

ASX Announcement

27 November 2017

ASX Code: KSN

Share Price: A\$0.02 Shares Outstanding: 992,957,093 Market Capitalisation: A\$19.9m Cash: A\$3.1m (Sept 30, 2017)

ACN 009 148 529

Board and Management

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Andrew Corbett Managing Director

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Misima JORC Resource 2.8 million ounces Au

Highlights

- The Misima Gold Project hosts a JORC2012 resource of 2.8Moz (82.3Mt @ 1.1g/t Au)
- Significant new exploration potential exists at Umuna East and Misima North, both areas are outside the reported JORC Resource
- Field exploration has recommenced, refining drill targets for 2018

Kingston Resources Ltd (ASX:KSN) is pleased to announce the results of a mineral resource estimate for the Misima Gold Project, reported in compliance with the 2012 edition of the JORC Code. The Misima resource contains a total 82.3Mt @ 1.1 g/t Au and 5.3 g/t Ag for a total of 2.8Moz Au and 13.9Moz Ag. This represents a 22% increase in contained gold relative to the recent NI43-101 resource.

The resource estimate was completed by Mr Scott McManus of Skandus Pty Ltd, who also reported a Canadian NI43-101-compliant Misima resource for WCB Resources in August 2017. There have been no changes to the project since that estimate was announced.

"The Misima Gold Project is a world-class deposit, and this initial JORC resource sets a benchmark for our exploration going forward" commented Kingston's Managing Director Andrew Corbett. "We believe there is enormous potential to significantly increase the contained ounces from drilling the near-mine extensions, initially focussing on outcropping mineralisation at Umuna East and Misima North. The resource is open at depth, so there is also excellent potential to extend it down dip".

There is an additional 300-800koz Au (10-20Mt at 0.8-1.2g/t Au) of mineralisation within the block model which falls outside the resource, but which is inside the interpreted zones of mineralisation, and is essentially the down-dip extents of interpreted mineralisation beyond the current limits of drilling. This material is only conceptual in nature and there has been insufficient exploration to define a Mineral Resource, it is therefore classified as an Exploration Target under JORC2012. It is also uncertain if further exploration will result in the target being upgraded to a Mineral Resource.

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Exploration to drive resource growth

Kingston's primary focus for exploration, including planned drilling for 2018, remains the significantly underexplored Umuna East and Misima North areas. These areas sit outside the current Resource and Exploration Target but host extensive gold anomalism in both channel and soil sampling. Kingston believes these areas offer excellent potential for additional, near-surface, mineralisation.



Figure 1: Priority target areas. Work to date has defined over 7km of prospective strike at Misima.

The Company is also pleased to note that field work has recommenced, with Project Manager Charles Yobone and Project Geologist Kolbe Bare now on the island mobilising a team of local field technicians. Their immediate priority is to recommence mapping and trench sampling on the mineralised splays in the Umuna East area, in order to infill previous data, determine continuity of mineralisation and define drilling targets for 2018. Drilling will be targeting near-surface mineralisation proximal to the current resource on the eastern side of Umuna pit.

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Deposit	Material	Resource	Cutoff	Tonnes	Gold	Silver	Au Moz	Ag Moz
		Category	(g/t Au)	(Mt)	(g/t Au)	(g/t Ag)		
Umuna	Oxide	Indicated	0.5	3.2	0.9	11.7	0.1	1.2
		Inferred	0.5	5.7	1.0	13.6	0.2	2.5
	Primary	Indicated	0.5	34.0	1.1	4.2	1.2	4.6
		Inferred	0.5	32.7	1.1	4.7	1.1	5.0
	Sub-total	Indicated	0.5	37.2	1.1	4.9	1.3	5.8
		Inferred	0.5	38.4	1.0	6.1	1.3	7.5
	Total	Combined	-	75.7	1.1	5.5	2.6	13.3
Ewatinona	Oxide	Inferred	0.5	1.0	0.9	3.4	0.03	0.1
	Primary	Inferred	0.5	5.6	1.0	3.1	0.2	0.6
	Sub-total	Inferred		6.6	1.0	3.2	0.22	0.7
Misima Total		Indicated		37.2	1.1	4.9	1.3	5.8
		Inferred		45.0	1.0	5.6	1.5	8.1
Total Mineral Resource				82.3	1.1	5.3	2.8	13.9

Table 1: Misima JORC resource, November 2017. *

* JORC 2012 definitions were used for the Mineral Resources.

Rounding may cause apparent computational errors.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The new resource total of 82.2Mt @ 1.1g/t Au compares favourably to the historical 1986 pre-mining mineral inventory published by Placer Dome, which was 76.1Mt @ 1.19g/t Au for 2.9Moz at a 0.5g/t Au cut-off¹. Placer subsequently produced 3.7Moz Au from the project before mining ceased in 2001, during which time the operation was recognised as having one of the world's lowest cost conventional gold extraction plants². In 2001 the gold price was less than US\$300/oz. With a production history of approximately 4Moz and a current resource of 2.8Moz, Misima now has a total known gold endowment in excess of 6Moz. This positions Misima as a world-class gold deposit in a region known to host giant gold and copper-gold occurrences.

With excellent potential to add to the resource through ongoing exploration at a number of large-scale, advanced exploration targets, Kingston believes it is well positioned to continue growing the resource base at Misima.

¹ 1986 Misima Gold Deposit Feasibility Summary (Placer Dome internal report).

² Kennedy, P: Misima Mines milling operation: one of the world's lowest cost conventional gold extraction plants. In AusIMM Proceedings of the PNG Geology, Exploration and Mining Conference 1994.

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Cut-Off (Au g/t)	Tonnes (Mt)	Au g/t	Au Moz
0.5	82.3	1.1	2.8
0.6	62.8	1.2	2.5
0.7	49.5	1.4	2.2
0.8	39.9	1.5	2.0
0.9	32.8	1.7	1.8

Figure 2: Tonnage-Grade curve and summary data table, combined Misima JORC Resource, Novemebr 2017.



Figure 3: Long section of the Umuna area showing current drilling, Whittle US\$1,200 optimisation shell and the JORC reource limits.

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Figure 4: Umuna East. Widespread mineralisation at surface on a number of sub-parallel splay structures.



Figure 5: At Misima North, historic mining and Placer geochemistry has defined anomalism over an additional 3km of prospective strike.

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About Kingston Resources

KSN is a metals exploration company. Currently the Company's priority is the world-class Misima Gold Project in PNG, which contains a JORC resource of 2.8Moz Au, a production history of over 3.7Moz and outstanding potential for additional resource growth through exploration success. Kingston currently owns 49% of the Misima Gold Project and is earning in to 70%.

The Company also holds an attractive portfolio of lithium exploration tenements covering four key project areas in the Northern Territory, where the Bynoe Project is home to some exciting new discoveries and the Arunta Project lies within a significant pegmatite field. In addition, the Livingstone Gold Project holds a 50koz resource and is the site of a number of high grade historic intersections. The Company is well funded to advance its exploration projects.



Figure 6: KSN project locations.

Competent Persons Statement

The technical and scientific disclosure of the Misima Indicated and Inferred Mineral Resource estimate has been reviewed and approved by Mr Scott Andrew McManus, a Member of the Australasian Institute of Geoscientists and a Registered Professional Geologist (Information Geoscience And Mining), and a full time employee of Skandus Pty Ltd who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a competent person as defined by the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr McManus is independent of KSN and has reviewed and approved the contents of this news release with respect to the Mineral Resource estimate.

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Misima Gold Project Technical Note

Milne Bay Province, Papua New Guinea

Competent Person: S A McManus, RPGeo, MAIG, BAppSci(Geology), GradDipAppSc(IT), GradDipArchaeology, GradCertStatistics (Geostatistics)

Introduction

This Technical Note on the Misima Island Gold Project (the Property), has been prepared by Skandus Pty Ltd of Port Macquarie, Australia on behalf of Kingston Resources Limited (KSN or the Company) of Sydney, Australia. The Property is located on Misima Island within Milne Bay Province of Papua New Guinea (PNG) and about 625km east of Port Moresby, the capital of PNG. The note has been prepared to form part of the technical documentation along with the "Misima Island Gold-Copper Project Technical Report" prepared for WCB Resources Limited (WCB) with an effective date of 18th August 2017 to underlay and form the technical documentation framework for an ASX public release accompanied by a JORC 2012 Table 1 in accordance with the JORC Code 2012.

The Note summarises the mineral resource in terms of JORC 2012 guidelines in regards to reporting that part of the resource that has "reasonable prospects for eventual economic extraction" and discusses the subtle differences in reporting between the NAT – Inst 43-101 code and JORC 2012 code in regards to "reasonable prospects for eventual economic extraction" and the reason for a difference between the two reported mineral resource estimates.

In June 2017, Skandus was requested by WCB to review and reinterpret the geology of the Umuna and Ewatinona projects at Misima to incorporate the current WCB geological understanding based upon the WCB field work, trenching, structural analysis, alteration mapping and sampling. This work included changing some key parameters as well as refining mineral wireframes and adding new wireframes. This required the re-estimation of the Mineral Resource Estimate using similar parameters to that used in the 2015 Nat-Instrument 43-101 technical report (Shannon & Stoker 2015), with modifications to parameters made where necessary due to new or modified interpretations. The report (McManus 2017) is available on the Canadian Securities Administrators (CSA) "System for Electronic Document Analysis and Retrieval" (SEDAR).

