TIGER RESOURCES LIMITED

ABN 52 077 110 304

Tuesday, 26 November 2019

TIGER UPDATES MINERAL RESOURCES AND ORE RESERVES AT KIPOI

Perth, Western Australia: Tiger Resources Limited (ASX: TGS) ("Tiger or the Company") provides an update on its completion of a re-estimation of Mineral Resources and Ore Reserves at its Kipoi Copper Project ("Kipoi or the Project") in the Democratic Republic of Congo ("DRC") as at 30 June 2019.

Highlights

Kipoi Central and Kileba Ore Reserves

- **Updated input parameters, including updated metallurgical recovery assumptions and depletion of stockpiles as well a re-classification under JORC 2012, have resulted in a 53% decrease in Ore Reserves against the Ore Reserves previously reported in the 2017 Annual Report**

Total Measured, Indicated and Inferred Resources

- **Reduced from 858 Kt to 788 Kt of copper, an 8% reduction from what was reported in the 2017 Annual Report, taking into account the revised inputs, re-classification and depletion (Appendix 1)**
- **All downgraded Mineral Reserves will undergo additional test work to determine if they can be converted to Mineral Reserves under the revised recovery and cost structure**

Kipoi Central Mineral Resource

- **Measured and Indicated Resource of 28.3 Mt at 1.22% Cu and 0.05% Co for 346 Kt of copper and 15 Kt of cobalt**
- **Inferred Resource of 15.0 Mt at 0.93% Cu and 0.06% Co for 140 Kt of copper and 9 Kt of cobalt**
- **This represents a decrease of 15% (86 Kt of copper) of the total Mineral Resource previously reported in the 2017 Annual Report**

Kileba Mineral Resource

- **Indicated and Inferred Resource of 17.2Mt at 1.07% Cu and 0.05% Co for 185 Kt of copper and 8 Kt of cobalt**
- **This represents an increase of 19% (30 Kt of copper) of the total Mineral Resource previously reported in the 2017 Annual Report**

Kipoi Cobalt Stockpiles Mineral Resource

- **Review of Kipoi Cobalt Stockpiles has identified an Indicated Mineral Resource of 509 Kt at 0.28% Cu and 0.45% Co for 1.43 Kt of copper and 2.29 Kt of cobalt**

Managing Director, Caroline Keats said, "*The Resources and Reserves revision has re-affirmed that the Kipoi copper deposits will be in operation for many years to come providing a more robust model for the future. The revision is a reflection of the current copper market, increased operating costs, depletion and improved reserve estimate applications.*

Whilst the Company still has a number of challenges to overcome in terms of its current debt and cashflow, we now have renewed confidence in our deposits and their ability to produce copper."

The Mineral Resource Estimate includes updates on the Kipoi Central deposit, Kileba deposit and Kipoi Central Cobalt Stockpiles while the Ore Reserves Estimate updates the Kipoi Central and Kileba deposits. The Judeira and Kipoi North deposits as part of the Kipoi Copper Project have not been included in the re-estimation. The Lupoto copper project (Appendix 2) has not been re-estimated. All estimates were undertaken by Cube Consulting Pty Ltd (Cube).

The Kipoi Central and Kileba deposits are part of the Kipoi Copper Project which is located 85km north-northwest of Lubumbashi, the provincial capital of Katanga Province in the Democratic Republic of the Congo.

Figure 1: Property Location Plan – Kipoi Copper Project

Ore Reserves

Cube updated the Ore Reserve Estimate for the Project using the most recently updated Mineral Resource models as well as updated input parameters. Based on the updated mine design and production schedule, an updated Ore Reserve Estimate was reported according to the guidelines set by the JORC Code 2012 Edition (JORC Code). A summary of the updated Ore Reserve Estimate is shown in Table 1.

Table 1: Kipoi Copper Project Ore Reserves Statement as at 30 June 2019

Deposit	Reserve Weathering	Proved			Probable			Total Proved + Probable			
		Mt	Cu %	Cu rec %	Mt	Cu %	Cu rec %	Mt	Cu %	Cu rec %	Cu kt
KPC	Oxide	0.28	1.8	1.4	9.44	1.4	1.1	9.72	1.4	1.1	137.1
	Transition	0.25	1.6	1.3	1.84	1.6	1.3	2.10	1.6	1.3	34.4
	Sulphide	0.60	2.3	0.1	0.72	1.9	0.1	1.32	2.1	0.1	27.2
Sub-total KPC		**1.13**	**2.0**	**0.7**	**12.01**	**1.5**	**1.1**	**13.14**	**1.5**	**1.1**	**198.7**
Kileba	Oxide	0.00			3.36	2.3	1.9	3.36	2.3	1.9	76.2
	Transition	0.00			0.32	2.8	2.0	0.32	2.8	2.0	9.0
	Sulphide	0.00			0.00	9.1	1.1	0.00	9.1	1.1	0.3
Sub-total Kileba		**0.00**			**3.67**	**2.3**	**1.9**	**3.67**	**2.3**	**1.9**	**85.5**
Total		**1.13**	**2.0**	**0.7**	**15.68**	**1.7**	**1.3**	**16.81**	**1.7**	**1.2**	**284.2**

The Ore Reserves were not estimated using a total copper grade cut-off method (defined by lithology), due to the fact that the materials have varying recoveries and processing costs based on individual resource model block characteristics. As a result, a net block value was used in determining whether a modelled block would be processed or not, and hence be reported within these Ore Reserves.

These estimated Ore Reserves for Kipoi Central occur within an open pit containing 55.2 Mt of waste material for a waste to ore (tonnes) strip ratio of 4.2:1 and a total open pit size of 68.3 Mt. For Kileba, these Ore Reserves occur within an open pit containing 9.2 Mt of waste material for a waste to ore (tonnes) strip ratio of 2.5:1 and a total open pit size of 12.9 Mt. Of note is that throughout this process, waste material includes material in the Mineral Resource category of Inferred.

These Ore Reserves represent a significant (53%) decrease in the previously reported Ore Reserves on 31 December 2017 as demonstrated in Table 2 and discussed below.

Table 2: Kipoi Copper Project Ore Reserves Reconciliation to 31 December 2017

Classification	Deposit	2019 Cu Kt	2017 Cu Kt	Variance Cu Kt	Variance %	% of Total Variance
Proved	Kipoi Central	23	45	-22	-49%	7%
	KPC Stockpiles	0	58	-58	-100%	18%
Sub-total Proved		23	103	-80	-78%	24%
Probable	Kipoi Central	176	372	-196	-53%	60%
	Kipoi North	0	26	-26	-100%	8%
	Kileba	85	110	-25	-22%	8%
Sub-total Probable		261	508	-247	-49%	76%
Total		284	611	-327	-53%	100%

Kipoi Central open pit represents the majority of the decrease in Ore Reserves, accounting for 67% or 218 Kt of copper of the total decrease of 327 Kt of contained copper. The 4 principal factors resulting in this decrease are:

- the recovery of copper from the sulphide material that may be treated by the assumed flowsheet was reduced to be almost negligible, resulting in the pit optimisation not capturing these resources within the economic pit limits;
- this led to a smaller open pit design which also reduced the amount of oxide and transition material within the final reporting pit;
- remodelling and re-classification of Mineral Resources within the pit resulted in a significant reduction of Indicated Resources and an increase in Inferred Resources (not eligible for conversion to Ore Reserves) within the designed pit; and

- the recovery assumptions reduced the metallurgical recoveries in the lower grades significantly, resulting in their exclusion from economically viable material reporting to the plant.

The Kileba open pit Ore Reserves decreased by 25 Kt of copper, representing 8% of the total decrease in reported Ore Reserves. This decrease is attributed mostly to the recovery assumptions which, similar to Kipoi Central, reduced the metallurgical recoveries in the lower grades significantly, resulting in their exclusion from economically viable material reporting to the plant. This also resulted in a slightly reduced final pit selection which further contributed to this reduction

The exclusion of Kipoi North open pit in these Ore Reserves is related to the fact that the existing railway line is no longer planned to be moved as previously assumed, combined with the fact that the remaining Kipoi North pit is largely depleted by recent and current mining activities. The exclusion of Kipoi North open pit resulted in a decrease of 26 Kt of contained copper representing 8% of the total reduction.

The final reduction in Ore Reserves is due to depletion of the previously reported Kipoi Central stockpiles which resulted in a reduction of 58 Kt of contained copper, representing 18% of the total reduction.

Below is a summary of material information to understanding the reported estimates of Ore Reserves set out in Appendix 3, as required under ASX Listing Rule 5.9.1.

Material assumptions and outcome

Open pit optimisations were carried out using the updated Mineral Resource block models without modifications as they are recoverable resources by nature of the estimation technique. All other parameters as discussed within this section were applied within industry standard pit optimisation software, producing a range of shells which were analysed and used as the basis for the pit designs on which these Ore Reserves are based.

The flowsheet assumed in derivation of modifying costs is as per the existing flowsheet used at Kipoi with the notable changes mentioned below. At present ore is (contract) crushed to -25mm and then dry screened at 5mm. The +5mm material reports directly to the heap leach via a materials handling system that includes acid conditioning step in an agglomerator. The -5mm material is wet scrubbed/screened/classified in a purpose-built fixed plant and the nominally +212µm material combined with the +5mm and stacked on the heap leach. The heaps are irrigated with acidic solution in two stages to build grade and the ultimate pregnant solution pumped to a solvent extraction (SX) plant where the solution is concentrated and purified. The -212µm material is leached in agitated tanks and the resultant pregnant liquor separated from solids by a counter current decantation (CCD) circuit. The pregnant liquor from tank leach joins that from the heap leach in a common pond while tank leach tailings are pumped to a storage facility (TSF). The copper is won from the loaded electrolyte produced by the SX via a process of electrowinning. Resultant cathode (99.99% pure) is exported to downstream processors, mainly in Asia. This flowsheet is assumed for Kileba ore but for Kipoi ore, which is scheduled to be treated later, it has been assumed that capital deployment works will be complete, including a new fixed crusher producing a single -25mm product, which will be scrubbed in raffinate rather than water, this improving efficiencies in crushing, acid use and water balance.

Numerous studies have been completed since 2012 on the Kipoi Copper Project. The Kipoi Copper Project is however a well-established mining operation and exploitation of Stage 2 will largely be done in a brownfields context, hence operating costs are relatively well understood. Most of these costs

have been provided by Société D'Exploitation de Kipoi SA (SEK) and accepted in good faith. It should be noted that modifying factors that have been applied to Kipoi Stage 2 are based on known operating costs for leaching, SX and electrowinning (EW), and that the product chain is well established. The only modification to modifying factors are operating costs based on new capital to be spent on a permanent crusher and scrubbing plant, and minor enhancements to existing plant, to enable the Kipoi ore to be processed in an optimal manner. Capital and operating costs for the new "front end" were developed in a definitive feasibility study that was completed by GR Engineering Services Pty Ltd (GRES) in 2017. These costs have been further reviewed by NewPro Consulting and Engineering Services Pty Ltd (NewPro).

With respect to metallurgical factors, NewPro have revised the test work completed since and including that done in 2012, including the major work completed at Mintek and interpreted by Miller Metallurgical Services, which forms the cornerstone of the contemporary work. In addition to this, NewPro have assessed more recent assaying analysis and developed algorithms that describe recoverable copper vs head grade by lithology, rather than applying flat recovery. This relationship limits the quantum of low-grade material in the reserve. Since the main testing campaign completed in 2012-14, there has been only a limited amount of relevant testwork that has been completed that can be considered new information, but includes further acid soluble copper assaying, a scrubbing and acid demand programme for Kileba (largely confirming earlier test work), and some leaching completed on sulphide concentrate generated from a flotation programme. A reconciliation between how recovery assumptions were made in the 2017 evaluations has not been completed.

Recent testwork programmes have rather focussed on assessing opportunities that may enhance the Project (e.g. recovery from sulphides and revenue from cobalt), but are not reflected in the flowsheet used in the modifying factors and are hence irrelevant (and are yet to be able to demonstrate an additional economic advantage). The updated recovery assumptions have been developed by:

1. Additional acid soluble copper assaying and geometallurgical review of this to assess whether there is a trend in grade vs recovery against lithology and depth. The algorithms developed (non-linear) were applied to the overall orebody, although further refinement has been recommended once further data is available, particularly differentiation by depth, as demonstrated by Vermaakt. Additionally, geometallurgical interpretive work by Dorling as to the make-up of the sulphide resource has minimised the representativity of the sulphide samples tested in 2012

2. Testwork completed in 2012-14 and interpreted by Graeme Miller was reviewed in terms of acid solubility and recovery in general. Essentially this translated to a significant downward revision of the recovery assumptions that had been applied to sulphide ore, as the testwork completed earlier was done on secondary sulphide upper zone rather than something reflective of the primary sulphide ore in general (which seems to have low acid soluble copper as demonstrated on tests completed on sulphide concentrates derived from more representative samples). Given the low acid solubility of copper from chalcopyrite, the dominant primary copper mineral, the sulphide recovery was revised low based on experience and the concentrate leaching tests, in a conservative manner.

