ACN 092 471 513

17 May 2016 **ASX Release**

UPDATED COPPER – GOLD RESOURCE YUINMERY PROJECT

Empire Resources Ltd ('Empire', ASX code: ERL) has updated the resource estimation for the volcanogenic massive sulphide (VMS) copper-gold mineralization identified at the Just Desserts prospect which forms part of the Company's Yuinmery project in Western Australia. The updated resource estimation was undertaken to incorporate additional drill hole data and to comply with the 2012 JORC Code.

Based on a 1.0% Cu cut-off to a depth of 170m below surface, the new reportable indicated and inferred resource is **1.27 million tonnes @ 1.9% Cu, 0.7g/t Au.** This compares with the maiden 2008 resource estimation of 1.07 Mt @ 1.8% Cu, 0.8g/t Au*.

The new 2012 JORC reportable resources of primary and transitional copper-gold sulphide mineralization above a 0.5% and a 1.0% copper cutoff to a depth of 170 metres below surface are summarized in Table 1.

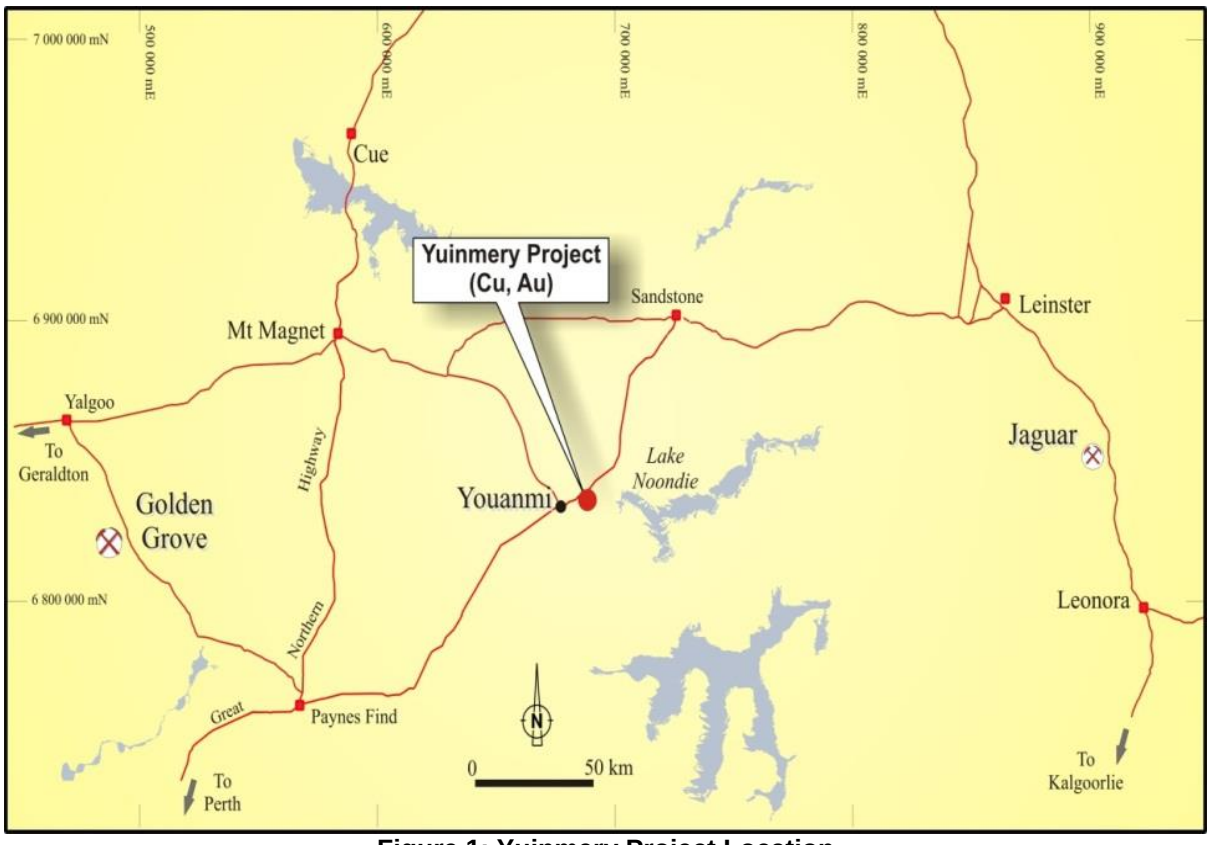

Figure 1: Yuinmery Project Location

Table 1 : Just Desserts Reportable Mineral Resources
April 2016

Reportable Mineral Resource to depth of 170m						
Cut-off	**Weath**	**Class**	**Tonnes**	**Cu %**	**Au ppm**	**Ag ppm**
0.5% Cu	**Partial**	**Indicated**	97,000	1.05	0.30	0.98
		Inferred	65,000	1.43	0.18	2.21
		sub-total	163,000	1.20	0.25	1.47
	Fresh	**Indicated**	1,174,000	1.33	0.67	1.31
		Inferred	1,183,000	1.30	0.34	2.25
		sub-total	2,357,000	1.31	0.51	1.78
	All	**Indicated**	**1,271,000**	**1.31**	**0.64**	**1.28**
		Inferred	**1,249,000**	**1.31**	**0.33**	**2.25**
		Total	**2,520,000**	**1.31**	**0.49**	**1.76**
1% Cu	**Partial**	**Indicated**	47,000	1.37	0.37	1.09
		Inferred	31,000	2.14	0.22	2.20
		sub-total	78,000	1.68	0.31	1.53
	Fresh	**Indicated**	752,000	1.65	0.84	1.54
		Inferred	435,000	2.31	0.49	2.81
		sub-total	1,187,000	1.89	0.71	2.01
	All	**Indicated**	**799,000**	**1.63**	**0.82**	**1.51**
		Inferred	**467,000**	**2.30**	**0.47**	**2.76**
		Total	**1,266,000**	**1.88**	**0.69**	**1.97**

Resource modelling consultants, DataGeo Geological Consultants, were engaged to estimate a 2012 JORC compliant reportable resource utilizing all drill hole information from the Just Desserts and Trajan prospects. The Trajan prospect is the southern extension of Just Desserts.

This current resource estimation was restricted to primary sulphide and transitional mineralization where initial metallurgical testwork indicates the likelihood of high copper and gold recoveries. Metallurgical testwork to date indicates copper is not recoverable from oxide mineralization.

The data and interpretation utilised and the resultant mineral resource estimate for the Just Dessert/Trajan deposit is summarised as follows: -

- Geology and Mineralisation Interpretation