In October 2017, Skandus was requested by KSN to prepare a Table 1 in accordance with the JORC Code 2012 and to restate the Mineral Resource Estimate unconstrained by a pit (as used in McManus 2017) but still to only consider those parts of the Mineral Resource Estimate that has "reasonable prospects for eventual economic extraction" using the JORC 2012 definitions. After discussions between KSN and Skandus, in regards to the cut-off value used to report the resource, it was decided that a cut-off at 0.5g/t Au be an appropriate value.

After consideration of grade and geological continuity, the exploration potential, the data constraints shown by the USD \$1,500, \$1,400, \$1,200 and \$1,000 pits having similar 'bottoms', topography controls, likely mining style and metallurgical factors from previous mining that the total Misima resource is;

Indicated 37.2 Mt at 1.1 g/t Au (1.3 Moz) and 4.9 g/t Ag (5.8 Moz) and

Inferred 45.0 Mt at 1.0 g/t Au (1.5 Moz) and 5.6 g/t Ag (8.1 Moz).

For a total of 82.3 mt at 1.1 g/t (2.8 Moz) and 5.3 g/t Ag (13.9 Moz) combined.

There is also Exploration potential estimated at 10-20 million tonnes at between 0.8 g/t to 1.2 g/t Au and has been classified as an Exploration Target. This material is only conceptual in nature and there has been insufficient exploration to define a Mineral Resource. It is also uncertain if further exploration will result in the target being delineated as a Mineral Resource.

Differences in Reporting Codes

In the Nat-Inst 43-101 report, the CIM (2003) best practice guidelines and CIM Definitions (CIM 2014) need to be followed. When reporting Mineral Resources only those parts of the resources that have "reasonable prospects for eventual economic extraction" should be reported. The Definitions and best practice guidelines then request that the parameters and assumptions used to assess the likelihood of eventual economic extraction be clearly stated

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and a list of factors be considered. In a project that is likely to be mined through extraction from a Pit, a simple solution is to prepare a set of optimized Whittle pits that include costings, pit slopes, recovery and the other factors that the CIM (2014) definitions require. In practice, this means that it has become accepted practice to only report that part of the resource estimate that falls within an optimized Pit when reporting a NAT-INST 43-101 Mineral Resource.

In the JORC 2012 code, as set out in section 20 and later in section 3 of table 1, Cut off parameters, Mining factors and assumptions, Metallurgical factors or assumptions Environmental factors or assumptions need to be considered as part of the process of determining reasonable prospects for eventual economic extraction. The key difference between the two codes is the modifying sentence in each of the criteria that the assumptions and parameters may not be rigorous. Although any assumption despite its level of rigour should be reported with an explanation.

The JORC 2012 Mineral Estimate, is not a total mineral inventory and it implies that an assessment, that may or may not be preliminary, has been undertaken, in regards to all matters likely to influence the prospect of economic extraction. *"It is a realistic inventory of mineralization which, under assumed and justifiable technical, economic and development conditions, might, in whole or in part, become economically extractable."* (JORC 2012)

In practice, Whittle Pits are often run as part of a pre-feasibility in JORC 2012 resource estimates and to assist with determining an appropriate cut-off grade with which to report the resource, but are rarely used to constrain the resource estimate reported, with the consideration that such a practice is approaching Mineral Reserve reporting.

Consideration of Parameters and Assumptions

In consideration of what parts of the Mineral Resource to report as likely to become economically extractable, consideration has been given to the following factors;

Umuna

Environmental, social and geographical constraints:

- The area immediately around the mine lease has been subject to historical mining and is all secondary regrowth jungle and forest.
- Socially, the local people are accepting of mining, and after the closure of the Placer mine, many of the local people now work on fly-in-fly-out rosters to other mines. The local community brings a significant level of mining talent and expertise to any future project as well as support for re-opening the mine.
- Topographically, ore can be accessed early on with minimal stripping from some parts of the deposit.

Metallurgical factors:

• There is a significant history of mining of the project with supporting mill records. The Recovery, tails and milling factors and assumptions are well known.

Mining Considerations:

- Geotechnical, pit wall stabilities and slope assumptions and parameters are well known from previous mining.
- Mining would be open Pit.
- Selective mining unit and grade control assumptions and parameters have all been based on previous mining.

Cut-Off Considerations:

 During the 2013 Nat-Inst 43-101 report (Shannon & Stoker 2013), the cut off grades used to report blocks above was determined using the then optimized whittle pit at USD\$1,200. This was again used in 2015 (Shannon & Stoker 2015), and 2017 (McManus 2017) despite cut-off grade analysis undertaken during those two later reports showing that a lower cut-off could be achievable. For reporting the resource KSN and Skandus consider that the 0.5 g/t cut-off as being appropriate when considering what would be likely mill feed and likely incremental ore values.

Continuity considerations:

• During the classification, care was taken to ensure that contiguous blocks were classified in section and that a computer generated 'above a value' classification was not the main driver to avoid the 'spotted dog'

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complex. (Stephenson, 2006). This also ensures that small pods of distant ore are not included in the reported resource that may not be economically extracted.

Exploration Considerations:

- Placer was mining to a designed mine closure, and so drilling beyond grade control was not undertaken, and very little in-pit or in-mine exploration drilling was undertaken. The small amount that was, delineated the continuation of the mineralized structure at depth –but not with the density of data required to report resources.
- 310° striking mineralization as seen in the Tonowak and Kulumalia structures, which is often formed in shoots within the structure is not well defined by the drilling due to drill orientation and the main Umuna structure and contact being the focus of most drilling, it is the belief of the author that the intersections of the ore-shoots with the main Umuna Structure may account for much of the positive reconciliation in both tonnes and grade that was experienced during the life of the mine.
- Alteration and structural features point to a broader porphyry system that has not been tested with a primary target being the intersection of the Tonowak and Umuna structures at depth.
- Drilling density and thus block estimation has limited the bottom of the various whittle pit optimizations with little change in the depth of the pit in some areas due to a lack of drill data.

Ewatinona

Due to the uncertainty in the geological interpretation and after consideration of the assumptions and parameters, its distance to the Umuna project and likely location of a mill, and the strong focus that would be on the Umuna Project and the Ewatinona projects size in comparison to the Umuna project, it has been thought best to leave the Ewatinona resource estimation constrained by the \$1,400USD Pit used in the Nat-Inst 43-101 Resource Estimate.

Results

The following table has been tabulated from the same resource as that estimated during McManus (2017). For Umuna, the blocks within Indicated and Inferred classification, in search volume 1 or 2 and above the indicated cut off for its oxidation class has been used. For Ewatinona, the blocks have been further limited by the USD \$1,400 pit.

Deposit	Oxide	Reclass	Cutoff	Tonnes	Gold	Silver	Au Moz	Ag Moz
			g/t Au	Mt	g/t Au	g/t Ag		
Umuna	Oxide	Indicated	0.5	3.2	0.9	11.7	0.1	1.2
		Inferred	0.5	5.7	1.0	13.6	0.2	2.5
	Primary	Indicated	0.5	34.0	1.1	4.2	1.2	4.6
		Inferred	0.5	32.7	1.1	4.7	1.1	5.0
	Sub-							
	total	Indicated		37.2	1.1	4.9	1.3	5.8
		Inferred		38.4	1.0	6.1	1.3	7.5
	Total	Combined		75.7	1.1	5.5	2.6	13.3
Ewatinona	Oxide	Inferred	0.5	1.0	0.9	3.4	0.03	0.1
	Primary	Inferred	0.5	5.6	1.0	3.1	0.2	0.6
	Sub-							
	total	Inferred	-	6.6	1.0	3.2	0.22	0.7
Misima Total		Indicated		37.2	1.1	4.9	1.3	5.8
		Inferred		45.0	1.0	5.6	1.5	8.1

Notes: JORC 2012 definitions were used for the Mineral Resources.

Rounding may cause apparent computational errors

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

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References

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JORC Code, 2012 Edition – Table 1 Umuna Gold Deposit, Misima Island

