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# STRAITS RESOURCES LIMITED

## TRITTON MINES OPERATIONS

### North East Deposit

#### Mineral Resource and Ore Reserve Statement

30<sup>th</sup> June 2014

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Author/s	Name	Title
	Byron Dumbleton	Competent Person – Mineral Resource Estimate
	Ian Sheppard	Competent Person – Ore Reserve Estimate

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## **1 PROJECT SUMMARY**

### **1.1 INTRODUCTION AND SETTING**

North East is a sulphide copper deposit located on ML1383 in central New South Wales (NSW), Australia. Mineralisation is described as a Besshi style stratiform volcanic associated massive sulphide deposit. It contains economic grades of copper and silver. Minor gold concentrations occur within the mineralised system, however are generally not economic when recovered in the copper concentrate.

The deposit is being mined using underground methods by Tritton Resources Pty Ltd a subsidiary of Straits Resources Limited. Open pit mining of the near surface oxide portion of the North East deposit was completed prior to 2002 by the Girilambone Copper Company. Sulphide mineralisation at depth was not suited to the heap leach processing method at the Girilambone copper mine and the pit was mined only to the base of oxidized copper mineralisation. Underground mining of the North East sulphide ore by Tritton Resources commenced in 2008. Ore is treated at the Tritton copper sulphide ore processing plant by flotation to produce a copper concentrate product.

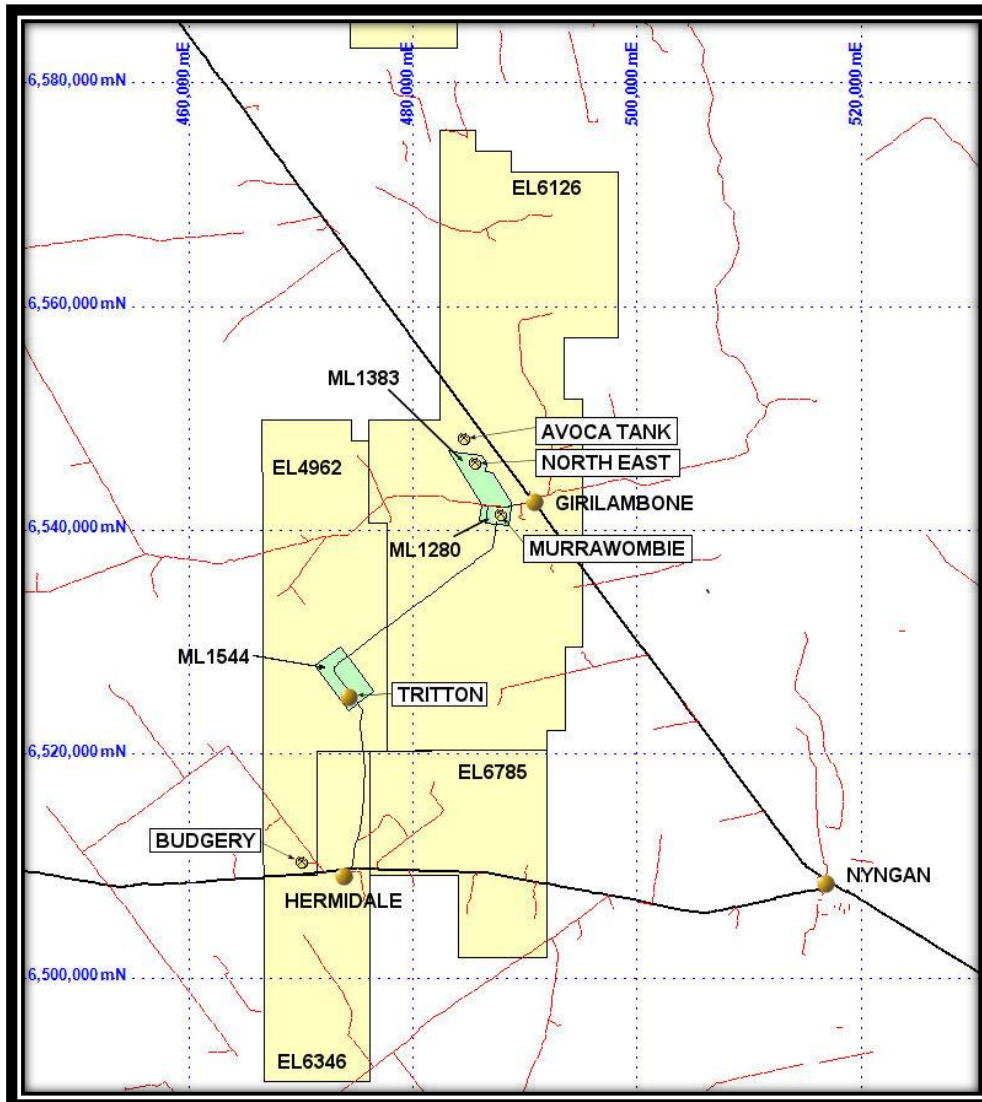
The North East mine is fully permitted for production.