  - The deposit consists of a medium to steeply easterly dipping north-south striking (by local grid) massive and disseminated sulphide zone which is anomalous in copper and gold. The mineralisation occurs over a strike length of 760m, a vertical depth of 400m and a true width between 2 and 25m. The mineralisation is offset in places. The deposit remains open at depth.
  - The mineralised zones are represented by solids with boundary conditions of 2000ppm Cu. The weathering profile is represented by wireframed surfaces.
- Drill Information and Sampling
  - The deposit has been drilled from surface using RAB, percussion, reverse circulation (RC) and diamond coring from 1972 to 2011. All drilling has been used in this estimate. A total of 164 holes containing 17,460m has been drilled in the vicinity of the deposit.

- Limited observation of core recovery shows it is generally excellent, averaging more than 95%. The RC sample recovery is unknown but described as good given the drilling technique and ground conditions.
- The majority of hole collars have been surveyed by DGPS and the orientation and inclination at collar is set out using compass and clinometer. Down hole survey for the 2006 series holes onwards was by down hole camera. The holes prior to 2006 either had no information available or were recorded down hole by camera.
- For RC holes chips collected at 1m intervals via a cyclone and splitter into suitably marked plastic and calico sample bags. Visibly non mineralised samples were speared and 4 consecutive sub-samples were combined for dispatch to the laboratory. If the 4m composites returned an assay above a 2000ppm threshold for copper then the original 1m calico samples were submitted individually for assay. For visibly mineralised samples the 1m calico samples were submitted directly for assay. The RC chips are logged for mineral content and geology. The core is stored in core boxes labelled with the hole number and length contained. The core is transported to the core storage area where it is logged geologically and intervals for analysis are marked up by the site geologist. The intervals selected for analysis were transported to Empire's Perth office where the core was ½ed for preparation and analysis.

- Sample Preparation and Analysis
  - Recent drill samples have been prepared and analysed at commercial accredited laboratories in Western Australia, usually Ultratrace Laboratory in Perth
  - the preparation is by drying, crushing, riffling and pulverising.
  - Copper and gold content for 4m composite samples is by digestion of a 40gm sub-sample with aqua regia and analysis by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry and Mass Spectrometry respectively. For the 1m samples and core a 40gm sub-sample is fire assayed for gold. Copper is determined using a 4 acid digest. Element readings are by the same ICP techniques as used for the 4m composites.
  - Sample repeats, duplicates and the use of an umpire laboratory are the only QAQC protocols adopted and these provide support for the original copper assays.