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 The project was sampled using HQ, PQ and NQ triple tube diamond drill holes (DD) (540 holes for 88,255m), Reverse Circulation (RC) (1,307 holes for 146,740m) and 144 Trenches/Channels cut with a diamond saw (for 9,212m) DD samples were logged, photographed and marked up in lithological and structural units and sampled in 2m lengths. Whole Core was submitted due to issues with splitting the core. RC samples were taken using a riffle splitter into 1m samples. These were further representatively split and combined into a 2m composite. If Samples were wet, a tube splitter was used instead of a riffle. Trench samples were mapped and sampled in 2m intervals. Sample preparation was carried out on site through jaw crusher than a hammer mill, and a split sent to a lab. No data prior to 1978 has been used in the estimate From 1978 to 1987 Gold was determined using a screen fire assay (after AAS) and Silver, Copper, Lead and Zinc using an AAS at Fox laboratories in Sydney. From 1987-2000 Gold was determined using a screen fire assay and Silver, Copper, Lead and Zinc using an AAS at the Misima Mines Pty Ltd (MMPL) on site lab. Where gold was > 0.5 Auppm a check assay was carried out at Classic Labs in Townsville using screen fire assay. From 2012-2015 WCB Resources Ltd (WCB) Drill Assays were carried out at ALS using Au-AA25 using a 30g charge and ME-ICP61 for a suite of 33 elements
Drilling techniques	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	• Diamond drilling (DD) accounts for 36% (based on metres) of the drilling used in the resource and comprises of PQ, HQ and NQ sized triple tube core. Drillhole depths range from 5 to approximately 433 m with an average depth of 151m. Some Drill core was oriented to assist in structural interpretation. RC Drilling accounts for 60% of the drilling in the resource. RC diameter ranged from 4" to 5". Drillhole depths range from 15 to 269m with an average depth of 120m.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 DD Recovery was determined at the drill site while core was still in the inner tube of the wire-line core barrel. RC recovery was assessed at the rig, and where suspect it was noted in the log sheets. Attention was paid to expected sample weights. MMPL procedure document outlines the recovery procedures for DD and RC drill holes. Larger diameter PQ, HQ and NQ size core was used to provide more improved recovery and triple tube drilling employed to preserve core in a more coherent state for logging and also to improve recovery in very broken or clayey lithologies. RC Samplers were to keep an eye on sample weights produced at the rig and advise the geologist if the weight was more or less than expected. RC samples were riffle split to produce a representative sample on site where the sample was wet a tube splitter was used. Diamond core was not split, with the whole drill core been taken for sample. There does not appear to be a correlation between mineralisation and poor core recovery for the DD holes that have recovery recorded. Core recovery was extremely variable during the project. WCB holes have good recoveries with 90+% in the mineralised intercepts. No bias and grade has been noted. Recovery of RC samples, where poor, was noted in the drill logs, and intervals marked as suspect.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 All core and chips have been suitable logged to an industry standard and is appropriate to support resource estimation. Diamond core has been qualitatively logged for lithology, size, colour, texture, alteration, structure, weathering, and a mixture of qualitative and quantitatively logged for mineralisation, structure orientation, geotechnical and veining. RC chips were qualitatively logged for colour, weathering, lithology, alteration and mineralisation quantitatively logged. Magnetic susceptibility was logged for all drill holes. All core was photographed wet. Digital and Analogue photography is available for DD core. All intervals for RC and DD has been logged. For a total of 244,207m
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in 	 Core was not sub sampled as the whole core was taken as a sample. Quartered samples were taken as required for petrography. Chip samples were riffle split (tube split if the sample was wet) and sampled dry, which was noted in log sheets. All 2 m composites were assayed. Anomalous or suspect intervals were re-assayed from coarse rejects. Sample preparation for all samples followed MMPL or WCB standard methodologies which are appropriate.

Criteria	JORC Code explanation	Commentary
	situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	 QAQC procedures included checking the homogeneity of the sample at the hammer mill split via duplicates, assay reliability via inter lab checks of lab pulp and coarse rejects, free AU potential via screen fire assay, as well as the use of matrix specific standards, blanks and field duplicates. All samples that had reported gold had their coarse rejects kept in labelled core trays in the core yard for later checks and duplication as required. (This material is no longer available due to the fast decomposition of the material) Field Duplicates were taken to ensure representative sampling. Diameter of core sizes employed are considered appropriate to the grain size of the gold and in line with general industry practice for epithermal style gold deposits. Field duplicates were routinely checked to ensure that they reported within acceptable limits. Screen fire assays were routinely taken to check for the presence of free gold and the gold sizing.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 All assay techniques used during the three stages of drilling used in the estimate are appropriate. The technique is total. No geophysical tools were used to determine any element concentrations used in this resource estimate. Grind size checks were performed by the labs and reported as part of their due diligence. One reference sample was inserted into laboratory dispatches every 50 samples submitted. The various standards used were: < 5 ppb Au, > 0.1 ppm Au and > 2.5 ppm Au. The geologist who logged the hole was required to select the standard that he thought best reflected the assay result expected for that batch of 50 samples. Sixty gram samples of standards were weighed from the original shipment of certified reference material. Blanks, consisting of unmineralised limestone, were used from at least 1999. Duplicates of all samples and the reject from the jaw-crusher and hammer-mill stages of subsampling were retained at the geology storage shed for reassay if required. Two pulps were made from the hammer-milled samples that had sample numbers ending in zero; i.e., every tenth sample. The letters "A" and "B" were added to these sample numbers and both were presented to the mine laboratory for assay. The rejected hammer-milled pulp from the "A" sample was then split: one of these splits was sent to ALS, Townsville, Australia and the other to Classic Laboratories also in Townsville, Australia as check samples.

Criteria	JORC Code explanation	Commentary
		Files have been provided to Australian Mining Consultants (AMC) during the 2013 and 2015 resource estimate and to Skandus which provide evidence that the documented sampling protocols were carried out across the Property. They also include some of the QA/QC checks and results between the years 1978 and 2004 at Misima and nearby deposits, including Ewatinona.
		 The files are not sufficient to demonstrate the continuous implementation of the QA/QC system or results throughout the drilling history. However, the files do indicate that sampling and assaying protocols and a level of QA/QC checks were in place certainly for some of the drilling programs during these years. AMC reviewed the available QAQC data in terms of validity of procedures and the spatial impact of results on the 2015 Mineral Resource. In summary: An industry standard QA/QC system was in place during early years of drilling, from 1978 to 1987 There was an awareness and some focus of sampling limitations and protocols in 1990 and steps were taken to improve sample preparation A more comprehensive QA/QC system was in place from 1999 to 2004 Drillholes from 2000–2004 appear to have had undergone regular QA/QC checks, and are therefore likely to have a higher level of confidence. Although it would be desirable to have demonstrated higher precision in the samples, the QA/QC data indicates that the assays were unbiased. There is sufficient information on sampling and assaying protocols, supported by sufficient QA/QC and mine production data to conclude that the sample database is adequate to support Measured or Indicated Mineral Resource estimates. Skandus reviewed MML mine memos relating to QAQC and concluded that there was an ongoing active program where issues were identified and efforts were taken to improve process, this also included a site visit by Pitard (1990) which coincides with the site efforts to improve sampling
Verification of		limitations and protocols.
sampling and	 I ne verification of significant intersections by either independent or alternative company personnel. 	 Significant intersections were inspected in the field by staff geologists to confirm nature of mineralization and verify integrity of sampled intervals.
assaying	The use of twinned holes.	 Twinning had not been regularly carried out, during 2013 and 2015 AMC
	Documentation of primary data, data entry procedures, data	carried out a review of drill holes close by using boundary tools in Datamine
	verification, data storage (physical and electronic) protocols.	and found acceptable correlation.

Criteria	JORC Code explanation	Commentary
	 Discuss any adjustment to assay data. 	• All Data, data entry procedures, data verification and data storage has been carried out in accordance with MMPL and WCB SOPS. Historical records are currently stored at a facility in Townsville whilst WCB Records have been transferred to KSN. Digital records are stored in various electronic formats. Whilst there are database formats of the drill data it is recommended that an appropriate drillhole database is used to house the MMPL (which was extracted from the GEOLOG system on behalf of WCB) and WCB data. KSN is in the process of merging the drillhole database.
		 Skandus carried out its own validation checks on the drill hole files and original GEOLOG files provided after transfer and found there to be very few validation issues. Skandus also reviewed all MMPL data and data protection SOPS, and selected documentation and found all work had been carried out to acceptable industry standard and care. Skandus has experience with the GEOLOG system and also reviewed original GEOLOG format files, and scans of Analogue GEOLOG log forms. Despite the data not being in a suitable database the data quality is good. No adjustments or calibrations were made to any assay data used in this estimate.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Drillhole collar surveys were conducted as soon as possible after drilling. Downhole surveys, to maintain a record of hole deviation, were conducted on angled cored holes after each 50 m was drilled. Packets containing downhole survey discs were present in several scanned images, indicating that an Eastman single shot camera was the survey tool in use at the time. During recent resource estimation work, it was established that all survey azimuths used in the GEOLOGs were magnetic, allowing easy adjustment of the down-the-hole survey data for the grid being used. In the recent diamond drilling completed by WCB, down hole surveying was conducted on intervals approximating every 30 metres. GDA94 datum (Zone 56). All data is provided in either GDA94, AGD66, Truncated AGD or MMPL local mine grid. The estimate has been carried out in the local MMPL mine grid.
		 There is good documentation outlining the conversion methodology. LOCAL MMPL X = -5,146,863 + (0.8420881 * AMGX) + (0.5400387 * AMGY) LOCAL MMPL Y = -7,149,444 + (-0.540031 * AMGX) + (0.8420999 * AMGY) Topographic control was checked during 2015 by a new topographic survey
		conducted by WCB. AMC during the 2015 report reviewed the control with

