. The western and eastern shear zone branches are generally located near the felsic volcanics/mafic contacts (Figure 1). Outcrop within the area is generally poor except in the Merton's Reward area. Oxidation at

Mertondale is variable, being quite shallow (<5m) at Merton's Reward whilst being quite deep (approximately 80m) at Eclipse, with a combination of depletion and the presence of Permian sediments is also present.

## Merton's Reward

Gold mineralisation at Mertondale varies between deposits, at the historic Merton's Reward underground mine (90kt @ 21.0 g/t Au for 60,524 oz), two types of lode were historically mined – shear lodes and intershear lodes.

Shear lodes consist of steeply dipping bodies, usually less than 1m thick and confined to shear zones. They are continuous for 50 to 100m along strike and down dip, and often average greater than 30 g/t Au. The lodes are highly cleaved parallel to their dip and strike, with abundant quartz-carbonate veinlets parallel to cleavage. Gold mineralisation is usually associated with 5 to 10% finely disseminated pyrite-arsenopyrite in a sheared and sericitised, carbonated basalt.

Intershear lodes consist of narrow, flat (0° to 40°) to moderately (40° to 60°) east to northeast dipping quartz veins, from which most of the gold at Merton's Reward was mined. The veins attain a maximum thickness of 40cm and are contained within a highly carbonated, pyritic alteration selvage up to 12m thick. The vein selvages contain up to 20% pyrite, 5% arsenopyrite and 90% ankerite and/or siderite, with gold typically concentrated in the central quartz veinlet which usually assays greater than 30 g/t Au. The selvage may grade up to 8 g/t Au.

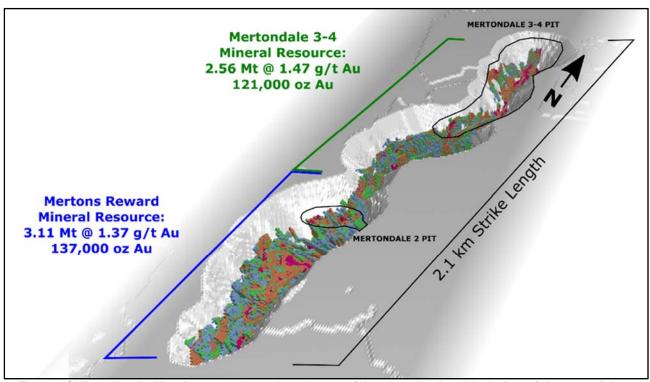


Figure 3 Oblique view looking down towards north-north west of the mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au = 1.0 g/t Au = green, 1.0 g/t Au = 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Merton's Reward and Mertondale 3-4 constrained within \$2,200 pitshell, with the existing open pits (black outline).

## Mertondale 3-4

At Mertondale 3-4, a series of steep east dipping, locally folded lenses of gold mineralisation have been delineated over strike lengths of at least 900m. Mineralised lenses are up to 35m thick and generally straddle the hangingwall porphyry-basalt contact. The strongest mineralisation is generally at this contact in highly foliated and altered porphyry and basalt. The porphyry unit occurs as a series of flattened, cigar-shaped bodies with dimensions of 200 to 300m along strike, up to 30m thick, and up to 75m down the foliation.

## **Tonto and Quicksilver**

The western branch of the fault zone typically contains black mafic mylonite, black shale, shale, quartz-dolerite, basalt, basaltic andesite and to the east, a felsic volcanic derived from a rhyolite.

Felsic porphyritic intrusives occur irregularly along the fault zone. Generally, the black sulphide-graphite-rich mafic mylonite has a reasonably high background gold anomalism, in the order of 0.1 to 0.5 g/t Au.

The Tonto prospect extends over a strike length of about 1 km on the western branch of the Mertondale Fault Zone, between the Quicksilver and Eclipse prospects (Figure 2). Lithologies at Tonto are similar to Quicksilver – black mafic mylonite, a black shale, shale, quartz-dolerite, basalt, basaltic andesite and felsic volcanics. The steeply dipping high-grade lode at Tonto is more than likely to be structurally controlled, and appears to potentially have a shallow southerly plunge.

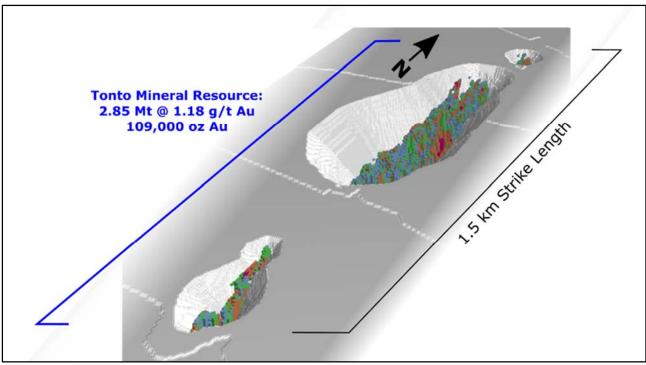


Figure 4 Oblique view looking down towards north-north west of the mineralised ore blocks (0.5 g/t Au - 0.7 g/t Au = blue, 0.7 g/t Au - 1.0 g/t Au = green, 1.0 g/t Au = 3.0 g/t Au = 0.0 g/

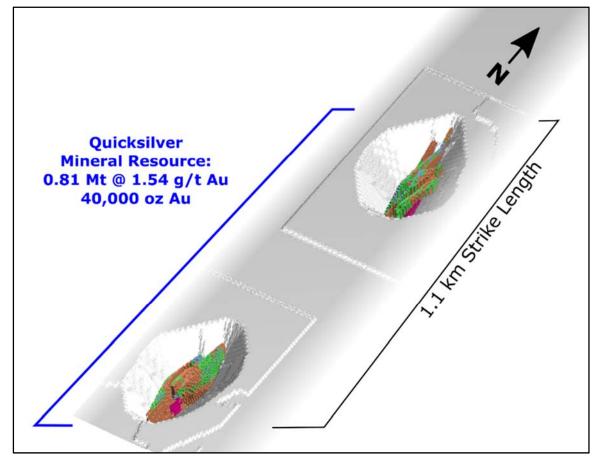


Figure 5 Oblique view looking down towards north-north west of the mineralised ore blocks (0.5 g/t Au - 0.7 g/t Au = blue, 0.7 g/t Au - 1.0 g/t Au = green, 1.0 g/t Au - 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Quicksilver constrained within \$2,200 pitshell.

## **Eclipse**

The Eclipse prospect extends over a strike length of about 2 km on the western branch of the Mertondale Fault Zone, immediately north of Tonto and south of Mertondale 5 (Figure 2).

At Eclipse, the geology appears to have changed in comparison to Tonto. The mafic mylonite is present, but is much more discontinuous, whereas the quartz-dolerite is not restricted to the footwall and appears within the central mafic unit quite regularly. A shale unit is also common place throughout Eclipse.

A shallow, flat-dipping to horizontal sulphidic quartz vein has been traced over approximately 150 m in the southern to central portions of Eclipse. This vein contains fresh arsenopyrite and pyrite within the quartz, and assays typically return very high gold values.

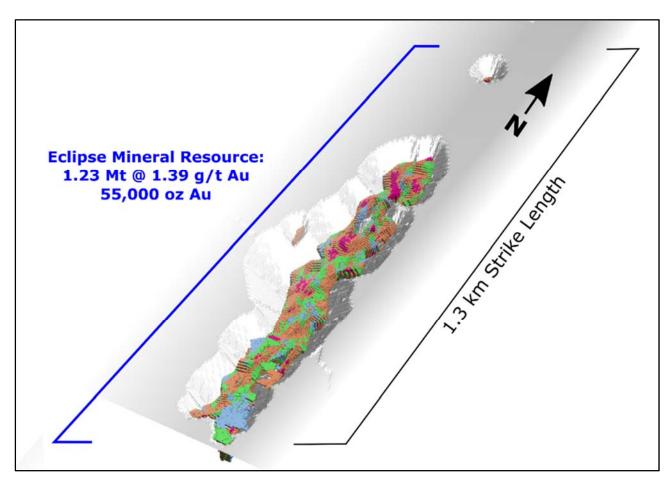


Figure 6 Oblique view looking down towards north-north west of the mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au – 1.0 g/t Au = green, 1.0 g/t Au – 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Eclipse, constrained within \$2,200 pitshell.

## Mertondale 5

The Mertondale 5 prospect extends over a strike length of about 1.5 km on the western branch of the Mertondale Shear Zone, immediately north of Eclipse.

The Mertondale 5 mineralisation is hosted in a north-south striking sequence of carbonate/sericite schists, graphitic schists and quartz-feldspar porphyries. The unit is relatively narrow, at 5 to 15 m wide, is bounded to the west by chloritised/carbonated basalts, and to the east by quartz feldspar porphyries containing up to 50% by volume of pyrite and some graphitic schists with high percentages of pyrite.

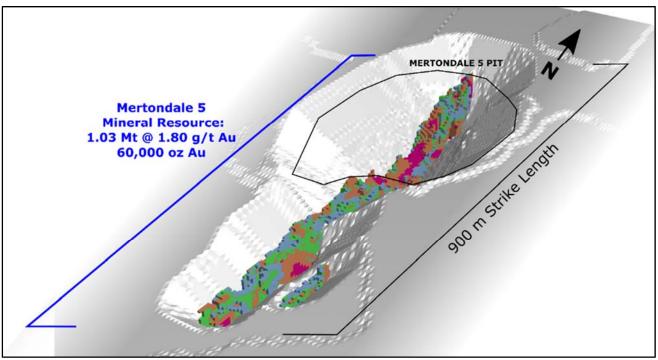


Figure 7 Oblique view looking down towards north-north west of the mineralised ore blocks (0.5 g/t Au - 0.7 g/t Au =blue, 0.7 g/t Au - 1.0 g/t Au =green, 1.0 g/t Au - 3.0 g/t Au =orange and plus 3.0 g/t Au =magenta) at Mertondale 5 constrained within \$2,200 pitshell, with the existing open pits (black outline).

## **Cardinia Mining Centre**

Kin Mining is pleased to report the completion of a mineral resource estimation in the Cardinia area in compliance with the JORC 2012 reporting standard. The Resources consist of five Resource areas (Table 3). All deposits have undergone reinterpretation by CM and extensive RC drill programs by Kin Mining which totaled 33,172m. Drilling was highly successful and lead to the discovery of the Lewis primary mineralisation and the Fiona deposit in conjunction with expanding the known Resources.

The Cardinia Mining Centre Resources now stands at 6.91Mt @ 1.33 g/t Au for 296,000 oz Au (Table 3).

Table 3 Mineral Resource estimate (JORC 2012) of the Cardinia Mining Centre Resources using a 0.5g/t Au cutoff.

		Ind	icated		Î1	nferred		Total		
Deposit	Cutoff (g/t Au)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)
Bruno Lewis Link	0.5	1.09	1.30	45	0.72	1.55	36	1.81	1.40	81
Lewis	0.5	2.48	1.21	96	0.22	1.31	9	2.70	1.22	105
Kyte	0.5	0.51	1.28	21	0.02	1.60	1	0.53	1.30	22
Helens	0.5	0.99	1.53	48	0.29	1.39	13	1.27	1.50	61
Rangoon	0.5	0.41	1.37	18	0.19	1.18	7	0.60	1.31	25
TOTAL		5.47	1.30	229	1.44	1.43	66	6.91	1.33	296

Reference Appendices C and D – JORC Table 1 Report, Sections 1-3

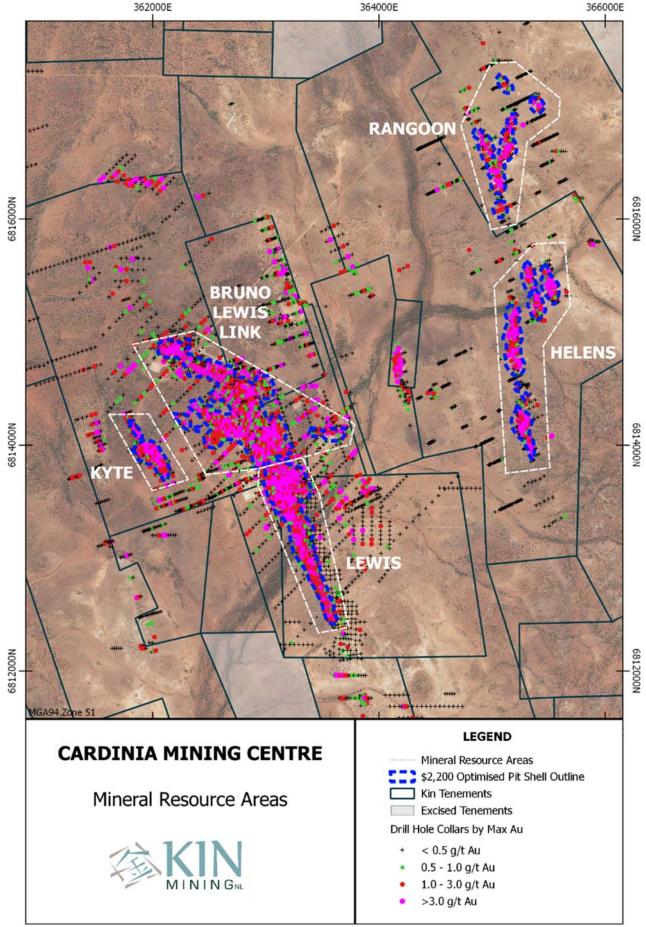


Figure 8 Overview Plan of the Cardinia Mining Centre

## **Cardinia Geology**

The Cardinia tenements overlie a sequence of intermediate-mafic and felsic volcanic lithologies and locally derived epiclastic sediments. These lithologies are on the western limb of the regionally faulted south-plunging Benalla Anticline. Minor felsic porphyries and lamprophyre lithologies have been recognised within and adjacent to the Lewis and Bruno Lewis Link areas. At Lewis these intrusive rocks are often associated with mafic-felsic contacts. The eastern edge of the Bruno Lewis

Link, Lewis system has been intruded by a dolerite sill. The regional lithological strike is 345° and lithological contacts dip between 30° and 40° to the west while foliation trends dip moderately to the east.

Interpretation of cross sections, in conjunction with detailed mapping, has shown a series of mineralised structures evident as quartz-ironstone veining and float in outcrop. At Lewis, the primary mineralisation is interpreted to dip from 40° to 70° to the east and lenses vary in width from 1m to around 7m true thickness.

Primary gold mineralisation is associated with zones of increased shearing in association with lithological contacts between the mafic and felsic rocks. Disseminated carbonate-sericite-quartz-pyrite alteration zones are present adjacent to the gold mineralisation characterised by increased quartz veining, silicification and shearing.

The deeply weathered nature of the sub-cropping zones of mineralisation has resulted in variable zones of depletion, ranging from 0m to 20m deep, with subsequent supergene enrichment occurring beneath the depleted zone and extending, in places, to at least 50m deep. Surface silicification is apparent in the top 4m.

## Bruno Lewis Link, Lewis, Kyte

In the Bruno Lewis Link, Lewis resource area, virtually all of the Mineral Resources are associated with primary structures related to shearing and the contacts between felsic and mafic units. These structures are moderately to steep dipping and occur beneath a zone of depletion. A limited supergene component has been interpreted. At Bruno Lewis Link, Lewis there is a strike extent of approximately 3kms.

At Kyte moderately dipping mineralisation is hosted wholly within a mafic unit. A supergene component has been interpreted. At Kyte there is a strike extent of 600m.

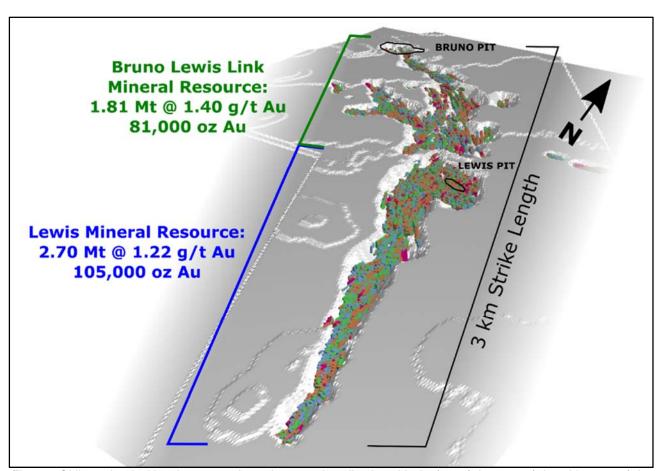


Figure 9 Oblique view looking down towards north west, mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au – 1.0 g/t Au = green, 1.0 g/t Au – 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Bruno and Lewis constrained within \$2,200 pitshell with the existing open pits (black outline).

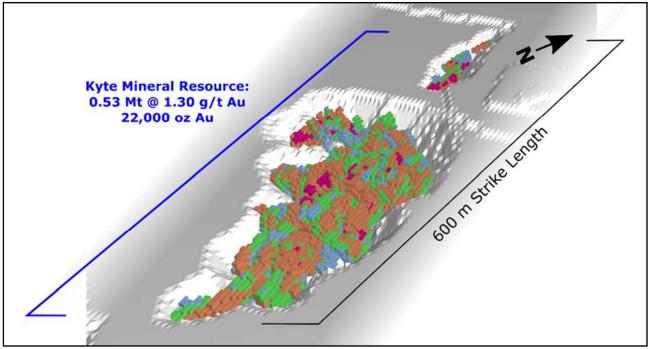


Figure 10 Oblique view looking down towards north west, mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au – 1.0 g/t Au = green, 1.0 g/t Au – 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Kyte, constrained within \$2,200 pitshell.

## **Helens and Rangoon**

The Helen's and Rangoon geology consist of sub-vertical gold mineralisation within mafic and felsic lithologies located on the western limb of the Benalla Anticline, 30km NE of Leonora. Lithological layering within the tenements strikes NW to NNW and dips are orientated gently to steeply to the south west. Gold mineralisation extends over 3 kilometers of strike and up to 115m deep Sub-vertical mineralisation is associated with narrow (1-5m) steeply dipping zones of shearing and quartz development.

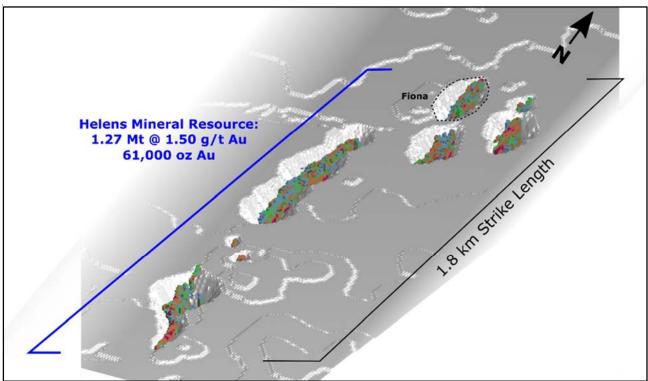


Figure 11 Oblique view looking down towards north-west of the mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au – 1.0 g/t Au = green, 1.0 g/t Au – 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Helens and the new resource of Fiona constrained within \$2,200 pitshell..

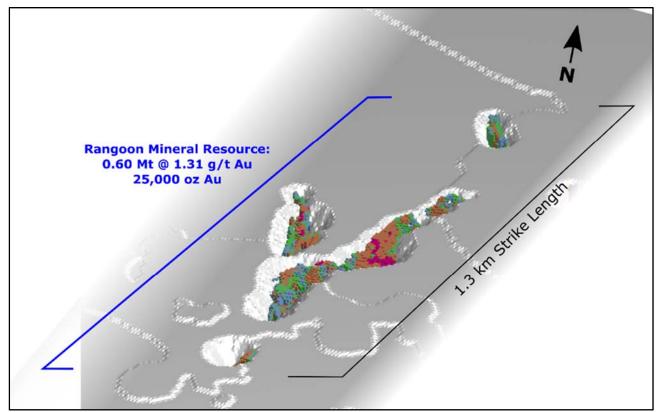


Figure 12 Oblique view looking down towards north-west of the mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au – 1.0 g/t Au = green, 1.0 g/t Au – 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Rangoon and the new resource of Fiona constrained within \$2,200 pitshell.

## **Raeside Mining Centre**

Kin Mining is pleased to report the completion of a Mineral Resource Estimation at Raeside in compliance with the JORC 2012 reporting standard. The resources consist of four deposits and each has undergone an extensive audit procedure. The Michelangelo and Leonardo deposits host the majority of the mineralisation and was the prime focus of reinterpretation and a new block model estimation undertaken by CM.

No new information has been obtained for the two deposits: Forgotten Four and Krang, these two deposits were not re-modelled since they are smaller in size and there has been no new material data obtained since 2009. CM carried out an audit review of the 2009 work conducted by McDonald Speijers for these deposits. McDonald Speijers used a pseudo-probabilistic technique called the 'recovered fraction' methodology, which is a probabilistic technique that estimates the volumetric proportion of each block likely to be above a particular cut-off grade. CM is familiar with this methodology, and after reviewing the models, deemed them to be appropriate for use in reporting of JORC 2012 resources.

Total resources at Raeside are 3.82Mt @ 1.68 g/t Au for 206,000 oz Au (Tables 4 and 5).

Table 4 Mineral Resource estimated by Carras Mining (JORC 2012) of the Raeside Resource using a 0.5g/t Au cutoff.

	Cutoff	Indicated			Inferred			Total		
Deposit	(g/t Au)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)
Michelangelo	0.5	2.47	1.61	128	0.09	1.51	4	2.56	1.61	132
Leonardo	0.5	0.75	1.81	44	0.15	1.23	6	0.90	1.71	50
TOTAL		3.22	1.66	172	0.24	1.34	10	3.46	1.64	182

Reference Appendix E – JORC Table 1 Report, Sections 1-3

Table 5 Resource Estimated by McDonald Speijers in 2009, Audited by Carras Mining Pty Ltd in 2017 and Reported in Accordance with JORC 2012

		Indicated			Inferred			Total		
Deposit	Cutoff (g/t Au)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)
Forgotten Four	0.5				0.21	2.12	14	0.21	2.12	14
Krang	0.5				0.15	2.11	10	0.15	2.11	10
TOTAL					0.36	2.12	24	0.36	2.12	24

Reference Appendix F – JORC Table 1 Report, Sections 1-3 *Note* 

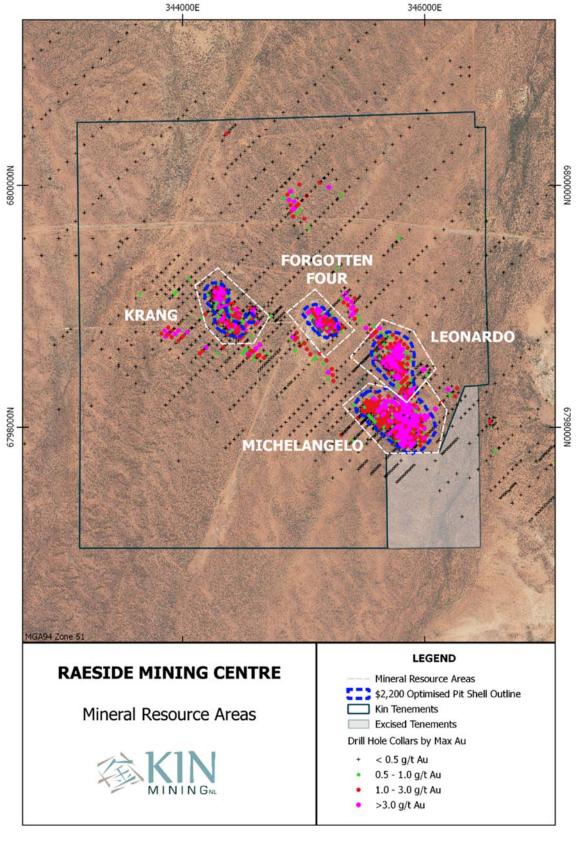


Figure 13 Overview Plan of the Raeside Mining Centre

## **Raeside Geology**

The Raeside prospect is hosted by a mixed package of fine-grained sediments and a quartz dolerite unit. The dolerite is sill-like in nature, and roughly conforms to observed bedding trends. The dolerite is fine to medium grained with extensive chlorite alteration. Discontinuities and breaks in diamond core are predominantly oriented along foliation planes, and slickensides are prominent throughout.

Gold mineralisation is hosted in a series of stacked, irregular, sub-parallel structures which dip shallowly to the east. Higher gold grades are generally associated with increased quartz/carbonate veining and varying levels of iron alteration. Veins are predominately stockwork in nature and widths of massive veining are generally less than 1m.

Gold mineralisation at Michelangelo is hosted by a uniform metamorphosed medium grained dolerite. Gold mineralisation at Leonardo occurs mainly in a partly graphitic shale close to a mafic contact. Gold mineralisation at Forgotten Four and Krang is hosted mainly in mafic rocks with some association with contact zones between mafic and metasediment units, at the Forgotten Four the strongest zone of mineralisation is just below the lower contact of the overlying sediments.

Most of the mineralised zones contain weak stockworks or sheeted veins usually a few centimetres thick and rarely >1-2m, predominantly quartz or quartz-carbonate accompanied below the base of oxidation by disseminated to stringer sulphides (mostly pyrite and minor arsenopyrite).

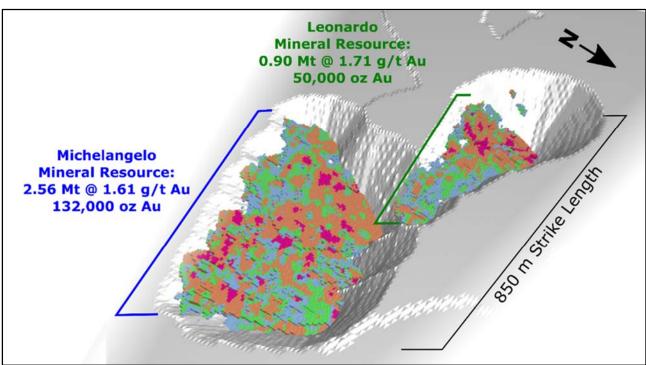


Figure 14 Oblique view looking down towards south-west of the mineralised ore blocks (0.5 g/t Au – 0.7 g/t Au = blue, 0.7 g/t Au – 1.0 g/t Au = green, 1.0 g/t Au – 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Michelangelo and Leonardo and constrained within \$2,200 pitshell.

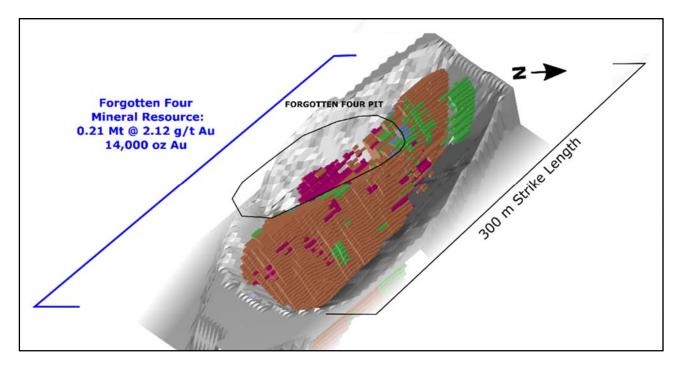


Figure 15 Oblique view looking down towards north-west of the mineralised ore blocks (0.5 g/t Au - 0.7 g/t Au = blue, 0.7 g/t Au - 1.0 g/t Au = green, 1.0 g/t Au - 3.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Forgotten Four and constrained within \$2,200 pitshell, with the existing open pit (black outline).

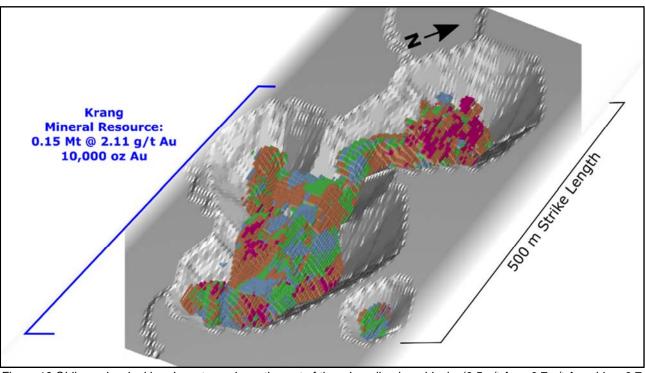


Figure 16 Oblique view looking down towards north-west of the mineralised ore blocks (0.5 g/t Au - 0.7 g/t Au = blue, 0.7 g/t Au = 1.0 g/t Au = green, 1.0 g/t Au = orange and plus 3.0 g/t Au = magenta) at Krang and constrained within \$2,200 pitshell.

	Cutoff		Indicated			Inferred			Total	
Deposit	g/t Au	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au
	g/t Au	(Mt)	(g/t)	(k oz)	(Mt)	(g/t)	(k oz)	(Mt)	(g/t)	(k oz)
				MERT	ONDALE					
Mertons Reward	0.5	2.75	1.37	121	0.36	1.33	15	3.11	1.37	137
Mertondale 3-4	0.5	2.08	1.50	100	0.48	1.33	21	2.56	1.47	121
Tonto	0.5	2.67	1.18	101	0.18	1.30	8	2.85	1.18	109
Mertondale 5	0.5	0.81	1.83	48	0.22	1.71	12	1.03	1.80	60
*Eclipse	0.5				1.23	1.39	55	1.23	1.39	55
*Quicksilver	0.5				0.81	1.54	40	0.81	1.54	40
TOTAL		8.30	1.39	370	3.29	1.43	151	11.59	1.40	521
				CA	RDINIA					
Bruno Lewis Link	0.5	1.09	1.30	45	0.72	1.55	36	1.81	1.40	81
Lewis	0.5	2.48	1.21	96	0.22	1.31	9	2.70	1.22	105
Kyte	0.5	0.51	1.28	21	0.02	1.60	1	0.53	1.30	22
Helens	0.5	0.99	1.53	48	0.29	1.39	13	1.27	1.50	61
Rangoon	0.5	0.41	1.37	18	0.19	1.18	7	0.60	1.31	25
TOTAL		5.47	1.30	229	1.44	1.43	66	6.91	1.33	296
				RA	ESIDE					
Michelangelo	0.5	2.47	1.61	128	0.09	1.51	4	2.56	1.61	132
Leonardo	0.5	0.75	1.81	44	0.15	1.23	6	0.90	1.71	50
*Forgotten Four	0.5				0.21	2.12	14	0.21	2.12	14
*Krang	0.5				0.15	2.11	10	0.15	2.11	10
TOTAL	TOTAL			172	0.60	1.81	35	3.82	1.68	206
GRAND TOTAL	GRAND TOTAL		1.41	771	5.33	1.47	252	22.32	1.43	1,023

	Cutoff	Indicated			Inferred			Total		
Mining Centre	g/t Au	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)	Tonnes (Mt)	Au (g/t)	Au (k oz)
MERTONDALE	0.5	8.30	1.39	370	3.29	1.43	151	11.59	1.40	521
CARDINIA	0.5	5.47	1.30	229	1.44	1.43	66	6.91	1.33	296
RAESIDE	0.5	3.22	1.66	172	0.60	1.81	35	3.82	1.68	206
TOTAL		17.00	1.41	771	5.33	1.47	252	22.32	1.43	1,023

	Cutoff	Indicated			Inferred			Total		
Material Type	g/t Au	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au
	g/t Au	(Mt)	(g/t)	(k oz)	(Mt)	(g/t)	(k oz)	(Mt)	(g/t)	(k oz)
Oxide	0.5	2.65	1.36	116	1.82	1.47	86	4.47	1.40	202
Transitional	0.5	4.46	1.29	184	1.01	1.41	46	5.47	1.31	230
Fresh	0.5	9.88	1.48	471	2.50	1.50	120	12.38	1.49	591
TOTAL		17.00	1.41	771	5.33	1.47	252	22.32	1.43	1,023

## NOTES:

All resources other than Eclipse, Quicksilver, Forgotten Four and Krang have been estimated by CM in 2017 and reported at 0.5g/t Au within Entech AUD2,200 pit shells.

Totals may not tally due to rounding

<sup>\*</sup> Mineral Resources estimated by McDonald Speijers in 2009, audited by Carras Mining Pty Ltd in 2017 and reported in accordance with JORC 2012 using a 0.5g/t Au cut-off within Entech AUD2,200 pit shells.

## For further information, please contact:

Don Harper Managing Director Kin Mining NL +61 8 9242 2227 Paul Armstrong/Nicholas Read Read Corporate +61 (0) 8 9388 1474

## **About Kin Mining**

**Kin Mining NL (ASX: KIN)** is an emerging gold development company with a significant tenement portfolio in the North-Eastern Goldfields of Western Australia. Kin's priority is to complete a Feasibility Study for the LGP. Metallurgical, geotechnical, and environmental work is currently underway to support the Definitive Feasibility Study, which will form the basis for a decision to mine.

## **Competent Persons Statements**

The information in this report that relates to 2017 Mineral Resources is based on information reviewed and compiled by Dr. Spero Carras of Carras Mining Pty Ltd (CM). Dr. Carras is a Fellow of the Australasian Institute Mining and Metallurgy (AusIMM) and has over 40 years experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Mark Nelson, Consultant Geologist to CM with over 30 years experience and is a Member of the Australasian Institute Mining and Metallurgy (AusIMM) with sufficient experience in the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Gary Powell Consultant Geologist to CM with over 30 years experience and is a Member of the Australasian Institute Mining and Metallurgy (AusIMM) and the AIG with sufficient experience in the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

CM also acted as auditors of the 2009 McDonald Speijers resource estimates for Eclipse, Quicksilver, Forgotten Four and Krang.

Dr. S. Carras, Mr. Mark Nelson and Mr. Gary Powell consent to the inclusion in the report of the matters based on their information in the context in which it appears.

The information contained in this report relating to exploration results relates to information compiled or reviewed by Paul Maher and Simon Buswell-Smith. Mr. Maher is a member of the Australasian Institute of Mining and Metallurgy, and Mr. Buswell-Smith is a member of the Australian Institute of Geoscience, and both are employees of the company and fairly represent this information. Mr. Maher and Mr. Buswell-Smith have sufficient experience of relevance to the styles of mineralisation and the types of deposit under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 edition of the JORC "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr. Maher and Mr. Buswell-Smith consent to the inclusion in the report of the matters based on information in the form and context in which it appears.

## **Appendix A**

## JORC 2012 TABLE 1 REPORT MERTONDALE PROJECT

## Merton's Reward, Mertondale 3-4, Mertondale 5 and Tonto

## SECTION 1 – Sample Techniques and Data

(Criteria in this section apply to all succeeding sections)

mineralisation continuity.

Criteria	Commantary
Criteria	Commentary
Sampling techniques	All sample data, subject of this report and used for resource estimation work, is obtained fror various drilling programs carried at Mertondale out since 1981. Data was obtained predominantl from Reverse Circulation ('RC') drilling, and to a lesser extent, diamond core ('Diamond' or 'DD drilling and Air Core ('Aircore' or 'AC') drilling.
	Companies involved in the collection of the majority of the exploration data prior to 2014 include Nickelore NL ("Nickelore") 1981-1982; Hunter Resources Ltd ("Hunter") 1984-1988; Harbou Lights Mining Ltd (a joint owned company of Ashton Gold WA Ltd and Carr Boyd Minerals Pty Lt - "HLML") 1988-1993; Mining Project Investors Pty Ltd ("MPI") 1993-1996; Sons of Gwalia Lt ("SOG") 1996-2004; Navigator Resources Ltd ("Navigator") 2004-2014.
	Kin Mining Ltd ("KIN") acquired the Mertondale Project in 2014.
	HISTORIC SAMPLING (1981-2014)
	Drill samples were generally obtained from 1m downhole intervals and riffle split to obtain a 34kg representative sub-sample, which were submitted to a number of commercial laboratorie for a variety of sample preparations methods, including oven drying (90-110°C), crushing (-2mr to -6mm), pulverizing (-75 $\mu$ m to -105 $\mu$ m), and generally riffle split to obtain a 30, 40 or 50 grar catchweight for gold analysis, predominantly by Fire Assay fusion, with AAS finish. On occasions initial assaying have been carried out using Aqua Regia digest and AAS/ICP finish, with anomalous samples re-assayed by Fire Assay fusion and AAS/ICP finish.
	Diamond Drilling
	Half core (or quarter core) sample intervals varied from 0.15 to 1.46m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in marked core trays and stored in a secure yard for future reference. The only know available drill core from these programs and stored at KIN's Leonora Exploration Yard, are those drilled by Navigator.
	RC Drilling
	The vast majority of Reverse Circulation (RC) drill samples were collected over 1m downhol 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 1r 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 (wet samples) to obtain 3m or 4m composited intervals, with the single metre split subsamples being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved an submitted for analysis.
	Navigator obtained sub-samples from wet samples using the spear method.
	Data relating to historical wet samples is not available, however the number of wet sample involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have bee rehabilitated and the sample bags removed and destroyed.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, althoug in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on th ground prior to sampling with a scoop. Assay results from these samples are not used for resource estimation work, however they do sometimes provide a guide in interpreting geology an

Criteria			Commenta	ry							
	samples, when imp	lementing same stimation work	sampling techniq if the 1m sub-sam	ues. Aircore	of a comparable quality to RC sample assay results were only btained by riffle splitting of the						
	There are no sample rehabilitated and the				014. Most drill sites have been						
	RAB Drilling										
	open hole and drill r intervals and placed hole contamination regarded as reconn	ods, using a stud on the ground of the sample is aissance in natu amples are not	ffing box and cyclo with 3-4kg sub-sa s commonplace, the are and the samplest appropriate for	ne. Samples mples colled herefore this es indicative resource	from the annulus between the are usually collected at 1 metre cted using a scoop or spear. Ups type of drilling and sampling is a of geology and mineralisation. estimation work and are only sation.						
	KIN MINING (2014-	2017)									
	<u>Diamond drilling</u>										
	in quarters, using a place. Half core (or predominantly take remaining core was	Diamond drill core (HQ3) samples collected for analysis were longitudinally cut in half, and then in quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Half core (or quarter core) sample intervals varied from 0.3 to 1.11m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and securely stored in KIN's yard in Leonora for future reference.									
	RC drilling										
		metre, the cyclo	ne underflow is cl	osed off, the	ored in a sample collection box. e underside of the sample box is						
		the riffle splitter			intervals and averaged 3-4kg. narked plastic bags, and located						
		geology person	nel to today's ind	dustry stand	lures were conducted and/or lards. QA/QC procedures were						
	<u>Analysis</u>										
	110°C), crushed (-6	mm and -2mm),	pulverised (P85%	-75μm) and	samples were oven dried (105- I split to obtain a representative ay fusion with AAS finish.						
	COMMENT										
		tervals and a su			mples were obtained at 1.5 or 3 rical MPI holes were composite						
	For resource estimation work, Diamond, RC and some Aircore drilling data was used where appropriate. RAB drilling data was not used for resource estimation but was sometimes used as an interpretative guide only. A proportion of the 1.5m sample intervals, particularly for Mertons Reward, were used in the resource estimation, only where the sampling methods are appropriate, and where they sit within the mineralisation interpretations.										
Drilling techniques	Numerous programs comprising various types of drilling have been conducted by several companies since 1981. The Mertondale database encompasses the various deposits and prospects within the Mertondale Project area, and consists of 6,974 drillholes for a total of 345,635 metres, viz:										
	Hole Type	Drill holes	Metres (m)	%(m)							
	DD	192	27,129	7.8							
					t						

1,244

RC

125,874

36.4

AC	1,343	83,508	24.2
RAB	4,195	109,124	31.6
Total	6,974	345,635	100%

#### **HISTORIC DRILLING (1981-2014)**

## **Diamond Drilling**

Diamond drilling 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 ( $\emptyset$  45-48mm), HQ/HQ3 ( $\emptyset$  61-64mm), minimal NDBGM ( $\emptyset$  50-51mm) and some PQ/PQ3 ( $\emptyset$  83-85mm). 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.

## **RC** Drilling

RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, until the late 1980s, when the majority of drilling companies started changing over to using face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm. Samples obtained from conventional RC drilling techniques with cross-over subs often suffered from down hole contamination (e.g. smearing of grades), 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 more reliable and representative.