- Estimation Methodology
  - The drill hole information is composited within the mineralisation interpretation to the most common sample length within the dataset – 1m down hole
  - Grade is estimated by ordinary kriging for the largest zones with demonstrated continuity and sufficient composite information from composite data top-cut if required on a local basis. Other smaller zones are estimated, if sufficient composites available by inverse distance to the power of 2 (for Cu) or 3 (for Au) techniques or when there is very few composites by assigning a grade of the average of the composites. The estimation is constrained by hard boundaries representing the extent of the mineralised zone. The grade is estimated into a block model with a cell size of 5mE x 20mN x 5mRL.
  - Specific gravity is assigned to the block model by weathering profile position; 2.7gm/cc for transitional, 3.2gm/cc for fresh.

- Validation and Classification
  - The block grade estimates are validated against the composites both globally (for all zones) and spatially for the largest zones.
  - The block estimates are classified according to geological confidence, length of search, number of composites, number of holes and quality of the input data.

- Reporting
  - Reporting cut-off has been determined to include all material which may be by grade and position suitable for open cut mining to produce a head grade in excess of 1% Cu. As such it was determined to report the mineral resource at 0.5% Cu above 300m elevation for the partially oxidised and fresh material only.

- Mining and metallurgy
  - Metallurgical test work has been conducted on fresh material samples from the deposit which indicate that +90% of the Cu and Au in the un-oxidised material can be recovered by standard methods to produce a concentrate.
  - Previous mining scoping studies on the 2008 mineral resource estimate indicated that, excluding capital costs, open cut mining may be economic to a depth of 150m below surface.