Criteria	JORC Code explanation	Commentary
		drillhole collars and end of mine surveys and found it was sufficient to support measured or indicated mineral resource estimates.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Drillhole spacing is approximately 25m by 25m with downhole sampling predominantly at 2m intervals adjacent to the main Umuna zone, at depth and distal zones have a 50m x 50m drill hole spacing. The majority of the RC and diamond holes were angled holes at a variety of dips and orientation, predominantly normal to the structure of interest. Some historical drilling was vertical until orientation of target structures were well known. For the size of the deposit and expected mining block (and historical mining block), the spacing gives good coverage of the mineralised zone and at a suitable spacing to estimate blocks. Sample spacing has been taken into consideration for classification of the resource blocks. Samples were composited to 2m.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Based on the current geological model of steep structurally controlled and gently dipping strata bound mineralisation, the orientation is appropriate for each of the differently oriented zones and styles. No orientation based sampling bias has been identified in the data at this point.
Sample security	The measures taken to ensure sample security.	• MMPL and WCB had industry standard SOPS and protocols for governing sample security. Skandus interviewed previous senior technicians and Geologists from WCB and MMPL as well as reviewed the SOP documents and found that sample security on historical samples was adequate, this is backed up by the physical remnants of material such as sample tags, lock ties, bags and drums used during the WCB campaign still in storage at the WCB site office.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Skandus, has reviewed sampling memos and a report by Pitard that audited and reviewed the MMPL sampling in 1990. Pitard identified some issues and made recommendations to improve sampling. Documentation shows that these recommendations where put into practise by MMPL. WCB sampling and data was reviewed by AMC during a 2013 technical report. AMC found that the core handling, logging and sampling was carried out to industry standards.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Misima Island is part of the Louisiade Archipelago within Milne Bay Province of PNG. It is situated in the Solomon Sea about 625 km east of Port Moresby, the capital of PNG. The site is located at an approximate latitude of 10° 40' South and longitude of 152° 47′ E. The Property consists of a single Exploration Licence, (EL) 1747, comprising 53 sub blocks, covering a total area of 180 km². This EL is valid and is currently in the renewal process to extend the licence to 20 March 2019. All conditions pertaining to compliance of the title have been met. The Property is located on the eastern portion of the island and includes the historic mining areas of Umuna and Quartz Mountain. There are no known impediments. KSN holds title via a farm in agreement between WCB Resources Ltd and WCB Pacific Pty Ltd, Pan Pacific Copper Ltd and Gallipoli Exploration Ltd which has been extended until March 2019. Gallipoli is the legal entity and tenement holder and is responsible for performing its obligations under the <i>Mining Act</i> 1992
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Idea is responsible for performing its obligations under the <i>Mining</i> fit 1752. 1958–1964 Oceanic Mineral Development Pty Ltd, taken over by Pacific Island Mines (PIM) Diamond drilling / adit development 1964–1967 Oceanic/Cultus Joint Venture (JV) Trenching, diamond drilling 5 holes for 1,383m in 1965, IP survey, U/G sampling new adit, steam sediment sampling 1967 CRA Exploration Pty Ltd (CRAE) Stream sediment sampling at point of entry of all rivers and streams into the ocean 1967–1969 PIM/Cultus Joint Venture (JV) Stream sediment sampling over whole island, ridge and spur soil sampling, percussion drilling, diamond drilling 1969–1972 Noranda/PIM/Cultus JV - Noranda was operator Diamond drilling of 15 holes for 3,568 m at Mount Sisa copper anomaly, minor trenching at Umuna 1973 Claims not renewed No work carried out 1975–1976 Meneses Explorations Pty Ltd Grid Mapping, Sampling of old trenches 1977–1987 Placer/Meneses JV, Placer was operator Deep trenching, and channel sampling, mapping reverse circulation and diamond drilling 1978–1985 CRAE also in JV, withdrew in 1985 1982 Meneses bought out of IV

	Criteria	JORC Code explanation	Commentary
)			 1987 Placer forms MMPL, Government of PNG becomes 20% shareholder Mining development agreement signed 2012 Barrick Gold Relinquishment of Mining Lease (SML 1) 2012 – 2017 WCB Resource Ltd. Collection and collation of sampling information, historical documentation, sourcing and reconciling production blast hole data to drilled data and 2013 and 2015 resource estimates, topographic surveys to tie in topographic control, water levels, as mined surfaces and collar locations, Converting Geolog drill hole data into a modern format, and carrying out QAQC on the data and conversion with checking against analogue documents and photographs. Reviews of historical assay QA/QC. Work on validating and verifying historical data so it could be reliably used in a modern code compliant context. Compiling of historical information into NAT-INST 43-101 format for modern reporting. 3,669 auger ridge and spur soil samples, helimagentic aeromagnetic survey with processing and interpretation (2,035 line kms of survey), 658 channel samples and geological mapping, analysis of structural measurements, comparative analysis of WCB channel sampling and MMPL channel sampling to confirm validity of MMPL data and drilling of 5 diamond holes into the Mt Sisa area.
1	Geology	Deposit type, geological setting and style of mineralisation.	 Misima Island forms part of the Louisiade Archipelago which is a continuation of the Papuan Fold Belt of the Papuan Peninsula offshore eastwards through the Papuan Plateau. The oldest rocks on Misima are Cretaceous to Paleogene metamorphic rocks, which can be subdivided into the western Awaibi Association and the younger overthrust eastern Sisa Association that is host to the gold and copper mineralization. The two associations are separated by an original thrust fault with later extensional activation. Mineralisation deposit style on Misima Island is best described as Intermediate Sulphidation Epithermal due to the strong association with porphyry Cu Au style alteration, veining and characteristics, the dominance of Ag Zn Pb Au Cu Mn geochemistry as well as complex alteration styles and geometry. Styles of mineralisation observed include multiphase hydrothermal breccia, stockworks both sheeted and three-dimensional, skarn, jasperoidal replacement, and poorly banded vein infill of quartz and carbonate with associated pyrite, galena, sphalerite, barite and minor tetrahedrite. This mineralization can be classified as Intermediate Sulphidation Epithermal Style and appears to be laterally zoned from a well-developed complex base

Criteria	JORC Code explanation	Commentary
		 metal skarn style affiliation outwards to a base metal fracture stockwork vein breccia style of mineralisation. Surrounding the Umuna lode, and most widely developed on the eastern (footwall) side, is a broad peripheral zone of lower grade mineralisation in quartz veins, often occupying shears, and of linear and irregularly shaped volumes of strongly jointed to brecciated rocks. The schists tend to carry shear or breccia mineralisation with a higher frequency of strong jointing and brecciation in the more compact intrusives and Ara Greenschist. Intrusive contacts are commonly brecciated and mineralisation laterally in contrast to the steep attitude of Umuna lode mineralisation. Structurally the Umuna geometry is typical of a complex fault array with a large major fault hosting the majority of the precious metal mineralisation with numerous ancillary splays developed in the footwall to the main structure. The intersection of the splays and the dominant Umuna Fault are loci for zones of well-developed mineralisation. Mineralisation has a dominant structural control however strong secondary stratigraphic controls are also observed in particular where skarn style mineralisation is developed in Halibu Limestone – Ara Schist contacts. A series of north west trending splays intersect and control the loci of the higher-grade material within the Umuna fault zone.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	Exploration results not being reported
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade 	Exploration results not being reported

Criteria	JORC Code explanation	Commentary
	 results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	Exploration results not being reported
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	Exploration results not being reported
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	Exploration results not being reported
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Exploration results not being reported
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Exploration results not being reported

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Drilling of the Umuna zone was conducted between 1978 and 2000 by MMPL. Barrick acquired Placer in 2006. Barrick provided the drillhole data to WCB which was used for the current Mineral Resource estimate. The data was provided in a software format called GEOLOG, and the data was converted to a Microsoft Access format by Mr R F Williams of WIZTECH Information Services, (WIZTECH). WIZTECH personnel had a long history with MMPL, and were familiar with the data. The assay data loaded from the supplied GEOLOG files was checked for quality using standard statistical analysis, including mean pair relative difference (MPRD), scatterplots and summary statistical tables. The information consisted of files for surveys, assays and geology for 2,640 drillholes and trenches, including 1,945 drillholes and 144 trenches in the Umuna area In addition, production blasthole data for the Umuna deposit, provided by the Centre for Computational Geostatistics, University of Alberta was used as a data set for completing validation checks against the new resource model as well as providing additional control data for the "as mined" surface. Additional support and documentation including original drill logs, assay sheets, survey sheets, core photographs, monthly production records, monthly exploration reports, reconciliation reports, site survey data, mining consultant's reports, mill records, environmental data and additional technical data were also located by WCB in Cairns Australia and were available for review and inclusion in the assessment of data quality. This was audited and confirmed by AMC during a Nat Inst 43-101 report, this has included checking against assay files, core photography, reconciliation of blast hole vs drill hole data, a review of variography, a review of topographic control against a 2015 survey. Data from WCB exploration has been stored electronically and is able to be checked and validated against hand logs and excel initial log sheets and core photography. Skan

Criteria	JORC Code explanation	Commentary
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	• Scott McManus of independent geological consulting firm Skandus Pty. Ltd, completed a site visit in August 2017 and traversed the main Umuna and Kulumalia structures, viewed artisanal mining of a splay which confirmed the thickness of the splays in the resource model, met local land owners, traced out the porphyry alteration halos, examined channel samples cut into the existing pit wall and reviewed past exploration practise with previous MMPL and WCB employees and located historical drill collars. No exploration was active during the visit.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The current model is a progression from MMPL models and the 2013 and 2015 model. The 2017 model has split the main Umuna zone into sections separating out skarn and splay mineralisation and extending the broad zones of the eastern breccia zone making use of recent mapping and structural work of WCB field geologists. The model is entirely reasonable and is supported by WCB field geologists. The current model makes use of surface mapping data (especially mapped breccias), channel samples, indicators of alteration in categorical drillhole lithologies and blast holes where geological confidence was high to extend the wireframe envelopes for drill targeting and allowing blocks to be created during estimation up to the limits of the variogram ranges. The process of interpreting the new domains was an iterative process where; Implicit models of various Gold grades were created Implicit models of blast hole gold grades were created Surface channel samples were pressed on to the original topography wireframe and used as a guide in section for surface extents of mineralization to aid in estimating structural and mineralization orientation Breccia and other lithological units from surface mapping were digitised and their outlines pressed on to the original topography wireframe and used as a guide in section for surface extents of mineralization to aid in estimating structural and mineralization orientation