The resource estimate has not been updated since the previous reporting period. Changes to the Mineral Resource figures are a result of mining depletion and defining additional down dip resource below the mining front.

## **2 PROJECT BACKGROUND**

### **2.1 LOCATION**

The North East deposit is located 3km north west of the small town of Girilambone in central NSW, Australia (Figure 1). The deposit is held within ML1383. It forms part of the Tritton Resources Girilambone mining area that includes the North East mine, Larsons mine, Murrawombie mine and Avoca Tank project. The ore processing plant for sulphide copper gold ore is located at Tritton 30km by road to the south. Ore mined from the North East mine is hauled by on-highway road train truck for processing at the Tritton plant.



**Figure 1: Plan view of the location and lease outlines for the Tritton Copper Operation. The North East operation is located within ML1383.**

## 2.2 HISTORY

The North East underground mine has been in production since 2008. Prior to this the near surface oxide portion of the deposit was mined by open pit. Oxide ore was processed at the Girilambone copper heap leach and SXEW plant. Mining of the sulphide ore below the pit became economic following the construction of the Tritton copper sulphide process plant.

The deposit below the pit has been mined from the top down using conventional bench stoping. Mining is now approximately 400m vertically below the portal.

The modest size of the North East deposit supports a production rate of 800 to 1000 tonnes per day.

## 2.3 METHOD OF MINING

The Mineral Resource and Ore Reserve estimates have been based on the results of technical input to budgets and mine plans at the level of feasibility study. The mine plans assume the continued use of up-hole bench stoping with sub-level developed at 20m vertical intervals. Rib pillars are left in sub economic areas of mineralisation. There is no backfill used.

Mine access is via a decline developed at a 1:7 gradient (1 down for 7 horizontal). The decline dimensions are 5.5m high and 5m wide which is suitable for use of mechanized jumbo, loader and 45 tonne capacity haul truck equipment.

Definition of Mineral Resource and Ore Reserve is completed in small increments by diamond drilling from the access decline. Since decline development is not advanced past the last known Ore Reserve the diamond drilling coverage is limited and only modest increments in the Mineral Resource is possible as the mining follows the mineralisation down dip. As a result the Mineral Resource and Ore Reserves at North East are expected to remain modest. Historically the depletion due to mining has been replaced by incremental definition of additional Mineral Resource.