## Aircore Drilling

Aircore drilling is a form of RC drilling, but generally utilizing smaller rigs and smaller air compressors, compared to standard RC drill rigs of the times. Aircore bits are hollow in the centre, with the kerf comprising cutting blades or 'wings' with tungsten-carbide inserts. Drill bit diameters usually range between 75-110mm.

The vast majority of Aircore drilling (98%) was conducted by Navigator utilising suitable rigs with appropriate compressors (eg 250psi/600cfm). Aircore holes were drilled mostly into the weathered regolith using 'blade' or 'wing' bits, until the bit was unable to penetrate further ('blade refusal'), often near to the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate harder rock types. Holes were typically no deeper than 60 metres.

## **RAB** Drilling

RAB drilling is 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.

## **KIN MINING (2014-2017)**

## **Diamond Drilling**

Diamond drilling was carried out by contractor Orbit Drilling Pty Ltd ("Orbit Drilling") with a truck-mounted Hydco 1200H drill rig, using industry standard 'Q' wireline techniques. 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.

Drillhole deviation was measured at regular downhole intervals, typically at 10m from surface, thence every 30m to bottom of hole, using electronic multi-shot downhole survey tools (e.g. Reflex EZ-TRAC, Camteq Proshot), or in some instances a separate independent program of downhole deviation surveying was carried out to validate previous surveys, utilizing an electronic continuous logging survey tool (AusLog A698 deviation tool).

Core orientation was obtained for each core run where possible, using electronic core orientation tools (e.g. Reflex EZ-ORI) and the 'bottom of core' marked accordingly.

## **RC** Drilling

RC drilling was carried out by Orbit Drilling's truck-mounted Hydco 350RC drill rigs with 350psi/1250cfm air compressor, with auxiliary and booster air compressors (when 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

Commentary			ry	
maintain dry sample return as much as possible.				
Drillhole deviations were surveyed downhole, during drilling operations, usin multi-shot downhole tool (e.g. Reflex EZ-TRAC). In some instances, drillholes were in open hole. Where stopes and cavities were encountered, surveying was comp steel rods to obtain dip only readings. In the later drilling programs, downhole				
the tool was successfully re carried out to	located in the mido ecorded. A separate	dle of the stainless independent prog	) rod, located above the hammer. Providir steel rod, azimuth and dip readings we gram of downhole deviation surveying wan n electronic continuous logging survey to	
_	tables summarise d e. excluding open-h	_	entire Mertondale Project area, for DD, F RAB):	
Mertondale P	roject – Historical D	rilling Summary (Pr	re-2014)	
Hole Type	Holes	Metres		
DD	188	26,666		
RC	1,131	112,215		
AC	1,343	83,508		
Total	2,662	222,389		
	2,662  roject – Drilling Sum  Holes		2017)	
Mertondale P	oject – Drilling Sum	mary – KIN (2014-2	2017)	
Mertondale P <b>Hole Type</b>	oject – Drilling Sum	mary – KIN (2014-2 <b>Metres</b>	2017)	

RC drilling is the dominant drill type at all sites. RC drilling information is generally described in varying detail in historical reports to the DMP, including drilling companies used and drilling rig types, however it's not all recorded in the database supplied. Review of the historical reports indicates that reputable drilling companies were typically contracted and the equipment supplied was of an acceptable standard for those times. During the 1990s, and 2000s, suitable large drill rigs with on-board compressors were probably complimented with auxiliary and booster air compressors for drilling to greater depths and/or when groundwater was encountered. KIN's drilling was conducted with modern rigs equipped with auxiliary and booster compressors and face sampling hammers with bit diameters typically 140mm.

When drilling under dry conditions, Aircore samples should be of a comparable quality to RC samples, when implementing same sampling techniques. Aircore drilling data was only used in resource estimation work, where the in-field and laboratory sampling methodologies was considered appropriate and limited to a number of selected Navigator drillholes.

## Drill sample recovery

## **HISTORIC DRILLING (1981-2014)**

## Diamond drilling

Core recovery has been recorded in most drill logs for most of the diamond drilling programs since 1981, but is not recorded in the supplied database. A review of some historical reports indicates that generally core recovery was good with lesser recoveries recorded in zones of broken ground and/or areas of mineralisation. Overall recoveries are considered acceptable for

Criteria	Commentary
	resource estimation.
	RC drilling
	There is limited information recorded for sample recoveries for historical RC and Aircore drilling. However there has been an improvement in sample recoveries and reliability following the introduction of face sampling hammers and improved drilling technologies and equipment, since the mid-1980s.
	KIN MINING (2014-2017)
	<u>Diamond Drilling</u>
	Core recovery was recorded for each run by measuring total length of core retrieved against the downhole interval actually drilled.
	Diamond core recoveries were recorded in the database, and averaged 100%. Independent field reviews by the Competent Persons (SC and GP) in 2017 of the diamond drilling rig in operation and core integrity at the drill sites, demonstrated that diamond drill core recoveries were being maximised by the driller, and that core recoveries were consistently > 95%, even when difficult ground conditions were being encountered.
	RC drilling
	Integrity of each one metre RC sample is preserved as best as possible. At the end of each 1 metre downhole interval, the driller stops advancing the rods, 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 the 3-tiered riffle splitter fitted beneath the sample box. 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 riffle splitter cleaned by the off-sider using a compressed air hose, and if necessary a scraper. This process is maintained throughout the entire drilling program to maximise drill sample recovery and to maintain a highly representative level of the material being drilled.
	RC drill sample recoveries are not recorded in the supplied database, however a review by the Competent Person (GP) in May 2017 of RC drill samples stored in the field, and observations of the two RC drilling rigs in operation, suggests that RC sample recoveries were mostly consistent and very good, with the samples themselves being reliable and representative of the material being drilled.
	COMMENT
	Due to the lack of detailed information in the database regarding historic (pre-2014) Aircore and RC drilling, no quantitative or semi-quantitative impression of sample recovery or sample quality is available. It's assumed to be satisfactory given that several deposits were mined in the past, by open pit methods, in the Mertondale area (i.e. Mertondale 2, Mertondale 3-4 and Mertondale 5), where the open pits were mined to their original design limits, based on the historical drill data. This suggests that the amount of metal recovered was probably not grossly different from pre-mining drill data based expectations.
	During Navigators drill programs wet samples were spear sampled instead of riffle split. This is regarded as poor sampling procedure and these samples are regarded as unreliable however the total number of wet samples is considered to be very low.
	No indication of sample bias is evident nor has it been established. That is, no relationship has been observed to exist between sample recovery and grade.
	The amount of Aircore drilling data used in the Mertondale resource estimation process is minimal and regarded as not material.
Logging	HISTORIC DRILLING (1981-2014)
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, SOG and Navigator). Correlation between codes is difficult to establish, however it can be achieved with effort. Based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time.
	Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core orientations), core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features, and then marked up for cutting and sampling. Several diamond drillholes were completed for geotechnical purposes and

Criteria	Commentary
	were independently logged for structural data by geotechnical consultants. All diamond drill core has been photographed, and currently stored at KIN's yard in Leonora.
	Navigator RC and Aircore logging was entered on a metre by metre basis, recording lithology, alteration, texture, mineralisation, weathering and other features. The information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
	The entire length of all drillholes is logged in full from surface to bottom of hole.
	Logging is qualitative on visual recordings of lithology, oxidation, colour, texture and grain size. Logging of mineralogy, mineralisation and veining is quantitative.
	Drill core photographs are only available for Navigator's diamond drillholes.
	KIN MINING (2014-2017)
	KIN's logging of drill samples was carried out in the field (RC drilling) or at the Leonora Yard (diamond core) and entered onto a portable computer, on a metre by metre basis for RC, and by sample intervals and/or geological contacts for diamond core. Data recorded included lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded in the drill logs in the field.
	KIN geological personnel retrieved the core trays from the drill rig site and relocated them to KIN's yard in Leonora at the end of each day. Drill core was photographed in the field or at the Leonora yard, prior to cutting using a diamond core saw to obtain quarter core samples for analysis.
	All information collected was entered directly into laptop computers or tablets, and transferred to the database to be validated.
	COMMENT
	KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies and metallurgical studies.
	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, veining, and in addition, logging of diamond drilling included geotechnical data, RQD and core recoveries.
	For the majority of historical drilling (pre-2004), and all of the more recent drilling, the entire length of drillholes have been logged from surface to 'end of hole'. Diamond core logging is typically logged in more detail compared to RC and Aircore drilling.
Sub-	HISTORIC DRILLING (1981-2014)
sampling techniques and sample	Historical reports for drilling programs prior to 2004, are not always complete in the description of sub-sampling techniques, sample preparation and quality control protocols.
preparation	<u>Diamond drilling</u>
	Diamond drill core (NQ/NQ3, HQ/HQ3 or PQ/PQ3) samples collected for analysis were longitudinally cut in half, and occasionally in quarters for the larger (HQ/HQ3 or PQ/PQ3) diameter holes, using a powered diamond core saw blade centered over a cradle holding the core in place.
	Half core (or quarter core) sample intervals varied from 0.15 to 1.46m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining half (quarter) core was retained in core trays.
	Where historical reports do not describe the sampling protocol for sampling of drill core, it is assumed that drill core was sampled as described above.
	RC drilling
	Prior to 1996, limited historical information indicates most RC sampling was conducted by collecting 1m samples from beneath a cyclone and passing through a riffle splitter to obtain a 3-4kg sub-sample for analysis. RC sampling procedures are believed to be consistent with the normal industry practices at the time. The vast majority of samples were dry and riffle split,

Criteria	Commentary
	however spear or tube sampling techniques were used for wet samples.
	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 being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
	Navigator obtained sub-samples from wet samples using the spear or tube method.
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	Navigator included standards 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 Since 2009, Navigator adopted a stricter sampling regime with the additional submission of field split duplicate samples at a rate of 1 for every 50 primary samples.
	Aircore drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop.
	Navigator included standards 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 Since 2009, Navigator adopted a stricter sampling regime with the submission of field split duplicate samples at a rate of 1 for every 50 primary samples.
	A variety of laboratories were used for analysis. Prior to 2009, duplicate samples were not routinely collected and submitted from RC and Aircore drilling to the same laboratory consequently overall sampling and assay precision levels can't be quantified for that period.
	While QC protocols were not always comprehensive, the results indicate that assay results from Navigators exploration programs were reliable. Results from pre-Navigator operators are regarded as consistent with normal industry practices of the time.
	KIN MINING (2014-2017)
	Diamond drilling
	Diamond drill core samples (HQ3) collected for analysis were longitudinally cut in half and quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.3 to 1.11m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference.
	At the time of resource estimation, assays had not yet been received for KIN's diamond core samples.
	RC drilling
	All RC sub-samples were collected over 1 metre downhole intervals and retained in pre-marked calico bags, after passing through a cyclone and riffle splitter configuration. The majority of RC sub-samples consistently averaged 3-4kg. Sample reject from the riffle splitter were retained and

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 riffle splitter, and the small

number is not considered material.

Criteria	Commentary
	Field duplicates were taken at regular intervals at a ratio of 1:50 and assay results indicate that there is reasonable analytical repeatability, considering the presence of nuggety gold.
	COMMENT
	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 the material being drilled. 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 is an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia
Quality of assay data and laboratory	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.
tests	HISTORIC DRILLING (1981-2014)
	For assay data obtained prior to 1996, the incomplete nature of the data results could not be accurately quantified in terms of the data derived from the combinations of various laboratories and analytical methodologies.
	Since 1996, 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.
	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 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 Aircore holes may have been subject to Aqua Regia digest methods only, however Aircore samples were obtained predominantly within the oxide profile, where aqua regia results are not expected to be significantly different to results from fire assay methods.
	In 1989, Hunter tabulated significant RC oxide zone intercepts from Merton's Reward and Mertondale 3-4, and recorded average grades for both Aqua Regia (AR) and Fire Assay (FA), confirming that there was no significant bias between AR/AAS and FA techniques. Length weighted grades were almost identical for 800m of aggregate intercepts suggesting very low risk of bias associated with the portion of utilised Aqua Regia results.
	Hunter also carried out a comparison of 18 assays results in 1985, between standard fire assay and screen fire assay results from five RC holes. There was a reasonably good correlation between assays for the two methods for values < 5ppm Au, considering the presence of nuggety gold.
	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 Aircore samples using Fire Assay fusion on 40 gram catchweights and AAS/ICP finish.
	Navigator regularly included, Certified Reference Material (CRM) standards and blanks with their sample batch submissions to the laboratories at average ratio of 1 in every 20 samples. Sample assay repeatability, and blank and CRM standards assay results are within acceptable limits. Since 2009, Navigator adopted a stricter sampling regime with the submission of field split duplicate samples at a rate of 1 for every 50 primary samples.
	KIN MINING (2014-2017)
	Sample analysis was conducted by SGS Australia Pty Ltd's ("SGS") Kalgoorlie and Perth laboratories. Sample preparation included oven drying (105°C), crushing (-6mm), pulverising (P85% -75 $\mu$ m) 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, field duplicate and CRM standards in each sample batch at a ratio of 1:20. 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 duplicate sample assay repeatability, blank standards and CRM standards assay results are within acceptable limits for this style of gold

SGS include blanks and CRMS 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

mineralisation.

Criteria	Commentary
	standards assay results are within acceptable limits.
	COMMENT
	The nature and quality of the historical assaying and laboratory procedures used are considered to be satisfactory and appropriate for use in mineral resource estimations.
	Fire Assay fusion or Aqua Regia digestion techniques were conducted on diamond, RC and Aircore samples, with AAS or ICP finish.
	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.
	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.
	KIN's ongoing QA/QC monitoring program identified one particular CRM that was returning spurious results. Further analysis demonstrated that the standard was compromised and subsequently removed and destroyed. A replacement CRM of similar grade was substituted into the QA/QC program.
Verification of sampling and	Verification of sampling and assaying techniques and results prior to 2004 has limitations due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories, over a twenty year period.
assaying	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.
	Since 2014, significant drill intersections have been verified by KIN's company geologists during the course of the drilling programs.
	During 2017, Carras Mining Pty Ltd ("CM") carried out an independent data verification. 8,991 assay records for KIN's 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 3 errors were found, which are not considered material and which represents less than 0.01% of all database records verified for KIN's 2014-2017 drilling programs.
	COMMENT
	There is always a risk with legacy data that sampling or assaying biases may exist between results from different drilling programs due to differing sampling protocols, different laboratories and different analytical techniques.
	Repeated examinations of historic reports on phases of diamond, RC and Aircore drilling have been conducted from time to time. Assay results from KIN's recent drilling are consistent with surrounding information and as a result the information obtained from the various diamond, RC and Aircore drilling programs (where sampling protocols are appropriate) have been accepted.
	Recent (2014-2017) RC and diamond drilling by KIN included some twinning of historical drillholes in several locations predominantly within the Mertondale 3-4 resource area. There is no material difference observed between historical drilling information and the KIN drilling information. In the areas that were not drilled with twin holes, the drill density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference of a negative nature between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results received to date for these holes also show good correlation with nearby historical results.
	Where sampling protocols are appropriate, diamond, RC and Aircore samples, are of equal importance in the resource estimation process.
	There has been no adjustments or calibrations made to the assay data recorded in the supplied

database.

Criteria	Commentary
Criteria	Commentary
Location of data points	A local survey grid was originally established in 1981 at Mertons Reward, and subsequently extended by Hunter during 1985-1988. During the 1990s, SOG identified a small angular error in the base line, which resulted in substantial errors, particularly in the northern portion of the project. Surface survey data were transformed firstly to AMG and subsequently to MGA (GDA94 zone51). This resulted in different grid transformations being applied in the northern and southern parts of the Mertondale area.
	Navigator recognised errors in the collar co-ordinates resulting from these transformations and as a result, a significant number of holes were resurveyed and a new MGA grid transformation generated. This exercise largely appeared to eliminate the offset. 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. Where variations in the MGA co-ordinate system were detected, Navigator's geologists deemed the errors were not large enough to have a material impact on the resource estimation work in 2009.
	All survey work carried out by Navigator was conducted in GDA94 Zone 51 using differential GPS equipment and a network of survey controls.
	Almost all the diamond and at least 80% of Navigator's RC holes were downhole surveyed. Pre-Navigator, single shot survey cameras were used, with typical survey intervals of 30-40 metres. There were some variation between magnetic and grid azimuths noted (up to 2°) for pre-Navigator drillholes, however the variations are small enough to be within acceptable limits. Aircore holes and the majority of pre-Navigator RC holes were not surveyed down hole, as was the general practice of the day.
	Navigator carried out down hole survey using a single shot or multi-shot survey camera.
	KIN MINING (2014-2017)
	KIN's drill hole collars were 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. During this program the surveyor also located one historic Navigator diamond and 13 RC drillhole collars using the database collar positions. The collar positions were verified using RTK-DGPS within 1 metre.
	Downhole surveying during KIN's drilling programs was predominantly carried out by the drilling contractor. KIN recognised that some of the downhole survey data appeared to be spurious, and commissioned an independent downhole surveying program by a survey contractor (BHGS, Perth) to check several drillholes at Mertons Reward, Mertondale 3-4 and Tonto. The check survey found occasional erroneous results with the initial surveys. This can be explained by the fact that when the drilling company's survey tool is run inside the drill rods, the tool's sensors need to be located exactly in the middle of the bottom s/s RC rod to obtain accurate readings. Check readings by KIN personnel at different locations within the s/s rod found that variation in azimuth can be measured up to 2°, within 1 metre from the centre of the rod, and up to 10° further away from the centre. The positioning of the tool by the drilling contractor is assumed to be within 1 metre of the centre of the s/s rod for the majority of the drilling program. Therefore, given the nature of the mineralisation and the shift in apparent position of up to 5 metres (for 2° variation) along 'strike' for open pit depths (<140 metres), the occasional errors are not considered material for this resource estimation work.
	In addition, if the downhole survey tool is located within 15 metres of the surface, there is risk of influence of 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.
	One RC hole at Mertons Reward (MT17RC037) was found to have an elevation error of approximately 8 metres at the end of hole (204 metres depth), which appears to be related to an incorrect inclination setup of the rig's drilling angle at commencement of drilling.
	KIN supplied one digital terrain models (DTM) of the topography constructed from drill hole collar data, and the second from a recent aerial orthophotogrammetry survey. The two DTM surfaces correlate sufficiently close and within acceptable limits for horizontal and vertical control, and appropriate for resource estimations.

COMMENT

The accuracy of the drill hole collar and downhole data are located with sufficient accuracy for

Criteria	Commentary					
	use in resource estimation work.					
	Some historical Navigator drillhole collar positions at Mertons Reward, Mertondale 3-4 and To have recently been independently located and verified in the field, and checked against database.					
	Considering the history of grid transformations and various problems recorded in the surviving documentation there might be some residual risk of error in the MGA co-ordinates for old drillholes, particularly in the northern area, however this is not considered to be material for the resource estimations, subject of this report.					
	Much of the historical drilling data was recorded relative to magnetic north. Variation in magnetic declination for the Mertondale Project area is calculated at +0.823° East (1985) to +1.301° East (2017), with a maximum variation of +1.575° 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.					
Data	-		-		Project area	, and is deposit specific,
spacing and	depending on the nat					, and is aspesit specific,
distribution	The following table so for each of the resour		e general ran	ge of drilling	grid spacing	s and drill hole spacings
	Resource	Drill Grid	Spacing	Drillhole	Spacing	
	Areas	from (m)	to (m)	from (m)	to (m)	
	Mertons Reward	20	25	12.5	25	
	Mertondale 2	25	25	25	25	
	Mertondale 3-4	12.5	25	12.5	25	
	Mertondale 5 Tonto	12.5 20	25 25	12.5 10	25 20	
	Mineralised areas have typically been drilled at hole spacings of 10-25 metres and 12.5-25 metres drill grid spacings. The majority of the holes were drilled at an average dip of -60°, and orthogona to the strike of mineralisation.  Drill hole and sample interval spacing is sufficient to establish an acceptable degree of geologica and grade continuity appropriate for mineral resource estimations and classifications applied.  There has been no sample compositing, other than a few historical compositing of field samples for some Aircore and RC samples to 1.5m, 2m and few 4m intervals. The vast majority of primary assay intervals are 1 metre intervals for RC and Aircore samples, and predominantly 1 metre intervals for core samples.				of -60°, and orthogonal ble degree of geological assifications applied. positing of field samples wast majority of primary	
Orientation of data in relation to geological structure	The four recognised deposits and all the known mineralisation is located within the north trending Mertondale Shear Zone (MSZ), located within the Mertondale greenstone sequence, which is orientated in a NNE to Northerly direction. The stratigraphy and mineralisation generally dips sub-vertically to steeply dipping to the east or west. The majority of drilling and sampling programs were carried out to intersect mineralisation orthogonal to strike and as close to orthogonal to dip as practical.  Geological interpretation of Mertons Reward is largely based on drill data together with information retrieved from historic mapping and mine plans of the old workings, and thus there is a high level of confidence in the interpretation.  At Mertondale 3-4 gold mineralisation is associated with the intrusive porphyry contact, where the contact can be used as a mineralisation guide or 'marker' horizon.  The majority of holes were inclined at -60° and drilled orthogonal to the interpreted strike of the					
	target mineralisation (i.e. towards 245° to 270°). In some areas, historical vertical drillholes were completed, as initial reconnaissance drilling, or specifically targeting interpreted flat- to shallow-dipping mineralisation.  The chance of sample bias introduced by sample orientation is considered minimal. No					
	orientation sampling bias has been identified in the data thus far.					

Criteria	Commentary
Sample	HISTORIC DRILLING (1981-2014)
security	No sample security details are available for pre-Navigator (pre-2004) drill samples.
	Navigator's drill samples were collected from the riffle splitter in pre-numbered calico bags at the drill rig site. Samples were collected by company personnel from the field and transported to Navigator's secure yard in Leonora, where the 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 Navigator's yard, until transporting to the laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site, to delivery to the laboratory.
	KIN MINING (2014-2017)
	KIN's RC drill samples were collected from the riffle splitter 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 KIN's secure yard in Leonora. The bulkabags were tied off and stored securely in the yard. The laboratory's (SGS) transport contractor was utilized to transport the bulkabags to the laboratory. There was no perceived opportunity for the 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.
	On receipt of the samples, the laboratory (SGS) independently checked the sample submission form to verify samples received, and readied the samples for sample preparation. SGS's sample security protocols are of industry acceptable standards.
Audits or reviews	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to today's current standards. A review of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to the best practice industry standards of the day.
	A review of the Mertondale Project's database, drilling and sampling protocols, and so forth, was conducted and reported on by independent geological consultants MS in 2009. Their report highlighted various issues, which had subsequently been mostly rectified by Navigator prior to 2014, and most recently by KIN.
	During 2017, CM have reviewed and carried out an audit on the field operations and database. Drilling and sampling methodologies observed during the site visits are to today's industry standard. Similarly there were no issues identified for the supplied databases, which would be considered material.
	KIN is in the process of completing validation of all historical logging data and to standardise the logging code system by incorporating the SOG and Navigator logging codes into one, and converting all historical logging into the standardized code system. This is an ongoing process and is not yet completed.
	During the review, CM logged the oxidation profiles ('base of complete oxidation' or "BOCO", and 'top of fresh rock' or "TOFR") for each of the deposit areas, based on visual inspection of selected RC drill chips from KIN's recent drilling programs, and a combination of historical and KIN's drillhole logging, with final adjustments made with input from KIN geologists. The oxidation profiles were used to assign bulk densities and metallurgical recoveries to the resource models.
	Bulk density testwork in the past 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 testwork 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.
	Recent (2014-2017) RC and diamond drilling by KIN include some twinning of historical drillholes within the Mertondale Project area. In addition, KIN's infill drilling density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference of a negative nature between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show good correlation with nearby historical results.
	Drilling, Sampling methodologies and assay techniques used in the historical and recent drilling programs are considered to be appropriate and to mineral exploration industry standards of the day.

## **SECTION 2 – Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	The Mertondale Project area includes granted mining tenements M37/1284 (Mertons Reward), M37/81 and M37/82 (Mertondale 3-4) and M37/233 (Mertondale 5 and Tonto), centered some 40km NNE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. These tenements are managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields of Western Australia.
	The following royalty and compensation payments may be applicable to the areas within the Mertondale Project that comprise the deposits being reported on:
	1. Aurora Gold (WA) Pty Ltd (subsidiary company of Harmony Gold Mining Company Ltd in respect of M37/82, M37/231, M37/232 and M37/233 - \$0.25 production royalty per dry tonne of ore mined and processed.
	2. Aurora Gold (WA) Pty Ltd in respect of M37/81 and M37/82 - \$1.00 production royalty per dry tonne of ore mined and processed.
	3. Technomin Australia Pty Ltd in respect of M37/82, M37/231, M37/232 and M37/233 - \$0.75 production royalty per dry tonne of ore mined and milled, and
	4. Higherealm Pty Ltd (Mertondale Pastoral Leaseholder) in respect of M37/81, M37/82, M37/231, M37/232 and M37/233 - \$10,000 per annum, indexed to CPI, for the year(s) when extraction activities are being carried out.
	There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other parties	Gold was initially discovered in the Mertondale area in 1899 by Mr. Fred Merton. The Mertons Reward (MR) underground gold mine (M37/1284) was the direct result of his discovery. The main mining phase at MR was carried out from 1899 to 1911. Historic underground production records to 1942 totalled 88,890t @ 21.0g/t Au (60,520oz) which represents the only recorded mining conducted at Mertons Reward.
	Between 1981-1984 Telluride Mining NL, Nickel Ore NL, International Nickel (Aust) Ltd and Petroleum Securities Mining Co Pty Ltd conducted exploration programs in the Mertondale area. Hunter Resources Ltd began actively exploring the region 1984-1989, Hunter submitted a Notice of Intent (NOI) to mine in 1986 and established a JV with Harbour Lights to treat ore from the Mertondale 2 (M37/1284) and Mertondale 3 pits (M37/82). Between 1986 and 1993 the adjoining Mertondale 4 pit (M37/82 and 81) was mined. Harbour Lights acquired the project in 1989 from Hunter. Ashton Gold eventually gained control of Harbour Lights. Large scale mining in the region was completed in 1993 with the mining of the Mertondale 2 and Mertondale 3-4 pits (M37/81 and M37/82). In 1993 Ashton's interest was transferred to Aurora Gold who established a JV with MPI followed by Sons of Gwalia who entered into a JV with Aurora.

Historic gold production from the Mertondale Mining Centre.

Mine	Date	Company	Tonnes (t)	Rec. Grade (Au g/t)	Ounces ('000)
Mertondale					
Mertondale 5 Pit	1991	HUV	385,537	2.60	32,290
Mertondale 3-4 Pit	1986 – 1993	Hunter/HLJV	1,300,000	4.29	179,300
Mertondale 2 Pit	1986 – 1993	Hunter/HLJV	20,000	3.50	2,250
Mertondale 2 Pit	Feb – Jul 2010	NAV	14,000	1.03	460
Mertondale Pits Sub-Total			1,719,537	3.87	214,300
Merton's Reward UG	1899 – 1942	Various	88,891	21.00	60,524
Mertondale Total			1,808,428	4.73	274,724

Sons of Gwalia (SOG) eventually obtained control of the project in 1997 but conducted limited exploration drilling. In 2004 Navigator Mining Pty Ltd (Navigator) acquired the entire existing tenement holding from the SOG administrator. Navigator conducted the majority of recent exploration drilling in the Mertondale area. KIN acquired the project from Navigator's administrator in late 2014. Historic production from the Mertondale Mining Centre totals 274,724 oz of gold.

KIN's drilling is focused in areas comprising historical drilling conducted by the above mentioned

Criteria	Commentary
	previous operators.
Geology	The Mertondale Project area is located 35-45km NNE of Leonora in the central part of the Norseman-Wiluna Greenstone Belt, which extends for some 600 km on a NNW trend across the Archean Yilgarn Craton of Western Australia.
	In broad terms the stratigraphy consists of a central felsic volcanic sequence bounded by tholeiitic basalt, dolerite, and carbonaceous shale ± felsic porphyry sequences.
	The four recognised deposits and all the known mineralisation is located within the north trending Mertondale Shear Zone (MSZ).
	Two distinct north trending mineralised zones are recognized within the MSZ. The western zone includes Quicksilver, Tonto, Eclipse and Mertondale 5, while the eastern zone includes the Merton's Reward, Mertondale 2 and Mertondale 3-4 deposits.
	Within the Mertondale Project area, most of the known mineralisation is hosted in sheared mafics with local porphyry bodies and sediment units. Some of the sediment units are graphitic, notably in the western mineralised zone.
	Eastern Mineralised Zone
	In the Mertons Reward - Mertondale 2 area, two distinct types of high grade lodes were historically recognized:
	<ul> <li>Shear Lodes: Steeply dipping structures containing abundant quartz-carbonate veinlets accompanied by finely disseminated pyrite-arsenopyrite, and</li> </ul>
	<ul> <li>Intershear Lodes: Narrow, flat to moderately dipping auriferous quartz veins up to about 40cm thick, enveloped in carbonate-altered zones up to +10m thick, which contain pyrite and arsenopyrite and lower grades of Au. These are usually truncated to the east and west by the steep dipping shear lodes.</li> </ul>
	Geological interpretation of Mertons Reward is largely based on historic mapping and mine plans of the historic workings, and thus there is a high level of confidence in the interpretation.
	At Mertondale 3-4 gold mineralisation is associated with the intrusive porphyry contact, where the contact can be used as a mineralisation guide or 'marker' horizon.
	Western Mineralised Zone
	The western mineralised zone typically comprises dark mafic mylonites, sedimentary units including carbonaceous shales, mafic intrusives and mafic-intermediate and felsic volcanics. Felsic porphyry intrusives occur irregularly within the shear zone. The black sulphide-rich mafic mylonite typically contains anomalous gold values up to 0.5 g/t Au in the resource areas.
	Lithologies at Tonto are black mafic mylonite, a black shale, shale, quartz-dolerite, basalt, basaltic andersite and felsic volcanics. The steeply dipping high grade lode at Tonto is more than likely structurally controlled and appears to potentially have a shallow southerly plunge. Visually the grade still remains very difficult to pick with no obvious association with sulphide content, quarts veining or alteration of either graphite or sericite.
	The footwall consists of the massive quartz dolerite. This dolerite has a noticeable bleached o carbonated halo along its immediate contact with the mylonite but grades into a strongly chloritic massive barren quartz dolerite.
	The Western mineralised zone at Mertondale 5 typically comprises dark mafic mylonites, sedimentary units including carbonaceous shales, mafic intrusives and mafic-intermediate and felsic volcanics. Felsic porphyry intrusives occur irregularly within the shear zone. The black sulphide-rich mafic mylonite typically contains anomalous gold values in the resource areas.
Drill hole Information	Material drilling information used for the resource estimation has previously been publicly reported in numerous announcements to the ASX by previous operators of the Mertondale Project, including Navigator (2004-2014) and KIN since 2014.

Criteria	Commentary
Data Aggregation methods	When exploration results have been reported for the resource areas, the intercepts are generally reported as weighted average grades over intercept lengths defined by geology or lower cut-off grades, without any high grade cuts applied. Where aggregate intercepts incorporated short lengths of high grade results, these results were included in the reports.  Since 2014, KIN have reported RC drilling intersections with low cut off grades of greater than or equal to 0.5 g/t Au and a maximum of 2m of internal dilution at a grade of <0.5g/t Au.
	There is no reporting of metal equivalent values.
Relationship Between Mineralisation widths and intercept lengths	The orientation, true width and geometry of the mineralised zones have been determined by interpretation of historical drilling and verified by KIN's drilling. The majority of drill holes are inclined at -60° towards 270° (west), which is regarded as the optimum orientation to intersect the target mineralisation. Since the mineralisation is steeply dipping, drill intercepts are reported as downhole widths, and not true widths. Accompanying dialogue to reported intersections normally describes the attitude of the mineralisation.
Diagrams	A plan and type sections for each resource area are included in the main body of the report.
Balanced Reporting	Public reporting of exploration results by KIN and past explorers for the resource areas are considered balanced and included representative widths of low and high grade assay results.
Other Substantive exploration data	Comments on recent bulk density and metallurgical information are included in Section 3 of this Table 1 Report. There is no other new substantive data acquired for the resource areas being reported on. All meaningful and material information is or has been previously reported.
Further work	The potential to increase the existing resources is viewed as probable. Further work does not guarantee that an upgrade in the resource would be achieved, however KIN intend to drill more holes at Mertondale 3-4, Mertons Reward, Mertondale 2, Mertondale 5 and Tonto with the intention of increasing the Mertondale resources and converting the Inferred portions of the resources to the Indicated category.

## **SECTION 3 – Estimation and Reporting of Mineral Resources**

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

Criteria	Commentary
Database Integrity	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1981. Data was obtained predominantly from Reverse Circulation (RC) drilling, and to a lesser extent, diamond core (Diamond) drilling and Air Core (Aircore) drilling.
	Companies involved in the collection of the majority of the exploration data prior to 2014 include: Nickelore NL ("Nickelore") 1981-1982; Hunter Resources Ltd ("Hunter") 1984-1988; Harbour Lights Mining Ltd (a joint owned company of Ashton Gold WA Ltd and Carr Boyd Minerals Pty Ltd - "HLML") 1988-1993; Mining Project Investors Pty Ltd ("MPI") 1993-1996; Sons of Gwalia Ltd ("SOG") 1996-2004; Navigator Resources Ltd ("Navigator") 2004-2014.
	KIN exploration data from 2014 to 2017 has been acquired predominantly from RC and some diamond drilling, representing approximately 6% of the supplied Mertondale Project database.
	The database could not be fully verified regarding the reliability and accuracy of a substantial portion of the historical data, however the recent drilling by KIN has enabled comparison with the historical data and there is no material differences observed of a negative nature.
	Database checks conducted by KIN and others are within acceptable limits. There is missing data, however it is regarded as minimal. It is not possible to identify errors that might have occurred prior or during digital tabulation of historic (pre-2004) data, however the amount of historic data used in the resource estimation is minimal and the effect would not be material.
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, SOG and Navigator). Correlation between codes is difficult to establish, however can be achieved with effort. 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 standardise the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	Drilling conducted by Navigator and KIN has been used to scrutinize and calibrate historic logging data. This has enabled KIN to establish good geological control, which has been used to derive the geological interpretations in current resource work.
	Navigator uploaded the original assay files received from the labs via a database administrator using Datashed to minimise loading errors. An export of the data was then used to create a Microsoft Access ("Access") database for use in Surpac.
	In 2009, MS ("MS") completed a mineral resource estimate report for the Mertondale Project area, including the Mertons Reward, Mertondale 2, Mertondale 3-4 and Mertondale 5 deposits. MS carried out extensive database verification, which included checks of surface survey positions, downhole surveys and assay data against original records. MS reported on verification of 92% of the assay records in 50 randomly selected check holes with < 0.2% discrepancies. Identified issues were then addressed by Navigator.
	Since 2014, KIN geologists have conducted verification of historic drilling, assays, geological logs and survey information against the digital database, and in the field, including reviewing historic reports and visual confirmations of Datashed, Surpac and Access databases. KIN have not reported any significant issues with the database.
	KIN has validated the database in Datashed and in Surpac prior to Resource estimation. These processes checked for holes that have missing data, missing intervals, overlapping intervals, data beyond end-of-hole, holes missing collar co-ordinates, and holes with duplicate collar co-ordinates.
	CM carried out continuous database review during the 2017 resource estimation process.
	During 2017, CM also carried out an independent data verification. 8,991 assay records for KIN's 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 3 errors were found, which are not considered material and which represents less than

0.01% of all database records verified for KIN's 2014-2017 drilling programs.

Criteria	Commentary
Site Visit	KIN's geological team have conducted multiple site visits including supervision and management of drill programs within each of the Resource areas.
	Dr Spero Carras (Competent Person) of CM, was involved in the Leonora district at the Harbour Lights and Mertondale areas during the 1980s, and is familiar with the geology and styles of gold mineralisation within the Mertondale Project area. He revisited the Leonora area during 2017 to review the projects, drilling, sampling and general geology.
	Messrs Mark Nelson and Gary Powell (Competent Persons) also conducted site visits to the resource areas, and they have independently reviewed drill core, existing open pits, surface exposures, drilling, logging and sampling procedures. Mr Nelson also collected representative rock samples of mineralisation from the Mertondale 3 pit for bulk density determination.
Geological Interpretation	The Mertondale Project area is located 20-40km NE of Leonora in the central part of the Norseman-Wiluna Greenstone Belt, which extends for some 600 kilometres on a NNW trend across the Archean Yilgarn Craton of Western Australia.
	In broad terms the stratigraphy consists of a central felsic volcanic sequence bounded by tholeiitic basalt, dolerite, and carbonaceous shale ± felsic porphyry sequences.
	The four recognised deposits and all the known mineralisation is located within the north trending Mertondale Shear Zone (MSZ).
	Two distinct north trending mineralised zones are recognized within the MSZ. The western zone includes Quicksilver, Tonto, Eclipse and Mertondale 5, while the eastern zone includes the Merton's Reward, Mertondale 2 and Mertondale 3-4 deposits.
	Within the Mertondale Project area, most of the known mineralisation is hosted in sheared mafics, with local porphyry bodies and sediment units. Some of the sediment units are graphitic, notably in the western mineralised zone.
	Eastern Mineralised Zone
	In the Mertons Reward - Mertondale 2 area, two distinct types of high grade lodes were historically recognized:
	Shear Lodes: Steeply dipping structures containing abundant quartz-carbonate veinlets accompanied by finely disseminated pyrite-arsenopyrite, and
	<ul> <li>Intershear Lodes: Narrow, flat to moderately dipping auriferous quartz veins up to about 40cm thick, enveloped in carbonate-altered zones up to +10m thick, which contain pyrite and arsenopyrite and lower grades of Au. These are usually truncated to the east and west by the steep dipping shear lodes.</li> </ul>
	Geological interpretation of Mertons Reward is largely based on historic mapping and mine plans of the historic (pre-1980) workings, and thus there is a high level of confidence in the interpretation.
	At Mertondale 3-4 gold mineralisation is associated with the intrusive porphyry contact, where the contact can be used as a mineralisation guide or 'marker' horizon.
	Western Mineralised Zone
	The western mineralised zone typically comprises dark mafic mylonites, sedimentary units including carbonaceous shales, mafic intrusives and mafic-intermediate and felsic volcanics. Felsic porphyry intrusives occur irregularly within the shear zone. The black sulphide-rich mafic mylonite typically

intrusives occur irregularly within the shear zone. The black sulphide-rich mafic mylonite typically contains anomalous gold values up to 0.5 g/t Au in the resource areas.

Geological interpretation used a combination of drilling data, such as lithology, mineral percentages (e.g. quartz veining and sulphides), weathering codes, rock colour, texture and structure to identify mineralisation envelopes for resource estimation of each deposit.

Prescribed geological codes are assumed to have been used consistently in logging by various geologists, though it is probable that some variations between drillholes may be a result of different logging styles or interpretations.