3. The Miller interpretations of recovery and acid consumption were largely followed in application to the acid soluble assays derived per block from the aforementioned algorithms.

4. The material split in processing has also been re-evaluated to that applied in the 2017 work in light of further scrubbing test work, general observation of core, experience gained from the recently commissioned scrubbing plant treating historic fines and experience. The "fines

Index" assumptions used in the 2017 work were revised in such a way that the split to the heap was upgraded. This aspect remains semi-quantitative and quite interpretive.

5. In order to resolve uncertainty around the geometallurgy further acid solubility assaying and geometallurgical statistical assessment will be required. Similarly, providing a quantitative methodology for fines split in modelling needs to be resolved, and completing further variability work in Kipoi is recommended.

Criteria used for classification

All in-pit reported Ore Reserves which have been reported as Proved have been derived directly from the Mineral Resource classified at the Measured level of confidence.

All in-pit reported Ore Reserves which have been reported as Probable have been derived directly from the Mineral Resource classified at the Indicated level of confidence.

All stockpile Ore Reserves which have been reported as Proved have been derived directly from the Mineral Resource classified at the Measured level of confidence.

No inferred material was included in the conversion of Mineral Resource to Ore Reserves. All inferred material was treated as waste in the planning process.

The Competent Person is satisfied that the estimated Ore Reserves as stated here reflect his view of the deposit.

None of the Probable Ore Reserves stated here were derived from Measured Mineral resources.

Mining method and other mining assumptions

Detailed pit designs for the Kipoi Central open pit were completed based on new open pit optimisation studies using the revised parameters and resource model. This resulted in a two-staged development design for the open pit operations. The Kileba open pit has also been re-designed based on an updated open pit optimisation study with updated modifying factors.

With the recently completed Stage 1 mining operations having gone on for 4 years using selective open pit mining with close spaced grade control drilling, there has been a good reconciliation of ore mined with the resource model. Density determinations and quality control procedures developed have proven to provide adequate control. The reserves have been developed after consideration of the erstwhile practices.

Pit slope angles were based on geotechnical studies conducted by George, Orr and Associates, and reported in October 2012, and in conjunction with previous pit designs completed as part of the iterative planning process. In summary, for Kipoi Central, the wall design parameters comprise 10m vertical height benches, mined at face angles of 80° and 12m berms, with wider, 20m berms located at 50m vertical intervals on the final pit walls. Previous pit designs undertaken using these parameters and incorporating access ramps were used to measure overall slope angles as input into the pit optimisation studies. This resulted in overall wall angles of 30°, based on an inter-ramp slope angle of 33° with an allowance for one pass of a 25m wide access ramp on all sides of the pit.

For Kileba, the wall design parameters comprise 10m vertical height benches, mined at face angles of 80° and 10m berms, with wider, 20m berms located at 60m vertical intervals on the final pit walls.

Previous pit designs undertaken using these parameters and incorporating access ramps were used to measure overall slope angles as input into the pit optimisation studies. This resulted in overall wall angles of 35° on the north eastern wall accounting for a ramp in that wall and 40° on the eastern wall with no ramp.

Mining dilution is incorporated in the Mineral Resource model estimation hence no further mining dilution was applied. This is supported by current operations reconciliation data.

Mining recovery factors have been incorporated in the Mineral Resource model estimation hence no further mining recovery was applied. This is supported by current operations reconciliation data.

A minimum mining width of 30 m was used.

No inferred material was included in the conversion of Mineral Resource to Ore Reserves. All inferred material was treated as waste in the planning and reporting process.

The Stage 1 mining operations utilized a mining contractor, contracted laboratory and in-house expertise to manage the efficient exploitation of the orebodies. Accommodation, messing, survey, mine planning, laboratory and all necessary infrastructure has been established during the past 4 years. The existing infrastructure will be used in Stage 2 of the Project.

Metallurgical Recovery Assumptions

Estimation of metallurgical recovery for any given ore block involved 2 steps:

1. Estimation of the grade of extractable copper (acid and cyanide-soluble copper) in the block.

2. Application of modifying factors appropriate to the processing method(s) to be used for the ore in that block. In general, this will involve application of modifying factors for both heap and tank leach processing methods to each ore block, with the proportion of ore allocated to each method determined by the coarse/fines split estimate to occur during scrubbing.

The grade of extractable copper for each ore block has been estimated by using a database of 4699 assays for Kipoi Central and 425 assays for Kileba. Statistical investigations of this dataset determined relationships between total copper grade, acid and cyanide-soluble copper grade, lithology and oxidation state which were used to construct an algorithm to calculate the estimated extractable copper grade for each block. The validity of these estimated extractable copper grades for determination of ore reserves is considered satisfactory with the assumption being made that close-spaced grade control including extractable copper assaying will be carried during mining to determine extractable copper at the scale of the selective mining unit. Although there is a paucity of data for Kileba, review of characterisation of similar Kipoi lithologies with those found at Kileba suggested that the technique is appropriate. Further definition of the geometallurgical characterisation in Kipoi is recommended.

The modifying factors appropriate to the tank leach and heap leach processing methods were determined following review by NewPro of prior metallurgical testwork carried out by Mintek and interpreted by Miller Metallurgical Services in 2012 (with a supplementary update by Miller Metallurgical Services issued in 2014 following completion of final column leaching tests). The final recovery formula for each ore block is of the following form:

Heap Leach: Copper recovery = $100 \times (E/C) \times R_h \times D_h$
Tank Leach: Copper recovery = $100 \times (E/C) \times R_t \times D_t$

Where:
E = the extractable copper grade in the block
C = total copper grade in the block
R_h = Average % recovery estimated of extractable copper from heap leach testwork.
R_t = Average % recovery estimated of extractable copper from tank leach testwork.
D_h = short-circuit and channelling discount factor for heap leaching.
D_t = short-circuit discount factor for tank leaching.

The average recoveries resulting from the above method and broken down by deposit and oxidation state are as follows:

- Kipoi Central Stage 2
  - Oxide – 81%
  - Transition – 79%
  - Sulphide – 4%

- Kileba
  - Oxide (C1) – 83%
  - Transition – 69%
  - Sulphide – 12%

Processing method and other processing assumptions

A Heap/Agitated Leach SX-EW process is proposed for processing ore from Kipoi Central Stage 2 pit and the Kileba pit. This processing route has been used historically at Kipoi and reflects much of the capital deployed and operational knowhow already on site. The choice of this process path follows the original metallurgical test work programme that determined the suitability of the extraction process.

The processing flowsheet assumed that Kipoi Stage 2 ore will be processed by the current plant and processing methods on site providing a high degree of certainty. In line with the original definitive feasibility study, the Company plans to install a permanent crushing facility and a scrubber (in raffinate) to reduce crushing, re-handling and overall unit costs.

The proposed Heap/Agitated Leach SX-EW process is a well-tested technology. The technology has been deployed at Kipoi for many years and is being continuously improved. Scrubbing ore ahead of heap leaching is successfully being deployed at Kipoi by a 3,000tpd scrubbing demonstration plant (CCAP) confirming an appropriate and effective process route.

The Kipoi ores are relatively clean and contain few deleterious elements. Regular control and review measures are in place to monitor for any changes or remedial action.

No recent bulk sampling or pilot scale test work has been completed. However, historic and current performance of the existing plant and ore processing pathways indicate satisfactory outcomes and are subject to regular review and assessment.

Cut-Off Grades

The cut-off grades used in the estimation of these Ore Reserves is the non-mining, break-even copper grade taking into account metallurgical recovery, site operating costs, royalties and revenues.

Single cut-off grades were defined by material type due to varying treatments costs and recoveries by material.

A traditional, grade-based cut-off was not used due to the variability of costs and recoveries on a block-by-block basis and as a result, a net block value was used to decide which blocks would be processed and hence reported as an Ore Reserve. This net block value formula is of the general form:

Net Block Value = $(P - R) \times M - C_p$

Where:
P = assumed copper price ($/tonne Cu)
R = the sum of all realisation costs (transport, sales, royalties) in $/tonne Cu
M = the quantity of recoverable Cu in the block (tonnes Cu)
C_p = the incremental cost associated with processing the block as ore vs assigning it to waste ($)

Estimation Methodology

The Ore Reserve Estimate has been based on the Kipoi Central Mineral Resource estimate updated as at March 2019 and the Kileba Mineral Resource estimate as at June 2019, both carried out by Cube. The Competent Person for the reporting of this Mineral Resource is Mark Zammit.

The Mineral Resources have been reported inclusive of the Ore Reserves estimated and stated here.

Environmental modifying factors

The environmental impact assessment has been completed and approved by the local authorities. The waste rock is dominated by limestone hosted minerals and is expected to be inert. The closure plan and rehabilitation plan details the establishment of economic farm lots for long term cashflow generation for the local community.

Infrastructure modifying factors

Stage 1 of the project operated for 4 years with all necessary support infrastructure. Stage 2 of the project will make use of existing infrastructure with an on-going provision of additional infrastructure for the expanded operations.

Social modifying factors

The social license is in good standing with ongoing monthly community meetings, key social projects being delivered and positive feedback from community leaders. The 2018 Mining Code amendments now require the company to spend a set percentage of revenue on social development programmes.

Costs

Capital costs relating to the treatment of the stated Ore Reserves have been derived by studies undertaken at least at a PFS level and involve updates to existing process facilities.

Mining Operating costs were sourced from the Stage 1 mining contract schedule of rates and made up of Load & Haul, Drill and Blast, fuel cost and a fixed management fee. These costs were deemed reasonable for an operation of such size.
The non-mining operating costs have been estimated using existing operations for corporate administration, environmental and social programs while the ore processing operating cost has been

estimated from first principals using proven industry practices, current operating experience and advice from SEK in relation to supply contract data and current actual costs, and interpretation of testwork based net acid consumptions.

For Kipoi Central, process costs vary by material oxidation, and also the processing options, being heap leach for the coarser material and tank leach for the finer (-200 µm) material. Separation of the feed materials into the coarse and fine fractions will take place within a scrubber to be installed after the crushing circuit. Treatment cost summaries for the heap leach and tank leach process streams are shown in Table 3 and Table 4 respectively. Underpinning these process centre based costs are the following headline consumable costs:

Acid $0.38 per litre

Fuel $1.07 per litre

Power $0.1145 per kWh

Table 3: Kipoi Central heap leach costs

Heap Leach (USD/t Ore)	**Oxide**	**Transition**	**Fresh**
Primary Crushing	0.87	0.87	0.87
Secondary Crushing	0.57	0.57	0.57
Scrubbing	1.12	1.27	1.27
Heap Leach	11.15	9.25	(11.65)*
SX	2.54	2.54	2.54
EW (Fixed)	0.82	0.82	0.82
Sub-total processing cost	**17.07**	**15.32**	**(5.58)**
General and Admin	7.10	7.10	7.10
Total ($/t Ore) including G&A	**24.17**	**22.42**	**1.52**
Heap Leach ($/t Cathode)	**Oxide**	**Transition**	**Fresh**
EW (Variable)	283.65	283.65	283.65
Cathode Realisation	557.35	557.35	557.35
Total ($/t Cathode)	**841.01**	**841.01**	**841.01**

*Fresh material is acid generating on the heap and as such it is given an acid ‘credit’ in the planning process to reflect this.