#### 2.4 ORE PROCESSING

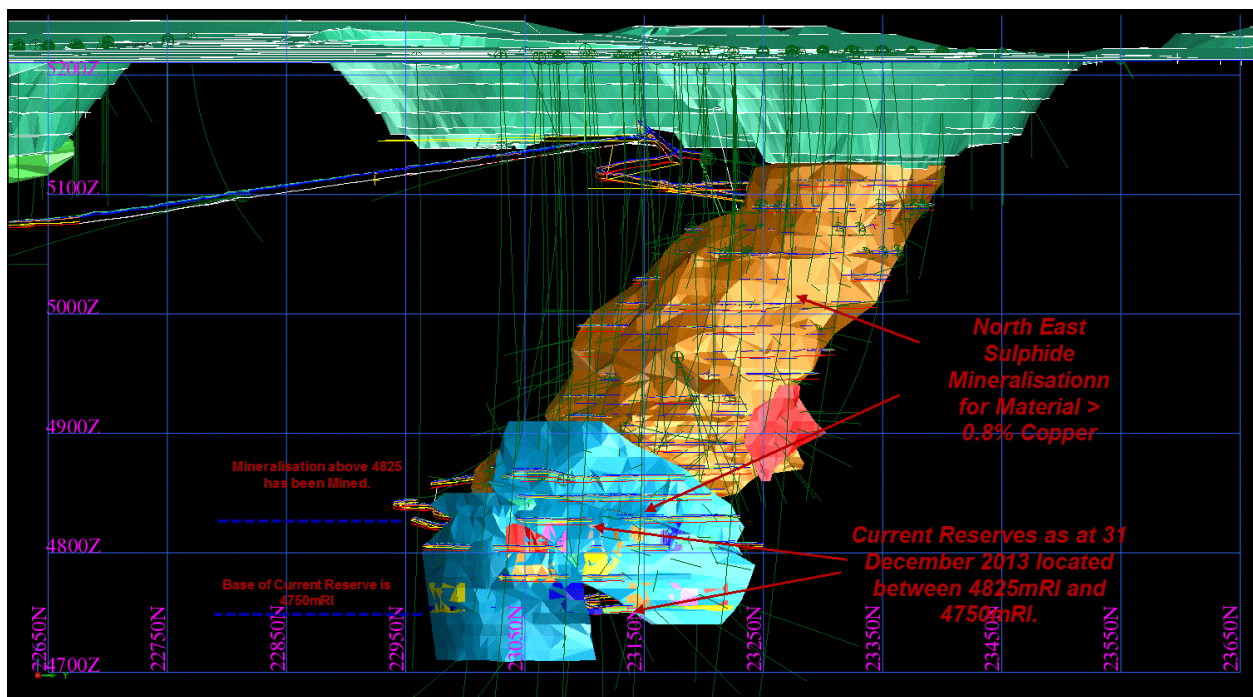
The ore produced from the North East mine will continued to be processed at the Tritton copper sulphide ore processing plant.

### 3 GEOLOGY

Regionally the mineralisation is hosted within early Ordovician sediments as part of the Girilambone group. The Murrawombie mineralisation is hosted within pelitic to psammitic turbidite sediments with sparse interbedded courser sandstones of the Girilambone Group.

The North East sulphide mineralisation is classified as a “Besshi style” stratiform volcanogenic massive sulphide deposit. Mineralisation is dominated by banded to stringer pyrite – chalcopyrite, with minor but locally important magnetite – chalcopyrite, lesser massive pyrite – chalcopyrite, and rare banded pyrite.

Structurally the North East sulphide mineralisation is hosted within a corridor of moderate to intense shearing related to a thrust fault observed in the east wall of the Eastern Shear of the Murrawombie Pit (Murrawombie pit is located approximately 5km SW of the North East deposit). The shear corridor has been traced by Sirotem (Nord) to the north west of the Murrawombie pit, with the North East mineralisation sitting above the Eastern Shear, in relatively underformed sediments with observed shearing occurring post mineralisation.



**Figure 2 Schematic view of the North East geology and mine**

## 4 MINERAL RESOURCE ESTIMATE

### 4.1 RESULTS

The North East Mineral resource is reported at 30<sup>th</sup> June 2014 and is inclusive of mined depletion since the previous reporting period (30<sup>th</sup> June 2013) (Table 1). The Mineral Resource includes Measured, Indicated and Inferred categories and is inclusive of the Mineral Resource used to derive the reported North East Ore Reserve. All Mineral Resource figures included in this report were estimated and reported from a three dimensional block model created using GEOVIA Surpac software.