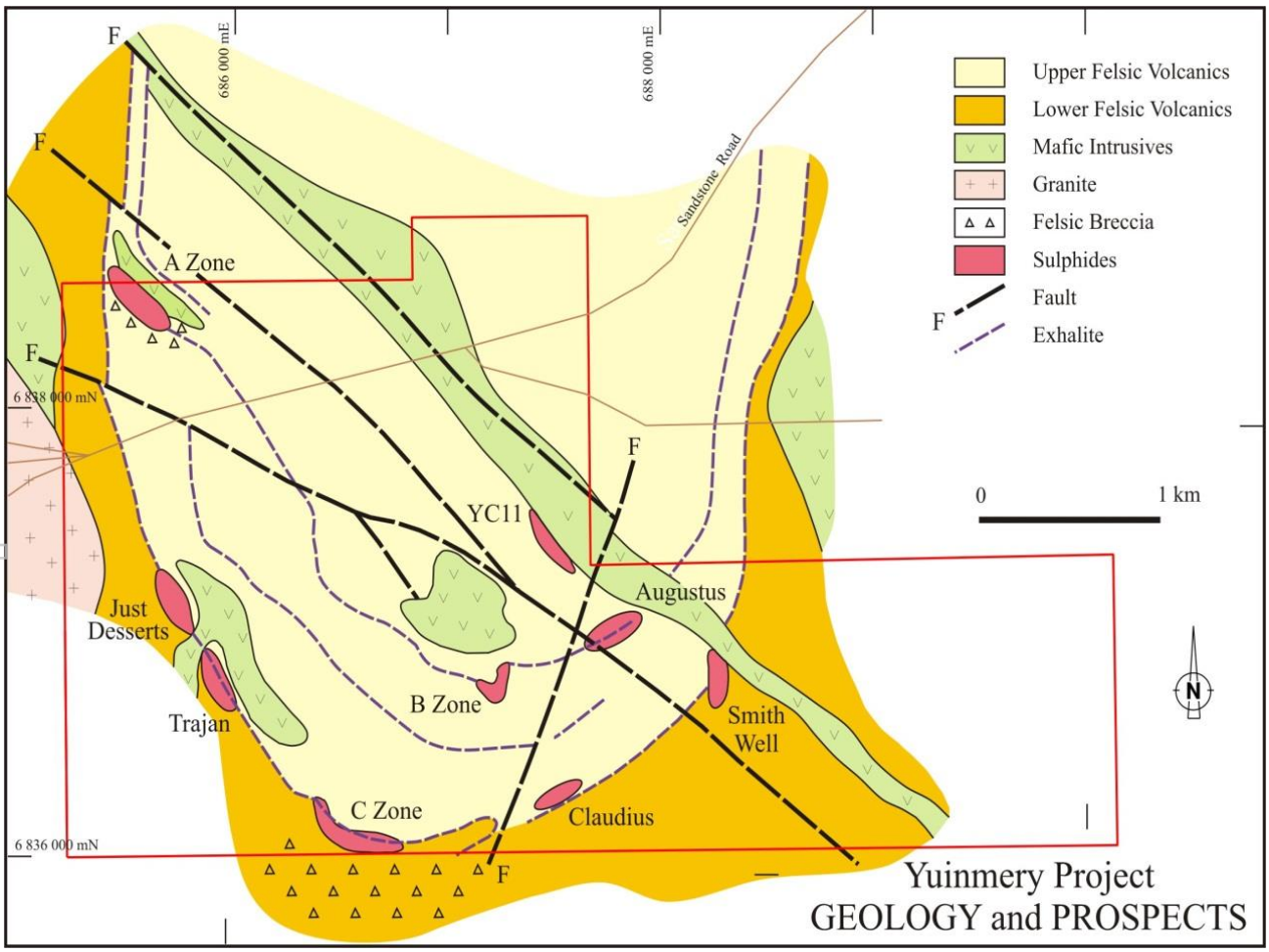

Figure 2

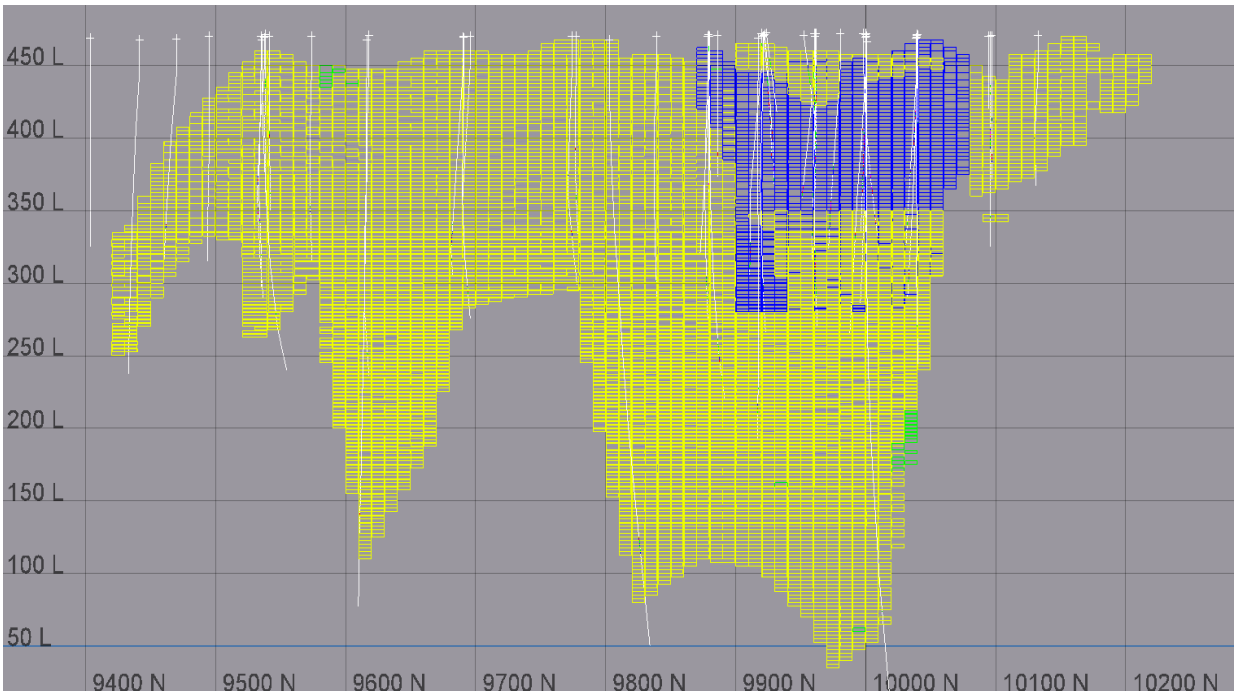

Figure 3 : Just Desserts - Trajan Long Section Estimation by Resource Classification April 2016
Blue (Indicated), Yellow (Inferred) and Green (Unclassified)