Table 4: Kipoi Central tank leach costs

Tank Leach (USD/t Ore)	**Oxide**	**Transition**	**Fresh**
Primary Crushing	0.87	0.87	0.87
Secondary Crushing	0.57	0.57	0.57
Scrubbing	1.12	1.27	1.27
Tank Leach	19.21	12.75	11.61
SX	2.54	2.54	2.54
EW (Fixed)	0.82	0.82	0.82
Sub-total processing cost	**25.13**	**18.82**	**17.68**
General and Admin	7.10	7.10	7.10

Tank Leach (USD/t Ore)	Oxide	Transition	Fresh
Total ($/t Ore) including G&A	**32.23**	**25.92**	**24.78**
Tank Leach ($/t Cathode)	**Oxide**	**Transition**	**Fresh**
EW (Variable)	283.65	283.65	283.65
Cathode Realisation	557.35	557.35	557.35
Total ($/t Cathode)	**841.01**	**841.01**	**841.01**

Since part of Kileba will be mined prior to the installation of the upgraded crusher circuit and scrubber, the costs have been broken out into "Initial" costs, reflecting the costs of the current crushing and CCAP processes, and a "Final" cost structure once the upgrade has been completed. The timing of the upgrades is reflected in the life of mine production schedule and discussed in that section of this report. Treatment cost summaries for the heap leach and tank leach process streams are shown in Table 5 and Table 6 respectively. Underpinning these process centre based costs are the following headline consumable costs:

Acid $0.38 per litre

Fuel $1.07 per litre

Power $0.1145 per kWh

Table 5: Kileba heap leach costs

Heap Leach (USD/t Ore)	Initial	Final
Primary Crushing	4.45	0.87
Secondary Crushing		0.57
CCAP/Scrubbing	2.72	1.27
Heap Leach	21.15	21.15
SX	2.91	2.91
EW (Fixed)	1.17	1.17
Sub-total processing cost	**32.40**	**27.94**
General and Admin	5.80	5.80
Ore Haulage	4.80	4.80
ROM Re-handle	2.29	2.29
Total ($/t Ore) including G&A	**45.29**	**40.83**
Heap Leach ($/t Cathode)	**Oxide**	**Fresh**
EW (Variable)	283.65	283.65
Cathode Realisation	557.35	557.35
Total ($/t Cathode)	**841.01**	**841.01**

Table 6: Kileba tank leach costs

Heap Leach (USD/t Ore)	Initial	Final
Primary Crushing	4.45	0.87
Secondary Crushing		0.57
CCAP/Scrubbing	2.72	1.27
Tank Leach	28.1	28.1

Heap Leach (USD/t Ore)	Initial	Final
SX	2.91	2.91
EW (Fixed)	1.17	1.17
Sub-total processing cost	**39.35**	**34.89**
General and Admin	5.8	5.8
Ore Haulage	4.8	4.8
ROM Re-handle	2.29	2.29
Total ($/t Ore) including G&A	**52.24**	**47.78**
Tank Leach ($/t Cathode)	**Initial**	**Final**
EW (Variable)	283.65	283.65
Cathode Realisation	557.35	557.35
Total ($/t Cathode)	**841.01**	**841.01**

Results of the open pit optimisation runs for Kipoi Central and Kileba are summa rised graphically in Figures 2 and 3 respectively. Analyses of the value versus tonnage curves led to the selection of shell 16 to form the basis for the open pit designs. Shell 16 corresponds to the revenue factor 1 shells of both runs.

Figure 2: Kipoi Central Optimisation Output Chart

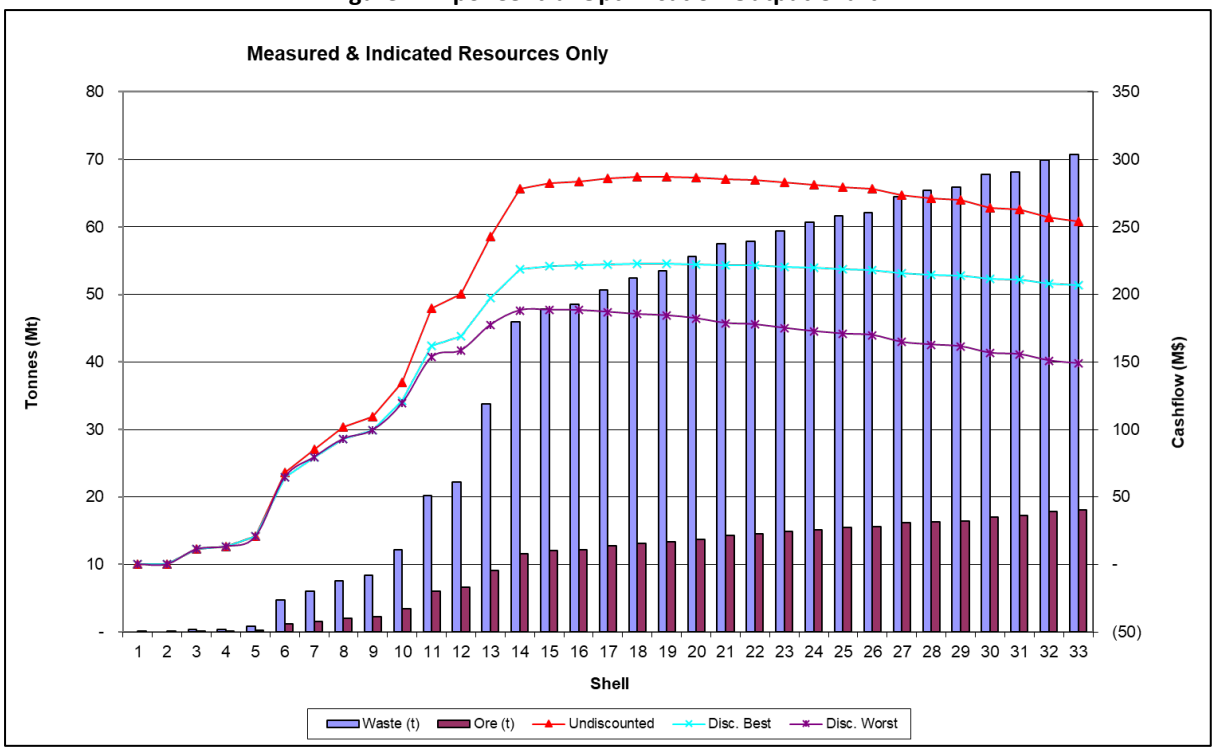
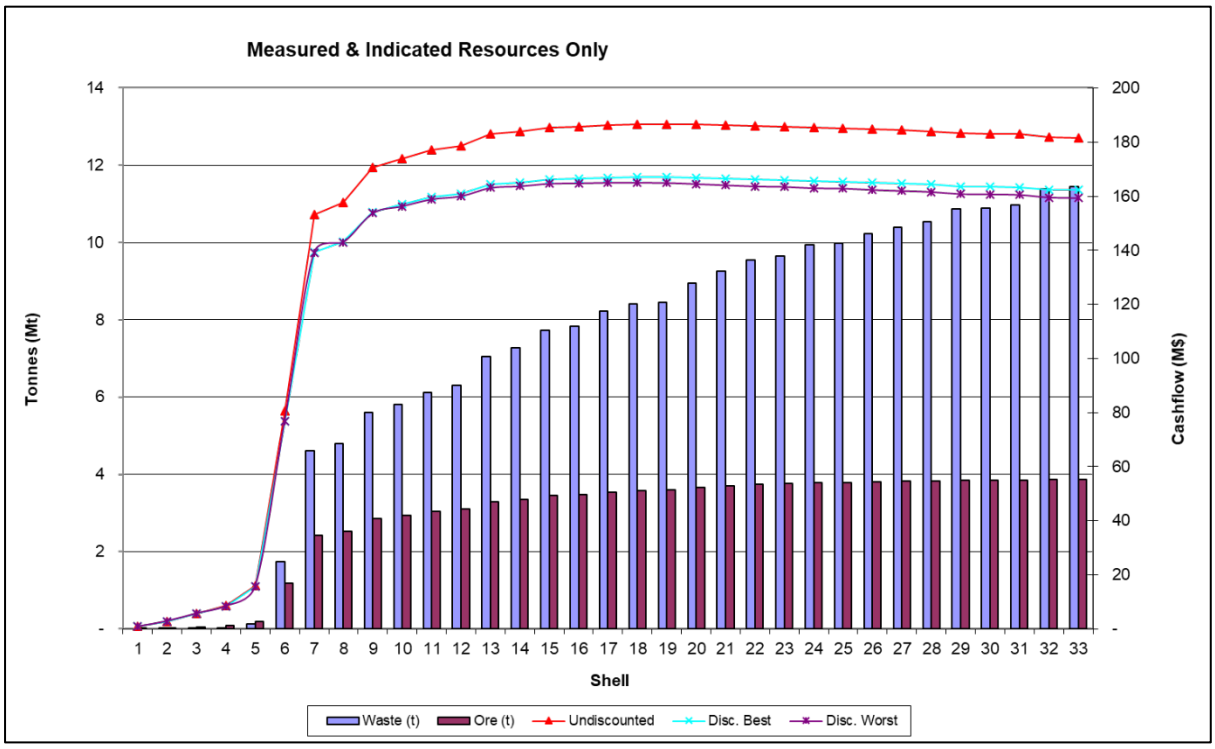


Figure **3:** Kileba Optimisation Output Chart



No allowance has been made for deleterious materials other than those identified in the environmental study that have been fully assessed and costs incorporated into the analysis.

The operation assumes revenues from sales of copper only. The forward projection of copper price has been based on Consensus Economics.

All costs have been developed in United States Dollars where possible. The exchange rates used for local supply and regional supply have been based on relevant spot exchange at the time provided.

Transport delivery and marketing costs have been based on historical rates.

The statutory state charges have been included in the financial model.

Market assessment

The market remains positive for copper with current pricing moderately higher than the 5-year historical average, and future projected prices expected to exceed the historical price.

The copper will be sold under an offtake agreement. Around 65,000 tonnes of copper cathode produced will be sold under existing offtake arrangements.

The price expected is based on Consensus Economics projections. The market is generally considered to be expanding in line with production.

Other material modifying factors

All material legal, commercial and marketing agreements have been executed.

Rainfall is identified as the major risk factor and the operations are equipped to deal with such events having experience in operating this mine over the past 5 years.

The government has approved the project development.

Mineral Resources

Cube completed an updated Mineral Resource Estimate for the Kipoi Central deposit at Kipoi following the completion of mining the Stage 1 pit and collection of additional drill and other exploration information. The update incorporates all drilling up to 13 June 2018 and includes an additional 11 diamond core (DC) and 57 reverse circulation (RC) holes focused on infilling areas of previously sparse drilling defined by the Kipoi Stage 2 optimisation.

The Mineral Resource Estimate for Kipoi Central includes a **Measured and Indicated Resource of 28.3Mt at 1.22% Cu and 0.05% Co for 346 Kt copper and 15 Kt cobalt and an Inferred Resource of 15.0Mt at 0.93% Cu and 0.06% Co for 140 Kt copper and 9 Kt cobalt**.

The Kileba deposit has **an Indicated Resource of 12.9Mt at 1.16% Cu and 0.05% Co for 150 Kt copper and 6 Kt cobalt and an Inferred Resource of 4.3Mt at 0.80% Cu and 0.03% Co for 35 Kt copper and 2 Kt cobalt**.

Two cobalt stockpiles at Kipoi contain material mined from the Stage 1 Kipoi Central pit. A review of these stockpiles has identified a combined Indicated Mineral Resource of **509 Kt at 0.28% Cu and 0.45% Co for 1.4 Kt copper and 2.3 Kt cobalt**.

Kipoi Central

The Kipoi Central Mineral Resource Estimate was previously completed by Cube and reported in December 2013 above 0.5% Cu for a Measured and Indicated Resource of 37.0Mt at 1.7% Cu and 0.1% Co for 623Kt copper and 28.4 Kt cobalt and Inferred Resource of 1.8Mt at 1.1% Cu and 0.1% Co for 19 Kt copper and 1.3 Kt cobalt.

The Mineral Resource was last reported in the 2017 Annual Report above 0.3% Cu and depleted to 31 December 2017 for a total of 47.9Mt at 1.2% Cu and 0.07% Co for 571 Kt copper and 34 Kt cobalt. This included a Measured and Indicated Resource of 45.0Mt at 1.2% Cu and 0.07% Co for 548 Kt copper and 31.7 Kt cobalt and Inferred Resource of 2.9Mt at 0.8% Cu and 0.07% Co for 23 Kt copper and 2.1 Kt cobalt.

The updated Mineral Resource Estimate for the Kipoi Central deposit at 30 June 2019 totals 43.3Mt grading 1.12% Cu and 0.06% Co for 485Kt copper and 24Kt cobalt – refer to Table 7.