Criteria	Commentary
	The 3D wire frame interpretations of the mineralisation envelopes were produced by CM and validated by KIN. Slight modifications to previous interpretations by independent consultants were made before regenerating the wireframes. The 'base of complete oxidation' and the 'top of fresh rock' DTM surfaces were produced by CM based on geological logs, and adjusted where necessary in consultation with KIN geological staff.
	Alternative interpretations of the mineralisation may have an effect on the estimation, however it is unlikely that there would be a gross change in the interpretation, based on current information. The resource estimation is controlled by all available data in an attempt to quantify the mineralisation with the highest level of confidence.
Dimensions	The dimensions of the mineralized area for Mertons Reward are 1200m (N-S) x 100m (E-W). The Mertons Reward area includes a total of 28,792m of drilling. The drilling in the mineralized area for Mertons Reward includes 15 DD holes for 486m and 196 RC holes for 5,244m.
	The dimensions of the mineralized area for Mertondale 3-4 are 1300m (N-S) x 200m (E-W). The Mertondale 3-4 area includes a total of 46,023m of drilling. The drilling in the mineralized area for Mertondale 3-4 includes 99 DD holes for 2,333m and 322 RC holes for 7,241m.
	The dimensions of the mineralized area for Tonto are 1300m (N-S) x 50m (E-W). The Tonto area includes a total of 35,772m of drilling. The drilling in the mineralized area for Tonto includes 6 DD holes for 148m, 194 RC holes for 4,557m and 51 AC holes for 509m.
	The dimensions of the mineralized area for Mertondale 5 are 900m (N-S) x 50m (E-W). The Mertondale 5 area includes a total of 18,390m of drilling. The drilling in the mineralized area for Mertondale 5 includes 3 DD holes for 106m, 134 RC holes for 2,440m and 8 AC holes for 70m.
	Even though historic mining has taken place at Mertons Reward, Mertondale 3-4 and Mertondale 5, mined drillhole data has been used in the interpretation of structure.
Estimations and Modelling Techniques	<ul> <li>The following outlines the estimation and modelling technique used for producing Resources for the following deposits in the Mertondale area:         <ul> <li>Mertons Reward</li> <li>Mertondale 3-4</li> <li>Tonto</li> <li>Mertondale 5</li> </ul> </li> </ul>
	Deposit Orebody Dimensions Nominal Drill Spacing Mineralised Metres of Drilling (m)
	Mertons Reward 1200m x 100m x 250m 25m x 12.5m 5,730
	Mertondale 3-4 1300m x 200m x 250m 25m x 12.5m 9,574
	Tonto 1300m x 50m x 350m 25m x 20m 5,214
	Mertondale 5 900m x 50m x 200m 25m x 12.5m 2,616
	2. Wireframes were provided by KIN for:
	a. Topography based on drill collar data
	<ul><li>b. Bottom of Oxidation (BOCO)</li><li>c. Top of Fresh Rock (TOFR)</li></ul>
	d. Wireframes of pre-existing pits and some waste dumps
	e. Historic workings
	3. CM carried out an Independent Review of the weathering surfaces and where necessary, based on new drilling (both RC and diamond), geological relogging and bulk density information, the surfaces were modified to reflect the additional information.
	4. Based on geology, statistical analysis and intersection selection, domainal shapes were wireframed at a 0.3g/t nominal edge cut-off grade. These domainal shapes could contain values less than 0.3g/t within the wireframes although this was minimized to prevent smoothing dilution being incorporated into the final models. The parameters used for intersection selection were 3m downhole, which equates to an approximate 2.5m bench height. The intersections could include 1m of internal dilution.

5. The wireframed shapes were audited by KIN geological staff who had previous experience in

Criteria	Commentary
	the Mertondale area whilst working for Navigator Resources Ltd.
	6. Historically mined volumes were removed from the model. These shapes were based on historical workings obtained from Mines Department information. The historical underground shapes were expanded to be larger than that shown on Mines Department records to allow for any overmining, which may have taken place and had not been recorded and included.
	7. Each wireframe had an assigned strike, dip and plunge.
	8. Compositing from the top of each shape was carried out at 1m within each wireframe. The majority of composites (98%) were greater than 1m.
	9. The domainal shapes were passed into ISATIS Software with specified strike, dip and plunge.
	10. The number of shapes used was as follows:
	Deposit Number of Shapes Mertons Reward 84 Mertondale 3-4 71 Tonto 51 Mertondale 5 17
	11. A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used.
	12. The declustering program DECLUS (ISATIS) was used to produce the weights to be assigned to each composite for statistical analysis.
	13. For each shape a detailed set of weighted statistics was produced. Based on the statistics, high grade cuts were determined for every shape and the percentage metal cut was estimated for each deposit as shown in the below table:
	Deposit Maximum Cut (g/t) Percentage Metal Cut

Deposit Maximum Cut (g/t) Percentage Metal Cut

Mertons Reward 50 11

Mertondale 3-4 50 3

Tonto 40 7

30

- 14. Where a data point belonged to 2 shapes the cut allocated was determined for each domain and independently allocated.
- 15. Variograms were run for each domain using ISATIS. The variograms were of very poor quality with the dowhole variograms being the basis of fitted models. Directional variograms were produced for downhole, down dip, down plunge. Where the downhole variograms were calculated on an individual hole basis, variograms were normalized. Variograms were normalized for down dip and plunge. Raw variograms were used in subsequent work.
- 16. The Author, Dr. S. Carras had extensive experience in the Leonora Belt during the 1980's and has had familiarity with the nature of the mineralisation. The shears are made up of plunging Boudins. The nature of Boudins is such that there is a central high grade core. This means that once inside a Boudin the grades are relatively homogenous and the nugget effect is small. Horsetail splays which occur on the periphery of Boudins give rise to the "string problem" in Ordinary Kriging (OK) where samples on edges are given abnormally high values. To overcome the "string problem" three estimations were produced, OK, Inverse Distance Squared (ID2) and Inverse Distance Cubed (ID3). Distance weighting methods do not suffer from the "string problem".
- 17. The following parameters were used in modelling OK, ID2 and ID3:
  - A minimum number of samples were as follows:
    - Mertons Reward: 4
    - Mertondale 3-4: 4
    - Tonto: 12

Mertondale 5

Criteria	Commentary			
	Mertondale 5: 2			
	A maximum number of samples of 32			
	The discretisation parameters were 2 x 2 x 2			
	A maximum of 2 samples per hole			
	<ul> <li>Note: for blocks that did not meet these requirements, the parameters were relaxed and the search radii were increased.</li> </ul>			
	<ul> <li>To minimize the striping effect created by estimation in narrow shapes, the downhole search radii were increased.</li> </ul>			
	downnoic sea	aren radii were increased.		
	18. The ranges of search and directions used were applied on a shape by shape basis. The aim was to produce OK results for the majority of shapes where there had been adequate data to produce meaningful variography. Small shapes where there was inadequate data were estimated using distance weighting squared methodology rather than OK.			
	19. The fundamental bloc	k size used was:		
	Deposit	Small Blocks		
	Mertons Reward,	3.125m x 1.5625m x 2.5m		
	Mertondale 3-4,	(approximately 30 tonnes)		
	Mertondale 5 Tonto	3.125m x 1.0m x 2.5m		
	Tonto	(approximately 20 tonnes)		
	Small blocks were narrow.	used to ensure adequate volume	e estimation where shapes were	
	20. Scatter plots were the blocks.	en produced which compared Ok	C, anisotropic ID2 and ID3 for the small	
			v section' basis of block versus drillholes the Boudins and eliminated the "string	
			d to form medium (quarter) sized blocks rter) sized blocks and panels were:	
	Deposit	Medium (Quarter) Blocks	Panels	
	Mertons Reward,	6.25m x 3.125m x 2.5m	12.5m x 6.25m x 5.0m	
	Mertondale 3-4, Mertondale 5	(approximately 130 tonnes)	(approximately 1,015 tonnes)	
	Tonto	6.25m x 4.0m x 2.5m (approximately 162 tonnes)	12.5m x 8.0m x 5.0m (approximately 1,300 tonnes)	
	Quarter size blocks w	vere used for reporting Resources	s.	
	23. Plots were produced of	of frequency histograms in domai	ns for point data and for blocks.	
	carried out comparing	g the interpolated blocks to the s	nonoured the drill data, validation was sample composite data. The validation was honoured by the block model.	
		nes within those wireframes on a	e were then compared with the block shape by shape basis to ensure that	
	26. Classification was carr geology as the guide.	ied out using a combination of d	rillhole density, drillhole quality, and	
	The optimised pit she may have prospects f	ells provided a reasonable basis for economic exploitation in the	sed pit shell provided by Entech (Perth). For defining the portion of models that foreseeable future and could therefore cimisation used a dilution of 5% and a	

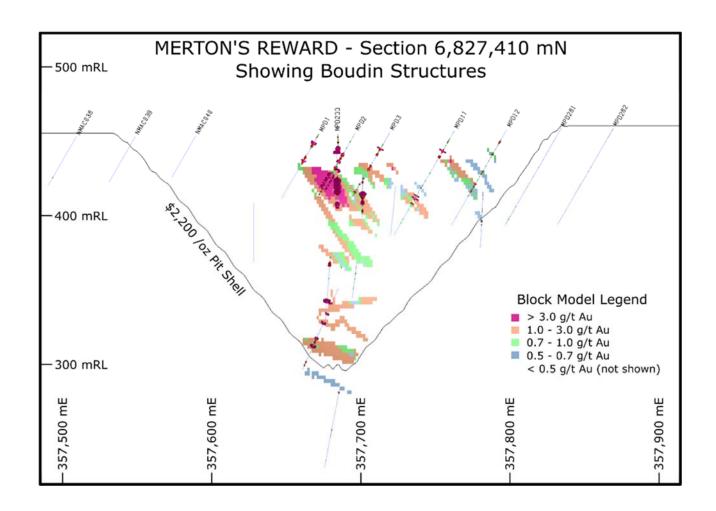
recovery of 95%. This was minimal and was only used to define the Resource not the Reserve.

The Resources reported are undiluted and do not have an ore loss applied.)

Criteria	Commentary
	28. Operating cost estimates developed by KIN indicated that a break even mill feed cut-off grade for deposits in the Mertondale area was likely to be 0.5g/t Au.
Moisture	Tonnages and grades were estimated on a dry basis only. Bulk Density determinations of diamond drill core included measurements of moisture content.
Cut-off Parameters	Operating cost estimates provided by KIN's engineering consultants indicate a break even mining grade for open pit deposits in the Mertondale area is likely to be 0.5g/t Au.
Mining Factors or Assumptions	Previous mining is mostly in the oxide/transition zone. In fresh rock, historical underground mining has occurred at Mertons Reward. Open pit mining will be the mining method employed going forward.  Historical gold production is over 270,000 ounces of gold;  • Mertondale 3-4 Open Pit: 1.3Mt @ 4.3g/t Au;  • Mertondale 5 Pit: 385,000t @ 2.56g/t Au;  • Mertondale 2 Pit: 35,000t @ 2.7g/t Au;
Metallurgical	<ul> <li>Merton's Reward: 90,000t @ 21g/t Au from underground production 1899-1942.</li> <li>In 2016 – 2017 KIN's drilling program included a series of RC and DD drillholes to collect samples</li> </ul>
Factors or	for geotechnical and metallurgical testwork.
Assumptions	In the Mertondale Project area, recoveries for oxide material were generally high (approximately mid-nineties), however in the Mertons Reward area, slightly lower recoveries were returned for transition and fresh material (mid-eighties). This was associated with the presence of a minor amount of sulphides (e.g. pyrite, arsenopyrite).
	For Mertondale 3-4, recoveries were generally high for oxide and transition (mid-nineties), and 90% for fresh.
	Tonto, recoveries were high for oxide (mid-nineties) and transition (+90%), and high sixties for fresh. The lower recoveries experienced for fresh material in Tonto is due to the presence of preg-robbing graphitic shales. Testwork has shown that the use of modified activated carbon has increased the recovery.
	It is known that within Mertondale 5 graphitic shales occur, and while these are present within the MSZ, recent testwork by KIN has shown that they can be passivated to an extent through the use of modified activated carbon.
	During the mining process, and where necessary, selective extraction of the graphitic shales is envisaged to be possible so that successful segregation and quarantining of the shale material can be achieved, so as to mitigate potential contamination of ore in the process plant.
Environmental Factors or Assumptions	Three open pits and their associated waste rock landforms (i.e. Mertons Reward, Mertondale 3-4 and Mertondale 5), the historical Mertons Reward underground workings and battery tailings are encompassed by the current mineral resource estimate work. The Tonto resource area has not been subjected to any previous mining activity.
	Historical mining at each of the Mertondale deposits sites, including waste rock landforms have not demonstrated any impacts that cannot be managed in normal operations. Studies completed to date, on ore and waste characterisations for previous and potential mining and processing operations, have not identified any potential environmental impacts that cannot be managed by normal operations. In addition, Navigator's environmental bonds lodged with the DMP for previous operations have since been returned to Navigator, following the rehabilitation of those operations.
Bulk Density	Prior to 2014, there have been numerous programs of bulk density testwork conducted by several companies at different times on diamond drill core and/or RC drill chips for some of the various deposits. Generally the testwork has not been conclusive, since the testwork methodology has not been adequately described in the historical reports, or when it has, the testwork itself was not carried out using an acceptable method to determine dry bulk density. Often, when described, the testwork measured specific gravity, not bulk density, and in cases where bulk density was reported, the moisture content was not taken into account.
	In 2009 Navigator Resources Ltd submitted 189 half or whole diamond core samples to Amdel Mineral Laboratories Ltd's ("Amdel") Kalgoorlie laboratory for bulk density determination by the water immersion method. The core samples were a mixture of half core and whole core samples

Criteria	Commentary				
	ranging from 10cm to 30cm in length, and were taken at downhole intervals of roughly every 2 to 3 metres. The samples were firstly weighed, oven dried overnight at 110°C, and weighed again to determine moisture content. Those samples that were likely to absorb water were then sealed, using hairspray, prior to immersion in water. It is not known what proportion of samples were not sealed, however it is likely that only fresh, non-porous samples were not sealed.				
	In 2017, KIN carried out a diamond drilling program to include obtaining samples for bulk densit testwork. Four diamond drill holes were drilled into the major parts of mineralised zones Mertons Reward and Tonto.  A total of 484 half or quarter core samples, of varying lengths (5-20cm) were submitted to a independent laboratory in Perth for bulk density determinations by the water immersion method. The core samples were a mixture of half core and quarter core samples ranging from 5cm to 20c in length, and were taken at downhole intervals of roughly every 1 metre. The samples were first weighed, oven dried overnight at 110°C, and weighed again to determine moisture content. The samples were then sealed, using hairspray, prior to immersion in water.  In addition, Mr M Nelson (Consultant to CM) also took representative samples of mineralise material from the Mertondale 3-4 pit and submitted to the laboratory for bulk densited determination.  During the 2017 bulk density testwork and estimation process, Dr S Carras and Mr G Powe (Consultant to CM) visited the laboratory and identified some improvements for consideration the bulk density determination process, particularly for small core pieces to give better precision measurements. The suggested improvements were implemented and precision improved.  When estimating the bulk density for pieces of diamond drill core, it was found that the larger size samples gave more repeatable results and these were mostly used in assigning the bulk densities.  Based on measurements the following bulk density parameters were used for the Mertondale are				
					ter immersion method. Iging from 5cm to 20cm The samples were firstly
					nts for consideration in give better precision of
					ning the bulk densities.
		<u> </u>	ı		7
	Donocit Namo		T		
	Deposit Name	Oxide	Transition	Fresh	_
	Mertons Reward	1.8	2.2	2.8	
	Mertons Reward  Mertondale 3-4	1.8	2.2	2.8	- - -
	Mertons Reward  Mertondale 3-4  Mertondale 5	1.8 2.0 2.0	2.2 2.2 2.2	2.8 2.7 2.5	- - -
	Mertons Reward  Mertondale 3-4	1.8 2.0 2.0 1.9	2.2 2.2 2.2 2.3	2.8 2.7 2.5 2.7	ance.
Classification	Mertons Reward  Mertondale 3-4  Mertondale 5  Tonto	1.8 2.0 2.0 1.9 densities are bas	2.2 2.2 2.3 ed on historic op of drillhole spacies were drilled on 2.5m 2.5m 0m	2.8 2.7 2.5 2.7 en pit performang, drillhole qu	uality and confidence in
Classification	Mertons Reward  Mertondale 3-4  Mertondale 5  Tonto  For Mertondale 5 the bulk of the second	1.8 2.0 2.0 1.9 densities are bas a combination neral all deposits 25m x 1: 25m x 2: 25m x 1: 0f 25m x 20m re increases with of	2.2 2.2 2.3 ed on historic op of drillhole spacions were drilled on 2.5m 2.5m 0m 2.5m sulted in mineral depth and as a resistance of the spacion of the spac	2.8 2.7 2.5 2.7 en pit performand, drillhole qualithe following resistation being consistency of the soult deeper result deeper	uality and confidence in nominal grids (N x E): lassified as Indicated. mineralisation is mostly
Classification	Mertons Reward  Mertondale 3-4  Mertondale 5  Tonto  For Mertondale 5 the bulk of the second	1.8 2.0 2.0 1.9 densities are bas a combination neral all deposits 25m x 1: 25m x 2: 25m x 1: 0f 25m x 20m re increases with of	2.2 2.2 2.3 ed on historic op of drillhole spacions were drilled on 2.5m 2.5m 0m 2.5m sulted in mineral depth and as a resistance of the spacion of the spac	2.8 2.7 2.5 2.7 en pit performand, drillhole qualithe following resistation being consistent of the soult deeper result deeper r	uality and confidence in nominal grids (N x E): lassified as Indicated. mineralisation is mostly
Classification  Audits and Reviews	Mertons Reward  Mertondale 3-4  Mertondale 5  Tonto  For Mertondale 5 the bulk of the second	1.8 2.0 2.0 1.9 densities are bas a combination neral all deposits 25m x 1: 25m x 2: 25m x 1: 0f 25m x 20m re increases with or tegory. nate appropriate orked with McD ing the recovered data, assay, suresource estimati	2.2 2.2 2.3 ed on historic op of drillhole spacions were drilled on 2.5m 2.5m 0m 2.5m sulted in mineral depth and as a related in mineral depth and as a related fraction technique, wireframes a on for Mertons	2.8 2.7 2.5 2.7 en pit performance, drillhole que the following result deeper result d	lassified as Indicated.  Indicated as Indicated.
Audits and	Mertons Reward  Mertondale 3-4  Mertondale 5  Tonto  For Mertondale 5 the bulk of the second of the	1.8 2.0 2.0 1.9 densities are bas a combination neral all deposits 25m x 1: 25m x 2: 25m x 3: 25m x 2: 25m x 3: 25m x 3: 25m x 3: 25m x 4: 25m x 4: 25m x 2: 25m x 3: 25m x 3: 25m x 3: 25m x 3: 25m x 4: 25m x 4: 25m x 3: 25m x 4: 25m x 4: 25m x 2: 25m x 3: 25m x 3: 25m x 3: 25m x 4: 25m x 4: 25m x 2: 25m x 4: 25m x 2: 25m x 3:	2.2 2.2 2.3 ed on historic op of drillhole spacions were drilled on 2.5m 2.5m 0m 2.5m sulted in mineral depth and as a religious of a religious on for Mertons reviews of all datas audited by S Cartesian and the control of the contr	2.8 2.7 2.5 2.7 en pit performance, drillhole que the following result deeper result d	lassified as Indicated.  mineralisation is mostly  etent Person.  produce estimates for onnel carried out audits interpretations used by ondale 3-4, Tonto and

Criteria	Commentary
	3-4. There were no material issues.
Discussion of Relative Accuracy and	KIN embarked on a program of infill drilling, including twinning of historical drillholes. The drilling largely substantiated the position and tenor of mineralisation. It also validated the information obtained from various drilling campaigns.
Confidence	In the modelling process every attempt has been made to eliminate the "string effect" problem associated with the estimation of narrow vein structures through the use of ordinary kriging. This has been achieved through the use of distance weighting estimates correlated back to ordinary kriging estimates. This method, although heuristic has been validated by extensive review of the block models and the drillhole data.
	Every attempt has been made in the modelling to reduce the smoothing effect which results when using a low cut-off grade to determine boundary positions and limit the amount of dilution in the Resource so that it can be correctly diluted for Reserve.
	In all high coefficient of variation orebodies, local estimation is very difficult to achieve due to the high nugget effect of the gold. This means that small parcels of ore are difficult to estimate without further information such as closer spaced grade control drilling.



# Appendix B JORC 2012 TABLE 1 REPORT MERTONDALE PROJECT Quicksilver and Eclipse

### **SECTION 1 – Sample Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary
Sampling techniques	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out at Mertondale since 1981. Data was obtained predominantly from Reverse Circulation ("RC") drilling, and to a lesser extent, diamond core ("Diamond" or "DD" drilling and Air Core ("Aircore" or "AC") drilling.
	Companies involved in the collection of the majority of the exploration data prior to 2014 within the Mertondale Project included: Nickelore NL ("Nickelore") 1981-1982; Hunter Resources Ltd ("Hunter") 1984-1988; Harbour Lights Mining Ltd (a joint owned company of Ashton Gold WA Ltd and Carr Boyd Minerals Pty Ltd - "HLML") 1988-1993; Mining Project Investors Pty Ltd ("MPI" 1993-1996; Sons of Gwalia Ltd ("SOG") 1996-2004; Navigator Resources Ltd ("Navigator") 2004 2014.
	Kin Mining Ltd ("KIN") acquired the Mertondale Project in 2014.
	HISTORIC SAMPLING (1981-2008)
	Drill samples were generally obtained from 1m downhole intervals and riffle split to obtain a 3-4kg representative sub-sample, which were submitted to a number of commercial laboratories for a variety of sample preparations methods, including oven drying (90-110°C), crushing (-2mm to -6mm), pulverizing (-75 $\mu$ m to -105 $\mu$ m), and generally riffle split to obtain a 30, 40 or 50 gram catchweight for gold analysis, predominantly by Fire Assay fusion, with AAS finish. On occasions initial assaying have been carried out using Aqua Regia digest and AAS/ICP finish, with anomalous samples re-assayed by Fire Assay fusion and AAS/ICP finish.
	Diamond Drilling
	Half core (or quarter core) sample intervals varied from 0.15m to 1.46m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in marked core trays and stored in a secure yard for future reference. The only known available drill core from these programs and stored at KIN's Leonora Exploration Yard, are those drilled by Navigator.
	RC Drilling
	The vast majority of Reverse Circulation (RC) drill samples were collected over 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 (wet samples) to obtain 3m or 4m composited intervals, with the single metre split sub-samples being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
	Navigator obtained sub-samples from wet samples using the spear method.
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2008. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop. Assay results from these samples are not used for resource estimation work, however they do sometimes provide a guide in interpreting geology and mineralisation continuity.

When drilling under dry conditions, Aircore samples should be of a comparable quality to RC

Criteria	Commentary
	samples, when implementing same sampling techniques. Aircore sample assay results were only used for resource estimation work if the 1m sub-samples were obtained by riffle splitting of the primary sample, prior to placing on the ground.
	There are no sample rejects available from AC drilling prior to 2008. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	RAB Drilling
	Sample returns from Rotary Air Blast (RAB) drilling are collected from the annulus between the open hole and drill rods, using a stuffing box and cyclone. Samples are usually collected at 1 metre intervals and placed on the ground with 3-4kg sub-samples collected using a scoop or spear. Uphole contamination of the sample is commonplace, therefore this type of drilling and sampling is regarded as reconnaissance in nature and the samples indicative of geology and mineralisation. The qualities of samples are not appropriate for resource estimation work and are only sometimes used as a guide for interpreting geology and mineralisation.
	COMMENT
	For some earlier (pre-2004) drilling programs, RC and Aircore samples were obtained at 1.5m or 3m downhole intervals and a substantial portion of the historical MPI holes were composite sampled over 2-4m intervals.
	For resource estimation work, Diamond, RC and some Aircore drilling data was used where appropriate. RAB drilling data was not used for resource estimation but was sometimes used as an interpretative guide only.
	No exploration drilling was conducted by KIN at Eclipse or Quicksilver.
Drilling techniques	Numerous programs comprising various types of drilling have been conducted by several companies since 1981. The total Mertondale database encompasses the various deposits and prospects within the Mertondale Project area, and consists of 6,974 drillholes for a total of

prospects within the Mertondale Project area, and consists of 6,974 drillholes for a total of 345,635 metres, viz:

Hole Type	Drill holes	Metres (m)	% (m)
DD	192	27,129	7.8
RC	1,244	125,874	36.4
AC	1,343	83,508	24.2
RAB	4,195	109,124	31.6
Total	6,974	345,635	100.0

#### **HISTORIC DRILLING (1981-2008)**

#### **Diamond Drilling**

Diamond drilling 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), HQ/HQ3 (Ø 61-64mm), minimal NDBGM (Ø 50-51mm) and some PQ/PQ3 (Ø 83-85mm). 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.

#### **RC Drilling**

RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, until the late 1980s, when the majority of drilling companies started changing over to using facesampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm. Samples obtained from conventional RC drilling techniques with cross-over subs often suffered from down hole contamination (e.g. smearing of grades), 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 more reliable and representative.

#### Aircore Drilling

Aircore drilling is a form of RC drilling, but generally utilizing smaller rigs and smaller air compressors, compared to standard RC drill rigs of the times. Aircore bits are hollow in the centre, with the kerf comprising cutting blades or 'wings' with tungsten-carbide inserts. Drill bit diameters usually range between 75-110mm.

	Commentary					
	The vast majority of Aircore drilling (98%) was conducted by Navigator utilising suitable rigs with appropriate compressors (e.g. 250psi/600cfm). Aircore holes were drilled mostly into the weathered regolith using 'blade' or 'wing' bits, until the bit was unable to penetrate further ("blade refusal"), often near to the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate harder rock types. Holes were typically no deeper than 60 metres.					
	RAB Drilling					
	with a percussion h	ammer or blad	e bit, with the sa	mple return colle	OOcfm) and drill rods fitte ected at the drillhole colla s generally range betwee	
	Hole Type	Drill holes	Metres (m)	% (m)		
	DD	188	26,666	12.0		
	RC	1,131	112,215	50.5		
	AC	1,343	83,508	37.6		
	Total	2,662	222,389	100.0	]	
	COMMENT					
	reports recorded core recoveries, although these details are not included in the database. Review of some historical reports indicate that core recoveries were generally good, although recoveries were typically less in highly fractured zones and some highly weathered mineralised zones in the transition and oxide zones, however this information is not recorded in the supplied database.  RC drilling is the dominant drill type at all sites. RC drilling information is generally described in varying detail in historical reports to the DMP, including drilling companies used and drilling rig types, however it's not all recorded in the database supplied. Review of the historical reports					
	indicates that reputable drilling companies were typically contracted and the equipment supplied was of an acceptable standard for those times. During the 1990s, and 2000s, suitable large drill rigs with on-board compressors were probably complimented with auxiliary and booster air compressors for drilling to greater depths and/or when groundwater was encountered. KIN's drilling was conducted with modern rigs equipped with auxiliary and booster compressors and face sampling hammers with bit diameters typically 140mm.					
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	drilling was conduct face sampling hamn When drilling unde samples, when imp	ted with moder ners with bit dia r dry condition lementing same n work, where	n rigs equipped warmeters typically fameters typically fameters, Aircore sample e sampling technicathe in-field and	with auxiliary and 140mm. s should be of a ques. Aircore dri l laboratory san	er was encountered. KIN'd booster compressors and comparable quality to Rilling data was only used inpling methodologies wa	
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Due to the lack of detailed information in the database regarding historic (pre-2008) Aircore and RC drilling, no quantitative or semi-quantitative impression of sample recovery or sample quality is available. It's assumed to be satisfactory given that several deposits were mined in the past, by open pit methods, in the Mertondale area (e.g. Mertondale 3-4 and Mertondale 5), where the

Criteria	Commentary
	open pits were mined to their original design limits, based on the historical drill data. This suggests that the amount of metal recovered was probably not grossly different from pre-mining drill data based expectations.
	During Navigators drill programs wet samples were spear sampled instead of riffle split. This is regarded as poor sampling procedure and these samples are regarded as unreliable however the total number of wet samples is considered to be very low.
	No indication of sample bias is evident nor has it been established. That is, no relationship has been observed to exist between sample recovery and grade.
	The amount of Aircore drilling data used in the Eclipse resource estimation process is greater than 60%. No Aircore drilling was used in the Quicksilver resource estimation process.
	No exploration drilling was conducted by KIN at Eclipse or Quicksilver.
Logging	HISTORIC DRILLING (1981-2008)
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, SOG and Navigator). Correlation between codes is difficult to establish, however it can be achieved with effort. Based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time.
	Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core orientations), core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features, and then marked up for cutting and sampling. Several diamond drillholes were completed for geotechnical purposes and were independently logged for structural data by geotechnical consultants. All diamond drill core has been photographed, and currently stored at KIN's yard in Leonora.
	Navigator RC and Aircore logging was entered on a metre by metre basis, recording lithology, alteration, texture, mineralisation, weathering and other features. The information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
	The entire length of all drillholes is logged in full from surface to bottom of hole.
	Logging is qualitative on visual recordings of lithology, oxidation, colour, texture and grain size. Logging of mineralogy, mineralisation and veining is quantitative.
	Drill core photographs are only available for Navigator's diamond drillholes.
	COMMENT
	KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies and metallurgical studies.
	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, veining, and in addition, logging of diamond drilling included geotechnical data, RQD and core recoveries.
	For the majority of historical drilling (pre-2004), the entire length of drillholes have been logged from surface to 'end of hole'. Diamond core logging is typically logged in more detail compared to RC and Aircore drilling.
	No exploration drilling was conducted by KIN at Eclipse or Quicksilver.
Sub-	HISTORIC DRILLING (1981-2008)
sampling techniques and sample	Historical reports for drilling programs prior to 2004, are not always complete in the description of sub-sampling techniques, sample preparation and quality control protocols.
preparation	Diamond drilling
	Diamond drill core (NQ/NQ3, HQ/HQ3 or PQ/PQ3) samples collected for analysis were longitudinally cut in half, and occasionally in quarters for the larger (HQ/HQ3 or PQ/PQ3) diameter holes, using a powered diamond core saw blade centered over a cradle holding the core in place.
	Half core (or quarter core) sample intervals varied from 0.15 to 1.46m, but were predominantly

Commentary
taken over 1m intervals, or at geological contacts, whichever was least. The remaining half (quarter) core was retained in core trays.
Where historical reports do not describe the sampling protocol for sampling of drill core, it is assumed that drill core was sampled as described above.
RC drilling
Prior to 1996, limited historical information indicates most RC sampling was conducted by collecting 1m samples from beneath a cyclone and passing through a riffle splitter to obtain a 3-4kg sub-sample for analysis. RC sampling procedures are believed to be consistent with the normal industry practices at the time. The vast majority of samples were dry and riffle split, however spear or tube sampling techniques were used for wet samples.
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 being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
Navigator obtained sub-samples from wet samples using the spear or tube method.
Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
There are no sample rejects available from RC drilling prior to 2008. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
Navigator included standards 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.
Aircore drilling
The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop.
Navigator included standards 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.
A variety of laboratories were used for analysis. Prior to 2009, duplicate samples were not routinely collected and submitted from RC and Aircore drilling to the same laboratory consequently overall sampling and assay precision levels can't be quantified for that period.
While QC protocols were not always comprehensive, the results indicate that assay results from Navigators exploration programs were reliable. Results from pre-Navigator operators are regarded as consistent with normal industry practices of the time.
COMMENT
Samples and sub-sample sizes are considered appropriate for this style of gold mineralisation, and sampling methodologies were of standard industry practice, and appropriate for evaluation of gold deposits in the Eastern Goldfields of Western Australia.
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.
HISTORIC DRILLING (1981-2008)
For assay data obtained prior to 1996, the incomplete nature of the data results could not be accurately quantified in terms of the data derived from the combinations of various laboratories

Criteria	Commentary			
	and analytical methodologies.			
	Since 1996, 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.			
	In the initial exploration stages, Aqua Regia digest with AAS finish, was generally used as a first pass detection method, with follow up analysis by Fire Assay fusion and AAS finish. This was a common practice at the time. Mineralised intervals were subsequently Fire Assayed (using 50 gram catchweights) with AAS finish.			
	Approximately 15-20% of the sampled Aircore holes may have been subject to Aqua Regia digest methods only, however Aircore samples were obtained predominantly within the oxide profile, where aqua regia results are not expected to be significantly different to results from fire assay methods.			
	During 2004-2008, Navigator utilised six different commercial laboratories during their drilling programs, however Kalgoorlie Assay Laboratories conducted the majority of assaying for diamond, RC and Aircore samples using Fire Assay fusion on 40 gram catchweights and AAS/ICP finish.			
	Navigator regularly included Certified Reference Material (CRM) standards and blanks with their sample batch submissions to the laboratories at average ratio of 1 in every 20 samples. Sample assay repeatability, and blank and CRM standards assay results are within acceptable limits.			
	COMMENT			
	The nature and quality of the assaying and laboratory procedures used are considered to be satisfactory, to the standards of the day, and appropriate for use in mineral resource estimations.			
	Fire Assay fusion or Aqua Regia digestion techniques were conducted on diamond, RC and Aircore samples, with AAS finish.			
	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 finish. AAS method of detection is considered to be a suitable and appropriate method of detection.			
	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.			
	No exploration drilling was conducted by KIN at Eclipse or Quicksilver.			
Verification of sampling and	Verification of sampling and assaying techniques and results prior to 2004 has limitations due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories, over a twenty year period.			
assaying	During 2009, a selection of significant intersections had been verified by Navigator's company geologists and an independent consultant McDonald Speijers ("MS") in January 2009. 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.			
	COMMENT			
	There is always a risk with legacy data that sampling or assaying biases may exist between results from different drilling programs due to differing sampling protocols, different laboratories and different analytical techniques.			
	Repeated examinations of historic reports on phases of diamond, RC and Aircore drilling have been conducted from time to time. The information obtained from the various historical diamond, RC and Aircore drilling programs (where sampling protocols are appropriate) have been accepted.			
	Where sampling protocols are appropriate, diamond, RC and Aircore samples, are of equal importance in the resource estimation process.			
	There has been no adjustments or calibrations made to the assay data recorded in the supplied database.			

Criteria	Commentary
Location of	HISTORIC DATA (1981-2008)
data points	A local survey grid was originally established in 1981 at Mertons Reward, and subsequently extended by Hunter during 1985-1988. During the 1990s, SOG identified a small angular error in the base line, which resulted in substantial errors, particularly in the northern portion of the project. Surface survey data were transformed firstly to AMG and subsequently to MGA (GDA94 zone51). This resulted in different grid transformations being applied in the northern and southern parts of the Mertondale area.
	Navigator recognised errors in the collar co-ordinates resulting from these transformations and as a result, a significant number of holes were resurveyed and a new MGA grid transformation generated. This exercise largely appeared to eliminate the offset. Old 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. Where variations in the MGA co-ordinate system were detected, Navigator's geologists deemed the errors were not large enough to have a material impact on the MS resource estimation work in 2009.
	All survey work carried out by Navigator was conducted in GDA94 Zone 51 using differential GPS equipment and a network of survey controls.
	Almost all the diamond and at least 80% of Navigator's RC holes were downhole surveyed. Pre-Navigator, single shot survey cameras were used, with typical survey intervals of 30-40 metres. There were some variation between magnetic and grid azimuths noted (up to 2°) for pre-Navigator drillholes, however the variations are small enough to be within acceptable limits. Aircore holes and the majority of pre-Navigator RC holes were not surveyed down hole, as was the general practice of the day.
	Navigator carried out down hole survey using a single shot or multi-shot survey camera.
	KIN supplied one digital terrain models (DTM) of the topography constructed from drill hole collar data.
	COMMENT
	The accuracy of the drill hole collar and downhole data are located with sufficient accuracy for use in resource estimation work.
	Considering the history of grid transformations and various problems recorded in the surviving documentation there might be some residual risk of error in the MGA co-ordinates for old drillholes, particularly in the northern area, however this is not considered to be material for the resource estimations, subject of this report.
	Much of the historical drilling data was recorded relative to magnetic north. Variation in magnetic declination for the Mertondale Project area is calculated at +0.823° East (1985) to +1.301° East (2017), with a maximum variation of +1.575° 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.
Data spacing and	Drill hole spacing patterns vary considerably throughout the Project area, and is deposit specific, depending on the nature and style of mineralisation being tested.
distribution	Mineralised areas have typically been drilled at nominal hole spacings of 12.5-45 metres on 50 metre grid spacings. The majority of the holes were drilled at an average dip of -60°, and orthogonal to the strike of mineralisation.
	Drill hole and sample interval spacing is sufficient to establish an acceptable degree of geological and grade continuity appropriate for mineral resource estimations and classifications applied.
	There has been no sample compositing, other than a few historical compositing of field samples for some Aircore and RC samples to 1.5m, 2m and few 4m intervals. The vast majority of primary assay intervals are 1 metre intervals for RC and Aircore samples, and predominantly 1 metre intervals for core samples.
Orientation of data in relation to geological structure	The two recognised deposits and all the known mineralisation is located within the north trending Mertondale Shear Zone (MSZ), located within the Mertondale greenstone sequence, which is orientated in a NNE to Northerly direction. The stratigraphy and mineralisation generally dips sub-vertically to steeply dipping to the east or west. The majority of drilling and sampling programs were carried out to intersect mineralisation orthogonal to strike and as close to orthogonal to dip as practical (i.e. towards 245°-270°).

Criteria	Commentary
	The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in the data thus far.
Sample	HISTORIC DRILLING (1981-2008)
security	No sample security details are available for pre-Navigator (pre-2004) drill samples.
	Navigator's drill samples were collected from the riffle splitter in pre-numbered calico bags at the drill rig site. Samples were collected by company personnel from the field and transported to Navigator's secure yard in Leonora, where the 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 Navigator's yard, until transporting to the laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site, to delivery to the various laboratories.
Audits or reviews	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to today's current standards. A review of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to the best practice industry standards of the day.
	A review of the Mertondale Project's database, drilling and sampling protocols, and so forth, was conducted and reported on by independent geological consultants MS in 2009.
	KIN is in the process of completing validation of all historical logging data and to standardise the logging code system by incorporating the SOG and Navigator logging codes into one, and converting all historical logging into the standardized code system. This is an ongoing process and is not yet completed.
	MS's oxidation profiles were used to assign bulk densities and metallurgical recoveries to the resource models.
	Bulk density testwork in the past has been inconsistent with incorrect methods employed, to derive specific gravity or in-situ bulk density, rather than dry bulk density. Navigator (2009) bulk density testwork 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.
	Drilling, Sampling methodologies and assay techniques used in these drilling programs are considered to be appropriate and to industry standards of the day.

#### **SECTION 2 – Reporting of Exploration Results**

Criteria	Commentary				
Mineral tenement and land tenure status	The Mertondale Project area includes granted mining tenements M37/82, M37/231 and M37/232 (Eclipse and Quicksilver), centred some 40km NNE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. These tenements are managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields of Western Australia.				
	The following royalty and compensation payments may be applicable to the areas within the Mertondale Project that comprise the deposits being reported on:				
	<ol> <li>Aurora Gold (WA) Pty Ltd (subsidiary company of Harmony Gold Mining Company Ltd) in respect of M37/82, M37/231, M37/232 and M37/233 - \$0.25 production royalty per dry tonne of ore mined and processed.</li> </ol>				
	2. Technomin Australia Pty Ltd in respect of M37/82, M37/231, M37/232 and M37/233 - \$0.75 production royalty per dry tonne of ore mined and milled, and				
	3. Higherealm Pty Ltd (Mertondale Pastoral Leaseholder) in respect of M37/81, M37/82, M37/231, M37/232 and M37/233 - \$10,000 per annum, indexed to CPI, for the year(s) when extraction activities are being carried out.				
	There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the resource areas, and there are no current impediments to obtaining a licence to operate in the area.				
Exploration done by other parties	Gold was initially discovered in the Mertondale area in 1899 by Mr. Fred Merton. The Mertons Reward (MR) underground gold mine (M37/1284) was the direct result of his discovery. The main mining phase at MR was carried out from 1899 to 1911. Historic underground production records to 1942 totalled 88,890t @ 21.0g/t Au (60,520oz) which represents the only recorded mining conducted at Mertons Reward.				