Criteria	JORC Code explanation	Commentary
		 Drill hole samples showing copper, lead, zinc and silver as well as gold, structural information and alteration minerals were displayed in section Rings interpreting the zones were digitised on screen using 50m sections. For the Kulumalia zone the sections were angled to present a normal plane to the mineralization, whilst the other 5 zones used north sections (east-west) Interpretations where reviewed by WCB geologists to ensure the interpretations matched the current WCB geological interpretation for the deposit Drill results indicate that the mineralisation continues at depth and along strike of the Umuna Zone. Surface exploration activities have further identified additional extensions of mineralised material and suggested the potential of additional mineralised splays. Oxidation due to weathering has been defined by logged codes and low value sulphur assays. There is evidence of gold enrichment at the base of the oxide zone. Oxidation flags (SOX, SUP and SSX for oxidized, partly oxidized and fresh) were included in most logged intervals in the original drillhole GEOLOGs. These were used to model a solid for complete oxidation. As the oxidation surface is locally overturned, it could not be built as a DTM. The samples were flagged by the oxidation zone, creating an OXID field (1=oxidized, 2=fresh). Oxidation is important as it affects the distribution of gold and silver at Misima. Geological understanding is high and appropriate for resource estimation
		but are unlikely to affect the estimates. Blast hole data provides good information on the local controls to the mineralization.
		• The complexity of overlapping mineral styles and the orebody type means there is both a strong stratabound and strong structural control to the gold grade and geological continuity of the mineralisation.
Dimensions	 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	 The model measures 3,400m in the north axis up to 750m in the East axis and by 500m from surface. (Maximums) The resource is divided into 5 main lithological domains, 6 mineralisation domains and then two oxide domains. The mineralisation domains are sub domained by the oxide for a total of 12 mineralisation domains. At Kulumalia the Deposit outcrops, as does parts of the Umuna zone in the bottom of the existing pit and in the pit walls.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 The gold and silver block grade was estimated using Ordinary Kriging using Datamine Studio 3 software. Pb, Zn and Cu were determined by length weighted methods. Ordinary Kriging is an appropriate method to use as long as top cutting is carried out and the data is domained. There is no strong correlation between gold and Cu and Ag but there is a moderate correlation between gold and Pb & Zn The base of oxidation was treated as a soft boundary in all search passes as was boundaries between the domains that had previously been modelled as Umuna structure or where the intersection of two structures makes it difficult to allocate drill intercepts. The estimation was made using a minimum of 5 and a maximum of 25 composites to make estimates with an average of 14 composites. No assumptions were made regarding the recovery of any by-products. Variography parameters were determined for each mineralisation domain in both oxide and fresh. Where insufficient points were available previous variogram parameters were used. The spatial continuity demonstrated within blastholes and drillhole composites is comparable even though the sample support and density is differing. The variography of the two blasthole subsets are similar. There is support from this analysis that a correlation exists between gold grades up to a distance of 170 m along strike, 90 m down dip, and 85 m across dip. Drill holes are on relatively regular but variably spaced grids with a nominal spacing of 25 by25m increasing to a nominal 50 by 50m. Block size was set at 5x15x10m (X, Y and RL) following on from modelling size used during production. Discretisation was set to 2x4x6 (E, N, RL respectively). Dynamic anisotropy modelling was used to handle the changes in strike and dip of the Umuna mineralized zones. In this technique, each block has a unique search orientation. This method was also used for the 2013 and 2015 estimates. Modelling used an expanding search pass s

	Criteria	JORC Code explanation	Commentary
)			 The maximum extrapolation of the estimates is about 99m for search pass 2, which is less than the maximum continuity found in variograms or approximately 90% of the range of the variogram. No deleterious elements or acid mine drainage has been factored in. The final block model was reviewed visually in section and plan and it was concluded that the block model fairly represents the grades observed in the drill holes. Skandus also validated the block model statistically using a variety of histograms and summary statistics in the X, Y and Z directions. Grade and Tonne Profiles (swath plots) were also compared to the 2015 blast hole model and 2015 drill hole based resource estimate as well as to the 2m composites. Gold mineralisation at Umuna lacks the extreme high grades of other epithermal deposits. The maximum gold grade for a 2 m composite is 72.5 g/t. Free gold was reported to be very rarely seen in Misima drill core. Silver has a more extreme range than gold, reaching a maximum of 1,320 g/t Ag. When the Coefficient of Variance (CV) is greater than 1.2, it is appropriate to apply a cut. Top-cuts were selected using a combination of cutting-statistic plots, histograms and probability plots using both Phinar X10 Geo and Snowden Technology Supervisor. High grade tails were identified and their distribution shown in 3D to ascertain if they were closely grouped or widely dispersed within the domain. If closely grouped the cut was applied where the high grade tail fully disintegrated and there was not enough samples to define the tail. Where the high grade data was more widely dispersed, the cut was applied close to the start of the high grade tail, as these samples are more likely to have an effect on blocks. Each domain was top cut separately. Whilst production has taken place there are no detailed records with which to compare local reconciliations. Global reconciliations as well as comparison of medale comparison for
1	Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	Tonnages are estimated on a dry weight basis; moisture not determined.
	Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 0.5 g/t gold cut off used on blocks for both oxide and sulphide material. This value was determined from pit modelling and is slightly higher than the value for the USD\$1,000 Au ounce pit optimisation. The base of oxidation was used to divide the oxide and fresh rock resources with a partial percent volume adjustment. The cut-off grade at which the resource is quoted reflects an intended mining approach by KSN and initial pit optimisation work on the 2013, 2015 model and this model at a USD\$1,000 gold price at 6mt per year.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	 Skandus's understanding of the mining scenario is based on information supplied by KSN. Any internal dilution has been accounted for with the modelling and as such is appropriate to the block size. KSN has not yet completed a scoping or pre-feasibility study on the resource model. KSN is assuming extraction will be consist of conventional large-scale open pit methods capable of mining between 6Mtpa and 8Mtpa using an ore-waste cutoff grade of approximately 0.5g/t and bulk mining techniques. Minimum mining dimensions are expected to be in the order of 5m and 10m bench height and 10m across strike (X dimension). The block sizes used in the model are considered appropriate for this style of mining. These assumptions are based upon MMPL's previous experience mining at Umuna and consideration of the distribution of mineralisation.
Metallurgical factors or assumptions	 The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	 Metallurgical amenability is based on information from the past operation by MMPL. WCB did not carry out any new studies. The MMPL treatment plant consisted of a coarse ore dump pocket, SAG/Ball mill grinding circuit, leaching and carbon-in-pulp (CIP) circuits and Zadra stripping circuit. Zinc precipitation of precious metals was then carried out and dore was produced in an oil-fired furnace. CIP tailings were washed in a three stage counter-current decantation circuit before disposal to the ocean floor via a sea-water mix tank. Power was supplied from a 20 MW diesel generating station. Fuel costs represented an average 12.5% of total operating costs. There was some initial issues early in the operation due to high silver to gold ratios causing large carbon stripping. The clay component of Misima ore resulted in relatively high levels of lime for protective alkalinity which needed to be shipped in from Malaysia. It is assumed that there will be no other significant problems recovering the gold. No penalty elements identified in work so far
Environmental factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to 	 The area lies within hilly terrain with narrow watercourses and is very close to the coast. The area is covered with secondary vegetation.

Criteria	JORC Code explanation	Commentary
	consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	 There are no existing environmental liabilities associated with the Property. Previous liability associated with the mining operation ceased upon the surrender of SML1 which was completed in April 2012. MMPL adopted a continuous rehabilitation approach to the staged operation. Environmental data including site sampling has been sourced and is used for baseline studies. During production CIP tailings were washed in a three stage counter-current decantation circuit before disposal to the ocean floor via a sea-water mix tank, one valley was also used for low grade waste. KSN has not yet considered how they will deal with future tailings.
Bulk density	 Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	• Bulk density at Misima is affected more by weathering than by rock type. The 1986 feasibility report used values based on measurements on large pieces of PQ drill core (measured volume and dry weight) and measurements using surface excavations (volume of excavation and dry weights of the excavated material). During mining these values were found to be accurate and have been continued to be used for resource estimates. The following values are applied for each material type, Oxide 2.10, Fresh 2.49, Backfill 1.90 and Water 1.0 (t/m ³)
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineral resources have been classified on sample spacing, grade continuity, QAQC, geological understanding sensible mining depths, topography, block variance, the number of samples used and the number of holes used to inform the block. Classification has included Indicated & Inferred Resources. The classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	No audits or reviews completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and	 The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits. The geological nature of the deposit, the modelling method and the composite/block grade comparison lend themselves to a reasonable level of

	Criteria	JORC Code explanation	Commentary
)		 confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 confidence in the resource estimates. The Mineral Resource estimates are considered to be reasonably accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing. No local production data is available for local comparison but it is for global which provides a good correlation.