Table 7: Kipoi Central Project Mineral Resource Statement as at 30 June 2019

Classification	Category	Tonnes (Mt)	Cu %	Co %	Cu (Kt)	Co (Kt)
Measured	Oxide	0.5	1.37	0.07	6	0
	Transition	0.4	1.29	0.07	6	0
	Sulphide	1.3	2.70	0.07	35	1
	Sub-Total	**2.2**	**2.14**	**0.07**	**47**	**1**
Indicated	Oxide	16.7	1.01	0.06	168	9
	Transition	3.9	1.18	0.04	46	2
	Sulphide	5.4	1.56	0.05	85	3

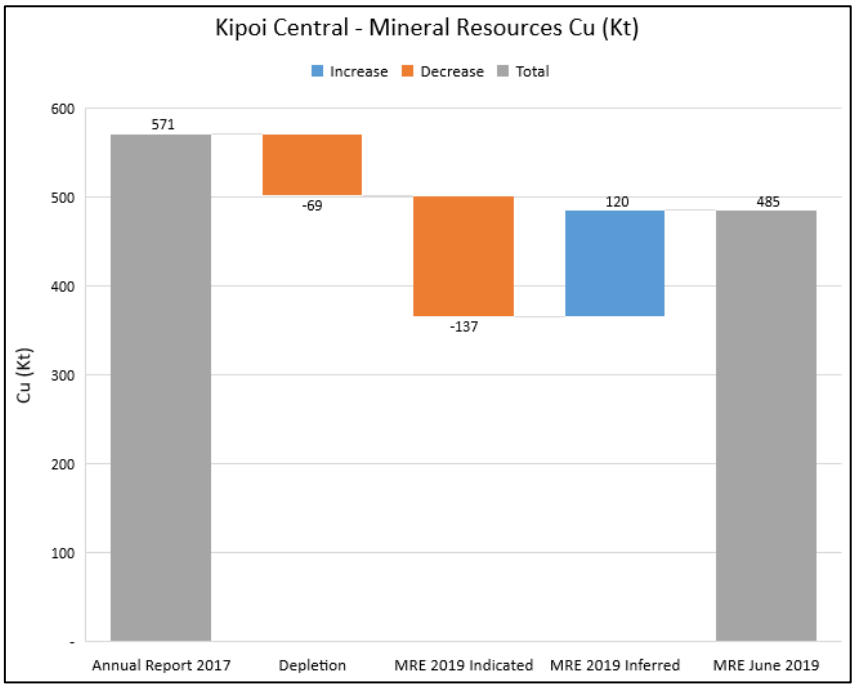
Classification	Category	Tonnes (Mt)	Cu %	Co %	Cu (Kt)	Co (Kt)
	Sub-Total	**26.1**	**1.15**	**0.05**	**299**	**14**
Measured + Indicated	**Sub-Total**	**28.3**	**1.22**	**0.05**	**346**	**15**
Inferred	Oxide	6.1	0.86	0.07	52	4
	Transition	3.5	0.95	0.06	33	2
	Sulphide	5.5	0.99	0.05	55	3
	Sub-Total	**15.0**	**0.93**	**0.06**	**140**	**9**
Total		**43.3**	**1.12**	**0.06**	**485**	**24**

Notes:

1. Resources quoted above 0.3% Cu.
2. Totals may not match due to rounding.

Changes to the Kipoi Central Mineral Resource statement since the 2017 Annual Report are summarised below in Figure 4. Depletion of the existing stockpiles and insitu mineralisation has resulted in a reduction of 69 Kt of copper. In addition, there has been a decrease in the Indicated Mineral Resource of approximately 137 Kt of copper. This is due to the inclusion of additional information such as drilling and trenching which has altered some of the underlying assumptions regarding the orientation of mineralisation, reducing the volume and risk profile of material previously classified as Indicated Resources. The majority of this material remains within the total Mineral Resource Estimate (MRE) as Inferred Resources which has increased by 120 Kt of copper.

Figure 4: Waterfall Chart – Kipoi Central Mineral Resource (Copper Kt)



Notes:

1. Total Kipoi Central Mineral Resource including Stockpiles quoted above 0.3% Cu - Annual Report 2017.
2. Depletion of Stockpiles and Insitu Mineral Resource.
3. Reduction in Indicated Mineral Resource within the update Mineral Resource as at 30 June 2019.
4. Increase in Inferred Mineral Resource within the update Mineral Resource as at 30 June 2019.

Geology

The Kipoi Central prospect is part of the Mwashya Sub-group, the youngest of the Roan sub-groups, as demonstrated by recently revised and updated detailed pit mapping by Gecamines. These abut tillites or diamictites of the Nguba Group across a structurally overprinted or reactivated unconformable contact (in places, discordantly underlain by talcous brecciated rocks of the lowermost Mines sub-group (R1 and R2.1, breche heterogene)). Geochemical data suggest that the R1 talcose sandy breccias are of diapiric origin and represent insoluble components of an extruding mixed evaporite rock.

The rock succession of the R4 in the deposit area includes from the north-west to the south-east, a steep to upright, south-east dipping package of interbedded carbonate rocks and siltstones. Above the base of oxidation, the carbonate rocks are strongly weathered, red-brown and partly indurated by iron oxides and silica. Original cryptalgal lamination textures can be recognised. They tend to contain enriched supergene copper and cobalt mineralisation. This interbedded package is separated by a rock unit that consists primarily of light green talc-chlorite-carbonate minerals that are interpreted to be of retrograde altered mafic or intermediate mafic or pyroclastic parentage.

In drill core, the volcano– or pyroclastic rocks appear massive with internal breccias of monomictic, irregular and angular clasts. In outcrop, they commonly form a recessed topography and show no internal structure but have a distinct massive texture and a talcous feel. A narrow jasperoid haematite unit, locally 1 to 3m wide, commonly marks the hanging wall contact to the adjacent rock unit. In the south-east, the volcanic rocks are in contact with fine and medium grained, thick-bedded and slaty calcareous siltstones with minor stromatolitic carbonate beds.

Drilling Techniques

By 2008, Tiger had undertaken extensive drilling at Kipoi Central including 136 DC holes, 21 RC holes and 23 air core (AC) holes. The drilling was undertaken on east-west lines, primarily on a 25m x 25m and 50m x 50m collar spacing, increasing to 50m x 30m and 80m x 50m at depth, to define mineralisation such that Mineral Resource estimates could be undertaken to the level of confidence required for mining studies.

For the purposes of conducting mining studies, Tiger designated an Area of Interest (AOI), defined as the area of high-grade mineralisation at Kipoi Central that was to form the first three years of planned production at Kipoi. Infill drilling had generally reduced the drill spacing to a grid of 25m x 25m over the AOI. AC drilling was completed in areas adjacent to the main Kipoi Central mineralisation for sterilisation purposes to locate proposed infrastructure.

In 2011, five RC holes (KPCRC116-119) were drilled northwest of the main mineralisation, with an additional eight DC twin holes drilled to the west, south and southwest of the Kipoi Central resource for metallurgical testing. Between August 2011 and July 2012, 38 DC holes were completed to extend the resources to the west.

Six DC holes (KPCGTK009-15) for geotechnical purposes were completed during the first quarter of 2012. These holes were generally oriented with a southwest to west azimuth and a dip of -60 degrees. All holes were drilled HQ3 (triple tube) and collared from surface. Unfortunately, all holes except one were abandoned prematurely due to difficult ground conditions.

RC holes KPCRC122 to 149 were drilled during August 2017 and then KPCRC150 to 154 from November 2017 to Jan 2018. These holes were drilled with an azimuth of 300^{o} with -60^{o} inclination, with the aim

of identifying additional mineralisation not previously intersected by the previously east-west oriented drilling.

RC holes KPCRC155 to KPCRC184 were drilled after the mineral resource was completed. These holes have not been included in the interpretation or estimation process. However, they have been viewed graphically with respect to the June 2019 updated Mineral Resource reported in this document, and good correlation of ore and waste intersections is observed.

Sampling

The DC was orientated and marked up on 1m intervals prior to being logged for geological and geotechnical purposes by a geologist. The core samples were split using hydraulic splitters or cut with a core saw and bagged for shipment to the assay laboratory.

RC samples were collected at 1m intervals at the cyclone on the drill rig. It was passed through a riffle splitter twice prior to further reducing it down to collect a sub-sample for assay. Samples were analysed by a handheld XRF instrument (Niton) before submission to the assay laboratory.

Sample Analytical Methods

ALS Johannesburg was the primary assay laboratory for sample preparation and assaying in period 2006-2011. During 2008, after sample preparation had been carried out onsite, approximately 50% of the pulps were air freighted to ALS Perth for analysis while ALS Johannesburg and, to a lesser extent, SGS Zambia analysed the remaining 50%. SGS Lubumbashi was utilised for a select period only, during 2017. There was a high degree of correlation between ALS sampling in Johannesburg and Perth.

Sample preparation and analysis were completed at both the onsite laboratory SGS Kipoi and external laboratory ALS Johannesburg during 2018 for both sample preparation and analysis.

Grade analysis was by a multi-element analytical method (ME-ICP61) with a follow-up ore grade analysis for copper (Cu) and cobalt (Co) using the ME-OG62 method on all samples. The alternative ore grade method ME-OG46 has been used intermittently for ore grade partial digestion analysis.

Cube reviewed and independently assessed all available QAQC sample data belonging to the Kipoi Central project, which has been owned by Tiger from November 2006 to June 2018.

The quality of the assay data was assessed by analysing the Certified Reference Material (CRM or Standards) and duplicate samples in terms of accuracy and precision and were considered acceptable for use in a MRE.

Estimation Methodology

Two copper and two cobalt domains were interpreted to define high- and low-grade mineralisation outlines. Composites for both the resource definition (RD) and grade control (GC) drilling were separated based on these domains. The estimation based on the RD data was undertaken using Ordinary Kriging of 3m downhole composited drilling data into a three dimensional block model with a panel size of 20mE x 25mN x 5mRL. A further process of Localised Uniform Conditioning (LUC) was applied to produce a model suitable for reporting above grade cut-offs and for mine planning purposes based on a SMU size of 5m x 5m x 2.5m and a selection of grade cut-offs. The LUC estimate also incorporated an Information Effect correction to allow for some effect of incomplete information on the local recoverable model.

Within a volume defined by the GC data, grade estimates were completed based on the modelled copper outlines and were by Ordinary Kriging (OK) of the combined RD and GC 3m composites with a panel size 5(X) x 5(Y) x 2.5(Z)m.

The final grade estimate is a combination of both the RD and GC estimates. It is represented by the GC OK estimate inside the GC defined volume and by the RD LUC estimate outside the GC volume.

Criteria for Resource Classification

The June 2019 Kipoi Central MRE is intended for public reporting and forms an update of the model used for the Stage 2 DFS. The MRE has been classified and reported in accordance with the JORC Code.

The classification of the Kipoi Central MRE considered a number of criteria including but not limited to database integrity, bulk density data, geological interpretation, drill hole spacing and sampling density, and the estimation method.

The Measured category only includes mineralisation defined by close spaced GC drilling. The Indicated category is peripheral to the GC drilling and typically defined by resource definition drilling with a nominal hole spacing of 50m x 50m or tighter, with a Kriging Slope of Regression of greater than approximately 0.6. The Inferred category is defined by drilling data density greater than 50m x 50m spacing, with Slope of Regression less than 0.6, within the remainder of the estimation volume. The MRE classification appropriately reflects the Competent Person's view of the deposit.

Cut-Off Grade

The Kipoi Central MRE has been reported above a cut-off grade of 0.3% Cu based on assumptions of suitable economic grades for this style of deposit and by open pit mining.

Kileba

Cube has completed an MRE update for the Kileba deposit following the previous publicly reported MRE undertaken by Cube in August 2012 (above 0.5%Cu) which included an Indicated Resource of 8.6Mt at 1.49% Cu and 0.05% Co for 128.2Kt copper and 4.6 Kt cobalt and Inferred Resource of 2.2Mt at 1.23% Cu and 0.04% Co for 27.4 Kt copper and 0.9 Kt cobalt.

The updated Mineral Resource Estimate for the Kileba deposit was in response to additional drilling and other available information such as re-logging of drill core and geological review completed by SEK. The total updated Mineral Resource Estimate for the Kileba deposit at 30th June 2019 (above 0.3%Cu) is 17.2Mt grading 1.07% Cu, 0.05%Co for 185Kt copper and 8Kt cobalt – refer to Table 8.

The total contained copper within the Mineral Resource has increased from 155 Kt (August 2012) to 185 Kt (June 2019). This increase is mainly attributed to the change in reporting cut-off from 0.5%Cu to 0.3%Cu which is responsible for approximately 24 Kt of copper. The remaining increase of 6 Kt of copper is the result of additional drilling and updated MRE.