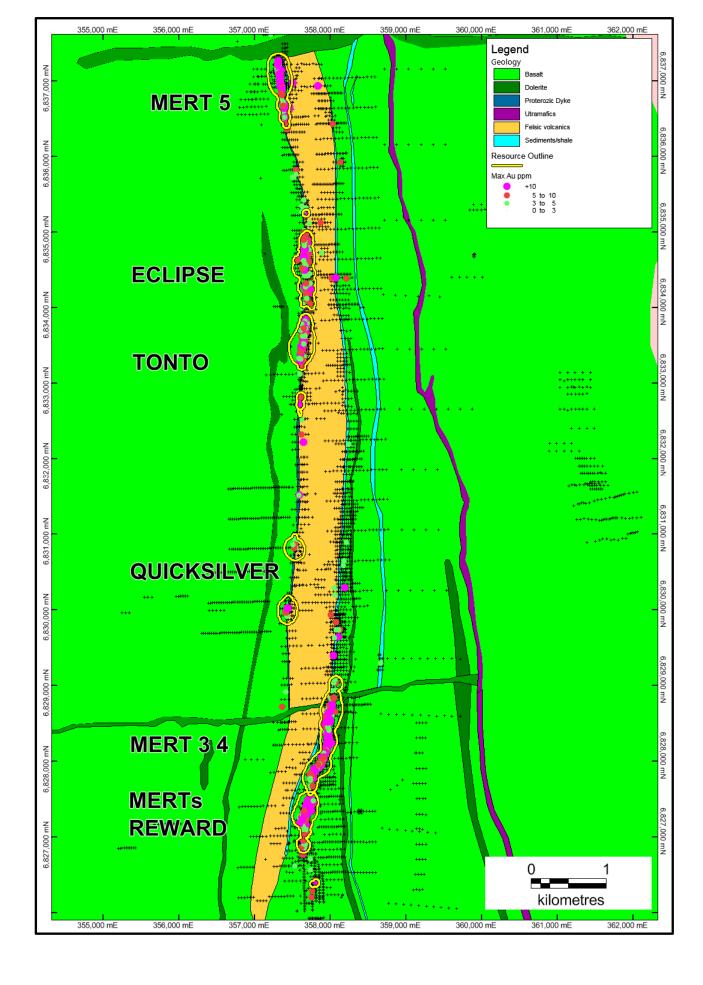
Between 1981-1984 Telluride Mining NL, Nickel Ore NL, International Nickel (Aust) Ltd and Petroleum Securities Mining Co Pty Ltd conducted exploration programs in the Mertondale area. Hunter Resources Ltd began actively exploring the region 1984-1989, Hunter submitted a Notice of Intent (NOI) to mine in 1986 and established a JV with Harbour Lights to treat ore from the Mertondale 2 (M37/1284) and Mertondale 3 pits (M37/82). Between 1986 and 1993 the adjoining Mertondale 4 pit (M37/82 and 81) was mined. Harbour Lights acquired the project in 1989 from Hunter. Ashton Gold eventually gained control of Harbour Lights. Large scale mining in the region was completed in 1993 with the mining of the Mertondale 2 and Mertondale 3-4 pits (M37/81 and M37/82). Eclipse and Quicksilver have never been mined. In 1993 Ashton's interest was transferred to Aurora Gold who established a JV with MPI followed by Sons of Gwalia who entered into a JV with Aurora.

Mine	Date	Company	Tonnes (t)	Rec. Grade (Au g/t)	Ounces ('000)
Mertondale					
Mertondale 5 Pit	1991	HUV	385,537	2.60	32,290
Mertondale 3-4 Pit	1986 – 1993	Hunter/HLJV	1,300,000	4.29	179,300
Mertondale 2 Pit	1986 – 1993	Hunter/HLJV	20,000	3.50	2,250
Mertondale 2 Pit	Feb – Jul 2010	NAV	14,000	1.03	460
Mertondale Pits Sub-Total			1,719,537	3.87	214,300
Merton's Reward UG	1899 – 1942	Various	88,891	21.00	60,524
Mertondale Total			1,808,428	4.73	274,724

Sons of Gwalia (SOG) eventually obtained control of the project in 1997 but conducted limited exploration drilling. In 2004 Navigator Mining Pty Ltd (Navigator) acquired the entire existing tenement holding from the SOG administrator. Navigator conducted the majority of recent exploration drilling in the Mertondale area. KIN acquired the project from Navigator's administrator in late 2014. Historic production from all the Mertondale open pits totals 274,724 oz of gold (Table 2).

KIN has not carried out any drilling at Eclipse or Quicksilver.

Criteria	Commentary
Geology	The Quicksilver and Eclipse Project areas are located 40km NNE of Leonora 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.
	In broad terms the stratigraphy consists of a central felsic volcanic sequence bounded by tholeiltic basalt, dolerite, and carbonaceous shale ± felsic porphyry sequences.
	Two distinct north trending mineralised zones are recognized within the MSZ. The western zone includes Quicksilver, Tonto, Eclipse and Mertondale 5, while the eastern zone includes the Merton's Reward, Mertondale 2 and Mertondale 3-4 deposits.
	Within the Mertondale Project area, most of the known mineralisation is hosted in sheared mafics, with local porphyry bodies and sediment units. Some of the sediment units are graphitic, notably in the western mineralised zone.
	Geological interpretation of Eclipse and Quicksilver is largely based on historic drill data and the geological knowledge of the MSZ, and the Mertondale 5 deposit, thus there is a reasonable level of confidence in the interpretation.
	The project area covers the northern segment of the western limb of the MSZ. The local lithologies are typified by basalt, sandstone, siltstones, shale, felsic intrusives and volcanic rocks, dolerite and volcaniclastic rocks.
	At Quicksilver, the western mineralised zone of the MSZ contains black mafic mylonite, black shale, quartz-dolerite, basaltic andesite and felsic volcanics and volcanoclastics. Felsic porphyries intrude the shear zone at regular intervals. Gold mineralisation is often located near the sub-vertical maficfelsic contact. Black sulphidic shales are spatially associated with the mineralisation.
	At Eclipse, the mafic mylonite is discontinuous, and the quartz dolerite unit is located within the central mafic unit. A shale unit is traceable throughout the Eclipse deposit. A relatively un-sheared, altered high-magnesium basalt unit is intruded by a granitic porphyry dyke.
Drill hole Information	Material drilling information used for the resource estimation has previously been publicly reported in numerous announcements to the ASX by Navigator (2004-2008).
Data Aggregation methods	When exploration results have been reported by previous explorers for the resource areas, the intercepts were generally reported as weighted average grades over intercept lengths defined by geology or lower cut-off grades, without any high-grade cuts applied. Where aggregate intercepts incorporated short lengths of high-grade results, these results were included in the reports.
	There is no reporting of metal equivalent values.
Relationship Between Mineralisation widths and intercept lengths	The orientation, true width and geometry of the mineralised zones have been determined by interpretation of historical drilling. The majority of drill holes are inclined at -60° towards 270° (west) with some orientated towards 090° (east), which is regarded as the optimum orientation to intersect the target mineralisation. Since the mineralisation is steeply dipping, drill intercepts are reported as downhole widths, and not true widths. Any accompanying dialogue to reported intersections normally describes the attitude of the mineralisation.
Diagrams	A plan and type sections for each resource area are included in the main body of the report.
Balanced Reporting	Public reporting of exploration results by past explorers for the resource areas are considered balanced and included representative widths of low- and high-grade assay results.
Other Substantive exploration data	Comments on recent bulk density and metallurgical information are included in Section 3 of this Table 1 Report. There is no other new substantive data acquired for the resource areas being reported on. All meaningful and material information is or has been previously reported.
Further work	The potential to increase the existing resources is viewed as probable. Further work does not guarantee that an upgrade in the resource would be achieved, however KIN intend to drill more holes at Eclipse and Quicksilver with the intention of increasing the Mertondale resources and converting the Inferred portions of the resources to the Indicated category.



# **SECTION 3 – Estimation and Reporting of Mineral Resources**

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

Criteria	Commentary
Database Integrity	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1981. Data was obtained predominantly from Reverse Circulation ("RC") drilling, and to a lesser extent, diamond core ("Diamond") drilling and Air Core ("Aircore" or "AC") drilling.
	Companies involved in the collection of the majority of the exploration data prior to 2014 include Nickelore NL ("Nickelore") 1981-1982; Hunter Resources Ltd ("Hunter") 1984-1988; Harbou Lights Mining Ltd (a joint owned company of Ashton Gold WA Ltd and Carr Boyd Minerals Pty Ltd - "HLML") 1988-1993; Mining Project Investors Pty Ltd ("MPI") 1993-1996; Sons of Gwalia Ltd ("SOG") 1996-2004; Navigator Resources Ltd ("Navigator") 2004-2014.
	The database could not be fully verified regarding the reliability and accuracy of a substantia portion of the historical data.
	Database checks conducted by KIN and others are within acceptable limits. There is missing data however it is regarded as minimal. It is not possible to identify errors that might have occurred prior or during digital tabulation of historic (pre-2004) data.
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, SOG and Navigator). Due to different logging techniques/companies/codes there were many lithological inconsistencies between holes Correlation between codes is difficult to establish, however can be achieved with effort. Based or 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 standardise the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	Drilling conducted by Navigator has been used to scrutinize and calibrate historic logging data This has enabled reasonable geological control, which has been used to derive the geological interpretations in current resource work.
	Navigator uploaded the original assay files received from the labs via a database administrato using Datashed to minimise loading errors. An export of the data was then used to create a Micorsoft Access ("Access") database for use in Surpac.
	In 2009, McDonald Speijers ("MS") completed a mineral resource estimate report for the Mertondale Project area, including the Quicksilver and Eclipse deposits. MS carried out extensive database verification, which included checks of surface survey positions, downhole surveys and assay data against original records. MS reported on verification of 92% of the assay records in 50 randomly selected check holes with < 0.2% discrepancies. Identified issues were then addressed by Navigator.
Site Visit	KIN's geological team has conducted multiple site visits to the project areas, including times when a KIN geologist was previously employed by Navigator.
	Dr Spero Carras (Competent Person) of Carras Mining Pty Ltd ("CM") was involved in the Leonora district at the Harbour Lights and Mertondale areas during the 1980s, and is familiar with the geology and styles of gold mineralisation within the Mertondale Project area. He revisited the Leonora area during 2017 to review the projects, drilling, sampling and general geology.
	Messrs Mark Nelson and Gary Powell (Competent Persons) also conducted site visits to the nearby

Criteria	Commentary
	resource areas, and they have independently reviewed drill core, existing open pits, surface exposures, drilling, logging and sampling procedures.
Geological Interpretation	The Quicksilver and Eclipse Project areas are located 35km NNE of Leonora 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.
	In broad terms the stratigraphy consists of a central felsic volcanic sequence bounded by tholeiitic basalt, dolerite, and carbonaceous shale ± felsic porphyry sequences.
	Two distinct north trending gold mineralised zones are recognized within the MSZ. The western zone includes Quicksilver, Tonto, Eclipse and Mertondale 5, while the eastern zone includes the Merton's Reward, Mertondale 2 and Mertondale 3-4 deposits.
	Within the Mertondale Project area, most of the known mineralisation is hosted in sheared mafics, with local porphyry bodies and sediment units. Some of the sediment units are graphitic, notably in the western mineralised zone.
	At Quicksilver, the western mineralised zone of the MSZ contains black mafic mylonite, black shale, quartz-dolerite, basaltic andesite and felsic volcanics and volcanoclastics. Felsic porphyries intrude the shear zone at regular intervals. Gold mineralisation is often located near the subvertical mafic-felsic contact. Black sulphidic shales are spatially associated with the mineralisation.
	At Eclipse, the mafic mylonite is discontinuous, and the quartz dolerite unit is located within the central mafic unit. A shale unit is traceable throughout the Eclipse deposit. A relatively unsheared, altered high-magnesium basalt unit is intruded by a granitic porphyry dyke.
	Prescribed geological codes are assumed to have been used consistently in logging by various geologists, though it is probable that some variations between drillholes may be a result of different logging styles or interpretations.
	Alternative interpretations of the mineralisation may have an effect on the estimation, however it is unlikely that there would be a gross change in the interpretation, based on current information. The resource estimation is controlled by all available data in an attempt to quantify the mineralisation with the highest level of confidence.
Dimensions	The Quicksilver resource area includes three mineralised zones averaging 200-500m of strike, separated by distances of 400-900m; the drill search area (3,500m x 625m) includes 461 drill holes of which 69 holes were mineralised intersections amounting to 1,660.1m of drilling. At Eclipse the drill hole search area (2,000m x 450m) included 545 drill holes of which 275 holes were mineralised intersections amounting to 9,205m.
Estimations and Modelling Techniques	Tonnage and grade estimates were achieved by the Recovered Fraction (RF) block modeling process. This technique is a pseudo probabilistic one that estimates the volumetric proportion of each block likely to be above a particular cut-off grade and what the average grade of that proportion is likely to be. Search radii parameters (dip, strike cross dip) were assigned for the following deposits Quicksilver (30m x 30m x 5m) and Eclipse (30m x 30m x 5m). Parent block sizes were 4m X, 10m Y and 4m Z for resources and minimum sub cells were 2m X, 5m Y, Im Z. Block sizes are relative to drill density.
	Wireframes of lodes were used as hard boundaries to contain the interpolation. The wireframes were approximately based on 0.2 g/t Au cut-off grade.
	Block models were generated filling the 3D wireframes of the mineralised zones with cells. Bulk density was assigned using oxidation codes as per the database. Assay top cuts were applied, assays composited over 2.5m intervals, block models were estimated using a range of cut offs and anisotropic inverse distance cubed interpolation, under zonal control.
	Varying top cuts (up to 10 g/t Au) were applied to Eclipse and a top cut of 10 g/t Au was applied to Quicksilver.
	No assumptions are made to the recovery of by-products.
	The parent cell size of 4m (east), 10m (north) and 4m (vertical) was used on all deposits is deemed appropriate relative to drill data. Multiple compositing and interpolation passes were carried out

Criteria	Commentary					
	using a range of cut-off grades with no ore loss or dilution. No assumptions were made regarding correlation between variables.					
	The varying top cuts that were applied followed a series of processes including log-probability plots, Iterative tests, log histograms and cross section inspection. To check that the interpolation of the block model honoured the drill data, validation was carried out comparing the interpolated blocks to the sample composite data, the validation plots showed good correlation thus the raw drill data was honoured by the block model.					
Moisture	Tonnages and grades were	estimated on a d	dry basis only.			
Cut-off Parameters	Operating cost estimates provided by KIN indicate a break even mill feed grade for deposits in the Quicksilver and Eclipse area is likely to be in the vicinity of 0.5 g/t Au.					
Mining Factors or Assumptions	There has been no previous located within the same str associated with graphitic runknown factor, may be p assumption based on KIN's	atigraphic seque naterial (black oorer in fresh r	ence, disseminate shale). The meta ock. The breake	ed sulphides in allurgical perfo	the ore zones can be ormance, which is an	
Metallurgical Factors or Assumptions	Quicksilver and Eclipse are of metallurgy will be similar to (mid-nineties) and transition experienced for fresh mater Testwork has shown that th	that experience n (+90%), and hi rial in Tonto is d	ed at Tonto. For T gh sixties for fres ue to the presenc	onto recoverie h. The lower r e of preg-robb	es were high for oxide recoveries oing graphitic shales.	
Environmental Factors or Assumptions	No historical mining has be operations within the Merton not demonstrated any impated to date, on ore and waste operations, have not identifications.	ondale area (e.g. cts that cannot characterisation	Mertondale 5), i be managed in no ns for previous a	ncluding waste ormal operatio nd potential n	e rock landforms, have ns. Studies completed nining and processing	
Bulk Density	The following bulk density p	arameters, wer	e used in the reso	ource estimation	ons by MS (2009):	
	Deposit Name	Oxide	Transition	Fresh		
	Quicksilver	2.0	2.2	2.5		
	Eclipse	2.0	2.2	2.5		
	Based on more recent data	the numbers ma	ay be slightly cons	servative.		
Classification	No new information had be deposits were not re-model 2009.		•		-	
	CM carried out an audit rev Quicksilver and Eclipse. MS methodology, which is a pro each block likely to be abov it had been used in several a models, deemed them to be Resources.	used a pseudo- babilistic techn e a particular cu gold orebodies i	probabilistic tech ique that estimat t-off grade. CM i n the Eastern Gol	nique called thes the volume s familiar with dfields, and af	ne 'recovered fraction' tric proportion of this methodology as ter reviewing the	
	Whilst the MS Resource estimation of Quicksilver and Eclipse, Forgotten was found to be acceptable, as no new data exists to confirm the veracity of the historic data (although a thorough analysis was carried out by MS of available data at the time), it is deemed prudent to re-classify Quicksilver and Eclipse from their MS Indicated classification to that of Inferred. It is recognised that this approach may be conservative in classification, however it is anticipated that any further new data is expected to validate the historic data as has been the case for all other deposits drilled to date by KIN in 2016-2017 to allow reclassification.					
	For reporting purposes the AU\$2,200/oz and a revised					

Criteria	Commentary
	resource estimation) and is consistent with current resource reporting practice. As the data used by MS is not as comprehensive as that currently available for the other KIN deposits, and the methodology is different to that used by CM for other KIN deposits, it warrants reporting with separate Table 1 Reports.
Audits and Reviews	CM carried out an audit and review and determined that due to the quality of data not being comparable to that of other KIN deposit resources, the resources were classified as Inferred until further drilling data has been obtained.
Discussion of Relative Accuracy and Confidence	Due to the lack of QA/QC information the quality of pre Navigator drill hole assay is largely unknown, the limited data that is available indicates no serious problem however the reliability of the historic assay data cannot be adequately demonstrated.

# **Appendix C**

# JORC 2012 TABLE 1 REPORT CARDINIA PROJECT Bruno Lewis Link, Lewis and Kyte

#### SECTION 1 - Sample Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary
Sampling techniques	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1985. Data was obtained predominantly from Reverse Circulation ("RC") drilling, and to a lesser extent, diamond core ("Diamond") drilling and Air Core ("Aircore") drilling.
	There is limited exploration data available prior to 1985, where it is believed that exploration wa more focused on base metals, and not gold. 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; Centenary International Mining Ltd ("CIM") 1986-1988, 1991-1992; Metana Minerals N ("Metana") 1986-1989; Sons of Gwalia Ltd ("SOG") 1989, 1992-2004; Pacmin Mining Corporation ("Pacmin") 1999, and Navigator Resources Ltd ("Navigator") 2004-2014.
	Kin Mining Ltd ("KIN") acquired the Cardinia Project in 2014.
	HISTORIC SAMPLING (1985-2014)
	Drill samples were generally obtained from 1m downhole intervals and riffle split to obtain a 3 4kg representative sub-sample, which were submitted to a number of commercial laboratorie for a variety of sample preparations methods, including oven drying (90-110°C), crushing (-2mm to -6mm), pulverizing (-75 $\mu$ m to -105 $\mu$ m), and generally riffle split to obtain a 30, 40 or 50 gran catchweight for gold analysis, predominantly by Fire Assay fusion, with AAS finish. On occasions initial assaying have been carried out using Aqua Regia digest and AAS/ICP finish, with anomalou samples re-assayed by Fire Assay fusion and AAS/ICP finish.
	Diamond Drilling
	Half core (or quarter core) sample intervals varied from 0.3 to 1.4m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in marked core trays and stored in a secure yard for future reference. The only known available drill core from these programs and stored at KIN's Leonora Exploration Yard, are those drilled by Navigator.
	RC Drilling
	The vast majority of Reverse Circulation (RC) drill samples were collected over 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 (wet samples) to obtain 3m or 4m composited intervals, with the single metre split sub samples being retained at the drill site. If the composite sample assays returned anomalou results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for gold analysis.
	Navigator obtained sub-samples from wet samples using the spear method.
	Data relating to historical wet samples is not available, however the number of wet sample involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop. Assay results from these samples are not used for resource.

estimation work, however they do sometimes provide a guide in interpreting geology and

Criteria	Commentary
	mineralisation continuity.
	When drilling under dry conditions, Aircore samples should be of a comparable quality to RC samples, when implementing same sampling techniques, therefore Aircore sample assay results were only used for resource estimation work if the 1m sub-samples were obtained by riffle splitting of the primary sample, prior to placing on the ground.
	There are no sample rejects available from AC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	RAB Drilling
	Sample return from Rotary Air Blast (RAB) drilling is collected from the annulus between the open hole and drill rods, using a stuffing box and cyclone. Samples are usually collected at 1 metre intervals and placed on the ground with 3-4kg sub-samples collected using a scoop or spear. Uphole contamination of the sample is commonplace, therefore this type of drilling and sampling is regarded as reconnaissance in nature and the samples indicative of geology and mineralisation. The qualities of samples are not appropriate for resource estimation work and are only sometimes used as a guide for interpreting geology and mineralisation.
	KIN MINING (2014-2017)
	Diamond Drilling
	Diamond drill core (HQ3) samples collected for analysis were longitudinally cut in half, and then in quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.2 to 1.1m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and securely stored in KIN's yard in Leonora for future reference.
	RC Drilling
	During drilling, sample return is passed through a cyclone and stored in a sample collection box. At the end of each metre, the cyclone underflow is closed off, the underside of the sample box is opened and the sample passed down through a riffle splitter.
	All RC sub-samples were collected over one metre downhole intervals and averaged 3-4kg. Sample reject from the riffle splitter were retained and stored in marked plastic bags, and located near to each drillhole collar.
	All drilling, sample collection and sampling handling procedures were conducted and/or supervised by KIN geology personnel to high level industry standards. QA/QC procedures were implemented during each drilling program to industry standards.
	Analysis
	Once received at the assay laboratory, diamond core and RC samples were oven dried (105-110°C), crushed (-6mm & -2mm), pulverised (P85% -75 $\mu$ m) and split to obtain a representative 50 gram sample catchweight for gold only analysis using Fire Assay fusion with AAS finish.
	COMMENT
	For some earlier (pre-2004) drilling programs, RC and Aircore samples were obtained at 1.5, 2 or 4 metre downhole intervals.
	For resource estimation work, Diamond, RC and some Aircore drilling data was used where appropriate. RAB drilling data was not used for resource estimation but was sometimes used as an interpretative guide only.
Drilling techniques	Numerous programs comprising various types of drilling have been conducted by several companies since 1985. The Cardinia database encompasses the various deposits and prospects within the Cardinia Project's Bruno Lewis Link, Lewis and Kyte areas, and consists of 5,713 drillholes for a total 227,705 metres (excluding open hole drilling, such as RAB), viz:
	Diamond drilling: 20 drillholes 1,852 metres
	RC drilling: 3,898 drillholes 155,614 metres
	Aireana duilliana 4.405 duilliadan 50.755
	Aircore drilling: 1,435 drillholes 58,755 metres  Grade Control drilling: 360 drillholes 11,484 metres

**Diamond Drilling** 

	Diamond drilling was carried out using industry standard 'Q' wireline techniques, with the core
I	retrieved from the inner tubes and placed in core trays. Core sizes include NQ/NQ3 (Ø 45-48mm)
I	and HQ/HQ3 (Ø 61-64mm). At the end of each core run, the driller placed core blocks in the tray,
I	marked with hole number and depth. Core recovery was usually measured for each core run and
I	recorded onto the geologist's drill logs.

Commentary

#### **RC** Drilling

Criteria

RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, until the late 1980s, when the majority of drilling companies started changing over to using face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm. Samples obtained from conventional RC drilling techniques with cross-over subsoften suffered from down hole contamination (e.g. smearing of grades), 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 more reliable and representative.

#### Aircore Drilling

Aircore drilling is a form of RC drilling, but generally utilizing smaller rigs and smaller air compressors, compared to standard RC drill rigs of the times. Aircore bits are hollow in the centre, with the kerf comprising cutting blades or 'wings' with tungsten-carbide inserts. Drill bit diameters usually range between 75-110mm.

The vast majority of Aircore drilling (>60%) was conducted by Navigator utilising suitable rigs with appropriate compressors (eg 250psi/600cfm). Aircore holes were drilled mostly into the weathered regolith using 'blade' or 'wing' bits, until the bit was unable to penetrate further ('blade refusal'), often near to the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate harder rock types. Holes ranged in depth from 2m to 109m, averaging 40 metres.

#### **RAB Drilling**

RAB drilling is 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.

#### **KIN MINING (2014-2017)**

#### **Diamond Drilling**

Diamond drilling was carried out by contractor Orbit Drilling Pty Ltd ("Orbit Drilling") with a truck-mounted Hydco 1200H drill rig, using industry standard 'Q' wireline techniques. Drill core (HQ3) 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.

Drillhole deviation was measured at regular downhole intervals, typically at 10m from surface, thence every 30m to bottom of hole, using electronic multi-shot downhole survey tools (i.e. Reflex EZ-TRAC or Camteq Proshot).

Core 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.

#### **RC Drilling**

RC drilling was carried out by Orbit Drilling's truck-mounted Hydco 350RC drill rigs with 350psi/1250cfm air compressor, with auxiliary and booster air compressors (when required). Drilling utilised mostly downhole face-sampling hammer bits ( $\emptyset$  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.

Drillhole deviations were surveyed downhole, during drilling operations, using an electronic multi-shot downhole tool (e.g. Reflex EZ-TRAC). In some instances, drillholes were surveyed later in open hole. In the later drilling programs, downhole surveying was carried out inside a non-magnetic stainless steel (s/s) rod, located above the hammer. Providing the tool was located in the middle of the stainless steel rod, azimuth and dip readings were successfully recorded. A separate independent program of downhole deviation surveying was carried out to validate previous surveys, utilizing an electronic continuous logging survey tool (AusLog A698 deviation

Criteria	Commentary			
	tool).			
	The following ta	hles summarise	drilling totals for	the Cardinia Project's Bruno Grade Control/Linl
	_		_	, for DD, RC and AC only (i.e. excluding open-hol
	drilling such as F		•	, , , , , , , , , , , , , , , , , , , ,
	Cardinia Project	t. Bruno Grad	e Control/Link.	Lewis Grade Control/Lewis South and Kyte
	Historical Drilling	-		
	TOTAL	Holes	Metres	
	DD	15	1,413	
	RC	3,599	136,791	
	AC	1,435	58,756	
	GC	360	58,756	
	Total	5,409	255,716	
		, Bruno Grade ( ummary – KIN (		ris Grade Control/Lewis South and Kyte – Drillir
	TOTAL	Holes	Metres	
	DD	5	439	
	RC	300	18,893	
	Total	305	19,332	
	CONANAENT			
	COMMENT			
	recoveries were	generally good weathered m	l, although recov ineralised zones	ew of some historical reports indicate that conceries were typically less in highly fractured zone in the transition and oxide zones, however the base.
	varying detail in types, however indicates that re was of an accep rigs with on-bo compressors for	historical repo it's not all reco putable drilling table standard ard compresso r drilling to gre ducted with me	orts to the DMP, corded in the dat companies were for those times. ars were probable eater depths and odern rigs equip	RC drilling information is generally described including drilling companies used and drilling rabase supplied. Review of the historical reportypically contracted and the equipment supplied During the 1990s, and 2000s, suitable large dry complimented with auxiliary and booster allowed with auxiliary and booster allowed with auxiliary and booster compressors an eally 140mm.
	_	nder dry condi	tions Aircoro sa	
	resource estima	implementing s ation work, wi	same sampling to here the in-field	mples should be of a comparable quality to Rechniques. Aircore drilling data was only used it and laboratory sampling methodologies was of selected Navigator drillholes.
Orill sample	resource estima	implementing s ation work, who opriate and lim	same sampling to here the in-field nited to a numbe	chniques. Aircore drilling data was only used i and laboratory sampling methodologies wa
-	resource estima considered appr	implementing sation work, when the control work, when the control work and limited the control work work and the control work work work work work work work work	same sampling to here the in-field nited to a numbe	chniques. Aircore drilling data was only used i and laboratory sampling methodologies wa
· ·	resource estimated considered appropriate the co	implementing sation work, who priate and lim  ING (1985-2014)  as been recorded is not recorded enerally core reand/or areas of	same sampling to here the in-field nited to a numbe 4)  ded in most drill d in the supplier recovery was go	chniques. Aircore drilling data was only used and laboratory sampling methodologies was of selected Navigator drillholes.  logs for most of the diamond drilling program di database. A review of some historical reported with lesser recoveries recorded in zones of
Drill sample recovery	resource estimated considered appropriate HISTORIC DRILLING Diamond Drilling Core recovery historice 1985, but indicates that goroken ground as	implementing sation work, who priate and lim  ING (1985-2014)  as been recorded is not recorded enerally core reand/or areas of	same sampling to here the in-field nited to a numbe 4)  ded in most drill d in the supplier recovery was go	chniques. Aircore drilling data was only used i and laboratory sampling methodologies wa

Diamond Drilling

KIN MINING (2014-2017)

Core recovery was recorded for each run by measuring total length of core retrieved against the

Criteria	Commentary				
	downhole interval actually drilled.				
	Diamond core recoveries were recorded in the database. Independent field reviews by the Competent Persons (SC & GP) in 2017 of the diamond drilling rig in operation and core integrity at the drill sites, demonstrated that diamond drill core recoveries were being maximised by the driller, and that core recoveries averaged >95%, even when difficult ground conditions were being encountered.				
	RC Drilling				
	Integrity of each one metre RC sample is preserved as best as possible. At the end of each 1 metre downhole interval, the driller stops advancing the rods, 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 the 3-tiered riffle splitter fitted beneath the sample box. 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 riffle splitter cleaned by the off-sider using a compressed air hose, and if necessary a scraper. 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.				
	RC drill sample recoveries are not recorded in the supplied database, however a review by the Competent Person (GP) in May 2017 of RC drill samples stored in the field, and observations of the two RC drilling rigs in operation, suggests that RC sample recoveries were mostly consistent and very good, with the samples themselves being reliable and representative of the material being drilled.				
	COMMENT				
	Due to the lack of detailed information in the database regarding historic (pre-2014) Aircore and RC drilling, no quantitative or semi-quantitative impression of sample recovery or sample quality is available. Given that much of the drilling at Cardinia was conducted by the same companies and at the same times as that carried out for the Mertondale Project, where it is assumed to be satisfactory given that the Mertondale deposits were mined in the past, by open pit methods, where the open pits were mined to their original design limits, based on the historical drill data. This suggests that the amount of metal recovered was probably not grossly different from premining drill data based expectations.				
	During Navigators drill programs wet samples were spear sampled instead of riffle split. This is regarded as poor sampling procedure and these samples are regarded as unreliable however the total number of wet samples is considered to be very low.				
	No indication of sample bias is evident nor has it been established. That is, no relationship has been observed to exist between sample recovery and grade.				
	The amount of Aircore drilling data used in the Cardinia resource estimation process is low and regarded as not material.				
Logging	HISTORIC DRILLING (1985-2014)				
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Metana, CIM, SOG & Navigator). Correlation between codes is difficult to establish, however it can be achieved with effort. Based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time.				
	Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core orientations), core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features, and then marked up for cutting and sampling.				
	Navigator RC and Aircore logging was entered on a metre by metre basis, recording lithology, alteration, texture, mineralisation, weathering and other features. The information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.				
	The entire length of all drillholes are logged in full from surface to bottom of hole.				
	Logging is qualitative on visual recordings of lithology, oxidation, colour, texture and grain size. Logging of mineralogy, mineralisation and veining is quantitative.				
	Drill core photographs are only available for Navigator's diamond drillholes.				

Criteria	Commentary
	KIN MINING (2014-2017)
	KIN's logging of drill samples was carried out in the field (RC drilling) or at the Leonora Yard (diamond core) and entered onto a portable computer, on a metre by metre basis for RC, and be sample intervals and/or geological contacts for diamond core. Data recorded included lithology alteration, structure, texture, mineralisation, sulphide content, weathering and other features Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded in the drill logs in the field.
	Several diamond drillholes were completed for geotechnical purposes and were independently logged for structural data by geotechnical consultants. All diamond drill core has been photographed, and currently stored at KIN's yard in Leonora.
	KIN geological personnel retrieved the core trays from the drill rig site and relocated them to KIN's yard in Leonora at the end of each day. Drill core was photographed in the field or at the Leonora yard, prior to cutting using a diamond core saw to obtain quarter core samples fo analysis.
	All information collected was entered directly into laptop computers or tablets, and transferred to the database to be validated.
	COMMENT
	KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and i not yet completed.
	The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies and metallurgical studies.
	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, veining, and in addition, logging of diamond drilling included geotechnical data, RQD and core recoveries.
	For the majority of historical drilling (pre-2004), and all of the more recent drilling, the entire length of drillholes have been logged from surface to 'end of hole'. Diamond core logging it typically logged in more detail compared to RC and Aircore drilling.
Sub-	HISTORIC DRILLING (1985-2014)
sampling techniques and sample	Historical reports for drilling programs prior to 2004, are not always complete in the description of sub-sampling techniques, sample preparation and quality control protocols.
preparation	Diamond Drilling
	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 saw blade centered over a cradle holding the core in place.
	Core sample intervals varied from 0.3 to 1.4m, but were predominantly taken over 1m intervals or at geological contacts, whichever was least. The remaining core was retained in core trays.
	Where historical reports do not describe the sampling protocol for sampling of drill core, it i assumed that drill core was sampled as described above.
	RC Drilling
	Prior to 1996, limited historical information indicates most RC sampling was conducted be collecting 1m samples from beneath a cyclone and passing through a riffle splitter to obtain a 34kg sub-sample for analysis. RC sampling procedures are believed to be consistent with the normal industry practices at the time. The vast majority of samples were dry and riffle split however spear or tube sampling techniques were used for wet samples.
	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 R 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 downhol 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 1r

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.

Criteria	Commentary
	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 being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
	Navigator obtained sub-samples from wet samples using the spear or tube method.
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	Navigator included standards, duplicate splits, 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.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop.
	A variety of laboratories were used for analysis. Prior to 2009, duplicate samples were not routinely collected and submitted from RC and Aircore drilling to the same laboratory consequently overall sampling and assay precision levels can't be quantified for that period. Since 2009, Navigator adopted a stricter sampling regime with the submission of duplicate samples at a rate of 1 for every 50 primary samples.
	While QC protocols were not always comprehensive, the results indicate that assay results from Navigators exploration programs were reliable. Results from pre-Navigator operators are regarded as consistent with normal industry practices of the time.
	KIN MINING (2014-2017)
	Diamond Drilling
	Diamond drill core samples collected for analysis were longitudinally cut in half and quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.2 to 1.1m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference.
	All of KIN's diamond drill core is securely stored at their Leonora Yard.
	RC Drilling
	All RC sub-samples were collected over 1 metre downhole intervals and retained in pre-marked calico bags, after passing through a cyclone and riffle splitter configuration. 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 riffle splitter, and the small number is not considered material.
	Field duplicates were taken at regular intervals at a ratio of 1:50 and assay results indicate that there is reasonable analytical repeatability, considering the presence of nuggety gold.
	COMMENT
	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 the material being drilled. 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 is an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia
Quality of assay data and laboratory	Numerous assay laboratories and various sample preparation and assay techniques have been used since 1985. 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.

Criteria	Commentary					
tests	HISTORIC DRILLING (1985-2014)					
	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 common practice at the time. Mineralised intervals were subsequently Fire Assayed (using 30, 40 or 50 gram catchweights) with AAS/ICP finish.					
	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 Aircore samples using Fire Assay fusion on 40 gram catchweights and AAS/ICP finish.					
	Navigator regularly include field duplicates, Certified Reference Material (CRM) standards and blanks with their sample batch submissions to the laboratories at average ratio of 1 in every 20 samples. Sample assay repeatability, and blank and CRM standards assay results are within acceptable limits. Field duplicates were taken at regular intervals at a ratio of 1:50 and assay results indicate that there is reasonable analytical repeatability, considering the presence of nuggety gold.					
	KIN MINING (2014-2017)					
	Sample analysis was conducted by SGS Australia Pty Ltd's ("SGS") Kalgoorlie and Perth laboratories. Sample preparation included oven drying (105°C), crushing (-6mm), pulverising (P85% -75 $\mu$ m) 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, field duplicate and CRM standards in each sample batch at a ratio of 1:20. 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 duplicate sample assay repeatability, blank standards and CRM standards assay results are within acceptable limits for this style of gold mineralisation.					
	SGS include blanks and CRMS 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 within acceptable limits.					
	COMMENT					
	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 or Aqua Regia digestion techniques were conducted on diamond, RC and Aircore samples, with AAS or ICP finish.					
	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.					
	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.					
	KIN's ongoing QA/QC monitoring program identified one particular CRM that was returning spurious results. Further analysis demonstrated that the standard was compromised and subsequently removed and destroyed. A replacement CRM of similar grade was substituted into the QA/QC program.					
Verification of sampling and	Verification of sampling and assaying techniques and results prior to 2004 has limitations due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories, over a twenty year period.					
assaying	Since 2014, significant drill intersections have been verified by KIN's company geologists during the course of the drilling programs.					
	In 2009, Runge Ltd ("Runge") completed a mineral resource estimate report for the Bruno Lewis Link, Lewis and Kyte deposits. Runge carried out database verification, which included basic visual validation in Surpac and cross check queries in Microsoft Access ("Access"). Runge did not report any significant issues with the database.					

Criteria	Commentary				
	During 2017, Carras Mining Pty Ltd ("CM") carried out an independent data verification. 18,608 assay records for KIN's 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 4 errors were found, which are not considered material and which represents only 0.01% of all database records verified for KIN's 2014-2017 drilling programs.				
	COMMENT				
	There is always a risk with legacy data that sampling or assaying biases may exist between results from different drilling programs due to differing sampling protocols, different laboratories and different analytical techniques.				
	Repeated examinations of historic reports on phases of diamond, RC and Aircore drilling have been conducted from time to time. Assay results from KIN's recent drilling are consistent with surrounding information and as a result the information obtained from the various diamond, RC and Aircore drilling programs (where sampling protocols are appropriate) have been accepted.				
	Recent (2014-2017) RC and diamond drilling by KIN did not include twinning of historical drillholes within the Bruno Lewis Link, Lewis and Kyte areas, however the drill density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show good correlation with nearby historical results.				
	Where sampling protocols are appropriate, diamond, RC and Aircore samples, are of equal importance in the resource estimation process.				
	There has been no adjustments or calibrations made to the assay data recorded in the supplied database.				
Location of	HISTORIC DATA (1985-2014)				
data points	Several local survey grids were established by various operators in the 1980s and 1990s. During the 1990s, SOG transformed the surface survey data firstly to AMG and subsequently to MGA (GDA94 zone51).				
	Drilling was carried out historically using 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's RC holes were downhole surveyed. Pre- Navigator, single shot survey cameras were used, with survey intervals at various depths.				
	KIN MINING (2014-2017)				
	KIN's drill hole collars were 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 during KIN's drilling programs was predominantly carried out by the drilling contractor. KIN recognised that some of the downhole survey data appeared to be spurious, and commissioned an independent downhole surveying program by a survey contractor (BHGS, Perth) to check the orientation of several drillholes at Cardinia. The check survey found occasional spurious results with the initial surveys. This can be explained by the fact that when the drilling company's survey tool is run inside the drill rods, the tool's sensors need to be located exactly in the middle of the bottom stainless steel (s/s) RC rod to obtain accurate readings. Check readings by KIN personnel at different locations within the s/s rod found that variation in azimuth can be measured up to 2°, within 1 metre from the centre of the rod, and up to 10° further away from the centre. The positioning of the tool by the drilling contractor is assumed to be within 1 metre of the centre of the s/s rod for the majority of the drilling program. Therefore, given the nature of the mineralisation and the shift in apparent position of up to 5 metres (for 2° variation) along 'strike' for open pit depths (<140 metres), the occasional errors are not considered material for				
	this resource estimation work.				