JORC Code, 2012 Edition – Table 1 Ewatinona Gold Deposit, Misima Island

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 The project was sampled using HQ, PQ and NQ triple tube diamond drill holes (DD) (104 holes for 9,994.05m) and Reverse Circulation (RC) (285 holes for 31,921.1m) DD samples were logged, photographed and marked up in lithological and structural units and sampled in 2m lengths. Whole Core was submitted due to issues with splitting the core. RC samples were taken using a riffle splitter into 1m samples. These were further representatively split and combined into a 2m composite. If Samples were wet, a tube splitter was used instead of a riffle. Sample preparation was carried out on site through jaw crusher than a hammer mill, and a split sent to a lab. From 1989-2000 Gold was determined using a screen fire assay and Silver, Copper, Lead and Zinc using an AAS at the Misima Mines Pty Ltd (MMPL) on site lab. Where gold was > 0.5 Au ppm a check assay was carried out at Classic Labs in Townsville using screen fire assay.
Drilling techniques	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	• Diamond drilling (DD) accounts for 23% (based on metres) of the drilling used in the resource and comprises of PQ, HQ and NQ sized triple tube core. Drillhole depths range from 50 to approximately 247 m with an average depth of 123m. Some Drill core was oriented to assist in structural interpretation. RC Drilling accounts for 77% of the drilling in the resource. RC diameter ranged from 4" to 5". Drillhole depths range from 50 to 171m with an average depth of 93.5m.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 DD Recovery was determined at the drill site while core was still in the inner tube of the wire-line core barrel. RC recovery was assessed at the rig, and where suspect it was noted in the log sheets. Attention was paid to expected sample weights. MMPL procedure document outlines the recovery procedures for DD and RC drill holes. Larger diameter PQ, HQ and NQ size core was used to provide more improved recovery and triple tube drilling employed to preserve core in a

Criteria	JORC Code explanation	Commentary
		 more coherent state for logging and also to improve recovery in very broken or clayey lithologies. RC Samplers were to keep an eye on sample weights produced at the rig and advise the geologist if the weight was more or less than expected. RC samples were riffle split to produce a representative sample on site where the sample was wet a tube splitter was used. Diamond core was not split, with the whole drill core been taken for sample. There does not appear to be a correlation between mineralisation and poor core recovery for the DD holes that have recovery recorded. Core recovery was extremely variable during the project. No bias and grade has been noted. Recovery of RC samples, where poor, was noted in the drill logs, and intervals marked as suspect.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 All core and chips have been suitable logged to an industry standard and is appropriate to support resource estimation. Diamond core has been qualitatively logged for lithology, size, colour, texture, alteration, structure, weathering, and a mixture of qualitative and quantitatively logged for mineralisation, structure orientation, geotechnical and veining. RC chips were qualitatively logged for colour, weathering, lithology, alteration and mineralisation quantitatively logged. Magnetic susceptibility was logged for all drill holes. All core was photographed wet. Digital and Analogue photography is available for DD core. All intervals for RC and DD has been logged. For a total of 41,915m
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Core was not sub sampled as the whole core was taken as a sample. Quartered samples were taken as required for petrography. Chip samples were riffle split (tube split if the sample was wet) and sampled dry, which was noted in log sheets. All 2 m composites were assayed. Anomalous or suspect intervals were re-assayed from coarse rejects. Sample preparation for all samples followed MMPL standard methodologies which are appropriate. QAQC procedures included checking the homogeneity of the sample at the hammer mill split via duplicates, assay reliability via inter lab checks of lab pulp and coarse rejects, free AU potential via screen fire assay, as well as the use of matrix specific standards, blanks and field duplicates. All samples that had reported gold had their coarse rejects kept in labelled core trays in the core yard for later checks and duplication as required. (This material is no longer available due to the fast decomposition of the material)

Criteria	JORC Code explanation	Commentary
		 Field Duplicates were taken to ensure representative sampling. Diameter of core sizes employed are considered appropriate to the grain size of the gold and in line with general industry practice for epithermal style gold deposits. Field duplicates were routinely checked to ensure that they reported within acceptable limits. Screen fire assays were routinely taken to check for the presence of free gold and the gold sizing.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 All assay techniques used during drilling used in the estimate are appropriate. The technique is total. No geophysical tools were used to determine any element concentrations used in this resource estimate. Grind size checks were performed by the labs and reported as part of their due diligence. One reference sample was inserted into laboratory dispatches every 50 samples submitted. The various standards used were: <5 ppb Au, > 0.1 ppm Au and > 2.5 ppm Au. The geologist who logged the hole was required to select the standard that he thought best reflected the assay result expected for that batch of 50 samples. Sixty gram samples of standards were weighed from the original shipment of certified reference material. Blanks, consisting of unmineralised limestone, were used from at least 1999. Duplicates of all samples and the reject from the jaw-crusher and hammer-mill stages of subsampling were retained at the geology storage shed for reassay if required. Two pulps were made from the hammer-milled samples that had sample numbers ending in zero; i.e., every tenth sample. The letters "A" and "B" were added to these sample numbers and both were presented to the mine laboratory for assay The rejected hammer-milled pulp from the "A" sample was then split: one of these splits was sent to ALS, Townsville, Australia as check samples.
		 Files have been provided to Australian Mining Consultants (AMC) during the 2013 and 2015 resource estimate and to Skandus which provide evidence that the documented sampling protocols were carried out across the Property. They also include some of the QA/QC checks and results between the years 1978 and 2004 at Misima and nearby deposits, including Ewatinona. The files are not sufficient to demonstrate the continuous implementation of the QA/QC system or results throughout the drilling history. However, the files do indicate that sampling and assaying protocols and

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 a level of QA/QC checks were in place certainly for some of the drilling programs during these years. AMC reviewed the available QAQC data in terms of validity of procedures and the spatial impact of results on the 2015 Mineral Resource. In summary: An industry standard QA/QC system was in place during early years of drilling, from 1978 to 1987 There was an awareness and some focus of sampling limitations and protocols in 1990 and steps were taken to improve sample preparation A more comprehensive QA/QC system was in place from 1999 to 2004 Drillholes from 2000–2004 appear to have had undergone regular QA/QC checks, and are therefore likely to have a higher level of confidence. Although it would be desirable to have demonstrated higher precision in the samples, the QA/QC data indicates that the assays were unbiased. There is sufficient information on sampling and assaying protocols, supported by sufficient QA/QC and mine production data to conclude that the sample database is adequate to support Measured or Indicated Mineral Resource estimates. Skandus reviewed MML mine memos relating to QAQC and concluded that there was an ongoing active program where issues were identified and efforts were taken to improve supports to improve sampling limitations and protocols. Significant intersections were inspected in the field by staff geologists to confirm nature of mineralization and verify integrity of sampled intervals. Twinning had not been regularly carried out, during 2013 and 2015 AMC carried out a review of drill holes close by using boundary tools in Datamine and found acceptable correlation. All Data, data entry procedures, data verification and data storage has been
assaying	 The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Twinning had not been regularly carried out, during 2013 and 2015 AM carried out a review of drill holes close by using boundary tools in Datamin and found acceptable correlation. All Data, data entry procedures, data verification and data storage has bee carried out in accordance with MMPL and WCB SOPS. Historical records ar currently stored at a facility in Townsville whilst WCB Records have bee transferred to KSN. Digital records are stored in various electronic format Whilst there are database formats of the drill data it is recommended that a appropriate drillhole database is used to house the MMPL (which was appropriate drillhole database).

Criteria	JORC Code explanation	Commentary
		is in the process of merging the drillhole data into its own drillhole database which is an appropriate drillhole database.
		Skandus carried out its own validation checks on the drill hole files and original GEOLOG files provided after transfer and found there to be very few validation issues. Skandus also reviewed all MMPL data and data protection SOPS, and selected documentation and found all work had been carried out to acceptable industry standard and care. Skandus has experience with the GEOLOG system and also reviewed original GEOLOG format files, and scans of Analogue GEOLOG log forms. Despite the data not being in a suitable database the data quality is good.
		• No adjustments or calibrations were made to any assay data used in this estimate.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	• Drillhole collar surveys were conducted as soon as possible after drilling. Downhole surveys, to maintain a record of hole deviation, were conducted on angled cored holes after each 50 m was drilled. Packets containing downhole survey discs were present in several scanned images, indicating that an Eastman single shot camera was the survey tool in use at the time.
		During recent resource estimation work, it was established that all survey azimuths used in the GEOLOGs were magnetic, allowing easy adjustment of the down-the-hole survey data for the grid being used.
		In the recent diamond drilling completed by WCB, down hole surveying was conducted on intervals approximating every 30 metres.
		 GDA94 datum (Zone 56). All data is provided in either GDA94, AGD66, Truncated AGD or MMPL local mine grid. The estimate has been carried out in the local MMPL mine grid. There is good documentation outlining the conversion methodology. LOCAL MMPL X = -5,146,863 + (0.8420881 * AMGX) + (0.5400387 * AMGY) LOCAL MMPL Y = -7,149,444 + (-0.540031 * AMGX) + (0.8420999 * AMGY).
		A truncated AMG grid (AGD66) was used while the Ewatinona mine was in operation (8,000,000 was usually removed from AGD66 northings to reduce precision problems during grid conversions). During the drilling period there was an 8° difference between magnetic north and AGD66 in the Ewatinona area. A correction was made to measured magnetic drillhole azimuths and the resulting drillhole traces were cross checked against historical drillhole location plans.