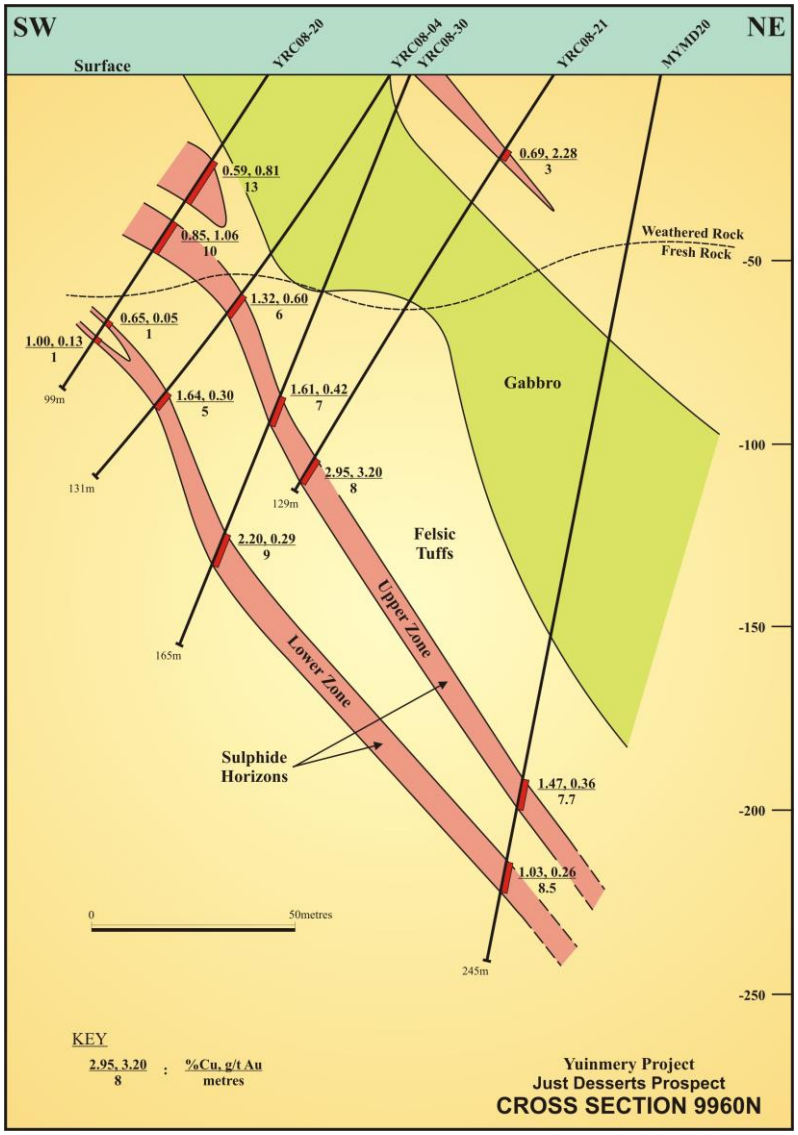

Figure 4

DAVID SARGEANT
MANAGING DIRECTOR
May 2016

For further information on the Company visit www.resourcesempire.com.au

David Sargeant – Managing Director Phone: +61 8 9361 3100
Adrian Jessup – Executive Director Phone: +61 8 9361 3100

Mineral Resource Estimate

The information is this release concerning the Mineral Resources for the Just Desserts/Trajan Deposit have been estimated by Mr Peter Ball BSc who is a director of DataGeo Geological Consultants and is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Ball has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and qualifies 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 Ball consents to the inclusion in this public release of the matters based on his information in the form and context in which it appears.

*Just Desserts Mineral Resources - Reported 2008 (JORC 2004 compliant only)

		Indicated			Inferred			Total		
Cutoff	Weath	**Tonnes**	**Cu%**	**Au g/t**	**Tonnes**	**Cu%**	**Au g/t**	**Tonnes**	**Cu%**	**Au g/t**
0.5% Cu	Partial	14,000	1.23	0.50	150,000	1.29	0.27	164,000	1.29	0.29
	Fresh	122,000	1.26	0.66	1,869,000	1.28	0.58	1,991,000	1.28	0.58
	Total	**136,000**	**1.25**	**0.65**	**2,019,000**	**1.28**	**0.56**	**2,155,000**	**1.28**	**0.56**
1.0% Cu	Partial	10,000	1.42	0.46	95,000	1.59	0.28	105,000	1.57	0.30
	Fresh	68,000	1.68	0.92	898,000	1.86	0.82	966,000	1.85	0.83
	Total	**78,000**	**1.65**	**0.86**	**993,000**	**1.84**	**0.77**	**1,071,000**	**1.82**	**0.78**