In addition, if the downhole survey tool is located within 15 metres of the surface, there is risk of influence of 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

Criteria	Commentary					
	database, but are not used.					
	KIN supplied two digital terrain models (DTM) of the topography: one DTM constructed from drill hole collar data, and the second from a recent aerial orthophotogrammetry survey. The two DTM surfaces correlate sufficiently close and within acceptable limits for horizontal and vertical control, and appropriate for resource estimations.					
	COMMENT					
	The accuracy of the drill hole collar and downhole data are located with sufficient accuracy for use in resource estimation work					
	Some historical Navigator drillhole collar positions at Bruno Lewis Link and Lewis have recently been independently located and verified in the field, and checked against the database.					
	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 estimations, subject of this report.					
	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° 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.					
Data spacing and distribution	Drill hole spacing patterns vary considerably throughout the Project area, and is deposit specific, depending on the nature and style of mineralisation being tested.					
	Parts of the Bruno and Lewis Grade Control areas have been drilled, with vertical holes, on a close spaced regular drill pattern of 8 mN by 5 mE. The Link area has also been drilled predominantly with vertical holes on a wider spacing (30m x 20m).					
	Drill hole and sample interval spacing is sufficient to establish an acceptable degree of geological and grade continuity appropriate for mineral resource estimations and classifications applied.					
	There has been no sample compositing, other than a few historical compositing of field samples for some Aircore and RC samples to 1.5m, 2m, 3m, 4m and a few 5m intervals. The vast majority (>90%) of primary assay intervals are 1 metre intervals for RC and Aircore samples, and predominantly 1 metre intervals for core samples.					
Orientation of data in relation to	The sheared Cardinia greenstone sequence displays a NNW to NW trend. The drilling and sampling programs were carried out to obtain an unbiased location of drill sample data, generally orthogonal to the strike of mineralisation.					
geological structure	Mineralisation is structurally controlled in sub-vertical shear zones within the broader Cardinia area, with a supergene component in the oxidised profile.					
	The vast majority of historical drilling is predominantly orientated at -60°/270° (west) or vertical for Grade Control drillholes, and generally orthogonal to the strike of mineralisation. The majority of KIN's drilling, at Lewis, was orientated -60°/090° (east).					
	Orientation sampling bias has been identified for the vertical Grade Control drillholes, where these are interpreted as intercepting vertically oriented mineralisation/structures. This has been taken into account in the resource estimation process.					
Sample	HISTORIC DRILLING (1985-2014)					
security	No sample security details are available for pre-Navigator (pre-2004) drill samples.					
	Navigator's drill samples were collected from the riffle splitter in pre-numbered calico bags at the drill rig site. Samples were collected by company personnel from the field and transported to Navigator's secure yard in Leonora, where the 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 Navigator's yard, until transporting to the laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site, to delivery to the laboratory.					
	KIN MINING (2014-2017)					
	KIN's RC drill samples were collected from the riffle splitter in pre-numbered calico bags at the					

Criteria	Commentary				
	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 KIN's secure yard in Leonora. The bulkabags were tied off and stored securely in the yard. The laboratory's (SGS) transport contractor was utilized to transport the bulkabags to the laboratory. There was no perceived opportunity for the 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.  On receipt of the samples, the laboratory (SGS) independently checked the sample submission form to verify samples received, and readied the samples for sample preparation. SGS's sample				
	security protocols are of industry acceptable standards.				
Audits or reviews	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to today's current standards. A review of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to the best practice industry standards of the day.				
	A review of the Cardinia Project's database, drilling and sampling protocols, and so forth, was conducted and reported on by independent geological consultants Runge Ltd (2009). Their report highlighted issues with bulk density and QA/QC analysis of the database, which have since been identified and addressed by Navigator and most recently by KIN.				
	During 2017, CM have reviewed and carried out an audit on the field operations and database. Drilling and sampling methodologies observed during the site visits are to today's industry standard. Similarly there were no issues identified for the supplied databases, which would be considered material.				
	KIN is in the process of completing validation of all historical logging data and to standardise the logging code system by incorporating the SOG and Navigator logging codes into one, and converting all historical logging into the standardized code system. This is an ongoing process and is not yet completed.				
	During the review, CM logged the oxidation profiles ('base of complete oxidation' or "BOCO", and 'top of fresh rock' or "TOFR") for each of the deposit areas, based on visual inspection of selected RC drill chips from KIN's recent drilling programs, and a combination of historical and KIN's drillhole logging, with final adjustments made with input from KIN geologists. The oxidation profiles were used to assign bulk densities and metallurgical recoveries to the resource models.				
	Bulk density testwork in the past 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 testwork 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.				
	Recent (2014-2017) RC and diamond drilling by KIN include some twinning of historical drillholes within the Cardinia Project area. In addition, KIN's infill drilling density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show good correlation with nearby historical results.				
	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.				

# **SECTION 2 – Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	The Bruno Lewis Link, Lewis and Kyte areas includes granted mining tenements M37/86, M37/227, M37/277, M37/300, M37/428 and M37/646, centered some 35-40km NE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The Cardinia Project is managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.
	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 resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other parties	There is limited exploration data available prior to 1985, where it is believed that exploration was more focused on base metals, and not gold. 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; 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") 1999, and Navigator Resources Ltd ("Navigator") 2004-2014.
	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).
	In 2009, Navigator commissioned Runge Limited ("Runge") to complete a Mineral Resource estimate for the Cardinia deposits (Kyte, Lewis and Bruno). Runge reported a JORC 2004 compliant Mineral Resource estimate, at a low cutoff grade of 0.7g/t Au, totaling 4.34Mt @ 1.2 g/t au (169,700 oz Au), comprising total Indicated Resources of 1.69 Mt @ 1.2 g/t Au (64,500oz) and total Inferred Resources of 2.65Mt @ 1.2 g/t Au (105,200oz).
	KIN's drilling is focused along the mineralised structures that host the Bruno and Lewis Trial open pits and the Kyte deposit, and historical drilling conducted by the above mentioned previous operators.
Geology	The Project area is located 35-40km NE of Leonora 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 (MZN) 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 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 with a sub-vertical attitude. Structural foliation of the stratigraphy dips moderately to the east.
	At Bruno Lewis Link, Lewis and Kyte, primary gold mineralisation is typically characterised by finely disseminated sulphides (pyrite), and spatially associated with increased shearing and lithological contacts between mafic and felsic lithologies. Secondary gold mineralisation occurs as supergene enrichment within the regolith, and characterized by iron oxides, after sulphides, in the bleached, carbonated felsic units near the footwall dolerite/felsic contact.
	The central Lewis area is dominated by sub-vertical, NW trending, highly altered, strongly weathered mafics and intercalated beds of carbonated felsic rocks and minor sediments (including

Mineralisation at Kyte is hosted within weathered, sheared and altered mafics, and is typified in the weathered zone, by iron-rich alteration, after sulphides.  In some areas, gold mineralisation is highly variable in the regolith. In these areas, closer spaced rilling was carried out to provide a high level of confidence in the interpretations.  Material drilling information used for the resource estimation has previously been publicly eported in numerous announcements to the ASX by Navigator (2004-2014) and KIN since 2014.  Ill hole depths refer to down hole depth in metres. All hole collars are surveyed and MGA94 one51 DGPS positioned. Elevation (R.L.) is recorded as part of the surveyed collar pick up. Drill oles are measured from the collar of the hole to the bottom of the hole.  When exploration results have been reported for the resource areas, the intercepts are reported is weighted average grades over intercept lengths defined by geology or lower cut-off grades, without any high grade cuts applied. Where aggregate intercepts incorporated short lengths of igh grade results, these results were included in the reports.
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inco 2014 VIN bosse remembed DC duilling intercontinuo vital less set eff and de eff C / / A
ince 2014, KIN have reported RC drilling intersections with low cut off grades of $\geq$ 0.5 g/t Au and maximum of 2m of internal dilution at a grade of $<$ 0.5g/t Au.
here is no reporting of metal equivalent values.
he orientation, true width and geometry of the mineralised zones have been determined by nterpretation of historical drilling and verified by KIN's drilling. The vast majority of historical rilling is predominantly orientated at -60°/270° (west) or vertical for Grade Control drillholes, and enerally orthogonal to the strike of mineralisation. The majority of KIN's drilling, at Lewis, was rientated -60°/090° (east).
ince the mineralisation is steeply dipping, drill intercepts are reported as downhole widths, not rue widths. Accompanying dialogue to reported intersections normally describe the attitude of the mineralisation.
plan and type sections for the resource areas are included in the main body of the report.
ublic reporting of exploration results by KIN and past explorers for the resource areas are onsidered balanced and included representative widths of low and high grade assay results.
omments on recent bulk density and metallurgical information is included in Section 3 of this able 1 Report. There is no other new substantive data acquired for the resource areas being eported on. All meaningful and material information is or has been previously reported.
he potential to increase the existing resources is viewed as probable. Further work does not uarantee that an upgrade in the resource would be achieved, however KIN intend to drill more oles at Bruno Lewis Link, Lewis and Kyte with the intention of increasing the Cardinia Project's esources and converting the Inferred portions of the resources to the Indicated category.
r h hitrieri ir u o o o a e h u o

# **SECTION 3 – Estimation and Reporting of Mineral Resources**

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

Cuito	Company and a min
Criteria  Database Integrity	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1981. Data was obtained predominantly from Reverse Circulation (RC) drilling, and to a lesser extent, diamond core (Diamond) drilling and Air Core (Aircore) drilling.
	There is limited exploration data available prior to 1985, where it is believed that exploration was more focused on base metals, and not gold. 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; 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") 1999, and Navigator Resources Ltd ("Navigator") 2004-2014.
	KIN exploration data from 2014 to 2017 has been acquired predominantly from RC and some diamond drilling.
	The database could not be fully verified regarding the reliability and accuracy of a substantial portion of the historical data, however the recent drilling by KIN has enabled comparison with the historical data and there is no material differences observed of a negative nature.
	Database checks conducted by KIN and others are within acceptable limits. There is missing data, however it is regarded as minimal. It is not possible to identify errors that might have occurred prior or during digital tabulation of historic (pre-2004) data, however the amount of historic data used in the resource estimation is minimal and the effect would not be material.
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, SOG & Navigator). Correlation between codes is difficult to establish, however can be achieved with effort. 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 standardise the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The drilling by Navigator and KIN has been used to scrutinize and calibrate historic logging data. This has enabled KIN to establish good geological control, which has been used to derive the geological interpretations in current work.
	Navigator uploaded the original assay files received from the labs via a database administrator using Datashed to minimise loading errors. An export of the data was then used to create an access database for use in Surpac.
	In 2009, Runge Ltd ("Runge") completed a mineral resource estimate report for the Bruno, Lewis and Kyte deposits. Runge carried out database verification, which included basic visual validation in Surpac and cross check queries in Microsoft Access ("Access"). Runge did not report any significant issues with the database.
	Since 2014, KIN geologists have conducted verification of historic drilling, assays, geological logs and survey information against the digital database, and in the field, including reviewing historic reports and visual confirmations of Surpac and Access databases. KIN have not reported any significant issues with the database.
	KIN has validated the database in Datashed and in Surpac prior to Resource estimation. These processes checked for holes that have missing data, missing intervals, overlapping intervals, data beyond end-of-hole, holes missing collar co-ordinates, and holes with duplicate collar co-ordinates.
	During 2017, CM carried out an independent data verification. 18,608 assay records for KIN's 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 4 errors were found, which are not considered material and which represents only 0.01% of all database records verified for KIN's 2014-2017 drilling programs.
Site Visit	KIN's geological team have conducted multiple site visits including supervision and management of drill programs within each of the Resource areas.

Criteria		Comm	nonton				
Criteria	Dr Spero Carras (Competent Person) was involved in the Leonora area at the Harbou and Mertondale areas during the 1980s, and is familiar with the geology and s mineralisation within the Leonora Project area. He revisited the Leonora area during review the projects, drilling, sampling and general geology.						
	resource areas, and exposures, drilling a	they have independently and sampling procedures	etent Persons) also condi reviewed drill core, exis . Mr Nelson also collecte d Lewis pits for bulk densi	ting open pits, surface ed representative rock			
Geological Interpretati on							
	The regional geology comprises a suite of NNE-North trending greenstones positioned within the Mertondale Shear Zone (MZN) 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 dykes and Archaean felsic porphyries have intruded the sheared mafic/felsic volcanoclastic/sedimentary sequence.						
	felsic volcanic and ir	ntrusive lithologies and lo	stratigraphy consists of in ocally derived epiclastic se foliation of the stratigrap	ediments, which strike			
	At Bruno, Lewis Link and Lewis, primary gold mineralisation is typically characterised by fine disseminated sulphides (pyrite), and spatially associated with increased shearing ar lithological contacts between mafic and felsic lithologies. Secondary gold mineralisatic occurs as supergene enrichment within the regolith, and characterized by iron oxides, aft sulphides, in the bleached, carbonated felsic units near the footwall dolerite/felsic contact.  The central Lewis area is dominated by sub-vertical, NW trending, highly altered, strong weathered mafics and intercalated beds of carbonated felsic rocks and minor sedimen (including shales).						
	Mineralisation at Kyte is hosted within sheared and altered mafics, and is typified in the weathered zone, by iron-rich alteration, after sulphides.						
Dimensions	In some areas, gold mineralisation is highly variable in the regolith. In these areas, closer spaced drilling was carried out to provide a high level of confidence in the interpretations.  The Bruno Lewis Link deposit has a strike of 1.4km (NW-SE) and a width of 500m (NE-SW). The						
Dimensions	The Bruno Lewis Link deposit has a strike of 1.4km (NW-SE) and a width of 500m (NE-SW). The Bruno Lewis Link area includes a total of 87,493m of drilling. The drilling in the mineralized area for Bruno Lewis Link includes 2 DD holes for 15m, 1,309 RC holes for 9,432m and 277 AC holes for 1,808m.						
	The Lewis deposit has a strike of 1.2km NW and a width of 200m. The Lewis area inclutotal of 100,880m of drilling. The drilling in the mineralized area for Lewis includes 1 holes for 219m, 1,858 RC holes for 18,831m and 160 AC holes for 1,275m.						
	of 10,430m of drillir		a width of 200m. The Kynneralized area for Kyte in as for 424m.				
Estimations and Modelling Techniques	Resources for the following deposits in the Cardinia area:  Bruno Lewis Link  Lewis						
	• Kyte						
	Deposit	Orebody Dimensions	Nominal Drill Spacing	Mineralised Metres of Drilling (m)			
	Bruno Lewis Link	1,400 x 500 x 100	GC 8 x 5 Link 30 x 20	11,255			
	Lewis	1,200 x 200 x 150	GC 8 x 5 South 20 x 20	20,325			
<u> </u>	11 -0.7.0	_,	55441 20 X 20	20,020			

Criteria	Commentary				
	Kyte	600 x 200 x 100	20 x 20	2,111	

- 30. Wireframes were provided by KIN Mining NL (KIN) for:
  - a. Topography based on drill collar data
  - b. Bottom of Oxidation (BOCO)
  - c. Top of Fresh Rock (TOFR)
  - d. Wireframes of pre-existing pits and some waste dumps
- 31. CM carried out an Independent Review of the weathering surfaces and where necessary, based on new drilling (both RC and diamond), geological relogging and bulk density information, the surfaces were modified to reflect the additional information. Surface topography was also adjusted due to new information obtained in an April 2017 drone-borne aerial photogrammetry survey.
- 32. Based on geology, statistical analysis and intersection selection, domainal shapes were wireframed at a 0.3g/t nominal edge cut-off grade. These domainal shapes could contain values less than 0.3g/t within the wireframes although this was minimized to prevent smoothing dilution being incorporated into the final models. The parameters used for intersection selection as a guide for wireframing were 8m downhole for the Bruno Lewis Link, Lewis area and 3m downhole for Kyte. The intersections could include internal dilution. The longer intersections were chosen due to vertical drilling in the grade controlled areas of the deposit and in the Link area.
- 33. In December 2016 CM carried out a very detailed analysis of the closely spaced drilled grade control areas of Bruno Lewis Link, Lewis. The drillholes were on 8m x 5m spacing and while it is clear that there is a component of supergene ore and depletion in the deposit, it became apparent that grades could be correlated from level to level on a structural basis, indicating that the supergene component of the ore is restricted to the vicinity of definitive felsic/mafic contacts and other shear structures. This was the model that was followed in the ensuing geological interpretation where use was also made of the geological logging. Discussions were also held with the mine geologist who worked on mining of the Lewis pit, who confirmed that control on the mineralisation was mostly in a vertical sense with a component of supergene ore.
- 34. The wireframed shapes were audited by KIN geological staff who had previous experience whilst working for Navigator. It is possible that there could be slightly more supergene ore in the models than has been used in the current interpretation.
- 35. Historically mined volumes were removed from the model. These shapes were based on historical workings obtained from KIN.
- 36. Each wireframe had an assigned strike, dip and plunge.
- 37. Compositing from the top of each shape was carried out at 1m within each wireframe. The majority of composites (98%) were greater than 1m.
- 38. The domainal shapes were passed into ISATIS Software with specified strike, dip and plunge.
- 39. The number of shapes used was as follows:

Deposit	Number of Shapes
Bruno Lewis Link	151
Lewis	244
Kyte	49

- 40. A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used.
- 41. The declustering program DECLUS (ISATIS) was used to produce the weights to be assigned to each composite for statistical analysis.
- 42. For each shape a detailed set of weighted statistics was produced. Due to the size of the Bruno Lewis Link, Lewis areas, modelling was carried out by breaking it into 3 distinct

Commentary
zones based approximately on northings and drill density in the South (see Figure 1). The
first zone, the most northerly, which encompassed the Bruno Grade Control area and the
Link area was known as Bruno Lewis Link. The Lewis area was broken into 2 further zones.
A zone north of the Proterozoic dyke known as Lewis Grade Control and a zone south of
the Proterozoic dyke, known as South. Each of these zones was analysed independently
and then recombined for reporting purposes into 2 areas known as Bruno Lewis Link
(which is a combination of the Bruno Grade Control zone and the Link zone) and Lewis
(which is a combination of the Lewis Grade Control zone and the area to the south of this
shown as Lewis South) (see Figure 2). Based on the statistics, high grade cuts were
determined for every shape and the percentage metal cut was estimated for each zone
as shown in the below table:

Criteria

Deposit	Maximum Cut (g/t)	Percentage Metal Cut
		%
Bruno Lewis Link	60	9
Lewis	70	4
Grade Control		
South	25	19*

<sup>\*</sup>The high percentage metal cut is due to a very high grade outlier of > 500g/t. If this high grade is removed then the percentage metal cut is 6%. However it does show the high grade potential of the southern area.

43. The Kyte deposit was analysed as an independent area for high grade cutting. Based on the statistics, high grade cuts were determined for every shape and the percentage metal cut was estimated as shown in the below table:

Deposit	Maximum Cut (g/t)	Percentage Metal Cut
Kyte	15	3

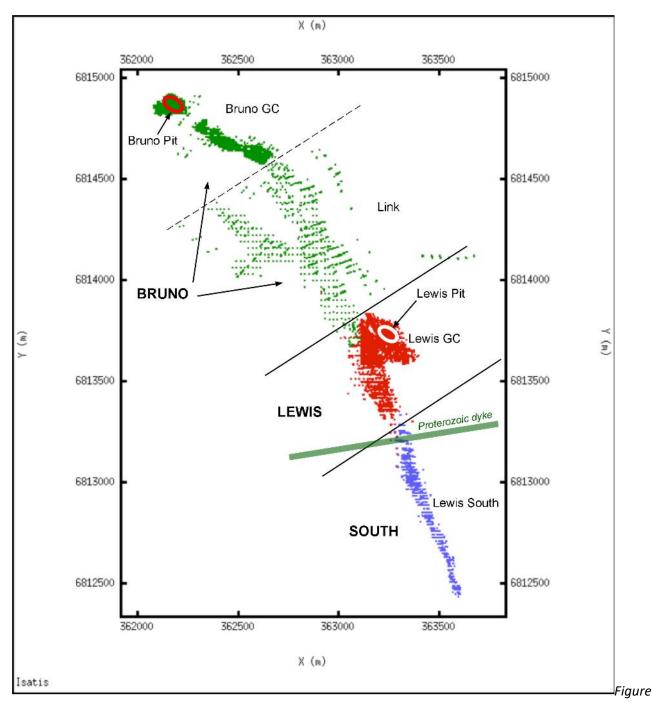
- 44. Where a data point belonged to 2 shapes the cut allocated was determined for each domain and independently allocated.
- 45. Variograms were run for each domain using ISATIS. The variograms were of very poor quality with the dowhole variograms being the basis of fitted models. Directional variograms were produced for downhole, down dip, down plunge. Where the downhole variograms were calculated on an individual hole basis, variograms were not normalized. Variograms were normalized for down dip and plunge. Raw variograms were used in subsequent work.
- 46. The Author, Dr. S. Carras had extensive experience in the Leonora Belt during the 1980's and has had familiarity with the nature of the mineralisation. To overcome the "string problem" which occurs in narrow vein structures where more than 2 samples are used per drillhole, three estimations were produced, OK, Inverse Distance Squared (ID2) and Inverse Distance Cubed (ID3). Distance weighting methods do not suffer from the "string problem".
- 47. The following parameters were used in modelling OK, ID2 and ID3:
  - A minimum number of samples of 4 and a maximum number of samples of 32
  - The discretisation parameters were 1 x 1 x 2 for Bruno Lewis Link, Lewis and 2 x 2 x 2 for Kyte
  - A maximum of 2 samples per hole
  - Note: for blocks that did not meet these requirements, the parameters were relaxed and the search radii were increased.
  - To minimize the striping effect created by estimation in narrow shapes, the downhole search radii were increased.
- 48. The ranges of search and directions used were applied on a shape by shape basis. The aim was to produce OK results for the majority of shapes where there had been adequate data to produce meaningful variography. Small shapes where there was inadequate data were estimated using distance weighting squared methodology rather than OK.

Criteria	Commentary			
	49. The fundamental block size used was:			
	Deposit Devois Link Louis	Small Blocks		
	Bruno Lewis Link, Lewis Kyte	0.5m x 0.5m x 2.5m 2.5m x 1.25m x 2.5m		
		1	estimation where shapes were	
	50. Scatter plots were then properties for larger shapes.	roduced which compared OK, I	D2 and ID3 for the small blocks	
		sually checked on a section be the best fit, which eliminate	y section basis of block versus ated the "string problem".	
			to form medium (quarter) sized quarter) sized blocks and panels	
	Deposit	Medium (Quarter) Blocks	Panels	
	Bruno Lewis Link, Lewis	8m x 4m x 2.5m	16m x 8m x 5m	
	Kyte	5m x 2.5m x 2.5m	10m x 5m x 5m	
	Quarter size blocks were	used for reporting Resources.		
	53. Plots were produced of fre	equency histograms in domains	for point data and for blocks.	
	54. To check that the interpolation of the block model honoured the drill data, validation was carried out comparing the interpolated blocks to the sample composite data. The validation plots showed good correlation, thus the raw drill data was honoured by the block model.			
	55. Volumes within wireframe block estimates of the volu ensure that volumes estim	umes within those wireframes		
	56. Classification was carried of and geology as the guide.	out using a combination of drill	hole density, drillhole quality,	
	(Perth). The optimised pit models that may have pro could therefore reasonab dilution of 5% and a recov	shells provided a reasonable be spects for economic exploitation by be declared as Open Pit Re ery of 95%. This was minimal	sed pit shell provided by Entech pasis for defining that portion of on in the foreseeable future and esources. (Optimisation used a and was only used to define the ndiluted and do not have an ore	
		leveloped by KIN indicated that ardinia area was likely to be 0.5	nt a break even mill feed cut-off 5g/t Au.	
Moisture	Tonnages and grades were esti diamond drill core included me	-	-	
Cut-off Parameters	Operating cost estimates provided by KIN's engineering consultants indicate a break even mining grade for open pit deposits in the Cardinia area is likely to be 0.5g/t Au.			
Mining Factors or Assumption s	was published. Recovery and I Bruno returned 100,000t @ 2.3 costs, clayey weathered regoli 40% higher than expected (alr Au. The successful mining by reasonable prospect for even methods, taking into account compared to the successful mining by reasonable prospect.	nead grade were above expectage of the control of t	the Runge resource estimation tations. In summary, mining at I pit, lower than forecast mining mineralisation, head grade was very, mine cut-off grade 0.85g/t that the mineral resource has a medium scale open pit mining prices and allowing for potential Reconciliation studies showed	

Criteria	Commentary
	that more metal was returned than was in the estimate at the time. Recent samples taken for bulk density in the Bruno pit (2017) indicate a far higher bulk density than had been previously used and upgrades in mining may be a function of the bulk density. Successful past open pit mining indicates there should be few issues with mining methodology.
Metallurgic al Factors or Assumption s	In 2010, an estimated 100,000 tonnes of Bruno trial mining was completed with a reconciled recovery of 95%. In 2016, an estimated 15,000 tonnes of trial mining from the Lewis Grade Control area was processed through the Lakewood mill in Kalgoorlie and delivered a recovery of 94%. In both cases the material mined was oxide showing that oxide material in the Bruno Lewis Link, Lewis area is expected to have good recoveries.
	In 2016 – 2017 KIN's drilling program included a series of RC and DD drillholes to collect samples for geotechnical and metallurgical testwork.
	Metallurgical testwork in the Bruno Lewis Link area has shown metallurgical recoveries in the mid-nineties in oxide and in transition.
	Lewis (south of the Proterozoic dyke) metallurgical testwork has shown metallurgical recoveries of better than 90% in oxide and transition and low eighties for fresh. The lower recoveries for fresh material was associated with the presence of a minor amount of sulphides (e.g. pyrite, arsenopyrite). Further testwork at a finer grind size will be undertaken to improve recoveries.
	For the Kyte deposit, very high recoveries were achieved in the mid-nineties for both oxide and transition.
Environmen tal Factors or Assumption	Mining at Bruno (100,000t) from the trial pit, generated a mullock/waste dump next to the open cut. It was to industry standards. It is assumed that practices concerning waste rock and process residual will meet accepted industry standards.
S	Two open pits and their associated waste rock landforms (i.e. Bruno and the Lewis Trial Pit) are encompassed by the current mineral resource estimate work. The Kyte resource area has not been subjected to any previous mining activity.
	Historical mining at each of the open pit sites, including waste rock landforms have not demonstrated any impacts that cannot be managed in normal operations. Studies completed to date, on ore and waste characterisations for previous and potential mining and processing operations, have not identified any potential environmental impacts that cannot be managed by normal operations. In addition, Navigator's environmental bonds lodged with the DMP for the Bruno operations have since been returned to Navigator, following the rehabilitation of those operations.
Bulk Density	Prior to 2014, there have been numerous programs of bulk density testwork conducted by several companies at different times on diamond drill core and/or RC drill chips for some of the various deposits. Generally the testwork has not been conclusive, since the testwork methodology has not been adequately described in the historical reports, or when it has, the testwork itself was not carried out using an acceptable method to determine dry bulk density. Often, when described, the testwork measured specific gravity, not bulk density, and in cases where bulk density was reported, the moisture content was not taken into account.
	In 2009 Navigator Resources Ltd submitted 54 half or whole diamond core samples to Amdel Mineral Laboratories Ltd's ("Amdel") Kalgoorlie laboratory for bulk density determination by the water immersion method. The core samples were a mixture of half core and whole core samples ranging from 10cm to 30cm in length, and were taken at downhole intervals of roughly every 2 to 3 metres. The samples were firstly weighed, oven dried overnight at 110°C, and weighed again to determine moisture content. Those samples that were likely to absorb water were then sealed, using hairspray, prior to immersion in water. It is not known what proportion of samples were not sealed, however it is likely that only fresh, non-porous samples were not sealed.
	In 2017, KIN carried out a diamond drilling program to include obtaining samples for bulk density testwork. Five diamond drill holes were drilled into the major parts of mineralised zones at Bruno Lewis Link and Lewis.
	A total of 478 half or quarter core samples, of varying lengths (5-20cm) were taken at downhole intervals of roughly every 1 metre. The samples were submitted to an independent laboratory in Perth for bulk density determinations by the water immersion method, where they were firstly weighed, oven dried overnight at 110°C, and weighed again to determine

Criteria		Cor	nmentary		
	moisture content. The samples were then sealed, using hairspray, prior to immersion in water.				
	In addition, Mr M Nelson (Consultant to CM) also took representative samples of mineralised material from the Bruno and Lewis Trial pits and submitted to the laboratory for bulk density determination.				
	During the 2017 bulk density testwork and estimation process, Dr S Carras and Mr G Powe (Consultant to CM) visited the laboratory and identified some improvements for consideration in the bulk density determination process, particularly for small core pieces to give bette precision of measurements. The suggested improvements were implemented and precision improved.			r consideration to give better	
	When estimating the bulk density for pieces of diamond drill core, it was found that the large sized samples gave more repeatable results and these were mostly used in assigning the bu densities.				
	The following bulk density areas:	parameters we	re used for the B	runo Lewis Link, I	Lewis and Kyte
	Area	Oxide	Transition	Fresh	
	Bruno GC	2.1	2.35	2.6	
	Bruno Link	1.8	2.2	2.6	
	Lewis GC	1.9	2.3	2.7	
	Lewis South	1.8	2.3	2.7	
	Kyte	2.1	2.2	2.6	
Classificatio	Classification was based on		f drillhole spacing	drillhole quality a	and confidence
	<ul><li>Link: 3</li><li>Lewis:</li><li>Grade Control: 8</li><li>South:</li></ul>	8m x 5m 80m x 20m 8m x 5m 80m x 20m			
	• Kyte: 2	0m x 10m			
	In general drillhole spacing Indicated.	g of 20m x 20	m resulted in mi	ineralisation bein	g classified as
	Drillhole spacing generally in allocated to the Inferred car		pth and as a resul	t deeper mineralis	sation is mostly
	The Mineral Resource estim	nate appropriate	ly reflects the vie	w of the Compete	ent Person.
Audits and Reviews	Navigator Resources had w deposits using ordinary krig data, assay, survey, wirefra out detailed reviews of all d	ing. KIN persor mes and geolog	inel carried out a	udits and internal	reviews of the
	Bulk density determination CM) through visitation of th			rras and G Powell	(Consultant to
Discussion of Relative	Two areas, the Bruno Grade on a very close spaced grid		nd the Lewis Grad	e Control area ha	ve been drilled
Accuracy and Confidence	While it is acknowledged the it is also apparent that there These controls are largely a	e are major stru	uctural controls o	n the location of	mineralisation.

Criteria	Commentary
	shear zones. Very small blocks have been used to model the very narrow shear structures.
	The use of vertical drilling into zones where the dip may be 70 degrees or more to the east can also constitute some cause for concern, however given the very close drilling grids in the grade control areas the major concern would be in the Link zone. To overcome any potential over valuation of the Link zone, as a result of the wider spaced mostly vertical drilling, only very narrow structures have been interpreted where intersected by drilling. It is likely that more narrow mineralised structures are present between the current drill pattern. Hence, it is likely that the Link zone is potentially undervalued.
	In the modelling process every attempt has been made to eliminate the "string effect" problem associated with the estimation of narrow vein structures through the use of ordinary kriging. This has been achieved through the use of distance weighting estimates correlated back to ordinary kriging estimates. This method, although heuristic has been validated by extensive review of the block models and the drillhole data.
	Every attempt has been made in the modelling to reduce the smoothing effect which results when using a low cut-off grade to determine boundary positions and limit the amount of dilution in the Resource so that it can be correctly diluted for Reserve.
	In all high coefficient of variation orebodies, local estimation is very difficult to achieve due to the high nugget effect of the gold. This means that small parcels of ore are difficult to estimate without further information such as closer spaced grade control drilling.
	Historic mining of the Bruno pit resulted in more metal than had been predicted. It is likely that this was due to an understatement of the bulk density and cutting of high grades, which was too severe. In the current estimates both the high grade cuts and bulk density values have been raised.



1: Sub Areas of Bruno Lewis Link, Lewis

Dark Lines Indicate Boundaries Used in Resource Estimation Methodology

Dotted Line Shows the Boundary Between Bruno Grade Control and Link

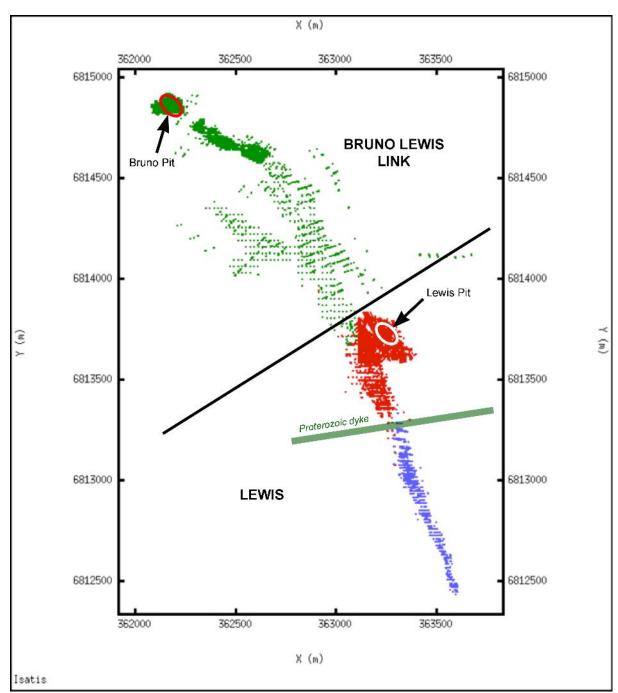


Figure 2: Bruno Lewis Link, Lewis

Dark Lines Indicate Boundaries Used in Resource Reporting

# **Appendix D**

# JORC 2012 TABLE 1 REPORT CARDINIA PROJECT Helens and Rangoon

# **SECTION 1 – Sample Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary
Sampling techniques	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1986. Data was obtained predominantly from Revers Circulation (RC) drilling, and to a lesser extent, diamond core (Diamond) drilling and Air Cor (Aircore) drilling.
	There is limited exploration data available prior to 1986, where exploration for nickel was carried out in the late 1960s and for base metals in the 1970s. During 1980-1985, Townson Holdings Pt Ltd ("Townson") mined a small open pit over some old workings at the Rangoon prospect.
	Companies involved in the collection of the majority of the gold exploration data since 1986 and prior to 2014 include: Mt Eden Gold Mines (Aust) NL (also Tarmoola Aust Pty Ltd "MEGM") 1986 2003; Pacmin Mining Corporation Ltd ("Pacmin") 1998-2001; Sons of Gwalia Ltd ("SOG") 2001 2004, and Navigator Resources Ltd ("Navigator") 2004-2014.
	Kin Mining Ltd ("KIN") acquired the Cardinia Project in 2014.
	HISTORIC SAMPLING (1986-2014)
	Drill samples were generally obtained from 1m downhole intervals and riffle split to obtain a 34kg representative sub-sample, which were submitted to a number of commercial laboratorie for a variety of sample preparations methods, including oven drying (90-110°C), crushing (-2mr to -6mm), pulverizing (-75 $\mu$ m to -105 $\mu$ m), and generally riffle split to obtain a 30, 40 or 50 grar catchweight for gold analysis, predominantly by Fire Assay fusion, with AAS finish. On occasions initial assaying have been carried out using Aqua Regia digest and AAS/ICP finish, with anomalous samples re-assayed by Fire Assay fusion and AAS/ICP finish.
	Diamond Drilling
	Half core (or quarter core) sample intervals varied from 0.3 to 1.4m, but were predominantl taken over 1m intervals, or at geological contacts, whichever was least. The remaining core wa retained in marked core trays and stored in a secure yard for future reference. The only know available drill core from these programs and stored at KIN's Leonora Exploration Yard, are thos drilled by Navigator.
	RC Drilling
	The vast majority of Reverse Circulation (RC) drill samples were collected over 1m downhol 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 1r 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 (wet samples) to obtain 3m or 4m composited intervals, with the single metre split sub samples being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved an submitted for gold analysis.
	Navigator obtained sub-samples from wet samples using the spear method.
	Data relating to historical wet samples is not available, however the number of wet sample involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have bee rehabilitated and the sample bags removed and destroyed.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, althoug in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop. Assay results from these samples are not used for resource.

ground prior to sampling with a scoop. Assay results from these samples are not used for resource

Criteria	Commentary
	estimation work, however they do sometimes provide a guide in interpreting geology and mineralisation continuity.
	When drilling under dry conditions, Aircore samples should be of a comparable quality to RC samples, when implementing same sampling techniques, therefore Aircore sample assay results were only used for resource estimation work if the 1m sub-samples were obtained by riffle splitting of the primary sample, prior to placing on the ground.
	There are no sample rejects available from AC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	RAB Drilling
	Sample return from Rotary Air Blast (RAB) drilling are collected from the annulus between the open hole and drill rods, using a stuffing box and cyclone. Samples are usually collected at 1 metre intervals and placed on the ground with 3-4kg sub-samples collected using a scoop or spear. Uphole contamination of the sample is commonplace, therefore this type of drilling and sampling is regarded as reconnaissance in nature and the samples indicative of geology and mineralisation. The qualities of samples are not appropriate for resource estimation work and are only sometimes used as a guide for interpreting geology and mineralisation.
	KIN MINING (2014-2017)
	Diamond Drilling
	Diamond drill core (HQ3) samples collected for analysis were longitudinally cut in half, and then in quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.2 to 1.25m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and securely stored in KIN's yard in Leonora for future reference.
	RC Drilling
	During drilling, sample return is passed through a cyclone and stored in a sample collection box. At the end of each metre, the cyclone underflow is closed off, the underside of the sample box is opened and the sample passed down through a riffle splitter.
	All RC sub-samples were collected over one metre downhole intervals and averaged 3-4kg. Sample reject from the riffle splitter were retained and stored in marked plastic bags, and located near to each drillhole collar.
	All drilling, sample collection and sampling handling procedures were conducted and/or supervised by KIN geology personnel to high level industry standards. QA/QC procedures were implemented during each drilling program to industry standards.
	<u>Analysis</u>
	Once received at the assay laboratory, diamond core and RC samples were oven dried (105-110°C), crushed (-6mm & -2mm), pulverised (P85% -75 $\mu$ m) and split to obtain a representative 50 gram sample catchweight for gold only analysis using Fire Assay fusion with AAS finish.
	COMMENT
	For some earlier (pre-2004) drilling programs, RC and Aircore samples were obtained at 1.5, 2 or 4 metre downhole intervals.
	For resource estimation work, Diamond, RC and some Aircore drilling data was used where appropriate. RAB drilling data was not used for resource estimation but was sometimes used as an interpretative guide only. A small proportion of the 2m sample intervals, particularly for Helens-Rangoon, were used in the resource estimation, only where the sampling methods are appropriate, and where they sit within the mineralisation interpretations.
Drilling techniques	Numerous programs comprising various types of drilling have been conducted by several companies since 1985. The Cardinia database encompasses the various deposits and prospects within the Cardinia Project's Helens and Rangoon areas, and consists of 1,077 drillholes for a total 46,753 metres, excluding RAB drilling, viz:
	Diamond drilling: 17 drillholes 956 metres
	RC drilling: 755 drillholes 36,231 metres
	Aircore drilling: 305 drillholes 9,566 metres  HISTORIC DRILLING (1986-2014)
	חוס ו טעור העודרוואם (1292-2014)

Criteria	Commentary	
	<u>Diamond Drilling</u>	
	Diamond drilling 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.	
	RC Drilling	
	RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, until the late 1980s, when the majority of drilling companies started changing over to using face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm. Samples obtained from conventional RC drilling techniques with cross-over subs often suffered from down hole contamination (e.g. smearing of grades), 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 more reliable and representative.	
	Aircore Drilling	
	Aircore drilling is a form of RC drilling, but generally utilizing smaller rigs and smaller air compressors, compared to standard RC drill rigs of the times. Aircore bits are hollow in the centre, with the kerf comprising cutting blades or 'wings' with tungsten-carbide inserts. Drill bit diameters usually range between 75-110mm.	
	All Aircore drilling (100%) was conducted by Navigator utilising suitable rigs with appropriate compressors (eg 250psi/600cfm). Aircore holes were drilled mostly into the weathered regolith using 'blade' or 'wing' bits, until the bit was unable to penetrate further ('blade refusal'), often near to the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate harder rock types. Hole depths ranged from 4m to 78m, averaging approximately 30 metres.	
	RAB Drilling	
	RAB drilling is 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.	
	KIN MINING (2014-2017)	
	Diamond Drilling	
	Diamond drilling was carried out by contractor Orbit Drilling Pty Ltd ("Orbit Drilling") with a truck-mounted Hydco 1200H drill rig, using industry standard 'Q' wireline techniques. Drill core (HQ3) 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.	
	Drillhole deviation was measured at regular downhole intervals, typically at 10m from surface, thence every 30m to bottom of hole, using electronic multi-shot downhole survey tools (i.e. Reflex EZ-TRAC or Camteq Proshot).	
	Core 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.	
	RC Drilling	
	RC drilling was carried out by Orbit Drilling's truck-mounted Hydco 350RC drill rigs with 350psi/1250cfm air compressor, with auxiliary and booster air compressors (when 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.	
	Drillhole deviations were surveyed downhole, during drilling operations, using electronic multi- shot downhole tool (e.g. Reflex EZ-TRAC). In some instances, drillholes were surveyed later in	

open hole. In the later drilling programs, downhole surveying was carried out inside a non-magnetic stainless steel (s/s) rod, located above the hammer. Providing the tool was located in the middle of the stainless steel rod, azimuth and dip readings were successfully recorded. A separate independent program of downhole deviation surveying was carried out to validate

Criteria			Comme	entary	
	previous surv tool).	eys, utilizing an e	lectronic continuo	ous logging sui	vey tool (AusLog A698 deviation
	_	tables summaris RC and AC only (i	_		a Project's Helens and Rangoo such as RAB):
	Cardinia Proje	ect, Helens & Rang	goon – Historical D	Orilling Summa	ry (Pre-2014)
	TOTAL	Holes	Metres	%(m)	
	DD	11	423	44.2%	
	RC	505	21,952	60.6%	
	AC	305	9,566	100.0%	
	Total	821	31,941	68.3%	
	Cardinia Proje	ect, Helens & Rang	goon – Drilling Sur	nmary – KIN (2	014-2017)
	TOTAL	Holes	Metres	%(m)	
	DD	6	534	55.8%	
	RC	250	14,279	39.4%	
	Total	256	14,813	31.7%	
	COMMENT				
	information is  RC drilling is to varying detail types, howeved indicates that was of an according with oncompressors drilling was of face sampling when drilling	s not recorded in to the dominant drill in historical repo- er it's not all reco- reputable drilling reptable standard board compresso for drilling to gree onducted with manager to hammers with bits	type at all sites. It is to the DMP, ir orded in the data companies were to those times. It is were probably ater depths and/odern rigs equippet diameters typications, Aircore same	pase.  RC drilling infonctuding drilling base supplied.  Expically controlling the 199 complimente or when ground with auxilially 140mm.  Inples should be	rmation is generally described g companies used and drilling r Review of the historical reported and the equipment supplie 0s, and 2000s, suitable large dr d with auxiliary and booster andwater was encountered. KIN any and booster compressors are of a comparable quality to Fore drilling data was only used
Orill sample	resource esti considered ap		nere the in-field ited to a number	and laborato	ry sampling methodologies wa
ecovery		•	.,		
	Diamond Drill				6.1 II
	since 1985, b indicates that	out is not recorded t generally core r d and/or areas of	d in the supplied ecovery was goo	database. A r d with lesser	of the diamond drilling program eview of some historical repor recoveries recorded in zones of ies are considered acceptable for
	RC Drilling				

**KIN MINING (2014-2017)** 

## **Diamond Drilling**

Core recovery was recorded for each run by measuring total length of core retrieved against the downhole interval actually drilled.