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Criteria	JORC Code explanation	Commentary
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 During 2017, WCB converted all surfaces to the Umuna local grid for consistency. Drill hole samples were already provided in 2013 with the local grid. Topographic control was checked during 2015 by a new topographic survey conducted by WCB. AMC during the 2015 report reviewed the control with drillhole collars and end of mine surveys and found it was sufficient to support measured or indicated mineral resource estimates. An as-mined surface to deplete the resource was created from blast-hole collars. Drillhole spacing is approximately 50m by 50m with downhole sampling predominantly at 2m intervals. There is limited areas that have a 25m x 25m drill hole spacing. The majority of the RC and diamond holes were angled holes at a variety of dips and orientation, predominantly normal to a structure of interest. Some historical drilling was vertical until orientation of target structures were well known. The geological interpretation at Ewatinona has a high degree of uncertainty, and so some drill holes may not be orientated appropriately. For the size of the deposit and expected mining block (and historical mining block), the spacing gives good coverage of the mineralised zone and at a suitable spacing to estimate blocks. Sample spacing has been taken into consideration for classification of the resource blocks. Samples were composited to 2m.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Due to competing historical geological interpretations during drilling and the uncertainty of the 2015 and 2017 interpretation, it is unclear if sampling is unbiased. No orientation based sampling bias has been identified in the data at this point.
Sample security	The measures taken to ensure sample security.	• MMPL had industry standard SOPS and protocols for governing sample security. Skandus interviewed previous senior technicians and Geologists from WCB and MMPL as well as reviewed the SOP documents and found that sample security on historical samples was adequate, this is backed up by the physical remnants of material such as sample tags, lock ties, bags and drums used during the WCB campaign still in storage at the WCB site office.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Skandus, has reviewed sampling memos and a report by Pitard that audited and reviewed the MMPL sampling in 1990. Pitard identified some issues and made recommendations to improve sampling, the majority of drilling at

Criteria	JORC Code explanation	Commentary
		Ewatinona was completed after this review. Documentation shows that these recommendations where put into practise by MMPL. WCB sampling and data was reviewed by AMC during a 2013 technical report. AMC found that the core handling, logging and sampling was carried out to industry standards.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Misima Island is part of the Louisiade Archipelago within Milne Bay Province of PNG. It is situated in the Solomon Sea about 625 km east of Port Moresby, the capital of PNG. The site is located at an approximate latitude of 10° 40′ South and longitude of 152° 47′ E. The Property consists of a single Exploration Licence, (EL) 1747, comprising 53 sub blocks, covering a total area of 180 km². This EL is valid and is currently in the renewal process to extend the licence to 20 March 2019. All conditions pertaining to compliance of the title have been met. The Property is located on the eastern portion of the island and includes the historic mining areas of Umuna and Quartz Mountain. There are no known impediments. KSN holds title via a farm in agreement between WCB Resources Ltd and WCB Pacific Pty Ltd, Pan Pacific Copper Ltd and Gallipoli Exploration Ltd which has been extended until March 2019. Gallipoli is the legal entity and tenement holder and is responsible for performing its obligations under the <i>Mining Act</i> 1992.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 1958–1964 Oceanic Mineral Development Pty Ltd, taken over by Pacific Island Mines (PIM) Diamond drilling / adit development 1964–1967 Oceanic/Cultus Joint Venture (JV) Trenching, diamond drilling 5 holes for 1,383m in 1965, IP survey, U/G sampling new adit, steam sediment sampling 1967 CRA Exploration Pty Ltd (CRAE) Stream sediment sampling at point of entry of all rivers and streams into the ocean 1967–1969 PIM/Cultus Joint Venture (JV) Stream sediment sampling over whole island, ridge and spur soil sampling, percussion drilling, diamond drilling 1969–1972 Noranda/PIM/Cultus JV - Noranda was operator Diamond drilling of 15 holes for 3,568 m at Mount Sisa copper anomaly, minor trenching at Umuna 1975–1976 Meneses Explorations Pty Ltd Grid Mapping, Sampling of old trenches 1977–1987 Placer/Meneses JV, Placer was operator Deep trenching, and channel sampling, mapping reverse circulation and diamond drilling 1978–1985 CRAE also in JV, withdrew in 1985 1982 Meneses bought out of JV

	Criteria	JORC Code explanation	Commentary
)			 1987 Placer forms MMPL, Government of PNG becomes 20% shareholder Mining development agreement signed 2012 Barrick Gold Relinquishment of Mining Lease (SML 1) 2012 – 2017 WCB Resource Ltd. Collection and collation of sampling information, historical documentation, sourcing and reconciling production blast hole data to drilled data and 2015 resource estimate, topographic surveys to tie in topographic control, water levels, as mined surfaces and collar locations, Converting Geolog drill hole data into a modern format, and carrying out QAQC on the data and conversion with checking against analogue documents and photographs. Reviews of historical assay QA/QC. Work on validating and verifying historical data so it could be reliably used in a modern code compliant context. Compiling of historical information into NAT-INST 43-101 format for modern reporting. 3,669 auger ridge and spur soil samples, helimagentic aeromagnetic survey with processing and interpretation (2,035 line kms of survey), 658 channel samples and geological mapping, analysis of structural measurements, comparative analysis of WCB channel sampling and MMPL channel sampling to confirm validity of MMPL data and drilling of 5 diamond holes into the Mt Sisa area.
1	Geology	Deposit type, geological setting and style of mineralisation.	 Misima Island forms part of the Louisiade Archipelago which is a continuation of the Papuan Fold Belt of the Papuan Peninsula offshore eastwards through the Papuan Plateau. The oldest rocks on Misima are Cretaceous to Paleogene metamorphic rocks, which can be subdivided into the western Awaibi Association and the younger overthrust eastern Sisa Association that is host to the gold and copper mineralization. The two associations are separated by an original thrust fault with later extensional activation. Mineralisation deposit style on Misima Island is best described as Intermediate Sulphidation Epithermal due to the strong association styles and geometry. Styles of mineralisation observed include multiphase hydrothermal breccia, stockworks both sheeted and three dimensional, skarn, jasperoidal replacement, and poorly banded vein infill of quartz and carbonate with associated pyrite, galena, sphalerite, barite and minor tetrahedrite. This mineralization can be classified as Intermediate Sulphidation Epithermal Style and appears to be laterally zoned from a well developed complex base

Criteria	JORC Code explanation	Commentary
		 metal skarn style affiliation outwards to a base metal fracture stockwork vein breccia style of mineralisation. The Ewatinona deposit is dominated by brecciated porphyry units which are cut by faults trending in three major directions (northwest, west northwest and southwest). Interpretation of the mineralisation at Ewatinona has been historically problematic. The Current interpretation is that Ewatinona mineralisation is open along strike and at depth and comprises a sheeted vein breccia system within a major elongate north west trending fault array which can be traced for over 3km
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	Exploration results not being reported
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	Exploration results not being reported
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	Exploration results not being reported

Criteria	JORC Code explanation	Commentary
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	Exploration results not being reported
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	Exploration results not being reported
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	Exploration results not being reported
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Exploration results not being reported

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Drilling of the Ewatinona zone was conducted between 1989 and 2000 by Placer and MMPL. There has been no other drilling since 2004. Barrick acquired Placer in 2006. Barrick provided the drillhole data to WCB which was used for the current Mineral Resource estimate. The data was provided in a software format called GEOLOG, and the data was converted to a Microsoft Access format by Mr R F Williams of WIZTECH Information Services, (WIZTECH). WIZTECH personnel had a long history with MMPL, and were familiar with the data. The assay data loaded from the supplied GEOLOG files was checked for quality using standard statistical analysis, including mean pair relative difference (MPRD), scatterplots and summary statistical tables. The information consisted of files for surveys, assays and geology for 2,640 drillholes and trenches, including 1,945 drillholes covering several projects and 144 trenches in the Umuna area In addition, production blasthole data for the Ewatinona deposit provided by the Centre for Computational Geostatistics, University of Alberta, was used as a data set for completing validation checks against the new resource model as well as providing additional control data for the "as mined" surface. Additional support and documentation including original drill logs, assay sheets, survey sheets, core photographs, monthly production records, monthly exploration reports, reconciliation reports, site survey data, mining consultant's reports, mill records, environmental data and additional technical data were also located by WCB in Cairns Australia and were available for review and inclusion in the assessment of data quality. This was audited and confirmed by AMC during a Nat Inst 43-101 report, this has included checking against assay files, core photography, a review of topographic control against a 2015 survey. Data from WCB exploration has been stored electronically and is able to be checked and validated against hand logs and excel initial log sheets and core photograph