JORC Code 2012 - Table 1

Section 1 : Sampling Techniques and Data		
Criteria	**Explanation**	Comments
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.*	The deposit has been drilled and sampled by diamond coring, reverse circulation, percussion and rotary air blast methods with holes on variable spacings over a 760m strike length, the closest being a 20mE x 20m N grid. The total metres drilled in the vicinity of the deposit is 17,460m from 164 holes. The holes are drilled mostly to the local grid west to intersect the moderately east dipping north-south orientated mineralisation.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	Initial Percussion and Diamond holes were followed by RAB and RC which targeted the gossanous areas and geo-physical and soil sample anomalies. This was supplemented by deeper RC and diamond drilling to highlight the mineralisation. The recent RC samples are collected from the cyclone of the rig at 1m intervals with both a bulk sample and an approx 3Kg split taken via a rotary splitter. The cyclone was cleaned between samples using compressed air. Given there is little moisture this ensured as best as possible sample representivity. Diamond core was collected and stored directly into core trays.
	• *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.*	The diamond core was NQ sized in the mineralised zones. Core was halved and 1/2 sent for sample preparation by crushing, pulverising and splitting to produce either a 10gm, 40gm or 50gm charge size dependent on the Laboratory. RC drilling collected samples at 1m intervals down hole. These 1m samples were either composited to 4m intervals by spear sampling or submitted as 1m samples each of approximately 2.5 to 3Kg. These samples were dried, crushed and pulverised and a 50gm sub-sample (dependent on laboratory) selected for assay. Percussion samples were also dried, crushed and pulverised with 10gm or 50gm selected for analysis. RAB samples were collected at 1m intervals and combined by spearing into 4m composites. Samples were prepared by drying and pulverising.
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,*	4 surface collared diamond drilling totalling 955m of NQ size; 12 RC pre-collars with diamond tails totalling 3317m. The core was not orientated. The 54 RC holes (and the pre-collars) were all 135mm diameter and drilled with a face sampling bit and totalled 8,469m. The 92 RAB holes totalled 4,664m. The 2 percussion holes totalled 61m.

	whether core is oriented and if so, by what method, etc).	
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	The core recovery measured as length recovered per run is in excess of 95%. The RC sample recovery is described as good to very good which is consistent with the good ground conditions.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	For RC drilling the collar was sealed and air pressure was used to maximise return. The cyclone was cleaned between 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.*	No assessment has been made of grade v sample recovery but given the quality of the ground and the type of mineralisation it is not considered likely that bias by sampling method is introduced.
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.*	Core and chips have been geologically logged recording lithology, mineralisation, veining, alteration, weathering and some geotechnical features (core only) like RQD. The geological logging is appropriate to the style of the Deposit.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography*	geological logging is both in summary (comments) and detailed by interval for the information listed above. Whilst geology logs exist for pre-Empire holes these do not appear in the "Master Spreadsheet".
	• *The total length and percentage of the relevant intersections logged.*	the entire length of all holes, apart from surface casing, has been logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	all Empire drilled core to be sampled was 1/2ed using a mechanical saw. It is not known if the core was consistently taken from one side of the stick.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	Empire collected RC samples from each 1m from the cyclone into a plastic bag with a split taken from a rotary splitter at the same time. The cyclone was cleaned with air and any loose material scrapped off between samples. Sub-samples of the larger samples are taken with a spear for compositing.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	All Empire samples (approx 2.5 to 3Kg for the RC samples and 1/2 NQ core up to 1m long) are provided to a commercial accredited laboratory facility for the preparation of samples using industry standard practices of drying, crushing and pulverising to allow sub-sampling by riffle or rotary splitter to a 30 to 50gm charge size.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	Empire did not include Standards or Blanks with their routine samples submitted to the Laboratory but used a Duplicate sample program and Umpire Laboratory comparisons to provide control on quality. The results were acceptable. A pulp duplicate sample program by

		WMC indicated acceptable copper results.
	• *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.*	Duplicate sampling in 2008 provided acceptable results to enable support for the original assays for copper and gold.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	The VMS mineralisation is reasonably coarse but the limited quality control programs do not appear to demonstrate anything other than normal copper grade population and it is felt that the sampling provided a fair representation of global deposit grade particularly for copper.
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.*	The assay techniques applied for the measurement of copper and gold content is appropriate for the determination of the total amount within the sample. Empire's routine samples of various charge sizes are assayed by ICP after Aqua Regia digest. Sample above Cu thresholds and core were assayed by ICP after FA and MAD. Previous companies used similar methods.
	• *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.*	not applicable
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	No formal QAQC samples included with the samples. Assay quality relies on the use of duplicate sampling and Umpire laboratory checking to provide support for the original results.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	mineralised intercepts have been determined by previous and current company personnel and appear correct
	• *The use of twinned holes.*	No specific twinning program has been conducted.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols*	primary data was recorded directly onto electronic spread sheets and validated against expected codes. Assay information in electronic form from the laboratories was merged with sample interval data on sample number
	• *Discuss any adjustment to assay data.*	non applied