	Tonnes (kt)	Cu (%)	Cu (kt)
<b>North East</b>			
Measured	200	2.2	4
Indicated	150	1.8	3
<b>Total M + I</b>	<b>350</b>	<b>2.0</b>	<b>7</b>
Inferred	100	1.2	1
<b>TOTAL</b>	<b>450</b>	<b>1.8</b>	<b>8</b>

**Table 1: Mineral Resource estimate for North East as at 30<sup>th</sup> June 2014** <sup>1,2,3 & 4</sup>

1. Cut-off grade: 0.8% Cu cu-toff.
2. Reported Mineral Resource figures are inclusive of Ore Reserve.
3. Discrepancy in summation may occur due to rounding.
4. Reported tonnes and grade are based on approximate stoping and development positions for North East as at 30<sup>th</sup> June 2014.

### 4.2 CHANGE FROM PREVIOUS PUBLIC REPORTED MODEL

The Mineral Resource was depleted from mining during the period. Additions to the Mineral Resource resulted from evaluation of existing and new drill hole data and information from development through the mineralisation.

	June 2014			June 2013		
	Tonnes (kt)	Cu (%)	Cu (kt)	Tonnes (kt)	Cu (%)	Cu (kt)
<b>North East</b>						
Measured	200	2.2	4	30	2.4	1
Indicated	150	1.8	3	250	1.9	5
<b>Total M + I</b>	<b>350</b>	<b>2.0</b>	<b>7</b>	<b>280</b>	<b>1.9</b>	<b>5</b>
Inferred	100	1.2	1	60	1.8	1
<b>TOTAL</b>	<b>450</b>	<b>1.8</b>	<b>8</b>	<b>340</b>	<b>1.9</b>	<b>7</b>

**Table 2: Change in Mineral Resource estimate since previous public report** <sup>1,2</sup>.

1. Cut-off grade: 0.8% Cu cut-off.
2. Reported Mineral Resource figures are inclusive of Ore Reserve.

### 4.3 STATEMENT OF COMPLIANCE WITH JORC CODE REPORTING

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

#### 4.3.1 Competent Person Statement

I, Byron Dumpleton a Consultant Resource Geologist confirm that I am the Competent Person for the North East Mineral Resources section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report and to the activity for which I am accepting responsibility.
- I am a Member of the Australian Institute of Geologists (MAIG No. 1598).
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of BKD Resources Pty Ltd (ABN 81 109 376 481) and acting as the Mineral Resources Manager for Straits Resources Limited. I have been engaged by Straits Resources Limited to prepare the documentation for Avoca Tank 31<sup>st</sup> December Mineral Resource estimate.

I have disclosed to Straits Resources Limited the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest. Specifically Mr Dumpleton owns 61,349 shares in Straits Resources Ltd which were issued as part of the company share plan in 2010 when Mr Dumpleton was a staff member of Straits Resources Limited.

I verify that the North East Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Mineral Resources.

#### 4.3.2 Competent Person Consent

With respect to the sections of this report for which I am responsible – Mineral Resource Estimate - I consent to the release of the North East Mineral Resources and Ore Reserves Statement as at 30<sup>th</sup> June 2014 by the directors of Straits Resources Limited

<b>Signature of Competent Person</b>          Byron Dumpleton Member No.####	Date
<b>Signature of Witness</b>	Witness Name and Address