Table 8: Kileba Project Mineral Resource Statement as at 30 June 2019

Classification	Category	Tonnes (Mt)	Cu %	Co %	Cu (Kt)	Co (Kt)
Indicated	Oxide	9.7	1.16	0.05	113	5
	Transition	2.1	1.13	0.05	23	1
	Sulphide	1.1	1.25	0.04	14	0
	Sub-Total	**12.9**	**1.16**	**0.05**	**150**	**6**

Classification	Category	Tonnes (Mt)	Cu %	Co %	Cu (Kt)	Co (Kt)
Inferred	Oxide	1.8	0.61	0.04	11	1
	Transition	1.0	0.61	0.03	6	0
	Sulphide	1.5	1.17	0.04	18	1
	Sub-Total	**4.3**	**0.80**	**0.03**	**35**	**2**
Total		**17.2**	**1.07**	**0.05**	**185**	**8**

Notes:

1. Resources quoted above 0.3% Cu.
2. Totals may not match due to rounding.

Geology

The Kileba deposit is 7km southeast of Kipoi Central and occurs as two northwest-trending ridges transected and divided by a northeast trending gully into a north western ridge segment and a south eastern segment. The host rocks in the Kileba area are correlatives of the R4 sequence of rocks intersected at Kipoi Central and are overlain by Kundelungu tillite facies. Artisanal workings extend intermittently over a distance of about 1.1km along the crest of both ridges providing access to part of the stratigraphy. Northwest striking weathered talcose pyroclastic rocks occur on the northeast side of the ridge, which are interpreted to be the oldest rocks of the R4 sequence and are in contact with siliciclastic sedimentary rocks in the hanging wall. The pyroclastic rocks are overlain by interbedded dolomitic, graphitic and shaly siltstones, a massive algal dolomite member, an evaporitic calcarenite member and interbedded fine and medium grained sandstone units. The siliciclastic sediments in contact with the pyroclastic rocks are well stratified with more weathering resistive coarse-grained siltstone to sandstone beds separated by fine-grained recessive slaty siltstone beds. The contact between pyroclastic rocks and sediments appears strongly sheared and mineralised.

Drilling Techniques

In August 2006, first-pass RC and DC drilling was undertaken in the vicinity of the Kileba workings to evaluate mineralisation being exploited by the artisanal miners, with 14 RC and 2 DC holes totalling 1,712m drilled. By March 2009, drilling had tested approximately 1.4km of prospective strike length at Kileba.

For the purposes of the Mineral Resource estimation completed on the Kileba South area in April 2009, 38 HQ sized DC and 40 RC holes for a total of 3,944m were used. Holes were drilled on a grid of approximately 50m along strike by 25m across strike.

Between the end October 2011 and March 2012, 64 DC holes (KLBDD038 to 100) totalling 8,296m were completed to infill the mineral resource on 25m spaced sections.

In June and July 2012, an additional 29 DC holes (KLBDD101 to 129) totalling 2,824m being extension drilling targeting the periphery of the mineral resource were completed. These 29 holes were not previously included in the historical August 2012 MRE.

Four geotechnical DC holes were completed at Kileba using varying azimuths and dips as required.

Sampling

Diamond core was orientated and marked up on 1m intervals prior to being logged for geological and geotechnical purposes by a geologist. Sample sheets were prepared with PQ, HQ sized core sampled

on 0.5m intervals, and NQ sized core sampled on 1m intervals. Core samples were split using hydraulic splitters or cut with a core saw and bagged for shipment to the assay lab.

For RC sampling, drill chips for each metre drilled were collected into 1m sample bags and passed through a riffle splitter twice prior to being further reduced for a sub-sample to be assayed. The samples were analysed by a handheld XRF instrument (Niton) prior to being sent to the laboratory.

Sample Analytical Methods

ALS Johannesburg was the primary assay laboratory for sample preparation and assaying in period 2006-2011. During 2008, after sample preparation had been carried out onsite, approximately 50% of the pulps were air freighted to ALS Perth for analysis while ALS Johannesburg and, to a lesser extent, SGS Zambia analysed the remaining 50%. SGS Lubumbashi was utilised for a select period only, during 2017. Currently the sample preparation and analysis are completed at either the onsite laboratory SGS Kipoi or external laboratory ALS Johannesburg during 2018 for both sample preparation and analysis.

Grade analysis has been analysed by a multi-element analytical method (ME-ICP61) with a follow up ore grade analysis for Cu and Co using the ME-OG62 method on all samples. The alternative ore grade method ME-OG46 has been used intermittently for ore grade partial digestion analysis.

Estimation Methodology

The estimation of copper and cobalt was undertaken using Ordinary Kriging of the 3m downhole composites into a three-dimensional block model by Ordinary Kriging with a panel size 25(X) x 25(Y) x 5(Z)m. A further process of LUC was applied to copper and cobalt to produce a model suitable for reporting above grade cut-offs and for mine planning based on a selective mining unit (SMU) of 5(X) x 5(Y) x 2.5(Z)m and a selection of grade cut-offs. The LUC has also incorporated an Information Effect correction (10 x 10 x 1) to allow for some effect of incomplete information at the grade control stage. Estimates were based on a single search strategy with a minimum number of composites set at 6 and maximum number of composite set at 24.

Criteria for Resource Classification

The Kileba Mineral Resource updated estimated in June 2019 has been classified and reported in accordance with the JORC Code. The Cube approach to classification is based on a number of papers discussing the application of the JORC Code, for example Stephenson and Stoker (2001).

It is Cube's conclusion that the Kileba mineralisation is sufficiently drilled to allow classification. Cube has considered all criteria and has classified the resource as Indicated or Inferred. Indicated Mineral Resources are typically defined by resource definition drilling with a nominal spacing of 25 x 25m and a grade estimation characterised by a slope of regression better than 0.6. Inferred Mineral Resources are defined as all remaining interpreted mineralisation and is typically defined by a data density of 50 x 50m or more and a slope of regression between 0.2 and 0.6.

Cut-Off Grade

The Kileba Mineral Resource has been reported above a cut-off grade of 0.3% Cu based on assumptions of suitable economic grades for this style of deposit and by open pit mining.

Kipoi Cobalt Stockpiles

During mining of the Kipoi Central pit, any material that fell below the 0.5% Cu cut-off, but was above 0.3% Co, was stockpiled separately and was referred to as low grade copper ore (LGCO). This material comprises two stockpiles at Kipoi and are now collectively referred to as the Kipoi Cobalt Stockpiles.

Tiger requested Cube to review these existing stockpiles and after considering all available information, the total Mineral Resource Estimate for the Kipoi Cobalt Stockpiles at 30 June 2019 (above 0% Cu) includes 509Kt grading 0.28% Cu, 0.45%Co for 1.4Kt copper and 2.3Kt cobalt – refer to Table 9.

Table 9: Kipoi Cobalt Stockpiles Mineral Resource Statement as at 30 June 2019

Classification	Tonnes (Kt)	Cu %	Co %	Cu (Kt)	Co (Kt)
Indicated	509	0.28	0.45	1.4	2.3
Total	**509**	**0.28**	**0.45**	**1.4**	**2.3**

Notes:

1. Resources quoted above 0% Cu.
2. Totals may not match due to rounding.

Geology

The material within the Kipoi Cobalt Stockpiles represents low grade copper (<0.5% Cu) but higher grade cobalt (>0.3% Co) material mined from the Kipoi Central open pit. The majority of this material when insitu occurred as stratiform, layer-parallel and structurally remobilised mineralisation in fault breccias and veins. Sulphide copper mineralisation occurs predominantly in deformed siltstones and carbonaceous siltstones and shales but also extends into the adjacent dolomites and volcanic rocks.

Drilling Techniques

The cobalt stockpile material was defined by close spaced RC grade control drilling typically spaced on 10m x 5m section lines which was used for the original dig block delineation. This was in addition to the broader spaced resource definition RC and DC drilling. No drilling of the current stockpiles has been undertaken.

Sampling

The RC grade control drilling was sampled at 1 or 2m intervals. This was riffle split to produce a sample of approximately 1 to 2kg to be sent to the onsite laboratory for analysis.

During 2018, a stockpile sampling exercise was undertaken on the cobalt stockpiles for characteristic and leaching test work. The results from this sampling exercise were not used as part the stockpile estimate but were used internally for characteristic and leaching test work.

Sample Analytical Methods

The onsite laboratory SGS Kipoi was the primary assay laboratory for sample preparation and assaying. Grade analysis for copper (Cu) and cobalt (Co) using the ME-OG62 method on all samples.

Estimation Methodology

The grade of the stockpile was determined by using the original in-pit dig block polygons and these were re-reported using the recent Kipoi Central June 2019 MRE.

A surveyed volume measurement was completed by an independent consultant. This was used in combination with the densities based on the 2019 MRE with a 20% bulking factor allowance for reporting of the stockpile tonnes.

Criteria for Resource Classification

The Kipoi Cobalt Stockpiles have been classified in accordance with the JORC 2012 Code guidelines. The classification has been undertaken by taking into account a range of factors including the informing grade control data, quality of grade estimation, recent mining history, survey volume and assigned density. As a result, the combined cobalt stockpiles have been classified by Cube as Indicated.

Cut-Off Grade

The combined Kipoi Cobalt Stockpiles have been reported above a 0% Co cut-off given there is no assumed mining selectivity within the stockpiles.

For further information in respect of the Company's activities, please contact:

Caroline Keats
Managing Director and CEO
Tel: (+61 8) 6188 2000
Email: info@tigerez.com

Company website: www.tigerresources.com.au

Caution Regarding Forward Looking Statements and Forward-Looking Information: *Reports contain forward looking statements and forward-looking information, which are based on assumptions and judgments of management regarding future events and results. Such forward-looking statements and forward looking information, including but not limited to those with respect to the operations of Stage 2 SXEW plant at Kipoi Central, involve known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, the actual market prices of copper, cobalt and silver, the actual results of current exploration, the availability of debt financing, the volatility in global financial markets, the actual results of future mining, processing and development activities and changes in project parameters as plans continue to be evaluated.*

Competent Person Statement: *The information in this report that relates to Ore Reserves for Kipoi Central and Kileba is based on, and fairly represents information and supporting documentation prepared by Mr Quinton de Klerk, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr de Klerk is a Director and Principal Consultant at Cube Consulting Pty Ltd. Cube Consulting Pty Ltd was engaged by Tiger Resources Limited to prepare the Kipoi Central and Kileba Ore Reserves estimates and both Cube Consulting Pty Ltd and Mr de Klerk have declared themselves to be independent of the Company. Mr de Klerk has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr de Klerk consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

The information in this report that relates to Mineral Resources for Kipoi Central is based on, and fairly represents information and supporting documentation prepared by Mr Mark Zammit and Mr Michael Millad, Competent Persons who are Members of the Australian Institute of Geoscientists. Mr Zammit and Mr Millad are employed by Cube Consulting Pty Ltd. Cube Consulting Pty Ltd was engaged by Tiger Resources Limited to prepare the Kipoi Central Mineral Resource estimate and Cube Consulting Pty Ltd, Mr Zammit and Mr Millad have declared themselves to be independent of the Company. Mr Zammit and Mr Millad both have sufficient experience that is relevant to the style of mineralisation and type of

deposits under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Zammit and Mr Millad consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources for Kileba and Cobalt Stockpiles are based on, and fairly represents information and supporting documentation prepared by Mr Mark Zammit, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Zammit is employed by Cube Consulting Pty Ltd. Cube Consulting Pty Ltd was engaged by Tiger Resources Limited to prepare the Kipoi Central Mineral Resource estimate and both Cube Consulting Pty Ltd and Mr Zammit have declared themselves to be independent of the Company. Mr Zammit has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Zammit consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Kipoi Central Ore Reserves (for the purposes of the Stage 2 Kipoi SXEW) was first reported by the Company in compliance with JORC 2012 in a market release dated 15 January 2014. The Company confirms that it is not aware of any new information or data that materially affects the information included in the market announcement dated 15 January 2014 and further confirms that all material assumptions and technical parameters underpinning the mineral resource estimates contained in the market release dated 15 January 2014 continue to apply and have not materially changed.