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.*	The collar positions of most holes were surveyed using DPGS on 3 occasions and recorded on the GDA 94 Zone 50 Datum and the AHD. This survey covered all holes within the Project. The orientation and dip at the start of the hole was recorded for all holes with the Empire holes defined by compass and clinometer. Down hole information was recorded by single shot camera. The diamond tails were also measured by Camera.
	• *Specification of the grid system used.*	The regional grid is GDA94 Zone 50 and the Deposit is laid out on a local grid for a central control point with a 45^{o} rotation.
	• *Quality and adequacy of topographic control.*	Topographic control is taken from contouring the drill hole collar elevation information.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	Drill spacing varies with position in the deposit from 20mN x 20mE to in excess of 100m.
	• *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.*	Successive drilling programs have in filled and extended (at depth) the previous drilling and on the majority of occasions drilling has returned mineralisation in the expected locations. This provides a high degree of confidence in the geological continuity. Close spaced drilling provides good support for positioning of the mineralisation by zone.
	• *Whether sample compositing has been applied.*	The sampling reflects the geological conditions. For mineral resource estimation a 1m composite length was chosen given that this is the dominant sample length.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The drilling is oriented as best as possible to perpendicular to the structure/geology containing or controlling the mineralisation.
	• *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.*	No sampling bias is considered to have been introduced.
Sample security	• *The measures taken to ensure sample security.*	The chain of custody adopted by operators of the project appears appropriate and is based on responsibility and documentation.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	A brief audit of assay records revealed no data errors.

Section 3: Estimation and Reporting of Mineral Resources		
Criteria	**Explanation**	**Comments**
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.*	There is no data storage system in place. Data from logging, sample submission and the assay laboratory is combined into a "Master Spreadsheet". Approximately 10% of the more recent holes utilised in the mineral resource assessment had their sample submission and assay laboratory data re-entered and compared to the data within the supplied spreadsheet and no errors were found. This was not an exhaustive test but sufficient to give confidence that the data to be utilised is accurate with respect to the supporting information.
	• *Data validation procedures used.*	Data is validated when combined from the various sources described above. The small audit described above provided sufficient confidence in the data contents to state that it most likely accurately represents the drill information.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	DataGeo did not visit the site specifically for the purpose of the mineral resource estimate.
	• *If no site visits have been undertaken indicate why this is the case.*	DataGeo had previously visited the site and the neighbouring Youanmi project (pre Empire being involved) and noted its generally flat surface and lack of significant workings. Empire had related to DataGeo that the majority of the drill hole collars had been rehabilitated and that bulk sample had been destroyed. In addition, core and RC chip trays were held in Perth so a site visit was not deemed necessary.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The confidence in the geological interpretation and the subsequent identification of the VMS mineralisation is considered good and it is supported by drilling.
	• *Nature of the data used and of any assumptions made.*	Only physical data obtained in the field was utilised.
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	The application of hard boundaries to reflect the position of the zones (all similarity orientated) which host the VMS mineralisation is supported by the field and drilling observations. No other interpretation is thought to be appropriate.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	The presence of sulphide minerals within chemical sediments/exhalites which are within the felsic units is well understood and used to limit the mineralisation extent.
	• *The factors affecting continuity both of grade and geology.*	The mineralisation is hosted by the chemical sediments which are defined by lithology and copper content, this is a well-defined horizon continuous within a synclinal structure. Copper grade is reasonably consistent with a well supported, by statistical analysis, boundary condition (2000ppm) and appropriate to VMS style grade continuity model.

Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The main mineralisation within the Deposit occurs over a 750m strike length and extends some 400m down dip and varies between 2 and 25m in width. The deposit remains open at depth but appears to thin.
Estimation	• *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 largest zones contained in excess of 1100 composites (total of all zones) and provided a reasonable continuity model which individually supported the use of ordinary kriging. The composites for Cu, Au and Ag were top-cut as required. Zones with fewer composites had grade estimated using inverse distance to the power of 2 for Cu and Ag and 3 for Au to reflect the appropriate impact of local variance within the Deposit. If there were < 10 composites the grade was assigned as the average of the input composites. Grade estimation was carried out in Vulcan™ application. Density was assigned based on position within the weathering profile based on results from similar deposits/rock types within the general area. 1m composites were created within each zone and input to the grade estimation (or assigning) was restricted to those composites which were within the zone being assessed. Estimated blocks were informed in a three step strategy with orientation set to the orientation of the zone being estimated. The initial (primary) search was 50m x 30m x 10m in strike, dip and across dip-strike plane for Cu and Ag and 25m x 15m x 5m for Au. The search distances were doubled in each direction to inform blocks not estimated in the primary search. If blocks remained uninformed the search distances were again doubled. This strategy informed 89% of the blocks within the zones to be estimated for copper in the primary and secondary search.
and modelling techniques	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	There is no mining history. The previous model contained significantly less tonnes and slightly higher grade given only Just Desserts was estimated. Check copper estimates for the largest zone (min002) using inverse distance to power of 2 provided a similar result.
	• *The assumptions made regarding recovery of by-products.*	No assumptions made concerning the recovery of silver given its low levels.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	No assessment of deleterious elements has been made apart from pointing out the potential for elevated levels of Bismuth in parts of the deposit which could produce a penalty in any concentrate produced.
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	The block model was constructed using blocks which were 5mE x 20mN x 5mRL with sub-celling to 1/2 the block size in each direction adopted to ensure accurate volume representation. Grade estimation was to the parent block size.