Diamond core recoveries were recorded in the database. Independent field reviews by the

Criteria	Commentary
	Competent Persons (SC & GP) in 2017 of the diamond drilling rig in operation and core integrity at the drill sites, demonstrated that diamond drill core recoveries were being maximised by the driller, and that core recoveries averaged >95%, even when difficult ground conditions were being encountered.
	RC Drilling
	Integrity of each one metre RC sample is preserved as best as possible. At the end of each 1 metre downhole interval, the driller stops advancing the rods, 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 the 3-tiered riffle splitter fitted beneath the sample box. 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 riffle splitter cleaned by the off-sider using a compressed air hose, and if necessary a scraper. 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.
	RC drill sample recoveries are not recorded in the supplied database, however a review by the Competent Person (GP) in May 2017 of RC drill samples stored in the field, and observations of the two RC drilling rigs in operation, suggests that RC sample recoveries were mostly consistent and very good, with the samples themselves being reliable and representative of the material being drilled.
	COMMENT
	Due to the lack of detailed information in the database regarding historic (pre-2014) Aircore and RC drilling, no quantitative or semi-quantitative impression of sample recovery or sample quality is available. Given that much of the drilling at Cardinia was conducted by the same companies and at the same times as that carried out for the Mertondale Project, where it is assumed to be satisfactory given that the Mertondale deposits were mined in the past, by open pit methods, where the open pits were mined to their original design limits, based on the historical drill data. This suggests that the amount of metal recovered was probably not grossly different from premining drill data based expectations.
	During Navigators drill programs wet samples were spear sampled instead of riffle split. This is regarded as poor sampling procedure and these samples are regarded as unreliable however the total number of wet samples is considered to be very low.
	No indication of sample bias is evident nor has it been established. That is, no relationship has been observed to exist between sample recovery and grade.
	The amount of Aircore drilling data used in the Cardinia resource estimation process is low and regarded as not material.
Logging	HISTORIC DRILLING (1986-2014)
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (MEGM, Pacmin, SOG & Navigator). Correlation between codes is difficult to establish, however it can be achieved with effort. Based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time.
	Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core orientations), core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features, and then marked up for cutting and sampling.
	Navigator RC and Aircore logging was entered on a metre by metre basis, recording lithology, alteration, texture, mineralisation, weathering and other features. The information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
	The entire length of all drillholes are logged in full from surface to bottom of hole.
	Logging is qualitative on visual recordings of lithology, oxidation, colour, texture and grain size.  Logging of mineralogy, mineralisation and veining is quantitative.
	Drill core photographs are only available for Navigator's diamond drillholes.

Criteria	Commentary
	KIN MINING (2014-2017)  KIN's logging of drill samples was carried out in the field (RC drilling) or at the Leonora Yard (diamond core) and entered onto a portable computer, on a metre by metre basis for RC, and by sample intervals and/or geological contacts for diamond core. Data recorded included lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded in the drill logs in the field.
	Several diamond drillholes were completed for geotechnical purposes and were independently logged for structural data by geotechnical consultants. All diamond drill core has been photographed, and currently stored at KIN's yard in Leonora.
	KIN geological personnel retrieved the core trays from the drill rig site and relocated them to KIN's yard in Leonora at the end of each day. Drill core was photographed in the field or at the Leonora yard, prior to cutting using a diamond core saw to obtain quarter core samples for analysis.
	All information collected was entered directly into laptop computers or tablets, and transferred to the database to be validated.
	COMMENT
	KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies and metallurgical studies.
	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, veining, and in addition, logging of diamond drilling included geotechnical data, RQD and core recoveries.
	For the majority of historical drilling (pre-2004), and all of the more recent drilling, the entire length of drillholes have been logged from surface to 'end of hole'. Diamond core logging is typically logged in more detail compared to RC and Aircore drilling.
Sub-	HISTORIC DRILLING (1986-2014)
sampling techniques and sample	Historical reports for drilling programs prior to 2004, are not always complete in the description of sub-sampling techniques, sample preparation and quality control protocols.
preparation	Diamond Drilling
	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 saw blade centered over a cradle holding the core in place.
	Core sample intervals varied from 0.3 to 1.4m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in core trays.
	Where historical reports do not describe the sampling protocol for sampling of drill core, it is assumed that drill core was sampled as described above.
	RC Drilling
	Prior to 1996, limited historical information indicates most RC sampling was conducted by collecting 1m samples from beneath a cyclone and passing through a riffle splitter to obtain a 3-4kg sub-sample for analysis. RC sampling procedures are believed to be consistent with the normal industry practices at the time. The vast majority of samples were dry and riffle split, however spear or tube sampling techniques were used for wet samples.
	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

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.

Criteria	Commentary
	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 being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
	Navigator obtained sub-samples from wet samples using the spear or tube method.
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.
	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.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop.
	A variety of laboratories were used for analysis. Prior to 2009, duplicate samples were not routinely collected and submitted from RC and Aircore drilling to the same laboratory consequently overall sampling and assay precision levels can't be quantified for that period. Since 2009, Navigator adopted a stricter sampling regime with the submission of duplicate samples at a rate of 1 for every 50 primary samples.
	While QC protocols were not always comprehensive, the results indicate that assay results from Navigators exploration programs were reliable. Results from pre-Navigator operators are regarded as consistent with normal industry practices of the time.
	KIN MINING (2014-2017)
	Diamond Drilling
	Diamond drill core samples collected for analysis were longitudinally cut in half and quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.2 to 1.25m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference.
	All of KIN's diamond drill core is securely stored at their Leonora Yard.
	RC Drilling
	All RC sub-samples were collected over 1 metre downhole intervals and retained in pre-marked calico bags, after passing through a cyclone and riffle splitter configuration. 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 riffle splitter, and the small number is not considered material.
	Field duplicates were taken at regular intervals at a ratio of 1:50 and assay results indicate that there is reasonable analytical repeatability, considering the presence of nuggety gold.
	COMMENT
	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 the material being drilled. 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 is an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia
Quality of assay data and laboratory	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.

Criteria	Commentary
tests	HISTORIC DRILLING (1986-2014)
	For assay data obtained prior to 2001, the incomplete nature of the data results could not be accurately quantified in terms of the data derived from the combinations of various laboratories and analytical methodologies.
	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.
	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 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 Aircore holes may have been subject to Aqua Regia digest methods only, however Aircore 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 Aircore samples using Fire Assay fusion on 40 gram catchweights and AAS/ICP finish.
	Since 2009 Navigator regularly include field duplicates, Certified Reference Material (CRM) standards and blanks with their sample batch submissions to the laboratories at average ratio of 1 in every 20 samples. Sample assay repeatability, and blank and CRM standards assay results are within acceptable limits.
	KIN MINING (2014-2017)
	Sample analysis was conducted by SGS Australia Pty Ltd's ("SGS") Kalgoorlie and Perth laboratories. Sample preparation included oven drying (105°C), crushing (-6mm), pulverising (P85% -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, field duplicate and CRM standards in each sample batch at a ratio of 1:20. 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 duplicate sample assay repeatability, blank standards and CRM standards assay results are within acceptable limits for this style of gold mineralisation.
	SGS include blanks and CRMS 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 within acceptable limits.
	COMMENT
	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 or Aqua Regia digestion techniques were conducted on diamond, RC and Aircore samples, with AAS or ICP finish.
	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.
	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.
	KIN's ongoing QA/QC monitoring program identified one particular CRM that was returning spurious results. Further analysis demonstrated that the standard was compromised and subsequently removed and destroyed. A replacement CRM of similar grade was substituted into the QA/QC program.
Verification of sampling and	Verification of sampling and assaying techniques and results prior to 2004 has limitations due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling

Criteria	Commentary
assaying	protocols and analytical techniques at different laboratories, over a twenty year period.
	In 2009, Runge Ltd ("Runge") completed a mineral resource estimate report for the Cardinia Project area, including the Helens and Rangoon 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's company geologists during the course of the drilling programs.
	During 2017, Carras Mining Pty Ltd ("CM") carried out an independent data verification. 10,499 assay records for KIN's 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 represents only 0.015% of all database records verified for KIN's 2014-2017 drilling programs
	COMMENT
	There is always a risk with legacy data that sampling or assaying biases may exist between results from different drilling programs due to differing sampling protocols, different laboratories and different analytical techniques.
	Repeated examination of historic reports on phases of diamond, RC and Aircore drilling have been conducted from time to time. Assay results from KIN's recent drilling are consistent with surrounding information and as a result the information obtained from the various diamond, RC and Aircore drilling programs (where sampling protocols are appropriate) have been accepted.
	Recent (2014-2017) RC and diamond drilling by KIN included some twinning of historical drillholes at the Helens and Rangoon resource areas, comprising historic information. There is no material difference between historical drilling information and the KIN drilling information. In the areas that were not drilled with twin holes, the drill density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference of a negative nature between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show adequate correlation with nearby historical results.
	Where sampling protocols are appropriate, diamond, RC and Aircore samples, are of equal importance in the resource estimation process.
	There has been no adjustments or calibrations made to the assay data recorded in the supplied database.
Location of	HISTORIC DATA (1986-2014)
data points	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).
	Drilling was carried out historically using 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's RC holes were downhole surveyed. Pre- Navigator, single shot survey cameras were used, with typical survey intervals of 30-40 metres.
	KIN MINING (2014-2017)
	KIN's drill hole collars were 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 during KIN's drilling programs was predominantly carried out by the drilling contractor. KIN recognised that some of the downhole survey data appeared to be spurious, and commissioned an independent downhole surveying program by a survey contractor (BHGS, Perth) to check several drillholes at Helens and Rangoon. The check survey found occasional spurious results with the initial surveys. This can be explained by the fact that when the drilling company's survey tool is run inside the drill rods, the tool's sensors need to be located exactly in the middle of the bottom stainless steel (s/s) RC rod to obtain accurate readings. Check readings by KIN personnel at different locations within the s/s rod found that variation in azimuth can be

Criteria	Commentary			
	measured up to 2°, within 1 metre from the centre of the rod, and up to 10° further away from the centre. The positioning of the tool by the drilling contractor is assumed to be within 1 metre of the centre of the s/s rod for the majority of the drilling program. Therefore, given the nature of the mineralisation and the shift in apparent position of up to 5 metres (for 2° variation) along 'strike' for open pit depths (<140 metres), the occasional errors are not considered material for this resource estimation work.			
	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.			
	KIN supplied two digital terrain models (DTM) of the topography: one DTM constructed from drill hole collar data, and the second from a recent aerial orthophotogrammetry survey. The two DTM surfaces correlate sufficiently close and within acceptable limits for horizontal and vertical control, and appropriate for resource estimations.			
	COMMENT			
	The accuracy of the drill hole collar and downhole data are located with sufficient accuracy for use in resource estimation work.			
	Some historical Navigator drillhole collar positions at Helens and Rangoon have recently been independently located and verified in the field, and checked against the database.			
	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 estimations, subject of this report.			
	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° 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.			
Data spacing and	Drill hole spacing patterns vary considerably throughout the Project area, and is deposit specific, depending on the nature and style of mineralisation being tested.			
distribution	Drill hole and sample interval spacing is sufficient to establish an acceptable degree of geological and grade continuity appropriate for mineral resource estimations and classifications applied.			
	There has been no sample compositing, other than a few historical compositing of field samples for some Aircore and RC samples to 1.5m, 2m, 3m, 4m and a few 5m intervals. The vast majority (>90%) of primary assay intervals are 1 metre intervals for RC and Aircore samples, and predominantly 1 metre intervals for core samples.			
Orientation of data in relation to geological	The sheared Cardinia greenstone sequence displays a NNW to NW trend. The drilling and sampling programs were carried out to obtain an unbiased location of drill sample data, generally orthogonal to the strike of mineralisation.			
structure	Mineralisation is structurally controlled in sub-vertical shear zones within the Cardinia area, with a supergene component in the oxidised profile.			
	The vast majority of historical and KIN's drilling is orientated at -60°/245° (WSW) and -60°/065° (ENE), generally orthogonal to the strike of mineralisation.			
	The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in the data thus far.			
Sample	HISTORIC DRILLING (1986-2014)			
security	No sample security details are available for pre-Navigator (pre-2004) drill samples.			
	Navigator's drill samples were collected from the riffle splitter in pre-numbered calico bags at the drill rig site. Samples were collected by company personnel from the field and transported to Navigator's secure yard in Leonora, where the 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 Navigator's yard, until transporting to the laboratory. There			

Criteria	Commentary
	was no perceived opportunity for the samples to be compromised from collection of samples at the drill site, to delivery to the laboratory.
	KIN MINING (2014-2017)
	KIN's RC drill samples were collected from the riffle splitter 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 KIN's secure yard in Leonora. The bulkabags were tied off and stored securely in the yard. The laboratory's (SGS) transport contractor was utilized to transport the bulkabags to the laboratory. There was no perceived opportunity for the 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.
	On receipt of the samples, the laboratory (SGS) independently checked the sample submission form to verify samples received, and readied the samples for sample preparation. SGS's sample security protocols are of industry acceptable standards.
Audits or reviews	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to today's current standards. A review of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to the best practice industry standards of the day.
	A review of the Cardinia Project's database, drilling and sampling protocols, and so forth, was conducted and reported on by independent geological consultants Runge Ltd in 2009. Their report highlighted issues with bulk density and QA/QC analysis of the database, which have since been identified and addressed by Navigator and most recently by KIN during the 2017 drilling campaign.
	During 2017, CM have reviewed and carried out an audit on the field operations and database. Drilling and sampling methodologies observed during the site visits are to today's industry standard. Similarly there were no issues identified for the supplied databases, which would be considered material.
	KIN is in the process of completing validation of all historical logging data and to standardise the logging code system by incorporating the SOG and Navigator logging codes into one, and converting all historical logging into the standardized code system. This is an ongoing process and is not yet completed.
	During the review, CM logged the oxidation profiles ('base of complete oxidation' or "BOCO", and 'top of fresh rock' or "TOFR") for each of the deposit areas, based on visual inspection of selected RC drill chips from KIN's recent drilling programs, and a combination of historical and KIN's drillhole logging, with final adjustments made with input from KIN geologists. The oxidation profiles were used to assign bulk densities and metallurgical recoveries to the resource models.
	Bulk density testwork in the past 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 testwork 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.
	Recent (2014-2017) RC and diamond drilling by KIN include some twinning of historical drillholes within the Cardinia Project area. In addition, KIN's infill drilling density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference of a negative nature between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show good correlation with nearby historical results.
	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.

# **SECTION 2 – Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	The Cardinia Project's Helens and Rangoon areas includes granted mining tenements M37/316 and M37/317, centered some 35-40km NE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The Cardinia Project is managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.
	There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other parties	There is limited exploration data available prior to 1986, where exploration for nickel was carried out in the late 1960s and for base metals in the 1970s. During 1980-1985, Townson Holdings Pty Ltd ("Townson") mined a small open pit over some old workings at the Rangoon prospect.
	Companies involved in the collection of the majority of the gold exploration data since 1986 and prior to 2014 include: Mt Eden Gold Mines (Aust) NL (also Tarmoola Aust Pty Ltd "MEGM") 1986-2003; Pacmin Mining Corporation Ltd ("Pacmin") 1998-2001; Sons of Gwalia Ltd ("SOG") 2001-2004, and Navigator Resources Ltd ("Navigator") 2004-2014.
	In 2009, Navigator commissioned Runge Limited ("Runge") to complete a Mineral Resource estimate for the Helens and Rangoon deposits. Runge reported a JORC 2004 compliant Mineral Resource estimate, at a low cut-off grade of 0.7g/t Au, totaling 1.45Mt @ 1.3 g/t au (61,700 oz Au), comprising total Indicated Resources of 1.0Mt @ 1.4 g/t Au and total Inferred Resources of 0.446Mt @ 1.2 g/t Au.
	KIN's drilling is focused in areas hosting the Helens and Rangoon deposits together with the strike extensions and historical drilling conducted by the above mentioned operators.
Geology	The Cardinia Project area is located 35km NE of Leonora 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 (MZN) 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 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 with a sub-vertical attitude. Structural foliation of the stratigraphy dips moderately to the east.
	At Helens and Rangoon, the stratigraphy comprises a sequence of intermediate-mafic and felsic volcanic lithologies and locally derived epiclastic sediments, intruded in places by narrow felsic porphyry dykes. Carbonaceous shales often mark the mafic/felsic contact. These lithologies are located on the western limb of the regionally faulted south plunging Benalla Anticline.
	Primary mineralised zones at the Helens and Rangoon areas are north-south trending with a subvertical attitude. Mineralisation is hosted predominantly in mafic rock units, adjacent to the felsic volcanic/sediment contacts, where it is associated with increased shearing, intense alteration and disseminated sulphides.
	Minor supergene enrichment occurs within the mineralised shears within the regolith profile.
	In some areas, gold mineralisation is highly variable in the regolith. In these areas, closer spaced drilling was carried out by KIN to provide a high level of confidence in the interpretations.
Drill hole Information	Material drilling information used for the resource estimation has previously been publicly reported in numerous announcements to the ASX by Navigator (2004-2014) and KIN since 2014.

Criteria	Commentary
Data Aggregation methods	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 any high grade cuts applied. Where aggregate intercepts incorporated short lengths of high grade results, these results were included in the reports.  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.
	There is no reporting of metal equivalent values.
Relationship Between Mineralisation widths and intercept lengths	The orientation, true width and geometry of the mineralised zones have been determined by interpretation of historical drilling and verified by KIN's drilling. The majority of drill holes are inclined at -60° towards 245° (WSW), which is regarded as the optimum orientation to intersect the target mineralisation, and some at -60° towards 065° (ENE). Since the mineralisation is steeply dipping, drill intercepts are reported as downhole widths, not true widths. Accompanying dialogue to reported intersections normally describe the attitude of the mineralisation.
Diagrams	A plan and type sections for each resource area are included in the main body of the report.
Balanced Reporting	Public reporting of exploration results by KIN and past explorers for the resource areas are considered balanced and included representative widths of low and high grade assay results.
Other Substantive exploration data	Comments on recent bulk density and metallurgical information is included in Section 3 of this Table 1 Report. There is no other new substantive data acquired for the resource areas being reported on. All meaningful and material information is or has been previously reported.
Further work	The potential to increase the existing resources is viewed as probable. Further work does not guarantee that an upgrade in the resource would be achieved, however KIN intend to drill more holes at the Helens and Rangoon resource areas with the intention of increasing the Cardinia Project's resources and converting the Inferred portions of the resources to the Indicated category.

# **SECTION 3 – Estimation and Reporting of Mineral Resources**

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

Criteria	Commentary
Database Integrity	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1986. Data was obtained predominantly from Reverse Circulation (RC) drilling, and to a lesser extent, diamond core (Diamond) drilling and Air Core (Aircore) drilling.
	Companies involved in the collection of the majority of the gold exploration data since 1986 and prior to 2014 include: Mt Eden Gold Mines (Aust) NL (also Tarmoola Aust Pty Ltd "MEGM") 1986 2003; Pacmin Mining Corporation Ltd ("Pacmin") 1998-2001; Sons of Gwalia Ltd ("SOG") 2001 2004, and Navigator Resources Ltd ("Navigator") 2004-2014.
	KIN exploration data from 2014 to 2017 has been acquired predominantly from RC and some diamond drilling.
	The database could not be fully verified regarding the reliability and accuracy of a substantial portion of the historical data, however the recent drilling by KIN has enabled comparison with the historical data and there is no material differences observed of a negative nature.
	Database checks conducted by KIN and others are within acceptable limits. There is missing data however it is regarded as minimal. It is not possible to identify errors that might have occurred prior or during digital tabulation of historic (pre-2004) data, however the amount of historic data used in the resource estimation is minimal and the effect would not be material.
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (MEGM, Pacmin, SOG & Navigator). Correlation between codes is difficult to establish, however can be achieved with effort. 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 standardise the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The drilling by Navigator and KIN has been used to scrutinize and calibrate historic logging data. This has enabled KIN to establish good geological control, which has been used to derive the geological interpretations in current work.
	Navigator uploaded the original assay files received from the labs via a database administrato using Datashed to minimise loading errors. An export of the data was then used to create a access database for use in Surpac.
	In 2009, Runge Ltd ("Runge") completed a mineral resource estimate report for the Cardinia Project area, including the Helens and Rangoon deposits. Runge carried out database verification, which included basic visual validation in Surpac and field verification of drillhold positions in February 2009. Runge did not report any significant issues with the database.
	Since 2014, KIN geologists have conducted verification of historic drilling, assays, geological log and survey information against the digital database, and in the field, including reviewing historic reports and visual confirmations of Surpac and Access databases. KIN have not reported an significant issues with the database.
	KIN has validated the database in Datashed and in Surpac prior to Resource estimation. These processes checked for holes that have missing data, missing intervals, overlapping intervals, data beyond end-of-hole, holes missing collar co-ordinates, and holes with duplicate collar co-ordinates.
	During 2017, CM carried out an independent data verification. 10,499 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 represents onl 0.015% of all database records verified for KIN's 2014-2017 drilling programs.
Site Visit	KIN's geological team have conducted multiple site visits including supervision and managemen of drill programs within each of the Resource areas.
	Dr Spero Carras (Competent Person) was involved in the Leonora area at the Harbour Lights and Mertondale areas during the 1980s, and is familiar with the geology and styles of mineralisation

Criteria	Commentary			
	within the Leonora Project area. He revisited the Leonora area during 2017 to review th projects, drilling, sampling and general geology.			during 2017 to review the
	Messrs Mark Nelson and Gary Powell (Competent Persons) also conducted site visits to the resource areas, and they have independently reviewed drill core, existing open pits, surface exposures, drilling and sampling procedures.			
Geological Interpretati on	The Cardinia Project area is located 35km NE of Leonora in the central part of the Norsema Wiluna Greenstone Belt, which extends for some 600km on a NNW trend across the Arche Yilgarn Craton of Western Australia.			· ·
	The regional geology comprises a suite of NNE-North trending greenstones positioned within the Mertondale Shear Zone (MZN) 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 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 with a sub-vertical attitude. Structural foliation of the stratigraphy dips moderately to the east.			
	At Helens and Rangoon, the stratigraphy comprises a sequence of intermediate-mafic and felsic volcanic lithologies and locally derived epiclastic sediments, intruded in places by narrow felsic porphyry dykes. Carbonaceous shales often mark the mafic/felsic contact. These lithologies are located on the western limb of the regionally faulted south plunging Benalla Anticline.			
	Primary mineralised zones at the Helens and Rangoon areas are north-south trending with a subvertical attitude. Mineralisation is hosted predominantly in mafic rock units, adjacent to the felsic volcanic/sediment contacts, where it is associated with increased shearing, intense alteration and disseminated sulphides.			
	Minor super	gene enrichment occurs wit	nin the mineralised shears w	vithin the regolith profile.
Dimensions	The dimensions of the mineralized area for Helens are 1700mN x 50m. The Helens area includes a total of 27,830m of drilling. The drilling in the mineralized area for Helens includes 9 DD holes for 148m, 418 RC holes for 5,473m and 23 AC holes for 127m.			
	The dimensions of the mineralized area for Rangoon are 900mN x 50m. The Rangoon area includes a total of 12,356m of drilling. The drilling in the mineralized area for Rangoon includes 2 DD holes for 24m, 175 RC holes for 1,631m and 16 AC holes for 107m.			
Estimations and Modelling Techniques	<ul> <li>59. The following outlines the estimation and modelling technique used for producing Resources for the following deposits in the Helens/Rangoon area:</li> <li>Helens</li> </ul>			
recilliques		Rangoon		
	Deposit	Orebody Dimensions	Nominal Drill Spacing	Mineralised Metres of Drilling (m)
	Helens	1700m x 50m x 100m	25m x 12.5m	5,748
	Rangoon	900m x 50m x 100m	25m x 12.5m	1,762
	60. Wirefrar	mes were provided by KIN N	lining NL (KIN) for:	
	a.	Topography based on drill of	collar data	
	b.	Bottom of Oxidation (BOCC	))	
	C.	Top of Fresh Rock (TOFR)		
	61. CM carried out an Independent Review of the weathering surfaces and where necessary, based on new drilling (both RC and diamond), geological relogging and bulk density information, the surfaces were modified to reflect the additional information. Surface topography was also adjusted due to new information obtained in an April 2017 drone survey.			
	wirefran	ned at a 0.3g/t nominal edg	sis and intersection selection e cut-off grade. These dom wireframes although this	nainal shapes could contain

•
smoothing dilution being incorporated into the final models. A minimum of 5m downhole
at a 0.4g/t cut-off grade was also used as a guide for wireframing. This could include internal
waste

Commentary

- 63. The wireframed shapes were audited by KIN geological staff who had previous experience in the Cardinia area whilst working for Navigator.
- 64. Each wireframe had an assigned strike, dip and plunge.
- 65. Compositing from the top of each shape was carried out at 1m within each wireframe. The majority of composites (98%) were greater than 1m.
- 66. The domainal shapes were passed into ISATIS Software with specified strike, dip and plunge.
- 67. The number of shapes used was as follows:

Criteria

Deposit	Number of Shapes
Helens	72
Rangoon	38

- 68. A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used.
- 69. The declustering program DECLUS (ISATIS) was used to produce the weights to be assigned to each composite for statistical analysis.
- 70. For each shape a detailed set of weighted statistics was produced. Based on the statistics, high grade cuts were determined for every shape and the percentage metal cut was estimated for each deposit as shown in the below table:

Deposit	Maximum Cut (g/t)	Percentage Metal Cut %
Helens	70	4
Rangoon	30	28

Note that the metal cut appears high however it is due to one outlier assay value of 551g/t.

- 71. Where a data point belonged to 2 shapes the cut allocated was determined for each domain and independently allocated.
- 72. Variograms were run for each domain using ISATIS. The variograms were of very poor quality with the downhole variograms being the basis of fitted models. Directional variograms were produced for downhole, down dip, down plunge. Where the downhole variograms were calculated on an individual hole basis, variograms were not normalized. Variograms were normalized for down dip and plunge. Raw variograms were used in subsequent work.
- 73. The Author, Dr. S. Carras had extensive experience in the Leonora Belt during the 1980's and has had familiarity with the nature of the mineralisation. The shears are made up of plunging en-echelon structures. Three estimations were produced, OK, Inverse Distance Squared (ID2) and Inverse Distance Cubed (ID3).
- 74. The following parameters were used in modelling OK, ID2 and ID3:
  - A minimum number of samples of 4 and a maximum number of samples of 32
  - The discretisation parameters were 1 x 1 x 2
  - A maximum of 2 samples per hole
  - Note: for blocks that did not meet these requirements, the parameters were relaxed and the search radii were increased.

Criteria	Commentary		
	To minimize the striping effect created by estimation in narrow shapes, the downhole search radii were increased.		
	75. The ranges of search and directions used were applied on a shape by shape basis. The aim was to produce OK results for the majority of shapes where there had been adequate data to produce meaningful variography. Small shapes where there was inadequate data were estimated using an anisotropic distance weighting squared methodology rather than OK.		
	76. The fundamental block size used was:		
	Deposit Small Blocks Helens, Rangoon Combined 1.25mN x 0.5mE x 1.25mRL		
	Small blocks were used to ensure adequate volume estimation where shapes were narrow.		
	77. Scatter plots were then produced which compared OK, ID2 and ID3 for the small blocks.		
	78. The models were then visually checked on a section by section basis of block versus drillholes and ID2 proved to be the best fit.		
	79. The small blocks produced by ID2 were then composited to form medium (quarter) sized blocks and panels. The block dimensions for the medium (quarter) sized blocks and panels were:		
	Deposit Medium (Quarter) Blocks Panels		
	Helens, Rangoon Combined 5mN x 5mE x 2.5mRL 10mN x 8mE x 5mRL		
	Quarter size blocks were used for reporting Resources.		
	80. Plots were produced of frequency histograms in domains for point data and for blocks.		
	81. To check that the interpolation of the block model honoured the drill data, validation was carried out comparing the interpolated blocks to the sample composite data. The validation plots showed good correlation thus the raw drill data was honoured by the block model.		
	82. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct.		
	83. Classification was carried out using a combination of drillhole density, drillhole quality, and geology as the guide.		
	84. Resources were estimated within an AUS\$2,200 optimised pit shell provided by Entech (Perth). The optimised pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a dilution of 5% and a recovery of 95%. This was minimal and was only used to define the Resource not the Reserve. The Resources reported are undiluted and do not have an ore loss applied.)		
	85. Operating cost estimates developed by KIN indicated that a break even mill feed cut-off grade for deposits in the Cardinia area was likely to be 0.5g/t Au.		
Moisture	Tonnages and grades were estimated on a dry basis only. Bulk Density determinations of diamond drill core included measurements of moisture content.		
Cut-off Parameters	Operating cost estimates provided by KIN's engineering consultants indicate a break even mining grade for open pit deposits in the Cardinia area is likely to be 0.5g/t Au.		

Criteria	Commentary
Mining Factors or Assumption s	Historic mining in the area is restricted to small prospector pits and shallow underground workings. The Rangoon area was previously mined underground (1939-41) yielding 464oz from 2,676t @ 5.4g/t Au.
	Helens and Rangoon resources comprise well defined zones of Au mineralisation – associated with shearing/quartz veining. The mineralised zones are robust, approximately 3km strike extension to a vertical depth of approximately 115m.
	Helens and Rangoon will be mined by open pit.
Metallurgic al Factors or	In 2017 KIN's drilling program included a series of RC and DD drillholes to collect samples for geotechnical and metallurgical testwork.
Assumption s	Metallurgical testwork in the Helens-Rangoon area has shown metallurgical recoveries of mid- nineties in oxide, lower nineties in transition and in fresh material.
	During the mining process, and where necessary, selective extraction of the graphitic shales is envisaged to be possible so that successful segregation and quarantining of the shale material can be achieved, so as to mitigate potential contamination of ore in the process plant.
Environmen	No assumptions have been made regarding environmental factors.
tal Factors or Assumption s	Historical mining at the nearby Bruno deposit and Lewis trial pit sites, including waste rock landforms have not demonstrated any impacts that cannot be managed in normal operations. Studies completed to date, on ore and waste characterisations for previous and potential mining and processing operations, have not identified any potential environmental impacts that cannot be managed by normal operations.
Bulk Density	Prior to 2014, there have been numerous programs of bulk density testwork conducted by several companies at different times on diamond drill core and/or RC drill chips for the some of the various deposits. Generally the testwork has not been conclusive, since the testwork methodology has not been adequately described in the historical reports, or when it has, the testwork itself was not carried out using an acceptable method to determine dry bulk density. Often, when described, the testwork measured specific gravity, not bulk density, and in cases where bulk density was reported, the moisture content was not taken into account.
	In 2009 Navigator Resources Ltd submitted 144 half or whole diamond core samples to Amdel Mineral Laboratories Ltd's ("Amdel") Kalgoorlie laboratory for bulk density determination by the water immersion method. The core samples were a mixture of half core and whole core samples ranging from 10cm to 30cm in length, and were taken at downhole intervals of roughly every 2 to 3 metres. The samples were firstly weighed, oven dried overnight at 110°C, and weighed again to determine moisture content. Those samples that were likely to absorb water were then sealed, using hairspray, prior to immersion in water. It is not known what proportion of samples were not sealed, however it is likely that only fresh, non-porous samples were not sealed.
	In 2017, KIN carried out a diamond drilling program to include obtaining samples for bulk density testwork. Six diamond drill holes were drilled into the major parts of mineralised zones at Helens South, Helens North, Helens NE and Rangoon.
	A total of 526 half or quarter core samples, of varying lengths (5-20cm) were submitted by KIN to an independent laboratory in Perth for bulk density determinations by the water immersion method. The core samples were a mixture of half core and quarter core samples ranging from 5cm to 20cm in length, and were taken at downhole intervals of roughly every 1 metre. The samples were firstly weighed, oven dried overnight at 110°C, and weighed again to determine moisture content. The samples were then sealed, using hairspray, prior to immersion in water.
	During the 2017 bulk density testwork and estimation process, Dr S Carras and Mr G Powell (Consultant to CM) visited the laboratory and identified some improvements for consideration in the bulk density determination process, particularly for small core pieces to give better precision of measurements. The suggested improvements were implemented and precision improved.
	When estimating the bulk density for pieces of diamond drill core, it was found that the larger sized samples gave more repeatable results and these were mostly used in assigning the bulk densities.
	As a result of the analysis of a combination of Navigator and KIN bulk density determination results, the following bulk density parameters were used for the Helens and Rangoon areas:

Criteria	Commentary						
	Area	Oxide	Transition	Fresh	ĺ		
	Helens / Rangoon	2.1	2.4	2.7			
Classificatio n	Classification was base in geological continuit E):  • Helens: • Rangoon:						
	In general drillhole s Indicated.  Drillhole spacing gene						
	allocated to the Inferre	ed category.					
Audits and Reviews	The Mineral Resource estimate appropriately reflects the view of the Competent Person.  Internal reviews have been conducted by the Competent Person who is obliged to review the data geology/assay/survey/wire frames etc. this procedure is conducted as part of the normal review process. The technical inputs, methodologies, parameters and results of the estimation have been verified by the Runge (2009) and the Competent Person. This type of audit is conducted as part of the normal review process.  Navigator Resources had worked with Runge (2009) to produce estimates for the Cardinia deposits using ordinary kriging. KIN personnel carried out audits and internal reviews of the data, assay, survey, wireframes and geological interpretations used by CM. CM also carried out detailed reviews of all data.  Bulk density determination methodology was audited by S Carras and G Powell (Consultant to						
Discussion of Relative Accuracy and Confidence	KIN embarked on a pr largely substantiated t obtained from various In the modelling proce associated with the es This has been achieve ordinary kriging estim review of the block mo	he position and tend drilling campaigns. ass every attempt has stimation of narrow and through the use ates. This method,	or of mineralisation (In some instance s been made to el vein structures the of distance weight although heuristi	n. It also validat s new results we iminate the "stri rrough the use o nting estimates	ed the information re much higher.)  ng effect" probler of ordinary kriging correlated back t		
	Every attempt has been made in the modelling to reduce the smoothing effect which results when using a low cut-off grade to determine boundary positions and limit the amount of dilution in the Resource so that it can be correctly diluted for Reserve.						
	In all high coefficient of the high nugget effect without further inform	of the gold. This me	eans that small par	rcels of ore are o			

# **Appendix E**

# JORC 2012 TABLE 1 REPORT RAESIDE PROJECT Michelangelo and Leonardo

## SECTION 1 - Sample Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary				
Sampling techniques	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1989. Data was obtained predominantly from Reverse Circulation (RC) drilling, and to a lesser extent diamond core (Diamond) drilling and Air Core (Aircore) drilling.				
	There is limited exploration data available prior to 1989, where it is believed that exploration wa more focused on base metals, and not gold. Companies involved in the collection of the majority of the gold exploration data since 1989 and prior to 2014 include: Triton Resources Ltd ("Triton" 1989-1999, Triton and Sons of Gwalia Ltd ("SOG") 2000-2004, and Navigator Resources Ltd ("Navigator") 2004-2014.				
	Kin Mining Ltd ("KIN") acquired the Raeside Project in 2014.				
	HISTORIC SAMPLING (1989-2014)				
	For some historical drilling programs, RC and Aircore samples were composited at 2, 3, 4 or 1 metre downhole intervals, however the majority of drill samples were generally obtained from 1m downhole intervals and riffle split to obtain a 3-4kg representative sub-sample, which were submitted to a number of commercial laboratories for a variety of sample preparations methods including oven drying (90-110°C), crushing (-2mm to -6mm), pulverizing (-75µm to -105µm), and generally riffle split to obtain a 30, 40 or 50 gram catchweight for gold analysis, predominantly be Fire Assay fusion, with AAS finish. On occasions, initial assaying have been carried out using Aqua Regia digest and AAS/ICP finish, with anomalous samples re-assayed by Fire Assay fusion and AAS/ICP finish.				
	Diamond Drilling				
	Half core (or quarter core) sample intervals varied from 0.1 to 1.0m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in marked core trays and stored in a secure yard for future reference. The only known available drill core from this program (1 Diamond drill hole for 180.1m) and stored at KIN' Leonora Exploration Yard, are those drilled by Navigator.				
	RC Drilling				
	The vast majority of Reverse Circulation (RC) drill samples were collected over 1m downhold 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 (wet samples) to obtain 3m or 4m composited intervals, with the single metre split sub samples being retained at the drill site. If the composite sample assays returned anomalou results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for gold analysis.				
	Navigator obtained sub-samples from wet samples using the spear method.				
	Data relating to historical wet samples is not available, however the number of wet sample involved is considered to be relatively low, and not material.				
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.				
	Aircore Drilling				
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, althoug in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop. Assay results from these samples are not used for resource actimation, work, however, they do samplings provide a guide in interpreting goology and				

estimation work, however they do sometimes provide a guide in interpreting geology and

Criteria	Commentary							
	mineralisation of	ontinuity.						
	samples, when i	When drilling under dry conditions, Aircore samples should be of a comparable quality to RC samples, when implementing same sampling techniques, therefore Aircore sample assay results were only used for resource estimation work if the 1m sub-samples were obtained by riffle splitting of the primary sample, prior to placing on the ground.						
	There are no sample rejects available from AC drilling prior to 2014. Most drill sites have rehabilitated and the sample bags removed and destroyed.							
	RAB Drilling							
	No Rotary Air Blast (RAB) drilling has been included in the Michelangelo or Leonardo res estimation.							
	KIN MINING (20	)14-2017)						
	Diamond Drilling	g						
	in quarters, using place. Core same intervals, or at g	ng a powered d aple intervals v peological conta	liamond core sav raried from 0.2 to acts, whichever v	r analysis were longitudina v blade centered over a cra o 1.15m, but were predon vas least. The remaining co V's yard in Leonora for futu	adle holding the core ninantly taken over 1 are was retained in th			
	RC Drilling							
	During drilling, sample return is passed through a cyclone and stored in a sample collection be At the end of each metre, the cyclone underflow is closed off, the underside of the sample bo opened and the sample passed down through a riffle splitter.  All RC sub-samples were collected over one metre downhole intervals and averaged 3-4 Sample reject from the riffle splitter were retained and stored in marked plastic bags, and local near to each drillhole collar.							
	All drilling, sample collection and sampling handling procedures were conducted and/o supervised by KIN geology personnel to today's industry standards. QA/QC procedures were implemented during each drilling program to today's industry standards.							
	<u>Analysis</u>							
	Once received at the assay laboratory, diamond core and RC samples were oven dried (10 110°C), crushed (-6mm & -2mm), pulverised (P85% -75µm) and split to obtain a representat 50 gram sample catchweight for gold only analysis using Fire Assay fusion with AAS finish.							
	COMMENT							
	For some historical drilling programs, RC and Aircore samples were composited metre downhole intervals. For resource estimation work, some RC field composi was used where appropriate.							
Drilling techniques	companies sinc	e 1989. The $\epsilon$ n the Raeside P	entire Raeside d Project area, inclu	es of drilling have been atabase encompasses the ding Michelangelo, Leonar at 134,278 metres, excludi	various deposits a do, Forgotten Four a			
	Drill Type	Holes	Metres (m)	Metre Percentage (%)	7			
	DD	12	1,906	1.4%	1			
	RC	1,163	102,264	76.2%	]			
	AC	630	30,108	22.4%				
	' ' ' '		00,.00					

#### **HISTORIC DRILLING (1989-2014)**

### **Diamond Drilling**

Diamond drilling 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.