Appendix 1 – Kipoi Copper Project Mineral Resource at 30th June 2019

Deposit	Classification	Category	Tonnes (Mt)	Cu %	Co %	Cu (Kt)	Co (Kt)
Kipoi Central[1]	Measured	Oxide	0.5	1.37	0.07	6	0
		Transition	0.4	1.29	0.07	6	0
		Sulphide	1.3	2.70	0.07	35	1
		Sub-Total	**2.2**	**2.14**	**0.07**	**47**	**1**
	Indicated	Oxide	16.7	1.01	0.06	168	9
		Transition	3.9	1.18	0.04	46	2
		Sulphide	5.4	1.56	0.05	85	3
		Sub-Total	**26.1**	**1.15**	**0.05**	**299**	**14**
	Inferred	Oxide	6.1	0.86	0.07	52	4
		Transition	3.5	0.95	0.06	33	2
		Sulphide	5.5	0.99	0.05	55	3
		Sub-Total	**15.0**	**0.93**	**0.06**	**140**	**9**
	Total		**43.3**	**1.12**	**0.06**	**485**	**24**
Kileba[2]	Indicated	Oxide	9.7	1.16	0.05	113	5
		Transition	2.1	1.13	0.05	23	1
		Sulphide	1.1	1.25	0.04	14	0
		Sub-Total	**12.9**	**1.16**	**0.05**	**150**	**6**
	Inferred	Oxide	1.8	0.61	0.04	11	1
		Transition	1.0	0.61	0.03	6	0
		Sulphide	1.5	1.17	0.04	18	1
		Sub-Total	**4.3**	**0.80**	**0.03**	**35**	**2**
	Total		**17.2**	**1.07**	**0.05**	**185**	**8**
Kipoi Cobalt Stockpiles[3]	Indicated	Oxide	0.5	0.28	0.45	1	2
	Total		**0.5**	**0.28**	**0.45**	**1**	**2**
Kipoi North[4]	Indicated	Oxide	2.1	1.28	0.05	27	1
		Transition	0.5	1.21	0.03	6	0
		Sulphide	0.1	1.05	0.04	1	0
		Sub-Total	**2.7**	**1.26**	**0.04**	**34**	**1**
	Inferred	Oxide	0.3	1.20	0.04	4	0
		Transition	0.4	1.06	0.03	4	0
		Sulphide	0.3	1.05	0.03	3	0
		Sub-Total	**1.0**	**1.10**	**0.03**	**11**	**0**
	Total		**3.7**	**1.22**	**0.04**	**45**	**1**
Judeira[5]	Inferred	Oxide	5.2	1.21	0.04	63	2
		Transition	0.8	0.85	0.02	7	0
		Sulphide	0.1	0.95	0.02	1	0
		Sub-Total	6.1	1.16	0.04	71	2
	Total		**6.1**	**1.16**	**0.04**	**71**	**2**
Total Kipoi Copper Project	Measured	Oxide	0.5	1.37	0.07	6	0
		Transition	0.4	1.29	0.07	6	0
		Sulphide	1.3	2.70	0.07	35	1
		Sub-Total	**2.2**	**2.14**	**0.07**	**47**	**1**
	Indicated	Oxide	29.0	1.06	0.06	309	17
		Transition	6.5	1.17	0.04	76	3
		Sulphide	6.7	1.50	0.05	100	3
		Sub-Total	**42.2**	**1.15**	**0.06**	**485**	**23**
	Inferred	Oxide	13.4	0.97	0.05	130	7
		Transition	5.6	0.88	0.05	50	3
		Sulphide	7.4	1.03	0.05	76	3
		Sub-Total	**26.5**	**0.97**	**0.05**	**256**	**13**
	Total		**70.8**	**1.11**	**0.05**	**788**	**38**

[1] Kipoi Central Mineral Resource reported above 0.3% Cu as of 30 June 2019.

[2] Kileba Mineral Resource reported above 0.3% Cu as of 30 June 2019.

[3] Kipoi Cobalt Stockpile Mineral Resource reported above 0% Cu as of 30 June 2019.

[4] Kipoi North Mineral Resource reported above 0.5% Cu. This Mineral Resource was reported in Tiger's ASX announcement "Tiger Resources Increases Kipoi Central Mineral Resource 7.5% to 690,000 tonnes of Copper" released on 3 April 2014. Open pit mining has been undertaken at Kipoi North and this Mineral Resource has been depleted for mining to 30 June 2019.

[5] Judeira Mineral Resource reported above 0.5% Cu. This Mineral Resource was reported in Tiger's ASX announcement "Tiger Resources Declares Maiden Judeira Resource of 71,000t Cu" released on 26 November 2013. No material changes have occurred as at 30 June 2019.

Appendix 2 – Lupoto Copper Project Mineral Resource at 30th June 2019

Deposit	Classification	Category	Tonnes (Mt)	Cu %	Co %	Cu (Kt)	Co (Kt)
Sase[6]	Indicated	Oxide	2.1	1.49	0.08	31	2
		Transition	3.9	1.49	0.04	59	2
		Sulphide	3.6	1.24	0.04	44	1
		Sub-Total	**9.6**	**1.39**	**0.05**	**134**	**5**
	Inferred	Oxide	0.2	1.47	0.05	4	0
		Transition	0.7	1.53	0.04	10	0
		Sulphide	1.9	1.09	0.03	20	1
		Sub-Total	**2.8**	**1.21**	**0.03**	**34**	**1**
	Total		**12.3**	**1.36**	**0.05**	**167**	**6**

[6] Sase Mineral Resource reported above 0.5% Cu. This Mineral Resource was reported in Tiger's ASX announcement "Tiger Resources Increases Sase Central Indicated Resources by 173%" released on 12 July 2013. No material changes have occurred as at 30 June 2019.

Appendix 3 – JORC Code, 2012 Edition – Table 1

Section 1 – Sampling Techniques and Data – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 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 (eg submarine nodules) may warrant disclosure of detailed information.	• RC chips sampled at 1 meter intervals. This is riffle split to produce a sample of approximately 2kg to be sent to the laboratory for analysis. Some 2, 3 and 4 meter composite intervals were taken. • Diamond core is geologically logged and sampled to geological contacts with nominal samples lengths of 1 meter or 0.5 meter depending on core diameter size with a minimum sample length of 0.3 meter. Core samples for assay is half core with some quarter core before dispatch to the laboratory for analysis. • Grade control RC chips sampled at 1 or 2 meter intervals. This is riffle split to produce a sample of approximately 1 to 2kg to be sent to the laboratory for analysis. • AC chips sampled at 1 meter intervals. This is split into 500g sub-samples and sieved to -2mm particle size.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Reverse circulation (RC) (140mm diameter), Diamond drilling (PQ, HQ, NQ) with standard and triple inner tubes, AC drilling (80mm diameter). • Angled Diamond core has been oriented with the orientation mark determined by use of downhole chinagraph pencil spears.
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.	• RC chip samples are weighed in the field before splitting. • Diamond core recoveries are measured in the core trays. • Diamond drilling used triple tube and face-sample bits and dust suppression for RC drilling were used to minimise sample loss. • No relationship between sample recovery and grade appears to exist when comparing sample recovery to grade for diamond core samples. *Kipoi Central* • 70% of the samples measured have logged sample recoveries of over 80%. Some areas have low core recoveries in soft and oxidized material. *Kileba* • 80% of the measured core intervals have logged recoveries of over 75%. Some areas

Section 1 – Sampling Techniques and Data – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		have low core recoveries in soft and oxidized material.
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 diamond resource definition core and RC chips have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation. Re-logging exercise have been undertaken to ensure consistency of logging. *Kipoi Central* • Total length of logged resource definition drilling is 45,387m of which 41,330m of mineralisation has been used in the estimate. In addition, a total of 115,454m RC grade control and 22,720m blast hole drilling have been completed of which 114,693m and 2,022m of mineralization respectively has been used in the estimate. *Kileba* • Total length of logged resource definition drilling is 22,777m of which 15,232m of mineralisation has been used in the estimate.
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 is cut into half core with some quarter core samples taken. • RC chips are riffle split at the drill rig to produce approximately 2kg of sub-sample for dispatch to the laboratory. • AC chips are air dried, riffle split and sieved to -2mm. AC assay results have not been used for grade estimation. • For all sample types, the nature, quality and appropriateness of the sample preparation technique is industry standard. • Field duplicates were taken at a ratio of 1:30. QAQC reports are prepared bi-monthly and upon request after completion of a dedicated campaign. • Samples of 1-2 kg are considered as representative.
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 (eg standards, blanks, duplicates, external laboratory	• Grade analysis has been analysed by a multi-element analytical method (ME-ICP61) with a follow up ore grade analysis for copper (Cu) and cobalt (Co) using the ME-OG62 method on all samples. The method alternative ore grade method ME-OG46 has been used intermittently for ore grade partial digestion analysis. Laboratory and assay procedures are appropriate for mineral resource estimation. *Kipoi Central*

Section 1 – Sampling Techniques and Data – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• QAQC consisted of standards, blanks and laboratory duplicates were used. The CRM (Standards and Blanks) over-all insertion rate is 6%. The Field Duplicate overall insertion rate is low at 2.5%. Overall samples showed acceptable levels of accuracy and precision. *Kileba* • QAQC consisted of standards, blanks and laboratory duplicates were used. The CRM (Standards and Blanks) over-all insertion rate is 6%. Overall samples showed acceptable levels of accuracy and precision.
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.	• No independent sampling has been undertaken by Cube. • Mineralised intersections for available diamond core have been visually confirmed by Cube and site geologists and verified further by portable XRF devices on a 0.25 meter spacing. • Data entry and verification has previously been undertaken by CSA Global but this is now managed on site by the Geology group at Kipoi. • No adjustments have been made to the original assay data.
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.	• Drill holes and trenches have been surveyed either by Differential GPS, Theodolite and handheld GPS. Downhole surveys have been taken with a Ranger single shot survey tool every 30 meters for inclined holes and 50 meters for vertical holes. • The grid system is WGS84_35S. • The original topography was supplied by Photomap of South Africa based on aerial photography with ground survey control. • Topographic control is maintained and continually update by the Tiger Resources survey department as a valid surface DTM.
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.	• Three meters downhole composited samples were used in the estimate. *Kipoi Central* • Resource definition drilling spacing is variable being in the range of 25m X 25m to 100m X 100m. Grade control drilling is spaced at 10m X 5m. This spacing is adequate to determine the geological and grade continuity for reporting of a combined Measured, Indicated and Inferred Mineral Resources. *Kileba* • Resource definition drilling spacing is variable being in the range of 25m X 25m to 100m X

Section 1 – Sampling Techniques and Data – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		100m. No grade control drilling has been completed at Kileba. This spacing is adequate to determine the geological and grade continuity for reporting of a combined Indicated and Inferred Mineral Resources.
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.	• It is not considered that drilling orientation has introduced an appreciable sampling bias. *Kipoi Central* • Drilling intersections are nominally designed to be normal to the orebody. Historic drilling was oriented at -60^{o} to the east targeting the steeply west dipping and north-south striking mineralisation. More recent drilling by Tiger Resources has also targeted interpreted mineralization which is steeply dipping and striking north-northeast with -60^{o} drilling both toward north-northwest and east-southeast. *Kileba* • Drilling intersections are nominally designed to be normal to the orebody. Almost all drilling is inclined to the northwest given that mineralization at Kileba is typically steeply dipping to the southwest.
Sample security	• The measures taken to ensure sample security.	• Labelling and submission of samples complies with industry standard.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Numerous reviews and audits have been undertaken at Tiger Resources and have discovered no issues with the sampling methods or data.

Section 2 – Reporting of exploration results – Kipoi Copper Project		
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.	• The Kipoi Copper Project area is covered by Exploitation Permit (PE) PE533 and PEs 11383 to 11387 for a total area of 55km2. The minerals rights to these areas are held by and registered in the name of SEK SA. SEK SA is wholly owned by Congo Minerals SARL wholly owned by Tiger Congo SARL which is wholly owned by Tiger Resources Limited (Tiger). • The exploitation permit is in good standing.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• No exploration has been performed by another other party.
Geology	• Deposit type, geological setting and style of mineralisation.	*Kipoi Central*

Section 2 – Reporting of exploration results – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		• Mineralisation at Kipoi Central deposit is hosted within Upper Roan sedimentary rocks. It occurs as stratiform, layer-parallel and structurally remobilised mineralisation in fault breccias and veins. Sulphide copper mineralisation occurs predominantly in deformed siltstones and carbonaceous siltstones and shales but also extends into the adjacent dolomites and volcanic rocks. The bulk of mineralisation occurs as broad zones of malachite (supergene copper carbonate mineral) which is best developed adjacent to fractured and brecciated siltstones. Weathering of primary mineralisation has led to lateral dispersion and the formation of coherent zones of supergene mineralisation. *Kileba* • Mineralisation at the Kileba deposit is hosted within Upper Roan sedimentary rocks. These host rocks are correlatives of the R4 sequence of rocks intersected at Kipoi Central and are overlain by Kundelungu tillite facies. • Overall the rock sequence present at Kileba is sub-vertical to steeply southwest dipping which become shallower dipping to the northwest. • The contact between the pyroclastic rocks and the hanging wall sediments is faulted. Strong brecciation and strong shearing is present at all exposed localities along the fault. • Mineralisation at Kileba localised within two northwest striking and southwest dipping zones, referred to as the Kileba South deposit and the Kileba North deposit. The two occurrences are separated by an interpreted north trending fault, and both deposits exhibit differing grade tenor. However, both deposits are considered to have been connected and formed by one continuous, deeply rooted zone of deformation and mineralisation. The Kileba South deposit exhibits a broad zone of supergene copper enrichment in the hangingwall of a mineralised shear zone, where brittle deformed rocks adjacent to a reverse fault have generated a favourable setting for primary and supergene enrichment. Above the base of oxidation, weathering of sulphides has led to lateral dispersion of secondary copper minerals, generating a supergene blanket 700m long by up to 170m wide, and 150m deep. The overall strike length extends for approximately 800m.