	• *Any assumptions behind modelling of selective mining units.*	not applicable
Estimation and modelling techniques (continued)	• *Any assumptions about correlation between variables.*	previously (2008) an assessment of the relationship between the three modelled elements was made which indicated statistical similarities between Cu and Ag. As such some parameters of the estimation method were similar for these elements in terms of search distances. Gold did not have any observable correlations.
	• *Description of how the geological interpretation was used to control the resource estimates.*	Hard boundaries were applied to the Zones. Grade was estimated within these boundaries.
	• *Discussion of basis for using or not using grade cutting or capping.*	Statistical analysis indicated that some zones in particular the largest ones had elevated coefficients of variation and thus to minimise the influence of outlier grades top-cuts were applied.
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Volume validation was carried out by comparison of the solids representing the mineralisation to the block model. Grade validation was carried by both global comparison of the average estimated grade to the average input grade and spatially by comparison of the estimated grades to the input grades by position. Also visual comparison was used.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were determined by applying default specific gravities to weathered profile position.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The margins of the mineralisation are a combination of lithology and grade. Anomalous copper is considered to be 2000ppm and above.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	A mining scoping study based on the previous model indicated that economic extraction by open cut could occur to 150m below the surface. The details and inputs to this assessment were the results of 2011 metallurgical studies, 2011 metal prices for Cu and Au and indicative open cut mining, processing and administration costs. Such studies reviewed the potential for underground mining.

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.*	Some metallurgical test work to determine copper and gold recovery to a concentrate has occurred which indicates that the recovery would be in excess of 90% for Cu and 85% for Au. This was based on a 50Kg samples from diamond core in fresh material which had a head grade of 1.9% Cu and 0.4g/t Au.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	The Deposit is located on a granted prospecting license. DataGeo is unaware of any studies relating to environmental impacts of a potential mining and processing operation in the location. These are numerous mining and processing operations within 50Km of the site thus it is considered likely that environmental impacts would be manageable.
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.*	Assumptions were made for the approximate density of the material in the weathered profile based on knowledge of similar deposits.

	• *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.*	The two measurements made in fresh rock as part of the metallurgical style test work appear to have been by appropriate methods given the rocks do not display significant porosity or factoring.
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	The material is generally fairly uniform as evidenced by the consistency in core recovered.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	The classification is based on the quality and amount of input data; the spatial arrangement of the drill data and its supported position; the grade continuity for the largest zone and confidence in the geological interpretation which is supported by field observation and drilling. Support for the drill hole assays in terms of formal QAQC information is restricted to re-sample and umpire sampling programs and is copper supportive. Positions within the resource defined by more recent drilling are considered to have higher confidence.
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	The input data particularly the more recent is consistent and closely spaced enough to support the projection of the geological interpretation at depth which in terms of style of mineralisation is consistent with other deposits within the same or similar geological setting. Later drilling programs have successfully in filled earlier programs in mineralised locations predicted by the initial program. The estimated copper grade correlates reasonably well with the input data given the nature of the mineralisation.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The Mineral Resource estimate reflects the Competent Persons understanding of the Deposit.
Audits or reviews.	• *The results of any audits or reviews of Mineral Resource estimates.*	None undertaken
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*	The mineral resource is volume constrained by the geological interpretation thus in a global sense there is no sensitivity. Based on the results for the estimated copper grade there is little sensitivity related to the top-cut applied. Whilst DataGeo is comfortable with the top-cuts applied (based on what appears to be a distinct change in population statistics) the influence of the higher-grade particularly for Au needs additional review. The confidence in the mineral resource is defined by the classification adopted as per the guidelines of the 2012 JORC code.

	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.*	The statement relates to global estimates of tonnes and grade.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	not applicable