RC Drilling
RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, until the late 1980s, when the majority of drilling companies started changing over to using face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm. Samples obtained from conventional RC drilling techniques with cross-over subsoften suffered from down hole contamination (e.g. smearing of grades), 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 more reliable and representative.
reliable and representative.

Commentary

### Aircore Drilling

Criteria

Aircore drilling is a form of RC drilling, but generally utilizing smaller rigs and smaller air compressors, compared to standard RC drill rigs of the times. Aircore bits are hollow in the centre, with the kerf comprising cutting blades or 'wings' with tungsten-carbide inserts. Drill bit diameters usually range between 75-110mm.

The majority of the Aircore drilling (100%) was conducted by Triton utilising suitable rigs with appropriate compressors (eg 250psi/600cfm). Aircore holes were drilled mostly into the weathered regolith using 'blade' or 'wing' bits, until the bit was unable to penetrate further ('blade refusal'), often near to the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate harder rock types. Hole depths averaged less than 50m.

#### **RAB Drilling**

RAB drilling is 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.

#### **KIN MINING (2014-2017)**

#### **Diamond Drilling**

Diamond drilling was carried out by contractor Orbit Drilling Pty Ltd ("Orbit Drilling") with a truck-mounted Hydco 1200H drill rig, using industry standard 'Q' wireline techniques. Drill core (HQ3) 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.

Drillhole deviation was measured at regular downhole intervals, typically at 10m from surface, thence every 30m to bottom of hole, using electronic multi-shot downhole survey tools (i.e. Reflex multi-shot).

Core 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.

#### **RC Drilling**

RC drilling was carried out by Orbit Drilling's truck-mounted Hydco 350RC drill rigs with 350psi/1250cfm air compressor, with auxiliary and booster air compressors (when 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.

Drillhole deviations were surveyed downhole, during drilling operations, using an electronic multi-shot downhole tool (i.e. Camteq Proshot). In some instances, drillholes were surveyed later in open hole. In the later drilling programs, downhole surveying was carried out inside a non-magnetic stainless steel (s/s) rod, located above the hammer. Providing the tool was located in the middle of the stainless steel rod, azimuth and dip readings were successfully recorded.

The following tables summaries drilling totals for the Raeside Project area, for DD, RC and AC only (i.e. excluding open-hole drilling such as RAB):

Raeside Project – Drilling Summary – KIN (2014-2017)

Hole type	Number of Holes	Metres (m)	%(m)
DD	4	317	30%
RC	8	724	70%
Total	12	1,041	100%

Criteria	Commentary  Raeside Project – Drilling Summary – Triton, SOG and Navigator (1989-2014) Michelangelo and Leonardo							
	Hole type	Number of Holes	Metres (m)	%(m)				
	DD	12	1,906	3.5%				
	RC	559	49,385	92%				
	AC	83	2,619	4.5%				
	Total	654	53,910	100%				
	The above phases of drilling were used to estimate the Michelangelo and Leonardo resource.  COMMENT  Historical reports indicate that diamond drill core sizes were predominantly HQ/HQ3 or NQ, however database details are incomplete. Most historical reports recorded core recover although these details are not included in the database. Review of some historical reports into that core recoveries were generally good, although recoveries were typically less in fractured zones and some highly weathered mineralised zones in the transition and oxide a however this information is not recorded in the supplied database.  RC drilling is the dominant drill type at all sites. RC drilling information is generally describe varying detail in historical reports to the DMP, including drilling companies used and drilling types, however it's not all recorded in the database supplied. Review of the historical reindicates that reputable drilling companies were typically contracted and the equipment supplies was of an acceptable standard for those times. During the 1990s, and 2000s, suitable largerigs with on-board compressors were probably complimented with auxiliary and boost							
	drilling was conducted with modern rigs equipped with auxiliary and booster compressors and face sampling hammers with bit diameters typically 140mm.  When drilling under dry conditions, Aircore samples should be of a comparable quality to Resamples, when implementing same sampling techniques. Aircore drilling data was only used in resource estimation work, where the in-field and laboratory sampling methodologies was considered appropriate and limited to a number of selected Navigator drillholes.							
Drill sample	HISTORIC DRILLING (1989-2014)							
ecovery	Diamond Drilling							
	Core recovery has been recorded in most drill logs for most of the diamond drilling program since 1985, but is not recorded in the supplied database. A review of some historical report indicates that generally core recovery was good with lesser recoveries recorded in zones of broken ground and/or areas of mineralisation. Overall recoveries are considered acceptable for resource estimation.							
	RC Drilling							
	There is limited information recorded for sample recoveries for historical RC and Aircore drilling. However there has been an improvement in sample recoveries and reliability following the introduction of face sampling hammers and improved drilling technologies and equipment, since the mid-1980s.							
	KIN MINING (2	KIN MINING (2014-2017)						
	<u>Diamond Drillin</u>	<u>ng</u>						
	-	Core recovery was recorded for each run by measuring total length of core retrieved against the downhole interval actually drilled.						
	Diamond core recoveries were recorded in the database. Independent field reviews by the Competent Persons (SC & GP) in 2017 of the diamond drilling rig in operation and core integrity at the drill sites, demonstrated that diamond drill core recoveries were being maximised by the driller, and that core recoveries averaged >95%, even when difficult ground conditions were being							
	encountered.  RC Drilling							

RC Drilling

Integrity of each one metre RC sample is preserved as best as possible. At the end of each 1 metre downhole interval, the driller stops advancing the rods, 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

Criteria	Commentary
	fitted beneath the cyclone. The sample is then released from the sample collector box and passed through the 3-tiered riffle splitter fitted beneath the sample box. 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 riffle splitter cleaned by the off-sider using a compressed air hose, and if necessary a scraper. 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.
	RC drill sample recoveries are not recorded in the supplied database, however a review by the Competent Person (GP) in May 2017 of RC drill samples stored in the field, and observations of the two RC drilling rigs in operation, suggests that RC sample recoveries were mostly consistent and very good, with the samples themselves being reliable and representative of the material being drilled.
	COMMENT
	Due to the lack of detailed information in the database regarding historic (pre-2014) Aircore and RC drilling, no quantitative or semi-quantitative impression of sample recovery or sample quality is available. Given that much of the drilling at Raeside was conducted by the same company (Triton) and at the same time as that carried out for the nearby Forgotten Four deposit, where it is assumed to be satisfactory given that the Forgotten Four deposit was mined by Triton to a depth of 40-45 metres by open pit methods. This suggests that the amount of metal recovered was probably not grossly different from pre-mining drill data based expectations.
	During Navigators drill programs wet samples were spear sampled instead of riffle split. This is regarded as poor sampling procedure and these samples are regarded as unreliable however the total number of wet samples is considered to be very low.
	No indication of sample bias is evident nor has it been established. That is, no relationship has been observed to exist between sample recovery and grade.
	No Aircore drilling data was used in the Raeside resource estimation process.
Logging	HISTORIC DRILLING (1989-2014)
	The logging data coded in the database uses at least three different lithological code systems, a legacy of numerous past operators (Triton, SOG & Navigator). Correlation between codes is difficult to establish, however it can be achieved with effort. Based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time.
	Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core orientations), core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features, and then marked up for cutting and sampling. Several diamond drillholes were completed for geotechnical purposes and were independently logged for structural data by geotechnical consultants. The diamond drill core has been photographed, and currently stored at KIN's yard in Leonora.
	Navigator RC and Aircore logging was entered on a metre by metre basis, recording lithology, alteration, texture, mineralisation, weathering and other features. The information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
	The entire length of all drillholes are logged in full from surface to bottom of hole.
	Logging is qualitative on visual recordings of lithology, oxidation, colour, texture and grain size. Logging of mineralogy, mineralisation and veining is quantitative.
	Drill core photographs are only available for Navigator's diamond drillholes.
	KIN MINING (2014-2017)
	KIN's logging of drill samples was carried out in the field (RC drilling) or at the Leonora Yard (diamond core) and entered onto a portable computer, on a metre by metre basis for RC, and by sample intervals and/or geological contacts for diamond core. Data recorded included lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded in the drill logs in the field. Four diamond drillholes were completed for geotechnical purposes and were independently logged for structural data by geotechnical consultants.
	KIN geological personnel retrieved the core trays from the drill rig site and relocated them to KIN's yard in Leonora at the end of each day. Drill core was photographed in the field or at the

Criteria	Commentary				
	Leonora yard, prior to cutting using a diamond core saw to obtain quarter core samples for analysis.				
	All information collected was entered directly into laptop computers or tablets, and transferred to the database to be validated.				
	COMMENT				
	KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.				
	The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies and metallurgical studies.				
	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, veining, and in addition, logging of diamond drilling included geotechnical data, RQD and core recoveries.				
	For the majority of historical drilling (pre-2004), and all of the more recent drilling, the entire length of drillholes have been logged from surface to 'end of hole'. Diamond core logging is typically logged in more detail compared to RC and Aircore drilling.				
Sub-	HISTORIC DRILLING (1989-2014)				
sampling techniques and sample	Historical reports for drilling programs prior to 2004, are not always complete in the description of sub-sampling techniques, sample preparation and quality control protocols.				
preparation	Diamond Drilling				
	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 saw blade centered over a cradle holding the core in place.				
	Core sample intervals varied from 0.1 to 1.0m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in core trays.				
	Where historical reports do not describe the sampling protocol for sampling of drill core, it is assumed that drill core was sampled as described above.				
	RC Drilling				
	Prior to 1995, limited historical information indicates most RC sampling was conducted by collecting 1m samples from beneath a cyclone and passing through a riffle splitter to obtain a 3-4kg sub-sample for analysis. RC sampling procedures are believed to be consistent with the normal industry practices at the time. The vast majority of samples were dry and riffle split, however spear or tube sampling techniques were used for wet samples.				
	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 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 being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.				
	Navigator obtained sub-samples from wet samples using the spear or tube method.				
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.				
	There are no sample rejects available from RC drilling prior to 2014. Most drill sites have been rehabilitated and the sample bags removed and destroyed.				
ĺ	1				

Navigator included standards, duplicate splits, and blanks within each drill sample batch, at a ratio

Criteria	Commentary
	of 1 for every 20 samples, with the number of standards being inserted at a ration of 1 for every 50 samples.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop.
	A variety of laboratories were used for analysis. Prior to 2009, duplicate samples were not routinely collected and submitted from RC and Aircore drilling to the same laboratory consequently overall sampling and assay precision levels can't be quantified for that period. Since 2009, Navigator adopted a stricter sampling regime with the submission of duplicate samples at a rate of 1 for every 50 primary samples.
	While QC protocols were not always comprehensive, the results indicate that assay results from Navigators exploration programs were reliable. Results from pre-Navigator operators are regarded as consistent with normal industry practices of the time.
	KIN MINING (2014-2017)
	<u>Diamond Drilling</u>
	Diamond drill core samples collected for analysis were longitudinally cut in half and quarters, using a powered diamond core saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.2 to 1.15m, but were predominantly taken over 1m intervals, or at geological contacts, whichever was least. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference.
	All of KIN's diamond drill core is securely stored at their Leonora Yard.
	RC Drilling
	All RC sub-samples were collected over 1 metre downhole intervals and retained in pre-marked calico bags, after passing through a cyclone and riffle splitter configuration. 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. Some wet samples were collected through the riffle splitter, and the small number is not considered material.
	Field duplicates were taken at regular intervals at a ratio of 1:50 and assay results indicate that there is reasonable analytical repeatability, considering the presence of nuggety gold.
	COMMENT
	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 the material being drilled. 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 is an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia
Quality of assay data and laboratory	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.
tests	HISTORIC DRILLING (1989-2014)
	For assay data obtained prior to 1995, the incomplete nature of the pre-1995 data results could not be accurately quantified in terms of the data derived from the combinations of various laboratories and analytical methodologies.
	During 1995 Triton described the sample preparation process as hammer milling to -1mm, riffle splitting to 0.5kg then pulverizing to a nominal 90% passing -75µm prior to Fire assay analysis.
	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 common practice at the time. Mineralised intervals were subsequently Fire Assayed (using 30, 40 or 50 gram catchweights) with AAS/ICP finish.
	Limited information is available regarding check assays for drilling programs prior to 2004.

Criteria	Commentary
	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 Aircore samples using Fire Assay fusion on 40 gram catchweights and AAS/ICP finish.
	Post 2009 Navigator regularly included field duplicates, Certified Reference Material (CRM) standards and blanks with their sample batch submissions to the laboratories at average ratio of 1 in every 20 samples.
	KIN MINING (2014-2017)
	Sample analysis was conducted by SGS Australia Pty Ltd's ("SGS") Kalgoorlie and Perth laboratories. Sample preparation included oven drying (105°C), crushing (-6mm), pulverising (P85% -75 $\mu$ m) 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, field duplicate and CRM standards in each sample batch at a ratio of 1:20. 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 duplicate sample assay repeatability, blank standards and CRM standards assay results are within acceptable limits for this style of gold mineralisation.
	SGS include blanks and CRMs 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 within acceptable limits.
	COMMENT
	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 or Aqua Regia digestion techniques were conducted on diamond, RC and Aircore samples, with AAS or ICP finish.
	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.
	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.
	KIN's ongoing QA/QC monitoring program in general validated the assaying procedure used in 2017. One particular CRM was returning spurious results. Further analysis demonstrated that the standard was compromised and subsequently removed and destroyed. A replacement CRM of similar grade was substituted into the QA/QC program.
Verification of sampling and	Verification of sampling and assaying techniques and results prior to 2004 has limitations due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories, over a fifteen year period.
assaying	Since 2014, significant drill intersections have been verified by KIN's company geologists during the course of the drilling programs.
	An independent validation check by McDonald Speijers ("MS") (2009) resulted in 25 holes (13 being positioned at Michelangelo and Leonardo) being selected at random for which 21 original hardcopy logs could be located and 20 corresponding lab reports. Correlation between this data was good.
	During 2017, an independent verification of 725 assay records for the 2014-2017 drilling programs completed by KIN have been verified by Carras Mining Pty Ltd ("CM"), with only one discrepancy.
	COMMENT
	There is always a risk with legacy data that sampling or assaying biases may exist between results from different drilling programs due to differing sampling protocols, different laboratories and different analytical techniques.
	Repeated examination of historic reports on phases of diamond, RC and Aircore drilling have been conducted from time to time. Assay results from KIN's recent drilling are consistent with

Criteria	Commentary
	surrounding information and as a result the information obtained from the various diamond, RC and Aircore drilling programs (where sampling protocols are appropriate) have been accepted.
	Recent (2014-2017) RC and diamond drilling by KIN included some twinning of historical drillholes within the Raeside Project area. The correlation between drill holes is regarded as good and in other locations where the drill density is considered sufficiently close enough to enable comparison with surrounding historic information, and there is no material difference between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show good correlation with nearby historical results.
	Where sampling protocols are appropriate, diamond, RC and Aircore samples, are of equal importance in the resource estimation process.
	There has been no adjustments or calibrations made to the assay data recorded in the supplied database.
Location of	HISTORIC DATA (1989-2014)
data points	A local survey grid a mine grid were originally established in 1989 by Triton. During 2000-2004, SOG transformed the surface survey data firstly to AMG and subsequently to MGA (GDA94 zone51).
	Drilling was carried out historically using 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.
	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 Raeside Project area is calculated at +0.823° East (1985) to +1.301° East (2017), with a maximum variation of +1.575° in 2005. The difference between true north and magnetic north, and the annual variation in magnetic declination since 1985 is not significant. True north survey data was used in resource estimation processes.
	KIN MINING (2014-2017)
	KIN's drill hole collars were 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 during KIN's drilling programs was predominantly carried out by the drilling contractor.
	If the downhole survey tool is located within 15 metres of the surface, there is risk of influence of 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.
	KIN supplied one digital terrain model (DTM) of the topography constructed from drill hole collar data. A new DTM was supplied by KIN following a July 2017 aerial survey. The latter was used for the resource estimation.
	COMMENT
	The accuracy of the drill hole collar and downhole data are located with sufficient accuracy for use in 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 estimations.
	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 Raeside Project area is calculated at +0.823° East (1985) to +1.301° East (2017), with a maximum variation of +1.575° 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

measurements have been used, where true north data is unavailable, for all survey data used in

resource estimation processes.

Criteria	Commentary							
Data spacing and distribution	Drill hole spacing patterns vary considerably throughout the Project area, and is deposit specific, depending on the nature and style of mineralisation being tested.  The following table summarises the general range of drillhole collar spacings and drilling grid line spacings for each of the resource areas.							
	Resource	Drill Grid	l Snacing	Drillhole Spa	ıcing	1		
	Areas	from (m)	to (m)	from (m)	to (m)			
	Michelangelo	12.5	25	12.5	25	-		
	Leonardo	15	20	15	20			
	and grade continuity There has been no sa	appropriate f ample compos	or mineral re siting, other t	source estima han a few hist	tions and clatorical	ositing of field samples		
	(>90%) of primary predominantly 1 met	assay interval re intervals fo	ls are 1 me or core sampl	tre intervals es.	for RC and	Aircore samples, and		
Orientation of data in relation to geological		ied out to o	btain an un	-		ne drilling and sampling ample data, generally		
structure		The majority	of the gold i	mineralisation	is confined	nes within the broader to shear bound quartz to the east.		
	The vast majority of historical drilling is orientated -60°/280° (local grid west). KIN's RC drilling is predominantly orientated at -60°/225° (SW), generally orthogonal to the strike of mineralisation. Diamond drilling by KIN, for geotechnical purposes, were orientated at -60° towards varying azimuths including 225°, 045°, 200° and 025°.							
		The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in the data thus far.						
Sample	HISTORIC DRILLING (1989-2014)							
security	No sample security d	etails are avai	lable for pre-	Navigator (pro	e-2004) drill	samples.		
	Navigator's drill samples were collected from the riffle splitter in pre-numbered calico bags at the drill rig site. Samples were collected by company personnel from the field and transported to Navigator's secure yard in Leonora, where the 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 Navigator's yard, until transporting to the laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site, to delivery to the laboratory.							
	KIN MINING							
	KIN's RC drill samples were collected from the riffle splitter 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 KIN's secure yard in Leonora. The bulkabags were tied off and stored securely in the yard. The laboratory's (SGS) transport contractor was utilized to transport the bulkabags to the laboratory. There was no perceived opportunity for the 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.							
	On receipt of the samples, the laboratory (SGS) independently checked the sample submission form to verify samples received, and readied the samples for sample preparation. SGS's sample security protocols are of industry acceptable standards.							
Audits or reviews	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to today's current standards. A review of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to the best practice industry standards of the day.							
	reported on by inde	oendent geolo	ogical consult	ants MS in 20	009. Their re	ols, was conducted and port highlighted issues ce been identified and		

Criteria	Commentary
	addressed by Navigator and most recently by KIN.
	During 2017, CM reviewed and carried out an audit on the field operations and database. Drilling and sampling methodologies observed during the site visits are to today's industry standard. Similarly there were no issues identified for the supplied databases, which would be considered material.
	KIN is in the process of completing validation of all historical logging data and to standardise the logging code system by incorporating the SOG and Navigator logging codes into one, and converting all historical logging into the standardized code system. This is an ongoing process and is not yet completed.
	During the review, CM logged the oxidation profiles ('base of complete oxidation' or "BOCO", and 'top of fresh rock' or "TOFR") for each of the deposit areas, based on visual inspection of selected RC drill chips from KIN's recent drilling programs, and a combination of historical and KIN's drillhole logging, with final adjustments made with input from KIN geologists. The oxidation profiles were used to assign bulk densities and metallurgical recoveries to the resource models.
	Bulk density testwork in the past 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 testwork 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.
	Recent (2014-2017) RC and diamond drilling by KIN included twinning of historical drillholes within the Raeside Project area, and where the infill drilling density is considered sufficiently close enough to enable comparison with surrounding historic information, there is no material difference between historical drilling information and the KIN drilling information. KIN's diamond holes were drilled for metallurgical and geotechnical test work, and assay results for these holes also show good correlation with nearby historical results.
	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.

# **SECTION 2 – Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	The Raeside Project area includes granted mining tenement M37/1298, centered some 10km ESE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The Raeside Project is managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.
	The following royalty payment may be applicable to the areas within the Raeside Project that comprise the deposits being reported on:  1. Messers Blitterswyk, Halloran & Prugnoli, in respect of dead mineral tenements M37/256, M37/260, M37/277, M37/270, B37/4046 and MI A37/562, which are portly or whally example in the property of th
	M37/369, M37/377, M37/379, P37/4046 and MLA37/563, which are partly or wholly overlain by M37/1298 - \$1.00 per tonne of ore mined and milled for the extraction of gold or other saleable mineral.
	There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other parties	Gold was first discovered in the Leonora district about 1896 and it is likely that the first prospecting activity in and around the Raeside Project area would have occurred at about that time. Initial production from Raeside was a small underground operation in the early 1970's when 60t @ 6.0 g/t Au was produced.
	In 1989, Triton Resources Limited (Triton) entered into an arrangement with local prospectors (Halloran and Prugnoli) to acquire some tenements in what is known as the Forgotten Four area. The Triton Raeside Joint Venture mined the Forgotten Four (1990-1992) to 45m depth. Production statistics include:
	1990: Mined and processed 6,280t @ 5.18 g/t Au (959oz) at the Tower Hill plant in Leonora with 91.7% recovery. 1992: Mined and processed 40,537t @ 4.14 g/t Au (4,993oz) at the Harbour Lights plant in Leonora with 92.57% recovery. Finally a 2,822t parcel of ore (4.47 g/t Au) (389oz) was sold to Harbour Lights. In 1992 remnant ore from low grade stockpiles totaling 6,200t @ 1.0 g/t Au (199oz) was processed. Thus total production from the nearby Forgotten Four open cut yielded 55,839t @ 3.92 g/t Au (7,030oz) with an estimated recovery of approximately 92%. None of the reported production figures have been confirmed from official Mines Department records.
	The larger Raeside Project originated in 1992, when Triton (70%) formed a joint venture with Sabre Resources N.L. (Sabre) (20%) and Copperwell Pty Ltd (Copperwell), a subsidiary of Cityview Energy Corporation (10%). The three companies amalgamated their tenement holdings in the area and the joint venture applied for additional tenements.
	Until sometime in 1994 the project was managed on behalf of the joint venture by Westchester Pty Ltd. Incomplete drilling records indicate that Westchester had been involved to some extent in managing exploration in the area for Triton prior to 1992. After mid-1994 Triton appears to have taken over as project manager.
	Before 1995, drilling programs were apparently dominated by first-pass rotary air blast (RAB) drilling, with local reverse circulation (RC) rotary or percussion drilling to follow up in places where mineralisation was detected. Because of RAB drilling difficulties (clays and water) air core (AC) drilling was subsequently adopted as the first-pass method.
	Triton's drilling programs were suspended in June 1995 while a major review of results was undertaken and a pre-feasibility study was conducted. Drilling resumed in about April 1995.
	Another economic evaluation of the project was undertaken by Triton in 1998-1999 which indicated that a stand-alone operation was not possible, but that the project could be viable as a supplementary feed source for an existing, nearby process plant.
	SOG farmed in to the project in January 2000 and subsequently acquired full ownership. They carried out limited amounts of predominantly RC drilling, aimed mainly at confirming previous results from the Michelangelo deposit.
	Navigator Resources Ltd (Navigator) acquired the Raeside project from SOG in September 2004.

Criteria Commentary			
Subsequent work by Navigator has focused mainly on other projects in the Leonora disconly very small amounts of additional drilling having been completed in the Raeside are			
	In 2009, Navigator commissioned MS to complete a Mineral Resource estimate for the Raeside deposits. MS reported a JORC 2004 compliant Indicated Mineral Resource estimate, at a low cutoff grade of 0.7g/t Au, totaling 1.28Mt @ 2.68 g/t Au (111,000oz).		
	KIN acquired the Raeside Project from Navigator's administrator in 2014.		
Geology	The Raeside Project area is located 10km ESE of Leonora 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 sequence of Archaean greenstone lithologies. The area is underlain by very poorly exposed rocks units. The gold deposits at Raeside occur within or close to the margins of a large NW (320°) trendy body of dolerite within a sequence of sediments and volcanoclastic rocks near the southern margin of porphyry intrusive. Most of the gold recovered from mining the nearby Forgotten Four mine was from shear bound quartz vein stockworks or sheeted veins and/or quartz carbonate veins within a narrow carbonaceous shale (dipping 40°-60° East) lying within a granophyric quartz dolerite and carbonate/sericite/sulphide altered wall rocks.		
	Gold mineralisation at Michelangelo is hosted by a uniform metamorphosed medium grained dolerite. The deposit occurs on or above the basal sheared contact of the quartz dolerite. Four or five extensive quartz vein structures dip at 30°-40° to the northeast, extending over a strike length of 575m with a total stratigraphic thickness of approximately 90m. The position of the footwall has been roughly delineated however no other convincing geological boundaries are defined.		
	Gold mineralisation at Leonardo occurs mainly in a partly carbonaceous-graphitic shale (coded as generic metasediment) close to/adjacent to but above the quartz mafic contact. The mineralisation dips 35°-50° to the east however this ore body exhibits significant differences to the other deposits. Initially the mineralisation at Leonardo is hosted in sedimentary rocks above the quartz diorite. Secondly the mineralisation is associated with a zone of strong bleaching, sericitisation and silicification, often up to +20m wide. The strike length of the steeply plunging north main shoot is approximately 60m. Thirdly the gold mineralisation occurs within a relatively linear shear zone that is traceable over 2km of strike; the shear contains significant mineralisation in at least three other locations along strike.		
Drill hole Information	Material drilling information used for the resource estimation has previously been publicly reported in numerous announcements to the ASX by Navigator (2004-2014) and KIN since 2014.		
Data Aggregation methods	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 any high grade cuts applied. Where aggregate intercepts incorporated short lengths of high grade results, these results were included in the reports.		
	Since 2014, KIN have reported RC drilling intersections with low cut off grades of $\geq$ 0.5 g/t Au and a maximum of 2m of internal dilution at a grade of $<$ 0.5g/t Au.		
	There is no reporting of metal equivalent values.		
Relationship Between Mineralisation widths and intercept lengths	The orientation, true width and geometry of the mineralised zones have been determined by interpretation of historical drilling and verified by KIN's drilling. The majority of historic drill holes within the pit area are inclined at -60° towards 280° (west). Later drilling was undertaken on the Raeside local grid, with a base line orientated to 330° (north west). The KIN RC drilling is orientated towards 225° (SW), which is regarded as the optimum orientation to intersect the target mineralisation. Since the mineralisation is moderately dipping (-40° to -60° easterly), drill intercepts are reported as downhole widths, not true widths. Accompanying dialogue to reported intersections normally describe the attitude of the mineralisation.		
Diagrams	A plan and type sections for each resource area are included in the main body of the report.		
Balanced Reporting	Public reporting of exploration results by KIN and past explorers for the resource areas are considered balanced and included representative widths of low- and high-grade assay results.		

Criteria	Commentary
Other Substantive exploration data	Comments on recent bulk density and metallurgical information is included in Section 3 of this Table 1 Report. There is no other new substantive data acquired for the resource areas being reported on. All meaningful and material information is or has been previously reported.
Further work	The potential to increase the existing resources is viewed as probable. Further work does not guarantee that an upgrade in the resource would be achieved, however KIN intend to drill more holes at Michelangelo and Leonardo with the intention of increasing the Raeside Project's resources and converting the Inferred portions of the resources to the Indicated category.

# **SECTION 3 – Estimation and Reporting of Mineral Resources**

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

Criteria	Commentary
Database Integrity	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1989. Data was obtained predominantly from Reverse Circulation (RC) drilling, and to a lesser extent, diamond core (Diamond) drilling and Air Core (Aircore) drilling.
	Companies involved in the collection of the majority of the gold exploration data since 1989 and prior to 2014 include: Triton Resources Ltd ("Triton") 1989-1999, Triton and Sons of Gwalia Ltd ("SOG") 2000-2004, and Navigator Resources Ltd ("Navigator") 2004-2014.
	KIN exploration data from 2014 to 2017 has been acquired predominantly from RC and some diamond drilling.
	The database could not be fully verified regarding the reliability and accuracy of a substantial portion of the historical (pre-2004) data, however the recent drilling by KIN has enabled comparison with the historical data and there is no material differences observed of a negative nature.
	Database checks conducted by KIN and others are within acceptable limits. There is missing data, however it is regarded as minimal. It is not possible to identify errors that might have occurred prior or during digital tabulation of historic (pre-2004) data, however the amount of historic data used in the resource estimation is minimal and the effect would not be material.
	The logging data coded in the database uses at least four different lithological code systems, a legacy of numerous past operators (Triton, SOG & Navigator). Correlation between codes is difficult to establish, however can be achieved with effort. 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 standardise the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The drilling by Navigator and KIN has been used to scrutinize and calibrate historic logging data. This has enabled KIN to establish good geological control, which has been used to derive the geological interpretations in current work.
	Navigator uploaded the original assay files received from the labs via a database administrator using Datashed to minimise loading errors. An export of the data was then used to create an access database for use in Surpac.
	In 2009, MS ("MS") completed a mineral resource estimate report for the Raeside Project area, including the Michelangelo and Leonardo deposits. MS carried out extensive database verification, which included checks of surface survey positions, downhole surveys and assay data against original records.
	Since 2014, KIN geologists have conducted verification of historic drilling, assays, geological logs and survey information against the digital database, and in the field, including reviewing historic reports and visual confirmations of Surpac and Access databases. KIN have not reported any significant issues with the database.
	KIN has validated the database in Datashed and in Surpac prior to Resource estimation. These processes checked for holes that have missing data, missing intervals, overlapping intervals, data beyond end-of-hole, holes missing collar co-ordinates, and holes with duplicate collar co-ordinates.
	During 2017, CM carried out an independent data verification. 725 assay records for KIN's 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 1 error was found, which is not considered material and which represents less than 0.01% of all database records verified for KIN's 2014-2017 drilling programs.
	The database was continuously reviewed by CM during the 2017 resource estimation process.

Criteria	Commentary		
Site Visit	KIN's geological team have conducted multiple site visits including supervision and management of drill programs within each of the Resource areas.		
	Dr Spero Carras (Competent Person) was involved in the Leonora area at the Harbour Lights and Mertondale areas during the 1980s, and is familiar with the geology and styles of mineralisation within the Leonora Project area. He revisited the Leonora area during 2017 to review the projects, drilling, sampling and general geology.		
	Messrs Mark Nelson and Gary Powell (Competent Persons) also conducted site visits to the resource areas, and they have independently reviewed drill core, existing open pits, surface exposures drilling and sampling procedures.		
Geological Interpretation	The Raeside Project area is located 10km ESE of Leonora in the central part of the Norseman-Wiluna Greenstone Belt, which extends for some 600km on a NNW trend across the Archean Yilgarn Crator of Western Australia.		
	The regional geology comprises a sequence of Archaean greenstone lithologies. The area is underlain by very poorly exposed rocks units. The gold deposits at Raeside occur within or close to the margins of a large NW-trending (320°) body of dolerite within a sequence of sediments and volcanoclastic rocks near the southern margin of a porphyry intrusive. Most of the gold recovered from mining the nearby Forgotten Four mine was from shear bound quartz vein stockworks or sheeted veins and/or quartz carbonate veins within a narrow carbonaceous shale (dipping 40°-60° East) lying within a granophyric quartz dolerite and carbonate/sericite/sulphide altered wall rocks.		
Dimensions	The Michelangelo deposit has a strike of 600m NW and a width of 100m. The Michelangelo area includes a total of 32,536m of drilling. The drilling in the mineralized area for Michelangelo includes 16 DD holes for 225m and 320 RC holes for 3,419m.		
	The Leonardo deposit has a strike of 500m NW and a width of 150m. The Leonardo area includes a total of 21,645m of drilling. The drilling in the mineralized area for Leonardo includes 8 DD holes for 54m and 159 RC holes for 1,378m.		
Estimations and Modelling Techniques	86. The following outlines the estimation and modelling technique used for producing Resources for the Michelangelo-Leonardo deposit.		
reeningues	Deposit Orebody Dimensions Nominal Metres of Drill Spacing Mineralised Drilling (m)		
	Michelangelo         600m x 100m x 300m         25m x 15m         3,644           Leonardo         500m x 150m x 300m         25m x 15m         1,432		
	87. Wireframes were provided by KIN for:		
	<ul><li>a. Topography based on drill collar data</li><li>b. Bottom of Oxidation (BOCO)</li><li>c. Top of Fresh Rock (TOFR)</li></ul>		
	88. CM carried out an Independent Review of the weathering surfaces and where necessary, based on new drilling (both RC and diamond), geological relogging and bulk density information, the surfaces were modified to reflect the additional information. Surface topography was also adjusted due to new information obtained in a July 2017 aerial survey.		
	89. Based on geology, statistical analysis and intersection selection, domainal shapes were wireframed at a 0.3g/t nominal edge cut-off grade. These domainal shapes could contain values less than 0.3g/t within the wireframes although this was minimized to prevent smoothing dilution being incorporated into the final models. The parameters used for intersection selection were 3m downhole which equates to an approximate 2.5m bench height. The intersections could include 1m of internal dilution.		
	90. The wireframed shapes were audited by KIN geological staff who had previous experience in the Raeside area whilst working for Navigator Resources Ltd. The interpreted mineralisation wireframes are consistent with those historically used at Raeside.		
	91. Each mineralisation wireframe had an assigned strike, dip and plunge.		
	92. Compositing from the top of each shape was carried out at 1m within each wireframe. In		

Michelangelo the majority of composites (95%) were greater than 1m.	In Leonardo the
majority of composites (98%) were greater than 1m.	