Section 2 – Reporting of exploration results – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		• Kileba North is interpreted to be a continuation of the structurally controlled Kileba South copper mineralisation, dipping steeply to the southwest with a strike length of 685m and has currently been interpreted to a vertical depth of approximately 110m.

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.
		• No exploration results are being reported.
		• Refer to previous releases by Tiger Resources.

Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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.	• No high grade cuts have been applied to assay results. RC assay results are length weighted using 1 meter lengths for each assay. • Drill core intersection results are length weighted to their matching assay results using the downhole length of the relevant assay interval. • Assays rounded to 2 decimal places. • The assay intervals are reported as down hole length as the true width variable is not always known. • Intersections are reported above 0.3% Cu grade and can contain up to 2 meters of low grade or barren material. • Intervals less than 3 meters are not included if less than 1% Cu. • Intervals of no sample return are given a Cu and Co grade of zero. • No metal equivalent reporting is used or applied.
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	• The majority of drilling is oriented approximately orthogonal to the known orientation of mineralization. However, the intersection length is measured down the hole trace and may not be the true width. • All drill results are downhole intervals only due to the variable orientation of the mineralisation.

Section 2 – Reporting of exploration results – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	this effect (eg 'down hole length, true width not known').	
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.	• Refer to Figures in previous release for relevant plans.
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.	• All intersections reporting to the Kileba and Kipoi Central projects have been 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.	*Kipoi Central* • Pit mapping has been undertaken and observations used within the Mineral Resource estimation process. • Additional drilling has been undertaken by Tiger Resources after the Mineral Resource had been completed. These drillholes are infill to the existing resource and included RC drillholes KPCRC155 to KPCRC184. The results of these drillholes compare well to the Mineral Resource and would not result in a material difference to the Mineral Resource. *Kileba* • Trench mapping has been undertaken and observations used within the Mineral Resource estimation process.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• All future resource definition drilling should include the measure of acid soluble copper and cobalt in addition to total copper and cobalt. *Kipoi Central* • Future exploration may involve the drilling of more drill holes, both DD and RC, to collect additional detailed data on the known mineralized zones and also test for extensions to mineralisation. This includes the size and tenor of the primary sulphide portion of the Mineral Resource which is currently not well defined. *Kileba* • Future exploration may involve the drilling of more DD drill holes through the Northern areas of mineralization currently classified as Inferred. In addition, strike extensions to the known mineralization should also be adequately tested.

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
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.	• The database has historically been maintained by CSA Global who compiled all data files on behalf of Tiger Resources. During 2018 and this has been transitioned to the responsibility of Tiger Resources. • Cube completed validation checks on the database comparing collar points to the topography, maximum hole depths checks between tables and the collar data. Cube also verified the data using visual inspection of the drillholes in 3D to identify inconsistencies of drill hole traces.
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.	• The Competent Person has completed a number of site visits to the Kipoi project and the most recent during August 2013.
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 geological confidence is good and re-logging of some drillholes has assisted in improving the geology modelling. • The weathering characteristics for all RC and DD drilling are geologically logged. In addition, sulphur (%) is recorded as part of the assay suite. Both of these data have been used in the development of the base of oxidation and top of fresh geological domains. *Kipoi Central* • The lithological description for all drilling is logged and stored within the drillhole database. This has been used for 3 dimensional lithological domaining. The underlying breccia ("Breche Heterogene") has a soft, talc calcareous matrix which hosts sub- angular, partly rounded clasts of grey and purple calcareous siltstones. This lithology does not typically host mineralisation and has been used to guide the mineralised outlines in parts. • Drillhole grade data was used to develop mineralised outlines. The outlines were modelled to a nominal grade cut-off of approximately 0.3% Cu. The outlines were modelled with allowance for secondary re-mobilisation of copper. *Kileba* • The lithological description for all drilling is logged and stored within the drillhole database. This has been used for 3 dimensional lithological domaining. The main lithologies modelled at Kileba include siltstone, silty dolomite, dolomite, talc, pyroclastic and tillite.

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		• Drillhole grade data was used to develop mineralised outlines. The outlines were modelled to a nominal grade cut-off of approximately 0.25% Cu. The outlines were modelled with allowance for secondary re-mobilisation of copper.
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.	*Kipoi Central* • The Mineral Resource has an overall north-south strike length of approximately 950m. The overall mineralised width of the project varies but for the majority is approximately 600m wide. The mineralisation extends from surface down approximately 150m at the north and down 350m below surface at the south. *Kileba* • The Mineral Resource has an overall north-south strike length of approximately 1,500m. The overall mineralised width of the project varies ranging from approximately 150m in the south down to 50m in the north. The mineralisation extends from surface down approximately 250m at the south and down 100m below surface at the north. *Cobalt Stockpiles* • The Mineral Resource comprises two separate stockpiles, 15 and 27. Stockpile 15 is approximately 150m x 100m and stockpile 27 approximately 150m x 150m.
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 (eg 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 behind modelling of selective mining units.	• Isatis version 2018 and Surpac version 6.7 was used for the estimation. • No by-product recoveries were considered. • Minor elements including calcium, sulphur, magnesium, manganese and iron were estimated by ordinary kriging. • No correlation between elements was investigated. *Kipoi Central* • Two domains were interpreted for each of copper and cobalt which included a higher grade domain (100) and the remaining mineralised domain outline (999). Composites for both the resource definition (RD) and grade control (GC) drilling were separated based on these two domains. • No top-cuts were applied to the RD 3m composites for copper or cobalt within the high grade domain 100. Top cuts of 12 and 1.3 for copper and cobalt respectively were applied to the RD 3m composites for the lower grade domain 999 to limit the influence of population outliers. Top cuts of 35 and 4 for

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	• 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.	copper and cobalt respectively were applied to the total GC 3m composite data set. • Estimation based on the RD data was completed within the modelled copper outlines of domains 100 and 999. The estimation of copper and cobalt was undertaken using Ordinary Kriging of the 3m downhole composites into a three-dimensional block model by Ordinary Kriging with a panel size 20(X) x 25(Y) x 5(Z)m. A further process of Localised Uniform Conditioning (LUC) was applied to copper and cobalt to produce a model suitable for reporting above grade cut-offs and for mine planning based on a selective mining unit (SMU) of 5(X) x 5(Y) x 2.5(Z)m and a selection of grade cut-offs. The LUC has also incorporated an Information Effect correction (10 x 10 x 1) to allow for some effect of incomplete information at the grade control stage. Estimates were based on a two pass search strategy with a minimum number of composites set at 6 (100) or 8(999) and maximum number of composite set at 16. • Within a volume defined by the GC data, grade estimates were completed based on the modelled copper outlines of domains 100 and 999. Estimates were by Ordinary Kriging of the combined RD and GC 3m composites with a panel size 5(X) x 5(Y) x 2.5(Z). The minimum number of composites was set as 4 and maximum number of composites of 12. Maximum search ellipse was 50m (100) or 100m (999). • The final grade estimate is a combination of both the RD and GC estimates. It is represented by the GC OK estimate inside the GC defined volume and by the RD LUC estimate outside the GC volume. • Block model validation was undertaken using the comparison of model data to drill hole data. Reconciliation during mining has been completed at least annually and shows good correlation between Mineral Resource and mine production. *Kileba* • A main mineralised domain (100) outline was based on a nominal lower cut-off grade of approximately 0.25% Cu and extends the full strike length of the known mineralisation. In addition, a sub-domain (400) has been included to represent the poor mineralisation associated with the Tillite.

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		• No top-cuts were applied to the 3m composites for copper or cobalt within the interpreted domains. • The estimation of copper and cobalt was undertaken using Ordinary Kriging of the 3m downhole composites into a three-dimensional block model by Ordinary Kriging with a panel size 25(X) x 25(Y) x 5(Z)m. A further process of Localised Uniform Conditioning (LUC) was applied to copper and cobalt to produce a model suitable for reporting above grade cut-offs and for mine planning based on a selective mining unit (SMU) of 5(X) x 5(Y) x 2.5(Z)m and a selection of grade cut-offs. The LUC has also incorporated an Information Effect correction (10 x 10 x 1) to allow for some effect of incomplete information at the grade control stage. Estimates were based on a single search strategy with a minimum number of composites set at 6 and maximum number of composite set at 24. • Block model validation was undertaken visually and using the comparison of model data to drill hole data. *Cobalt Stockpiles* • The grade of the stockpile was determined by re-reporting the original in-pit dig block polygons from the recent Kipoi Central June 2019 MRE as described above.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Moisture was not considered in the density assignment.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• Kipoi Central and Kileba cut-off grades for reporting of 0.3% copper were used in line with other insitu resources in the area. • A cut-off grade of 0% copper has been used for reporting the Cobalt Stockpiles given there is no assumed mining selectivity within the stockpiles.
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	• Open Pit mining is currently underway at the Kipoi Copper Project. Extensions to mineralisation may extend the open pit mining operations. Minimum mining widths are approximately 5m and no external mining dilution has been applied to the resource model.

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	with an explanation of the basis of the mining assumptions made.	
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.	*Kipoi Central and Cobalt Stockpiles* • Metallurgical test work has been completed at Kipoi Central (2009, 2012-2014, and are still on-going) and is supported by the current mining activities. *Kileba* • Metallurgical test work has been completed at Kileba (2012, 2016 and 2018) and is supported by the current mining activities.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• No assumptions were made regarding environmental restrictions.
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 (vugs, 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 is routinely measured from diamond core on site by the local field staff. The method used is the typical immersion method where dried core samples are weighed in and out of water. The core is coated in wax when the core is deemed porous by the field staff. *Kipoi Central* • Bulk density values have also been obtained from in-pit measurements at Kipoi Central. • The final bulk density was applied based on a combination of the diamond core and in-pit measurements and has been assigned according to oxidation state, lithology and elevation (for oxide material). *Kileba* • Bulk density values have also been obtained from small surface pit measurements at Kileba. • The final bulk density was applied based on a combination of the diamond core and small pit measurements and has been assigned

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		according to oxidation state, lithology and elevation (for oxide material). *Cobalt Stockpiles* • Based the Kipoi Central 2019 MRE the average in-situ density for all material mined to the Cobalt Stockpiles was 1.92 t/m^3. Assuming a bulking factor of 1.2, the stockpile density is estimated at 1.60t/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 (ie 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.	• The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit. *Kipoi Central* • All the resources for Kipoi Central are classified as Measured, Indicated or Inferred. • The Measured Mineral Resources only include mineralisation defined by RC grade control drilling with a nominal 10m x 5m spacing. • Indicated Mineral Resources are outside the grade control limits but typically defined by resource definition with a nominal spacing of at least 50 x 50m. Grade estimation is generally characterised by a slope of regression better than 0.6. • Inferred Mineral Resources are defined as all remaining interpreted mineralisation. This material is typically defined by a data density greater than 50 x 50m and a slope of regression between 0.2 and 0.6. *Kileba* • All the resources for Kileba are classified as Indicated or Inferred. • Indicated Mineral Resources are typically defined by resource definition with a nominal spacing of typically 25 x 25m. Grade estimation is generally characterised by a slope of regression better than 0.6. • Inferred Mineral Resources are defined as all remaining interpreted mineralisation. This material is typically defined by a data density of 50 x 50m or more and a slope of regression between 0.2 and 0.6. *Cobalt Stockpiles* • The entire Cobalt Stockpiles have been classified as Indicated when taking into account a range of factors including the informing grade control data, quality of grade estimation, recent mining history, survey volume and assigned density.

Section 3 – Estimation and reporting of mineral resources – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The Mineral Resource wireframes have been reviewed by site personnel and other qualified professionals at Cube.
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 Mineral Resource wireframes have been reviewed by site personnel and other qualified professionals at Cube. *Kipoi Central and Cobalt Stockpiles* • Production data and reconciliation undertaken between mining and Mineral Resources indicate a good comparison with the estimate. *Kileba* • No mining has been undertaken at Kileba to allow a reconciliation review.