Criteria	JORC Code explanation	Commentary
		Skandus had experience with GEOLOG whilst working at Pancontinental mining during the 1990s.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Scott McManus of independent geological consulting firm Skandus Pty. Ltd, completed a site visit in August 2017 and traversed the main Umuna and Kulumalia structures, viewed artisanal mining of a splay which confirmed the thickness of the splays in the resource model, met local land owners, traced out the porphyry alteration halos, examined channel samples cut into the existing pit wall and reviewed past exploration practise with previous MMPL and WCB employees and located historical drill collars. No exploration was active during the visit. During the site visit Ewatinona was not able to be reached, but hand specimens stored at the WCB Exploration office were available and this were discussed in depth in relation to the mineralization and geology model with WCB site geologists.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The current model is a departure from MMPL models and the 2015 model. The model is entirely reasonable and is supported by WCB field geologists. However due to uncertainty in the model over the history of the project, this has been taken into consideration in the classification. During 2017, Skandus was provided with a schematic showing the relationship of the sheeted veins to breccia pipes and the granodiorite. Sections normal to the strike of the deposit, do show a trend that dips to the east. Implicit models of gold and silver were created at various cut offs and used as a guide to model the limits of mineralization using the set of oblique sections (normal to the sheeted veins). The surface expression of the limit of mineralization from surface samples was also used as a guide. This model differs from the 2015 model, in that it is one bounding limit to mineralization whereas the 2015 model was a set of vertical breccia zones modelled along the structures. The silver implicit model is thought to be important by WCB geologists as the silver ratios are indicative of alteration zonation associated with different parts of the mineralizing event. The 1g Silver implicit model provided the best continuity as well as highlighting the waste zone centred on the intrusive pipe. Oxidation flags (SOX, SUP and SSX for oxidized, partly oxidized and fresh) were included in most logged intervals in the original drillhole

Criteria	JORC Code explanation	Commentary
		 GEOLOGs. These were used to model a solid for complete oxidation. As the oxidation surface is locally overturned, it could not be built as a DTM. The samples were flagged by the oxidation zone, creating an OXID field (1=oxidized, 2=fresh). Oxidation is important as it affects the distribution of gold and silver at Misima. Geological understanding is moderate and appropriate for resource estimation of Inferred Resources. Alternative interpretations are possible and may affect the estimates. Blasthole data provides good information on the local controls to the mineralization, but also supports competing interpretations. The current Wireframe is a bounding or limiting wireframe and stops ore blocks being estimated outside of the alteration zone.
Dimensions	 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	 The model measures 1,000m in the north axis up to 805m in the East axis and by 250m from surface. (Maximums) The resource is divided into two oxide domains within an alteration zone that contains mineralisation. Parts of the Deposit outcrops, as does parts of the remanent mineralization in the bottom of the existing pit and in the pit walls. There is water and some back fill cover.
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. 	 The gold and silver block grade was estimated using Ordinary Kriging using Datamine Studio 3 software. Pb, Zn and Cu were determined by length weighted methods. Ordinary Kriging is an appropriate method to use as long as top cutting is carried out and the data is domained. There is no strong correlation between gold and Cu and Ag but there is a moderate correlation between gold and Pb & Zn The base of oxidation was treated as a soft boundary in all search passes The estimation was made using a minimum of 3 and a maximum of 25 composites to make estimates with an average of 8 composites. No assumptions were made regarding the recovery of any by-products. Block size was 10m X by 10m Y by 5m Z (with sub-celling to 2.5m). This block size follows on from previous estimates used during production and is reasonable given the drill spacing and support from blast-holes. Discretisation was set to 2x4x6 (E, N, RL respectively). To further understand the spatial continuity of the mineralisation grade, a variographic analysis of gold grades of composite gold grades from drill holes was completed for the combined fresh and oxide zone. Horizontal and Cross

	Criteria	JORC Code explanation	Commentary
, ,		 Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 strike continuity analysis was carried out using Snowden's Visor. This confirmed a dip and dip direction of structures consistent with the WCB sheeted vein interpretation. 35% of the variance is accounted for in the nugget. The 2015 study found a nugget of 20% in blast hole data. The range for the strike and dip directions are similar to that calculated during the 2015 variogram study. Modelling used an expanding search pass strategy with the initial search radii based on the detailed drill spacing increasing to take in the geometry of the mineralisation and the variography. Modelling consisted of one estimation run with 3 passes. The minimum search used was 60% of the variogram, and the second search pass was 90% of the variogram. The third pass was not used in classification and only used to estimate exploration targets. It was 2.5 x the first search pass and extends just past the maximum range of the variograms. The maximum extrapolation of the estimates is about 45m for search pass 2, which is less than the maximum continuity found in variograms or approximately 90% of the range of the variogram. No deleterious elements or acid mine drainage has been factored in. The final block model was reviewed visually in section and plan and it was concluded that the block model fairly represents the grades observed in the drill holes. Skandus also validated the block model statistically using a variety of histograms and summary statistics in the X, Y and Z directions. Grade and Tonne Profiles (swath plots) were also compared to the 2015 blast hole model and 2015 drill hole based resource estimate as well as to the 2m composites. The Ewatinona deposit is only moderately endowed with very high grade samples compared to many epithermal deposits. The maximum gold grade of the 2 m composites is 98.2 g/t. Free gold was reported to be very rarely seen in Misima drill core. Likewise, silver lacks very high values and reaches a maximum of 168.8 g/t Ag. When the Coefficient
			shown in 3D to ascertain if they were closely grouped or widely dispersed within the domain. If closely grouped the cut was applied at where the high grade tail fully disintegrated and there was not enough samples to define the tail. Where the high grade data was more widely dispersed, the cut was

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		applied close to the start of the high grade tail, as these samples are more likely to have an effect on blocks.
		The log-probability plots for gold are close to a log-normal distribution, but silver shows a prominent kink at about 30 g/t Ag and is more curvilinear. This suggests that there may be two populations. In general the higher silver grades occur at within sheared parts of the schist and greenstone units.
		• Whilst production has taken place there are no detailed records with which to compare local reconciliations. Global reconciliations as well as comparison of models generated from production blast holes provide good correlation. However, there are conflicting values provided for total production.
Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	• Tonnages are estimated on a dry weight basis; moisture not determined.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	 0.5 g/t gold cut off used on blocks for both oxide and sulphide material. This value was determined from pit modelling and is slightly higher than the value for the USD\$1,000 Au ounce pit optimisation. The base of oxidation was used to divide the oxide and fresh rock resources with a partial percent volume adjustment. The cut-off grade at which the resource is quoted reflects an intended mining approach by KSN and initial pit optimisation work on the 2013 (Just Umuna), 2015 model (Both Ewatinona and Umuna) as well as the 2017 model at a USD\$1,000 gold price at 6mt per year.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	 Skandus's understanding of the mining scenario is based on information supplied by KSN. Any internal dilution has been accounted for with the modelling and as such is appropriate to the block size. KSN has not yet completed a scoping or pre-feasibility study on the resource model. KSN is assuming extraction will be consist of conventional large-scale open pit methods capable of mining between 6Mtpa and 8Mtpa using an ore-waste cutoff grade of approximately 0.5g/t and bulk mining techniques. Minimum mining dimensions are expected to be in the order of 5m and 10m bench height and 10m across strike (X dimension). The block sizes used in the model are considered appropriate for this style of mining. These assumptions are based upon MMPL's previous experience mining at Ewatinona and consideration of the distribution of mineralisation.

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Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 Metallurgical amenability is based on information from the past operation by MMPL. WCB did not carry out any new studies. The MMPL treatment plant consisted of a coarse ore dump pocket, SAG/Ball mill grinding circuit, leaching and carbon-in-pulp (CIP) circuits and Zadra stripping circuit. Zinc precipitation of precious metals was then carried out and dore was produced in an oil-fired furnace. CIP tailings were washed in a three stage counter-current decantation circuit before disposal to the ocean floor via a sea-water mix tank. Power was supplied from a 20 MW diesel generating station. Fuel costs represented an average 12.5% of total operating costs. There were some initial issues early in the operation due to high silver to gold ratios causing large carbon stripping. The clay component of Misima ore resulted in relatively high levels of lime for protective alkalinity which needed to be shipped in from Malaysia. It is assumed that there will be no other significant problems recovering the gold. No penalty elements identified in work so far
Environmental factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	 The area lies within hilly terrain with narrow watercourses and is very close to the coast. The area is covered with secondary vegetation. There are no existing environmental liabilities associated with the Property. Previous liability associated with the mining operation ceased upon the surrender of SML1 which was completed in April 2012. MMPL adopted a continuous rehabilitation approach to the staged operation. Environmental data including site sampling has been sourced and is used for baseline studies. During production CIP tailings were washed in a three stage counter-current decantation circuit before disposal to the ocean floor via a sea-water mix tank, one valley was also used for low grade waste. KSN has not yet considered how they will deal with future tailings.
Bulk density	 Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by 	• Bulk density at Misima is affected more by weathering than by rock type. The 1994 Ewatinona feasibility report used values based on measurements on large pieces of PQ drill core (measured volume and dry weight (volume of excavation and dry weights of the excavated material). During mining these values were found to be accurate and have been continued to be used for

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	 methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	resource estimates. The following values are applied for each material type, Oxide 2.21, Fresh 2.45, Backfill 1.90 and Water 1.0 (t/m ³)
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineral resources have been classified on sample spacing, grade continuity, QAQC, geological understanding sensible mining depths, topography, block variance, the number of samples used and the number of holes used to inform the block. Due to uncertainty in the current and previous geological models only Inferred resources have been classified. Classification has included Inferred Resources only. The classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	No audits or reviews completed.
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits. The geological nature of the deposit, the modelling method and the composite/block grade comparison lend themselves to a reasonable level of confidence in the resource estimates. The Mineral Resource estimates are considered to be reasonably accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing and uncertainty in the interpretation. No local production data is available for local comparison but it is for global which provides a good correlation.