Commentary

- 93. The domainal shapes were passed into ISATIS Software with specified strike, dip and plunge.
- 94. The number of shapes used was as follows:

Criteria

Deposit	Number of Shapes		
Michelangelo	19		
Leonardo	9		

- 95. A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used.
- 96. The declustering program DECLUS (ISATIS) was used to produce the weights to be assigned to each composite for statistical analysis.
- 97. For each shape a detailed set of weighted statistics was produced. Based on the statistics, high grade cuts were determined for every shape and the percentage metal cut was estimated for each deposit as shown in the below table:

Deposit	Maximum Cut	Percentage Metal Cut
	(g/t)	%
Michelangelo-Leonardo Combined	25	4

- 98. Where a data point belonged to 2 shapes the cut allocated was determined for each domain and independently allocated.
- 99. Variograms were run for each domain using ISATIS. The variograms were of very poor quality with the dowhole variograms being the basis of fitted models. Directional variograms were produced for downhole, down dip, down plunge. Where the downhole variograms were calculated on an individual hole basis, variograms were normalized. Variograms were normalized for down dip and plunge. Raw variograms were used in subsequent work.
- 100. The following parameters were used in modelling OK, ID2 and ID3:
  - A minimum number of samples of 12 and a maximum number of samples of 32
  - The discretisation parameters were 2 x 2 x 2
  - A maximum of 2 samples per hole
  - Note: for blocks that did not meet these requirements, the parameters were relaxed and the search radii were increased.
  - To minimize the striping effect created by estimation in narrow shapes, the downhole search radii were increased.
- 101. The ranges of search and directions used were applied on a shape by shape basis. The aim was to produce OK results for the majority of shapes where there had been adequate data to produce meaningful variography. Small shapes where there was inadequate data were estimated using an anisotropic distance weighting cubed methodology rather than OK.
- 102. The fundamental block size used was:

Deposit	Small Blocks		
Michelangelo-Leonardo Combined	3.125mN x 1.875mE x 1.25mRL		

Small blocks were used to ensure adequate volume estimation where shapes were

- 103. Scatter plots were then produced which compared OK, ID2 and ID3 for the small blocks.
- 104. The models were then visually checked on a section by section basis of block versus drillholes and ID3 proved to be the best fit.
- 105. The small blocks produced by ID3 were then composited to form medium (quarter) sized blocks and panels. The block dimensions for the medium (quarter) sized blocks and panels were:

Criteria	Commentary				
	Deposit Medium (Quarter) Blocks Panels				
	Michelangelo-Leonardo Combined 6.25mN x 3.75mE x 2.5mRL 12.5mN x 7.5mE x 5				
	Quarter size blocks were used for reporting Resources.				
	106.To check that the interpolation of carried out comparing the interpol plots showed good correlation thus	ated blocks to the sample co	mposite data. The validation		
	107.Volumes within wireframes were destimates of the volumes within the volumes estimated were correct.				
	108.Classification was carried out using geology as the guide.	a combination of drillhole de	nsity, drillhole quality, and		
	109.Resources were estimated within an The optimised pit shells provided a may have prospects for economic reasonably be declared as Open F recovery of 95%. This was minimal The Resources reported are undiluted.	a reasonable basis for defining exploitation in the foreseeab lit Resources. (Optimisation and was only used to define to	ng the portion of models that le future and could therefore used a dilution of 5% and a the Resource not the Reserve.		
	110.Operating cost estimates developed by KIN indicated that a break even mill feed cut-off grade for deposits in the Raeside area was likely to be 0.5g/t Au.				
Moisture	Tonnages and grades were estimated on a dry basis only. Bulk Density determinations of diamond drill core included measurements of moisture content.				
Cut-off Parameters	Operating cost estimates provided by KIN's engineering consultants indicate a break even mining grade for open pit deposits in the Raeside area is likely to be 0.5g/t Au.				
Mining Factors or Assumptions	Open pit mining will be the mining method employed going forward.				
Metallurgical Factors or Assumptions	In 2017 KIN's drilling program included a series of RC and DD drillholes to collect samples for geotechnical and metallurgical testwork.				
	Metallurgical testwork in the Michelangelo-Leonardo area has shown metallurgical recoveries of mid-nineties for oxide and transition and approximately 90% for fresh.				
	During the mining process, and where necessary, selective extraction of the graphitic shales is envisaged to be possible so that successful segregation and quarantining of the shale material can be achieved, so as to mitigate potential contamination of ore in the process plant.				
Environmental Factors or Assumptions	The Michelangelo and Leonardo deposits have not been subjected to any previous mining activity.  Historical mining at nearby Forgotten Four, including waste rock landforms have not demonstrated any impacts that cannot be managed in normal operations.				
Bulk Density	Prior to 2014, there have been numerous programs of bulk density testwork conducted by several companies at different times on diamond drill core and/or RC drill chips for the some of the various deposits. Generally the testwork has not been conclusive, since the testwork methodology has not been adequately described in the historical reports, or when it has, the testwork itself was not carried out using an acceptable method to determine dry bulk density. Often, when described, the testwork measured specific gravity, not bulk density, and in cases where bulk density was reported, the moisture content was not taken into account.				
	In 2017, KIN carried out a diamond dril testwork at Michelangelo and Leonardo parts of mineralised zones.				
	A total of 231 half or quarter core sai independent laboratory in Perth for bul				

Criteria	Commentary				
	The core samples were a mixture of half core and quarter core samples ranging from 5cm to 20cm in length, and were taken at downhole intervals of roughly every 1 metre. The samples were firstly weighed, oven dried overnight at 110°C, and weighed again to determine moisture content. The samples were then sealed, using hairspray, prior to immersion in water.				
	During the 2017 bulk density testwork and estimation process, Dr S Carras and Mr G Powell (Consultant to CM) visited the laboratory and identified some improvements for consideration in the bulk density determination process, particularly for small core pieces to give better precision of measurements. The suggested improvements were implemented and precision improved.			or consideration in better precision of	
	When estimating the bulk of samples gave more repeats				=
	Based on recent data the Leonardo area:	following bulk den	sity parameters	were used for th	ne Michelangelo /
	Area	Lithology	Oxide	Transition	Fresh
		Mafic	2.0	2.3	2.65
	Michelangelo / Leonardo	Sediments	2.0	2.3	2.6
Classification	Classification was based or geological continuity. In (approximately NW-SE):  Michelanglo: Leonardo:		its were drille	•	
	In general drillhole spacing of 25m x 15m, with some infill holes, resulted in mineralisation being classified as Indicated.  Drillhole spacing generally increases with depth and as a result deeper mineralisation is mostly allocated to the Inferred category.  The Mineral Resource estimate appropriately reflects the view of the Competent Person.				alisation is mostly
Audits and Reviews	Internal audits were carried out on the geological interpretations and wireframes by KIN geologists. Some data (e.g. geological logs) are scant; the assay data is historical and could not be independently verified, however in 2017 KIN drilled 5 twinned drillholes. The drillholes provided a very good validation to historical holes in the current database. In 2009, MS checked 25 holes (mineralised intersections containing 1,141 sample records) selected at random and checked against originals. The data correlation was not perfect but very acceptable (93% correlation) considering the age of the data and the passing through different company history.  KIN personnel carried out audits and internal reviews of the data, assay, survey, wireframes and geological interpretations carried out by CM for Michelangelo-Leonardo. CM also carried out reviews of data used for Michelangelo-Leonardo.  Bulk density determination methodology was audited by S Carras and G Powell (Consultant to CM) through visitation of the independent laboratory.				
Discussion of Relative Accuracy and Confidence	KIN embarked on a program of infill drilling, including twinning of 5 historical drillholes. The drilling largely substantiated the position and tenor of mineralisation. It also validated the information obtained from various drilling campaigns.				
Sonymente	In the modelling process every attempt has been made to eliminate the "string effect" problem associated with the estimation of narrow vein structures through the use of ordinary kriging. This has been achieved through the use of distance weighting estimates correlated back to ordinary kriging estimates. This method, although heuristic has been validated by extensive review of the block models and the drillhole data.				
	Every attempt has been made in the modelling to reduce the smoothing effect, which results when using a low cut-off grade to determine boundary positions and limit the amount of dilution in the Resource so that it can be correctly diluted for Reserve.				
	In all high coefficient of va high nugget effect of the go			-	

Criteria	Commentary
	further information such as closer spaced grade control drilling.

# **Appendix F**

# JORC 2012 TABLE 1 REPORT RAESIDE PROJECT Forgotten Four and Krang

# **SECTION 1 – Sample Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary
Sampling techniques	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1989. Data was obtained predominantly from Reverse Circulation ('RC') drilling (Forgotten Four 100% and Krang 95%) and Air Core ('Aircore' or 'AC' drilling (Krang 5%).
	There is limited exploration data available prior to 1989, where it is believed that exploration was more focused on base metals, and not gold. Companies involved in the collection of the majority of the gold exploration data since 1989 and prior to 2014 include: Triton Resources Ltd ("Triton" 1989-1999, Triton and Sons of Gwalia Ltd ("SOG") 2000-2004, and Navigator Resources Ltd ("Navigator") 2004-2014.
	Kin Mining Ltd ("KIN") acquired the Raeside Project in 2014.
	HISTORIC SAMPLING (1989-2008)
	Drill samples were generally obtained from 1m downhole intervals and riffle split to obtain a 3-4kg representative sub-sample, which were submitted to a number of commercial laboratories for a variety of sample preparations methods, including oven drying (90-110°C), crushing (-2mm to -6mm), pulverizing (-75 $\mu$ m to -105 $\mu$ m), and generally riffle split to obtain a 30, 40 or 50 gram catchweight for gold analysis, predominantly by Fire Assay fusion, with AAS finish. On occasions initial assaying was carried out using Aqua Regia digest and AAS/ICP finish, with anomalous samples re-assayed by Fire Assay fusion and AAS/ICP finish.
	RC Drilling
	The vast majority of Reverse Circulation (RC) drill samples were collected over 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 (wet samples) to obtain 3m or 4m composited intervals, with the single metre split subsamples being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for gold analysis.
	Navigator obtained sub-samples from wet samples using the spear method. However only a few drill holes drilled by Navigator were included in the resource estimate (5 RC holes from a total or 302 holes).
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2008. Most drill sites have beer rehabilitated and the sample bags removed and destroyed.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop. Assay results from these samples are not used for resource estimation work, however they do sometimes provide a guide in interpreting geology and mineralisation continuity.
	When drilling under dry conditions, Aircore samples should be of a comparable quality to RC samples, when implementing same sampling techniques, therefore Aircore sample assay results were only used for resource estimation work if the 1m sub-samples were obtained by riffle splitting of the primary sample, prior to placing on the ground.

There are no sample rejects available from AC drilling prior to 2008. Most drill sites have been

	T
Criteria	Commentary
	rehabilitated and the sample bags removed and destroyed.
	RAB Drilling
	Sample return from Rotary Air Blast (RAB) drilling are collected from the annulus between the open hole and drill rods, using a stuffing box and cyclone. Samples are usually collected at 1 metre intervals and placed on the ground with 3-4kg sub-samples collected using a scoop or spear. Uphole contamination of the sample is commonplace, therefore this type of drilling and sampling is regarded as reconnaissance in nature and the samples indicative of geology and mineralisation. The qualities of samples are not appropriate for resource estimation work and are only sometimes used as a guide for interpreting geology and mineralisation.
	KIN MINING (2014-2017)
	KIN has not conducted any drilling at the Forgotten Four or Krang deposits.
	COMMENT
	For some earlier (pre-2004) drilling programs, RC and Aircore field composite samples were obtained at 2, 3, 4 or 5 metre downhole intervals.
	For resource estimation work, RC and some Aircore drilling data was used where appropriate. RAB drilling data was not used for resource estimation but was sometimes used as an interpretative guide only.
Drilling techniques	Numerous programs comprising various types of drilling have been conducted by several companies since 1985. The Raeside database encompasses the various deposits and prospects within the Raeside Project area, and consists of 1,805 drill holes for a total 134,278 metres, excluding RAB drilling, viz:

Drill Type	Holes	Metres (m)	%(m)
DD	12	1,906	1.4%
RC	1,163	102,264	76.2%
AC	630	30,108	22.4%
Total	1,805	134,278	100%

# **HISTORIC DRILLING (1989-2008)**

### **Diamond Drilling**

Diamond drilling carried out in the Raeside area used industry standard 'Q' wireline techniques, with the core retrieved from the inner tubes and placed in core trays. Core sizes include NQ/NQ3 ( $\emptyset$  45-48mm) and HQ/HQ3 ( $\emptyset$  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. No Diamond Drill holes intersected the resource area.

### **RC** Drilling

RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, until the late 1980s, when the majority of drilling companies started changing over to using face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm. Samples obtained from conventional RC drilling techniques with cross-over subsoften suffered from down hole contamination (e.g. smearing of grades), 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 more reliable and representative.

# Aircore Drilling

Aircore drilling is a form of RC drilling, but generally utilizing smaller rigs and smaller air compressors, compared to standard RC drill rigs of the times. Aircore bits are hollow in the centre, with the kerf comprising cutting blades or 'wings' with tungsten-carbide inserts. Drill bit diameters usually range between 75-110mm.

The majority of the Aircore drilling (100%) was conducted by T utilising suitable rigs with appropriate compressors (e.g. 250psi/600cfm). Aircore holes were drilled mostly into the weathered regolith using 'blade' or 'wing' bits, until the bit was unable to penetrate further ('blade refusal'), often near to the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate harder rock types. No AC holes were used in the resource

# Criteria Commentary calculation at Forgotten Four and only 11 AC holes were used for the Krang resource estimate

representing 3% of mineralized intersections.

### **KIN MINING (2014-2017)**

KIN has not conducted any drilling at the Forgotten Four or Krang deposits.

The following tables summarise drilling totals for the Forgotten Four and Krang Project area, for DD, RC and AC only (i.e. excluding open-hole drilling such as RAB):

Forgotten Four Resource Historical Drilling Summary (Pre-2009)

Hole Type	Holes	Metres (m)	Metre Percentage (%)
DD	0	0	0 %
RC	147	11,009	97 %
AC	7	332	3 %
Total	154	11,341	100 %

Krang Resource Historical Drilling Summary (Pre-2009)

Hole Type	Holes	Metres (m)	Metre Percentage (%)
DD	0	0	0 %
RC	253	22,085	86 %
AC	84	3,648	14 %
Total	3387	25,733	100%

RC drilling is the dominant drill type at all sites. RC drilling information is generally described in varying detail in historical reports to the DMP, including drilling companies used and drilling rig types, however it's not all recorded in the database supplied. Review of the historical reports indicates that reputable drilling companies were typically contracted and the equipment supplied was of an acceptable standard for those times (Schramm T685 rig using 5.5 inch face sampling hammer with an air capacity of 1900cfm at 750psi). During the 1990s, and 2000s, suitable large drill rigs with on-board compressors were probably complimented with auxiliary and booster air compressors for drilling to greater depths and/or when groundwater was encountered.

When drilling under dry conditions, Aircore samples should be of a comparable quality to RC samples, when implementing same sampling techniques.

# Drill sample recovery

### **HISTORIC DRILLING (1989-2008)**

### **RC** Drilling

There is limited information recorded for sample recoveries for historical RC and Aircore drilling. However there has been an improvement in sample recoveries and reliability following the introduction of face sampling hammers and improved drilling technologies and equipment, since the mid-1980s.

## **KIN MINING (2014-2017)**

KIN has not conducted any drilling at the Forgotten Four or Krang deposits.

### **COMMENT**

Due to the lack of detailed information in the database regarding historic (pre-2009) Aircore and RC drilling, no quantitative or semi-quantitative impression of sample recovery or sample quality is available. Given that much of the drilling at Raeside was conducted by the same company (Triton) and at the same time as that carried out for the Forgotten Four deposit, where it is assumed to be satisfactory given that the Forgotten Four deposit was mined by Triton to a depth of 40-45 metres by open pit methods. This suggests that the amount of metal recovered was probably not grossly different from pre-mining drill data based expectations.

During Navigators drill programs wet samples were spear sampled instead of riffle split. This is regarded as poor sampling procedure and these samples are regarded as unreliable however the total number of wet samples is considered to be very low.

No indication of sample bias is evident nor has it been established. That is, no relationship has been observed to exist between sample recovery and grade.

Criteria	Commentary
Logging	HISTORIC DRILLING (1989-2008)
	The logging data coded in the database uses at least three different lithological code systems, a legacy of numerous past operators (Triton, SOG & Navigator). Correlation between codes is difficult to establish, however it can be achieved with effort. Based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time.
	Navigator's very limited RC and Aircore logging was entered on a metre by metre basis, recording lithology, alteration, texture, mineralisation, weathering and other features. The information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
	The entire length of all drillholes are logged in full from surface to bottom of hole.
	Logging is qualitative on visual recordings of lithology, oxidation, colour, texture and grain size.
	Logging of mineralogy, mineralisation and veining is quantitative.
	KIN MINING (2014-2017)
	KIN has not conducted any drilling at the Forgotten Four or Krang deposits.
	COMMENT
	KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. This is an ongoing process and is not yet completed.
	The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies and metallurgical studies.
	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, veining, and in addition, logging of diamond drilling included geotechnical data, RQD and core recoveries.
	For the majority of historical drilling (pre-2009), the entire length of drillholes have been logged from surface to 'end of hole'.
Sub-	HISTORIC DRILLING (1989-2008)
sampling techniques and sample	Historical reports for drilling programs prior to 2004, are not always complete in the description of sub-sampling techniques, sample preparation and quality control protocols.
preparation	RC Drilling
	Prior to 1995, limited historical information indicates most RC sampling was conducted by collecting 1m samples from beneath a cyclone and passing through a riffle splitter to obtain a 3-4kg sub-sample for analysis. RC sampling procedures are believed to be consistent with the normal industry practices at the time. The vast majority of samples were dry and riffle split, however spear or tube sampling techniques were used for wet samples.
	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 being retained at the drill site. If the composite sample assays returned anomalous results, the single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
	Navigator obtained sub-samples from wet samples using the spear or tube method.
	Data relating to historical wet samples is not available, however the number of wet samples involved is considered to be relatively low, and not material.
	There are no sample rejects available from RC drilling prior to 2008. Most drill sites have been

Criteria	Commentary
	rehabilitated and the sample bags removed and destroyed.
	Navigator included standards 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.
	Aircore Drilling
	The procedures for sampling of Aircore drilling is generally the same as for RC drilling, although in earlier (pre-2004) programs, the majority of the 1m samples were mostly stored directly on the ground prior to sampling with a scoop.
	While QC protocols were not always comprehensive, the results indicate that assay results from Navigators exploration programs were reliable. Results from pre-Navigator operators are regarded as consistent with normal industry practices of the time.
	KIN MINING (2014-2017)
	KIN has not conducted any drilling at the Forgotten Four or Krang deposits.
	COMMENT
	In the total Raeside database an unknown laboratory processed +50% of sample analysis with Genalysis and Amdel (Kalgoorlie), Ultra Trace (Perth) and LLAL (Leonora) laboratories used for remaining sample analysis. Prior to 2009, duplicate samples were not routinely collected and submitted from RC and Aircore drilling to the same laboratory consequently overall sampling and assay precision levels can't be quantified for that period. Since 2009, Navigator adopted a stricter sampling regime with the submission of duplicate samples at a rate of 1 for every 50 primary samples.
	Samples sizes are considered appropriate for this style of gold mineralisation and is an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia.
Quality of assay data and laboratory	Numerous assay laboratories and various sample preparation and assay techniques have been used over the projects history. 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.
tests	HISTORIC DRILLING (1989-2008)
	For assay data obtained prior to 1995, the incomplete nature of the pre-1995 data results could not be accurately quantified in terms of the data derived from the combinations of various laboratories and analytical methodologies.
	During 1995 Triton described the sample preparation process as hammer milling to -1mm, riffle splitting to 0.5kg then pulverizing to a nominal 90% passing -75µm prior to Fire assay analysis.
	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 common practice at the time. Mineralised intervals were subsequently Fire Assayed (using 30, 40 or 50 gram catchweights) with AAS/ICP finish.
	Limited information is available regarding check assays for drilling programs prior to 2004.
	During 2004-2008, Navigator the majority of assaying for RC and Aircore samples using Fire Assay fusion on 40 gram catchweights and AAS/ICP finish.
	Post 2009 Navigator regularly included field duplicates, Certified Reference Material (CRM) standards and blanks with their sample batch submissions to the laboratories at average ratio of 1 in every 20 samples.
	KIN MINING (2014-2017)
	KIN has not conducted any drilling at the Forgotten Four or Krang deposits.
	COMMENT
	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 or Aqua Regia digestion techniques were conducted on diamond, RC and Aircore samples, with AAS or ICP finish.

Fire Assay fusion is considered to be a total extraction technique. The majority of assay data used

Criteria	Commentary					
		methods of d			Fire Assay technique with AAS ered to be suitable and appro	
	-	-		-	ere gold encapsulated in refr ved, resulting in partial report	-
	No other analysis tec	hniques have	been used to	determine g	gold assays.	
Verification of sampling and	the legacy of the inv	volvement of	various com	panies, perso	prior to 2004 has limitations onnel, drilling equipment, sar over a twenty year period.	
assaying	positioned at Forgott	en Four and K	(rang) being s	elected at rar	009) resulted in 25 holes (12 ndom for which 21 original har elation between this data was	dcopy
	data used in the reso	urce estimation	on, originally conducted by	sourced from  / Navigator ar	he reliability of the bulk of the n Triton (97.5%), can't be confi nd SOG however this data com	irmed.
	COMMENT					
	-	g programs d			ing biases may exist between i protocols, different laboratorio	
	There has been no addatabase.	djustments or	calibrations	made to the	assay data recorded in the su	pplied
Location of	HISTORIC DATA (198	9-2008)				
data points		ne surface si	urvey data	firstly to AM	n 1989 by Triton. During 2000 IG (GDA84 datum, Zone 51	
	_		•	•	Since 2004, All Navigators drill rid using RTK-DGPS equipmen	
	KIN MINING (2014-2	017)				
	KIN has not conducte	ed any drilling	at the Forgo	tten Four or k	Krang deposits.	
					aphy constructed from histor ficient and appropriate for res	
	COMMENT					
	The accuracy of the use in resource estim		ar and downl	nole data are	located with sufficient accura	acy for
	_	of error in th	ie MGA co-o	rdinates for	ing documentation, there mig old drillholes, however this	_
Data spacing and	Drill hole spacing pat depending on the na		-	_	Project area, and is deposit spected.	ecific,
distribution	_	ummarises th	e general ran	_	e collar spacings and drilling gr	id line
		1		T		
	Resource Areas	Drill Grid	Spacing to (m)	Drillhole Sp from (m)	acing to (m)	
	Forgotten Four	10111 (111)	to (m) 25	10111 (111)	25	
	Krang	10	20	12.5	10-20	
		•		•		
	Drill hole and sample	interval spac	ing is sufficie	nt to establish	h an acceptable degree of geo	Iogical

Criteria	Commentary
	and grade continuity appropriate for mineral resource estimations and classifications applied.
	There has been no sample compositing, other than a few historical compositing of field samples for some Aircore and RC samples to 2m, 3m, 4m, and a few 5m and 6m intervals. The vast majority (>90%) of primary assay intervals are 1 metre intervals for RC and Aircore samples.
	At Forgotten Four the drilling was conducted on two different local grids and inclined grid west at -60° on 10m spaced lines. Recent drilling was conducted on 10m spaced lines at 25m intervals moving to 25m x 25m spacing at the outer edges of the mineralisation, all holes are inclined -60° grid west.
	At Krang a 25m x 25m drill pattern covers most of the resource area however the pattern becomes incomplete in the western most zones, some areas have been reduced to 12.5m with hole spacing 10-20m along lines, holes are predominantly inclined -60° grid west.
Orientation of data in relation to geological	The sheared Raeside greenstone sequence displays a NNW to NW trend. The drilling and sampling programs were carried out to obtain an unbiased location of drill sample data, generally orthogonal to the strike of mineralisation.
structure	Mineralisation is structurally controlled in moderately dipping shear zones within the broader Raeside Shear Zone, The majority of the gold mineralisation is confined to shear bound quartz lodes/veining within a narrow carbonaceous shale that dips (-40° to -60°) to the east.
	At Forgotten Four the mineralisation strikes NW and dips 50° to 60° east. At Krang the ore zones strikes NNW and dips 50° to 60° east. Flanking mineralisation is orientated NS and dips 30° to 50°
	The vast majority of historical drilling is generally orthogonal to the strike and dip of mineralisation.
	A pervasive weak foliation is present in the host sequence sub-parallel to the apparent stratigraphic layering. Mineralisation is generally related to zones of stronger foliation and weak to moderate shearing with local ductile deformation.
	The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in the data thus far.
Sample	HISTORIC DRILLING (1989-2008)
security	No sample security details are available for pre-Navigator (pre-2004) drill samples.
	Navigator's drill samples (a minimal amount of data in total) were collected from the riffle splitter in pre-numbered calico bags at the drill rig site. Samples were collected by company personnel from the field and transported to Navigator's secure yard in Leonora, where the 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 Navigator's yard, until transporting to the laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site, to delivery to the laboratory.
	KIN MINING (2014-2017)
	KIN has not conducted any drilling at the Forgotten Four or Krang deposits.
Audits or reviews	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to today's current standards. A review of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to the best practice industry standards of the day.
	A review of the Raeside Project's database, drilling and sampling protocols, etc., was conducted and reported on by independent geological consultants MS in 2009. Their report highlighted issues with bulk density and QA/QC analysis of the database.
	KIN is in the process of completing validation of all historical logging data and to standardise the logging code system by incorporating the SOG and Navigator logging codes into one, and converting all historical logging into a standardized code system. This is an ongoing process and is not yet completed.
	Drilling, Sampling methodologies and assay techniques used in the historical drilling programs are considered to be appropriate and were conducted to mineral exploration industry standards of the day.

Criteria	Commentary
	However largely due to the current data for Forgotten Four and Krang not being of comparable quality to the data now available on other projects at Raeside (Leonardo and Michelangelo) a decision has been taken by CM to reclassify the resource estimates at Forgotten Four and Krang into the Inferred category.

# **SECTION 2 – Reporting of Exploration Results**

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

Criteria	Commontary
Citteria	Commentary
Mineral tenement and land tenure status	The Raeside Project area includes granted mining tenement M37/1298, centered some 10km ESE of Leonora. The Forgotten Four and Krang deposits are located on M37/1298. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The Raeside Project is managed, explored and maintained by KIN, and constitutes a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.
	The following royalty payment may be applicable to the areas within the Raeside Project that comprise the deposits being reported on:
	<ol> <li>Messers Blitterswyk, Halloran &amp; Prugnoli, in respect of M37/1298 may have a - \$1.00 per tonne of ore mined and milled royalty for the extraction of gold or other saleable mineral.</li> </ol>
	There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other parties	Gold was first discovered in the Leonora district about 1896 and it is likely that the first prospecting activity in and around the Raeside Project area would have occurred at about that time. Initial production from Raeside was a small underground operation in the early 1970's when 60t @ 6.0 g/t Au was produced.
	In 1989, Triton Resources Limited (Triton) entered into an arrangement with local prospectors (Halloran and Prugnoli) to acquire some tenements in what is known as the Forgotten Four area. The Triton Raeside Joint Venture mined the Forgotten Four (1990-1992) to 45m depth. Production statistics include:
	1990: Mined and processed 6,280t @ 5.18 g/t Au (959oz) at the Tower Hill plant in Leonora with 91.7% recovery. 1992: Mined and processed 40,537t @ 4.14 g/t Au (4,993oz) at the Harbour Lights plant in Leonora with 92.57% recovery. Finally a 2,822t parcel of ore @ 4.47 g/t Au (389oz) was sold to Harbour Lights. In 1992 remnant ore from low grade stockpiles totaling 6,200t @ 1.0 g/t Au (199oz) was processed. Thus total production from the nearby Forgotten Four open cut yielded 55,839t @ 3.92 g/t Au (7,030oz) with an estimated recovery of approximately 92%. None of the reported production figures have been confirmed from official Mines Department records.
	The larger Raeside Project originated in 1992, when Triton (70%) formed a joint venture with Sabre Resources N.L. (Sabre) (20%) and Copperwell Pty Ltd (Copperwell), a subsidiary of Cityview Energy Corporation (10%). The three companies amalgamated their tenement holdings in the area and the joint venture applied for additional tenements.
	Until sometime in 1994 the project was managed on behalf of the joint venture by Westchester Pty Ltd. After mid-1994 Triton appears to have taken over as project manager.
	Before 1995, drilling programs were apparently dominated by first-pass rotary air blast (RAB) drilling, with local reverse circulation (RC) rotary or percussion drilling to follow up in places where mineralisation was detected. Because of RAB drilling difficulties (clays and water) air core (AC) drilling was subsequently adopted as the first-pass method.
	Triton's drilling programs were suspended in June 1995 while a major review of results was undertaken and a pre-feasibility study conducted. Drilling resumed in about April 1995.
	Another economic evaluation of the project was undertaken by Triton in 1998-1999 which indicated that a stand-alone operation was not possible, but that the project could be viable as a supplementary feed source for an existing, nearby process plant.
	Sons of Gwalia Limited (SOG) farmed in to the project in January 2000 and subsequently acquired full ownership. They carried out limited amounts of predominantly RC drilling, aimed mainly at confirming previous results from the Michelangelo deposit.
	Navigator Resources Ltd (Navigator) acquired the Raeside project from the SOG receiver in September 2004. However subsequent work by Navigator has focused mainly on other projects in the Leonora district, with only very small amounts of additional drilling having been completed in the Raeside area.
	In March 2009, Navigator commissioned McDonald Speijers to complete a Mineral Resource

Criteria	Commentary				
	estimate for all the Raeside deposits Michelangelo, Leonardo, Forgotten Four and Krang). McDonald Speijers (2009) reported a JORC 2004 compliant Mineral Resource undiluted estimate, at a low cutoff grade of 0.7g/t Au, totaling 280,000t @ 2.51 g/t Au (22,600oz), comprising total Indicated Resources of 100,000t @ 2.74 g/t Au (15,900oz) and total Inferred Resources of 100,000t @ 2.08 g/t Au (6,700oz).				
	KIN acquired the Raeside Project from Navigator's administrator in 2014.				
Geology	The Raeside Project area is located 10km ESE of Leonora 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 sequence of Archaean greenstone lithologies. The area is underlain by very poorly exposed rocks units. The gold deposits at Raeside occur within or close to the margins of a large NW (320°) trendy body of dolerite within a sequence of sediments and volcanoclastic rocks near the southern margin of porphyry intrusive. Most of the gold recovered from mining the Forgotten Four mine was from shear bound quartz vein stockworks or sheeted veins and/or quartz carbonate veins within a narrow carbonaceous shale (dipping 40°-60° east) lying within a granophyric quartz dolerite and carbonate/sericite/sulphide altered wall rocks.				
	Mineralised zones at Forgotten Four are mainly hosted by mafics however the uppermost (strongest) zone of mineralisation appears to be positioned just below the lower contact of overlying sediments, and one of the lower zones appear to coincide with a sporadically developed sediment wedge in the mafic rocks. The sediments are also mineralised. At the Forgotten Four the strongest zone of mineralisation is just below the lower contact with the overlying carbonaceous shale and sediments. The bulk of the mineralisation is hosted by dolerite along the upper contact with the interbedded shale and the quartz diorite. There are at least two lodes at Forgotten Four, one of which was partly mined by Triton (55,839t @ 3.92 g/t Au for 7,030oz Au) the second lode occurs in the hanging wall to the south.				
	Mineralisation at Krang appears to be broadly related to the metasediments however, once again, no convincing geological boundaries are defined. Along the eastern side of the deposit mineralisation appears to be broadly associated with the contact zones between mafic and metasedimentary units. Some of the mineralisation is associated with massive quartz-pyrite-arsenopyrite lodes which display high but erratic grade. Gold mineralisation occurs internal to the quartz dolerite unit which displays varying dips ranging from 30° to 60° to the northeast; interpretation suggests two different structural styles. Mineralisation occurs in at least four separate pods over a continuous strike length of about 700m.				
	Geological structure is obscured by the lack of outcrop but the variation of the mineralisation intensity suggests a considerable level of structural complexity. The Raeside area is truncated by splay faults associated with the Keith Kilkenny Lineament which roughly trends northwest. Interpretation suggests that these splays and the dolerite contact are the preferred host structure and preferred host lithology. In some areas, closer spaced drilling was carried out to provide a high level of confidence in the geological interpretations.				
Drill hole Information	Material drilling information used for the resource estimation has previously been publicly reported in numerous announcements to the ASX by Navigator (2004-2008) and previous owners.				
Data Aggregation methods	When exploration results have been reported for the Forgotten Four or Krang resource areas, the intercepts are reported as weighted average grades over intercept lengths defined by geology or lower cut-off grades, without any high grade cuts applied. Where aggregate intercepts incorporated short lengths of high grade results, these results were included in the historic reports to ASX.				
	There is no reporting of metal equivalent values.				
Relationship Between Mineralisation widths and intercept lengths	The orientation, true width and geometry of the mineralised zones have been determined by interpretation of historical drilling. The majority of historic drill holes within the resource areas are inclined at -60° towards 280° (west). Drill intercepts have been reported in the past as downhole widths, not true widths. Accompanying dialogue to reported intersections normally describes the attitude of the mineralisation.				
Diagrams	A plan and type sections for each resource area are included in the main body of the report.				

Criteria	Commentary
Balanced Reporting	Public reporting of exploration results by past explorers for the resource areas are considered balanced and included representative widths of low-grade and high-grade assay results.
Other Substantive exploration data	Comments on bulk density and metallurgical information is included in Section 3 of this Table 1 Report. There is no other new substantive data acquired for the resource areas being reported on. All meaningful and material information is or has been previously reported.
Further work	The potential to increase the existing resources is viewed as probable. Further work does not guarantee that an upgrade in the resource would be achieved, however KIN intend to drill more holes at the Forgotten Four and Krang deposits with the intention of increasing the Raeside Project's resources and converting the Inferred portions of the resources to the Indicated category.

# **SECTION 3 – Estimation and Reporting of Mineral Resources**

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

Criteria	Commentary				
Database Integrity	All sample data, subject of this report and used for resource estimation work, is obtained from various drilling programs carried out since 1989. Data was obtained predominantly from Reverse Circulation (RC) drilling, and to a lesser extent, diamond core (Diamond) drilling and Air Core (Aircore) drilling.				
	Companies involved in the collection of the majority of the gold exploration data since 1989 and prior to 2014 include: Triton Resources Ltd ("Triton") 1989-1999, Triton and Sons of Gwalia Ltd ("SOG") 2000-2004, and Navigator Resources Ltd ("Navigator") 2004-2014.				
	The bulk of the data has not been fully verified regarding quality, accuracy and reliability.				
	Verification of sampling and assaying techniques and results prior to 2004 has limitations due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories, over a twenty year period.				
	No quality control assay checks were conducted by Triton. The reliability of the bulk of the assay data used in the resource estimation, originally sourced from Triton (97.5%), can't be confirmed. QA/QC procedures were regularly conducted by Navigator and SOG however this data comprises a very small portion of the resource estimation.				
	An independent validation check by McDonald Speijers (2009) resulted in 25 holes (12 being positioned at Forgotten Four and Krang) being selected at random for which 21 original hardcopy logs could be located and 20 corresponding lab reports. Correlation between this data was good.				
	There is always a risk with legacy data that sampling or assaying biases may exist between results from different drilling programs due to differing sampling protocols, different laboratories and different analytical techniques.				
	The data base displays some discrepancy (which is expected considering the age of the information), particularly geological logs but there is a low rate of error in the sample and assay date base. Even though incomplete the database has been accepted as reliable and only minor discrepancies were noted. However there is not enough information in the old drillhole assay files to determine that the data is completely accurate and reliable thus the classification of the resource has been downgraded to Inferred, even though in some places the drill spacing is relatively close.				
	There has been no adjustments or calibrations made to the assay data recorded in the supplied database.				
Site Visit	KIN's geological team have conducted multiple site visits.				
	Dr Spero (Competent Person) of Carras Mining Pty Ltd ("CM") was involved in the Leonora area at the Harbour Lights and Raeside areas during the 1980s, and is familiar with the geology and styles of mineralisation within the Raeside Project area.				
	Messrs Mark Nelson and Gary Powell (Competent Persons) also conducted site visits to the resource areas.				
Geological Interpretation	The Raeside Project area is located 10km ESE of Leonora 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.				
	Mineralised zones at Forgotten Four are mainly hosted by mafics however the uppermost (strongest) zone of mineralisation appears to be positioned just below the lower contact of overlying sediments, and one of the lower zones appear to coincide with a sporadically developed				
	sediment wedge in the mafic rocks. The sediments are also mineralised. At the Forgotten Four the strongest zone of mineralisation is just below the lower contact with the overlying carbonaceous shale and sediments. The bulk of the mineralisation is hosted by dolerite along the upper contact with the interbedded shale and the quartz diorite. There are at least two lodes at Forgotten Four, one of which was partly mined by Triton (55,839t @ 3.92 g/t Au for 7,030oz Au) the second lode occurs in the hanging wall to the south.				
	Mineralisation at Krang appears to be broadly related to the metasediments however, once again, no convincing geological boundaries are defined. Along the eastern side of the deposit mineralisation appears to be broadly associated with the contact zones between mafic and metasedimentary units. Some of the mineralisation is associated with massive quartz-pyrite-				

Criteria	Commentary					
	arsenopyrite lodes which display high but erratic grade. Gold mineralisation occurs internal to the quartz dolerite unit which displays varying dips ranging from 30° to 60° to the northeast; interpretation suggests two different structural styles. Mineralisation occurs in at least four separate pods over a continuous strike length of about 700m.					
	Alternative interpretations of the mineralisation may have an effect on the estimation, however it is unlikely that there would be a gross change in the interpretation, based on current information.					
Dimensions	Forgotten Four: 112 holes intersected mineralisation amounting to 1,981m of intersected mineralisation over a tested area covering 520m of strike and 350m width.  Krang: 201 holes intersected mineralisation amounting to 2,629m of intersected mineralisation over a tested area covering 650m of strike and 500m width.  The ore zones are obviously much narrower but no specific numbers are quoted.					
Estimations and Modelling Techniques	The resource estimate was obtained using a 3D block model "Recovered Fraction" (RF) technique. This is a pseudo probabilistic method. Block models were generated filling the 3D wireframes of the mineralised zones with cells. Bulk densities were assigned using oxidation codes as per the data base, assay top cuts were applied, and assays were composited over 2m intervals. Block models were estimated using a range of cut offs, and anisotropic inverse distance cubed interpolation was carried out, under zonal control. The method was implemented in Datamine					
	A search radii of 50m, 40m and 2m was used for dip, strike and cross-dip for Forgotten Four, and 20m, 30m and 3m for Krang. Search radii was determined relative to drill density.					
	Parent block sizes were 4m (X), 12.5m (Y) and 4m (Z) for Krang, and 4m (X), 10m (Y) and 4m (Z) for Forgotten Four. Sub cells were 2m (X), 6.25m (Y) and 1m (Z) for Krang and 2m (X), 5m (Y) and 1m (Z) for Forgotten Four. Blocks are deemed appropriate relative to drill data.					
	Estimates were made with no loss or dilution.					
	Top cuts selected ranged from 5-12g/t Au for Forgotten Four and 4-16g/t Au for Krang.					
	Triton mined a trial parcel at Forgotten Four in 1990 (6,280t @ 5.18g/t Au) then extended the open pit to 40m in 1992 (43,359t @ 4.15g/t Au and a low grade stockpile of 6,200t @ 1.0g/t Au), processing the ore at the Harbour Lights plant.					
	No by-products are to be recovered.					
	No assumptions are made regarding selective mining units.					
	No assumptions are made regarding correlation between variables.					
	Wireframes of lodes based on a 0.2 g/t cut-off grade envelop were used as hard boundaries to constrain the interpolation. Drillhole lithology descriptions are limited and contradictory, thus lodes were constrained by grade and quartz content.					
	Varying top cuts were applied following a series of processes including log-probability plots, Iterative tests, log histograms and cross section inspection.					
	To check that the interpolation of the block model honoured the drill data, validation was carried out comparing the interpolated blocks to the sample composite data, the validation plots showed good correlation thus the raw drill data was honoured by the block model.					
Moisture	Tonnages and grades were estimated on a dry basis only.					
Cut-off Parameters	Operating cost estimates provided by KIN indicate a break even mill feed grade for deposits in the Raeside area is likely to be in the vicinity of 0.5g/t Au.					
Mining Factors or Assumptions	Previous mining at Forgotten Four is mostly in the oxide/transition zone. The metallurgical performance, which is an unknown factor, may be poorer in fresh rock.					

Criteria	Commentary							
Metallurgical Factors or Assumptions	Mining of Forgotten Four (1990-1992) encountered the presence of graphitic material, in the deeper fresher portions of the open pit, resulting in lower metallurgical recoveries. However metallurgical testwork in 1995 showed recoveries in the high nineties for oxide and historical mining showed recoveries in the low nineties for transition and fresh. Krang oxide returned a recovery in the high nineties for oxide material from metallurgical testwork.							
	Graphitic black shale may be preg-robbing during processing; arsenopyrite may be a metallurgical issue in transition and fresh ore zones.							
Environmental Factors or	The Forgotten Four open pit and its associated waste rock landforms are encompassed by the current mineral resource estimate work.							
Assumptions	Historical mining at Forgotten Four, including waste rock landforms have not demonstrated any impacts that cannot be managed in normal operations. Studies completed to date, on ore and waste characterisations for previous and potential mining and processing operations, have not identified any potential environmental impacts that cannot be managed by normal operations.							
Bulk Density	In 2009, McDonald Speijers completed a resource estimation for the Raeside project, state Leonardo and Krang are more like Forgotten Four than Michelangelo in terms of host lit and therefore adopted the reported mining-based values from the historical Forgotten F pit for Leonardo, Krang and Forgotten Four.  The following bulk density parameters were used for Forgotten Four and Krang:							
	Deposit Name	Oxide	Transition	Fresh	7			
	Forgotten Four	1.9	2.35	2.65				
	Krang	1.9	2.35	2.65				
	Forgotten Four and Krang. MS used a pseudo-probabilistic technique called the 'recovered fraction' methodology, which is a probabilistic technique that estimates the volumetric proportion of each block likely to be above a particular cut-off grade. CM is familiar with this methodology as it had been used in several gold orebodies in the Eastern Goldfields, and after reviewing the models, deemed them to be compliant and appropriate for use in reporting of JORC 2012 Resources.  Whilst the MS Resource estimation of Forgotten Four and Krang was found to be acceptable, as no new data exists to confirm the veracity of the historic data (although a thorough analysis was carried out by MS of available data at the time), it is deemed prudent to re-classify Forgotten Four and Krang from their MS Indicated classification to that of Inferred. It is recognised that this approach may be conservative in classification, however it is anticipated that any further new data is expected to validate the historic data as has been the case for all other deposits to allow reclassification.							
	For reporting purposes the 2009 MS models were also optimised using a gold price of AU\$2,200/oz and a revised cut-off grade of 0.5 g/t Au (which is lower than that used in the 2009 resource estimation) and is consistent with current resource reporting practice. As the data used by MS is not as comprehensive as that currently available for the other deposits, and the methodology is different to that used by CM, it warrants reporting with separate Table 1 Reports.							
Audits and Reviews	There have been no external audits or reviews. CM carried out an audit and review of Forgotten Four and Krang and determined that due to the quality of data not being comparable to that for other KIN deposits, the resources were classified as Inferred until further drilling data is obtained.							
Discussion of Relative Accuracy and Confidence	Due to the lack of available QA/QC information the quality of pre Navigator drill hole assay data is largely unknown, the limited data that is available indicates no serious problem however the reliability of the historic assay data cannot be adequately demonstrated.							