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Ore Reserve Estimate has been based on the Kipoi Central Mineral Resource estimate updated as at June 2019 and the Kileba Mineral Resource estimate as at June 2019, both carried out by Cube Consulting Pty Ltd (Cube). The Competent Person for the reporting of this Mineral Resource is Mark Zammit. • The Mineral Resources have been reported inclusive of the Ore Reserves estimated and stated here.
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.	• The Competent Person has completed two site visits to the Kipoi Project and the most recent during June 2016.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	• A first phase mining operation comprising Kipoi Central Stage 1 pit and an HMS processing facility has been on-going since 2010, with

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	• The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	mining operations in the Stage 1 pit being completed in June 2014. • Numerous studies have been completed since 2012 on the Kipoi Copper Project. The Kipoi Copper Project is however a well-established mining operation and exploitation of Phase 2 will largely be done in a brownfields context, hence operating costs are relatively well understood. Most of these costs have been provided by SEK and accepted in good faith. It should be noted that with respect to modifying factors that have been applied to Kipoi Stage 2 are based on known operating costs for leaching, SX and EW, and that the product chain is well established. The only modification to modifying factors are operating costs based on new capital to be spent on a permanent crusher and scrubbing plant, and minor enhancements to existing plant, to enable the Kipoi ore to be processed in an optimal manner. • Capital and operating costs for the new "front end" were developed in a definitive feasibility study that was completed by GR Engineering Services Pty Ltd in 2017. These costs have been further reviewed by NewPro Consulting and Engineering Services Pty Ltd (NewPro). With respect to metallurgical factors, NewPro have revised the test work completed since 2012, including the major work completed at Mintek and interpreted by Miller Metallurgical Services, which forms the cornerstone of the contemporary work. • In addition to this, NewPro have assessed more recent assaying analysis and developed algorithms that describe recoverable copper vs head grade by lithology, rather than applying flat recovery. This relationship limits the quantum of low-grade material in the reserve.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grades used in the estimation of these Ore Reserves is the non-mining, break-even copper grade taking into account metallurgical recovery, site operating costs, royalties and revenues. • Single cut-off grades were defined by material type due to varying of treatments costs and recoveries by material. • A traditional, grade based cut-off was not used due to the variability of costs and recoveries on a block-by-block basis and as a result, a net block value was used to decide on which blocks

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		would be processed and hence reported as an Ore Reserve.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	• Detailed Pit Designs for Kipoi Central open pit were completed based on new open pit optimisation studies using the revised parameters and resource model. This resulted in a two-staged development design for the open pit operations. Kileba open pit has also been re-designed based on an updated open pit optimisation study with updated modifying factors.
	• The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	• With the just completed phase 1 mining operations having gone on for 4 years using selective open pit mining with close spaced grade control drilling, there has been a good reconciliation of ore mined with the Resource model. Density determinations and quality control procedures developed have proven to provide adequate control. The reserves have been developed after consideration of the erstwhile practices.
	• The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	• Pit slope angles were based on geotechnical studies conducted by George, Orr and Associates, and reported in October 2012, and in conjunction with previous pit designs completed as part of the iterative planning process. The availability of the latter was useful to provide an insight into likely ramp configurations to achieve access to the pit bottom and as such, a more informed pit wall angle than one based on first principle determination methods could be used. The overall wall angles for the revised Kipoi Central Stage 2 design is 30 degrees.
	• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	• Open pit optimisations were carried out using the above mentioned updated Mineral Resource block models without modifications as they are recoverable resources by nature of the estimation technique. All other parameters as discussed within this section were applied within industry standard pit optimisation software, producing a range of shells which were analysed and used as the basis for the pit designs on which these Ore Reserves are based.

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	• The mining dilution factors used.	• Mining dilution is incorporated in the Mineral Resource model estimation hence no further mining dilution was applied. This is supported by current operations reconciliation data.
	• The mining recovery factors used.	• Mining recovery factors have been incorporated in the Mineral Resource model estimation hence no further mining recovery was applied. This is supported by current operations reconciliation data.
	• Any minimum mining widths used.	• A minimum mining width of 30m was used.
	• The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	• No inferred material was included in the conversion of Mineral Resource to Ore Reserves. All inferred material was treated as waste in the planning and reporting process.
	• The infrastructure requirements of the selected mining methods.	• The first phase mining operations utilized a mining contractor, contracted laboratory and in-house expertise to manage the efficient exploitation of the orebodies. Accommodation, messing, survey, mine planning, laboratory and all necessary infrastructure has been established during the past 4 years. The existing infrastructure will be used in the second phase of the project.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	• A Heap/Agitated Leach SX-EW process is proposed for processing ore from Kipoi Central Stage 2 pit and the Kileba pit. This processing route has been used historically at Kipoi and reflects much of the capital deployed and operational knowhow already on site. The choice of this process path follows a conclusive confirmatory metallurgical test work programme that determined the suitability of the extraction process. • David Readett conducted in-depth study of the metallurgical recovery factors for the SX-EW based on a sampling and testwork programme for the 2013 Ore Reserve Update. This was later updated in 2014 in a report by Miller Metallurgical Services. Further work by Dorling, Vermaakt, Tiger Personnel and NewPro has explored relationships of grade and solubility of copper (acid and cyanide soluble) in the context of lithology and oxidation. Algorithms were developed by NewPro and Tiger to reflect

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
		this and the recovery predictions re-interpreted. It is instructive to note that historically the Kipoi Stage 1 recovery was equal to or greater than the acid soluble prediction, although the acid consumption was greater than predicted; both of these observations have been taken into account in interpretation, as well as the assumption that irrigation will be optimally managed in the future. The recovery model is thus complex. The average recoveries based on material oxidation against ore reserve blocks were determined for the various Kipoi deposits and are as follows: Kipoi Central Stage 2; Oxide – 81% Transition – 79% Sulphide – 4% Kileba Oxide (C1) – 83% Transition – 69% Sulphide – 12% The processing flowsheet assumed for the Kipoi Phase 2 ore is the same as that for current practise on site (hence has a high degree of certainty) with the addition of a permanent crushing facility (which will reduce both crushing and rehandle unit costs) and a scrubber (in raffinate), both of which have been assessed to DFS level by GRES. Key to the metallurgical performance is the prediction of coarse/fine split. This has been interpreted on the basis of a limited number of samples but against extensive semi-quantitative core logging of a fines index
	• Whether the metallurgical process is well-tested technology or novel in nature.	• The proposed Heap/Agitated Leach SX-EW process is a well-tested technology. The technology has been deployed at Kipoi for many years and is being continuously improved. Scrubbing ore ahead of heap leaching is the most novel aspect of the flowsheet assumed, however this is being run at Kipoi presently in a 3000tpd scrubbing demonstration plant (CCAP) and has been shown to be appropriate and effective technology

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	• The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	• In consultation with Tiger and Cube geologists it was possible to establish that samples used for historic testwork completed at Mintek in 2012/13 on the selected drill core was reasonably representative of Oxide/Transitional and Sulphide material. The composites are limited however the additional work completed with respect to acid soluble copper assaying provides a good basis for prediction of metallurgical performance.
	• Any assumptions or allowances made for deleterious elements.	• The Kipoi ores are relatively clean and contain few deleterious elements. The main element of concern is manganese which can cause significant issues in SX/EW circuits. Manganese control measures are being undertaken at Kipoi, however, further measures may have to be taken over time. • No other deleterious elements are considered problematic at this time nor anticipated to be later, with iron levels predicted to be reasonable. Dissolved silica will need to be monitored.
	• The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.	• No bulk sampling or pilot scale work has been completed per se, however the historic and current performance of existing plant and ore processing is a good indicator as to how, with further optimisation, ore processing should perform. Split to fines has been averaging 14-25% in the CCAP plant and historically heap leach recoveries have been in line with total acid soluble copper assays, and exceeding this in some pads (due to contribution of slow leaching copper minerals and longer than anticipated irrigation time.
	• For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• Not applicable for this process or product.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design	• The environmental impact assessment has been completed and approved by the local authorities. The waste rock is dominated by limestone hosted minerals and is expected to

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	be inert. The closure plan and rehabilitation plan details the establishment of economic farm lots for long term cashflow generation for the local community.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The first phase of the project operated for 4 years with all necessary support infrastructure. The second phase of the project will make use of existing infrastructure with an on-going provision of additional infrastructure for the expanded operations.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study.	• Capital costs relating to the treatment of the stated Ore Reserves have been derived by studies undertaken at least a PFS level and involve updates to existing process facilities.
	• The methodology used to estimate operating costs.	• Mining Operating costs were sourced from the first phase mining contract schedule of rates and made up of Load & Haul, Drill and Blast, fuel cost and a fixed management fee. These costs were deemed reasonable for an operation of such size. • The non-mining operating costs have been estimated using existing operations for corporate administration, environmental and social programs while the ore processing operating cost has been estimated from first principals using proven industry practices, current operating experience and advice from SEK in relation to supply contract data and current actual costs, and interpretation of testwork based net acid consumptions.
	• Allowances made for the content of deleterious elements.	• No allowance has been made for deleterious materials other than those identified in the environmental study that have been fully assessed and costs incorporated into the analysis.
	• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.	• The operation assumes revenues from sales of copper only. The forward projection of copper price has been based on Consensus economics.
	• The source of exchange rates used in the study.	• All costs have been developed in United States Dollars where possible. The exchange rates used for local supply and regional supply have been based on relevant spot exchange at the time provided.
	• Derivation of transportation charges.	• Transport delivery and marketing costs have been based on historical rates.

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
	• The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• The statutory state charges have been included in the analysis.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• No factors were applied in the application of the metal prices stated in the above section. • The head grades as reported in these estimates were not factored. Mining dilution and mining recovery factors were not applied on the resource model, as the mineral resource estimation method is deemed to be a recoverable model hence no additional dilution required.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• The market remains positive for copper with current pricing moderately higher than the 5 year historical average, and future projected prices expected to exceed the historical price. • The copper will be sold under an offtake agreement. Around 65 Kt of copper cathode produced will be sold under existing offtake arrangements. • The price expected is based on Consensus Economics projections. The market is generally considered to be expanding in line with production. • Not relevant to this product.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• The economic and fiscal input parameters to complete the economic analysis have been subject to a process of peer review. The physical and cost data have been similarly reviewed. • The NPV was stress tested for a range of copper prices, recoveries, cost scenarios and the economic remain robust under the conditions tested.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The social licence is in good standing with ongoing monthly community meetings key social projects being delivered and positive feedback from community leaders. The 2018 Mining Code amendments now require the company to spend a set percentage of revenue on social development programmes.

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves.	• All material legal agreements have been executed, all material commercial agreements have been executed.
	• Any identified material naturally occurring risks.	• Rainfall is identified as the major risk factor and the operations are equipped to deal with such events having experience in operating this mine over the past 5 years.
	• The status of material legal agreements and marketing arrangements.	• All marketing agreements have been executed.
	• The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• The government has approved the project development.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories.	• All in-pit reported Ore Reserves which have been reported as Proved have been derived directly from the Mineral Resource classified at the Measured level of confidence. • All in-pit reported Ore Reserves which have been reported as Probable have been derived directly from the Mineral Resource classified at the Indicated level of confidence. • All stockpile Ore Reserves which have been reported as Proved have been derived directly from the Mineral Resource classified at the Measured level of confidence. • No inferred material was included in the conversion of Mineral Resource to Ore Reserves. All inferred material was treated as waste in the planning process.
	• Whether the result appropriately reflects the Competent Person's view of the deposit.	• The Competent Person is satisfied that the estimated Ore Reserves as stated here reflect his view of the deposit.
	• The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• None of the Probable Ore Reserves stated here were derived from Measured Mineral resource.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No audits of this updated Ore Reserve have as yet been undertaken.

Section 4 Estimation and Reporting of Ore Reserves – Kipoi Copper Project		
Criteria	**JORC Code explanation**	**Commentary**
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	• In estimating these Ore Reserves, the confidence level as expressed in the Mineral Resource estimates have been accepted in the respective resource classification categories.
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	• The Ore Reserves estimate relates to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to the spacing of the drill data on which the estimates are based, relative to the intended local selectivity of the mining operations.
	• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	• The modifying factors applied in the estimation of the Ore Reserves are considered to be of a sufficiently high level of confidence not to have a material impact on the viability of the estimated Ore Reserves.
	• It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Accuracy and confidence addressed in above points. Production data to date involved lithologies not necessarily comparable to those reported within these Ore Reserves and as such are not a reliable source of confirmation of accuracy or confidence.