#### 4.4 JORC CODE, 2012 EDITION – TABLE 1 REPORT: NORTH EAST DEPOSIT

##### 4.4.1 Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>All Diamond core samples are based on ½ core, pre-collar RC samples in waste zones taken as 4 m composites and re-spit to 1 m samples when return assays or geology indicate copper or gold mineralisation.</li> <li>Dedicated RC holes are sampled at 1 m intervals. Underground rock chip face samples are collected at 1 m intervals or at geological breaks.</li> <li>All diamond core is aligned, measured and metre marked. All underground headings which are face sampled are digitally photographed with the face position measured and recorded from known survey points/survey pickups.</li> <li>Diamond drilling samples commence and terminate at geological boundaries. Sample intervals are typically 1m in length, varying at geological boundaries from 0.5m to 1.4m. Sampling typically extends 50m either side of mineralised horizons.</li> <li>Diamond core drilled from surface which intersected mineralised horizons pre 2010 are predominantly NQ2 in size. Diamond holes drilled during 2010 to 2012 which define the lower section of the current resource are HQ3. Underground grade control holes are NQ2 for down holes and LTK60 for up holes.</li> <li>Underground face samples (rock chip) are also collected for grade estimation with ore drives mapped and ore boundaries picked up by survey.</li> <li>All exploration holes sampled by Straits Resources for the North East Mineral Resource for the primary sulphides are analysed by a 3 stage aqua regia digestion with an ICP finish (suitable for Cu 0.01-40% - ALS method ME-ICP41). All Cu samples greater than or equal to 1 % were re-submitted for an ore digest ME-OG46. Additional Au analysis by fire assay fusion with an AAS finish, 30g charge (suitable for Au 0.01-100ppm) ALS method Au-AA22. All Au samples greater than or equal to 1 g/t were re-submitted for an ore grade fire assay 30g charge, Au-AA25. All diamond Grade Control holes and Face samples are assayed using ore grade digest, methods ME-OG46 for Cu, Fe, Ag, Zn, Pb and S with Au FA using method Au-AA25 from ALS Orange, NSW, Australia.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>All available drilling was used for the North East resource interpretation and estimation as at 31 December 2013 below the oxide pit..</li> <li>Drill data used included RC and diamond core. Underground face samples were also used. For the resource 59 holes were surface RC holes (4%), 146 holes were surface diamond (9%), 777 were underground grade control diamond holes (49%) and 594 face sample locations (38%). The majority of the surface drill holes used were NQ2 diameter. For underground grade control NQ2 is used for down holes and LTK60 for up holes.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>All diamond core has recoveries measured and recorded by the drilling company and confirmed by Straits Resources. RC pre-collar sample recoveries were not recorded nor required to be recorded as all material estimated for the North East mineralisation is defined by core below 150m from the surface and a mixture of RC and diamond above 150m. RQD measurements are taken on</li> </ul>



Criteria	Commentary
	<ul style="list-style-type: none"> <li>all core prior to all sampling.</li> <li>Industry standard drilling practices resulted in good sample recoveries for RC chips and good to reasonable recoveries for diamond core.</li> <li>No relationship appears to exist between recovery and grade.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>All diamond core and RC chips are geologically logged by company geologists. All surface holes drilled by Straits Resources are geotechnically logged. All logging is to the level of detail required to support the Tritton style of mineralisation (VMS-Besshi style).</li> <li>Logging of both RC and diamond core recorded lithology, alteration, mineralisation, degree of oxidation, fabric/structure and colour. All exploration core was photographed in both dry and wet form. For UG grade control holes all core is photographed in wet form only. All RC intervals are stored in plastic chip trays, labelled with intervals and hole number. Core is stored in core trays and labelled similarly. Underground faces where samples are taken are digitally photographed and face locations measured from the nearest survey point.</li> <li>All RC and core samples were logged in full and face samples are logged for lithology and accompanied by geological mapping.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Half core samples were collected on average at 1m intervals, minimum sample length is 0.5m and maximum length is 1.4m.</li> <li>RC samples for waste sections are collected at 1m intervals, with a 1m split and bulk residual collected on the drill rig. The bulk residual are composited to 4m intervals by spear sampling. If RC composites returned above background copper or gold values, the stored original 1m split was sent to the laboratory for analysis.</li> <li>Samples taken are appropriate for the North East mineralisation style (Copper VMS).</li> <li>Sample blanks and industry standards are routinely submitted. Pulps are retained to be re-submitted to test for reproducibility.</li> <li>Field duplicates on grade control holes are conducted routinely for the Tritton mineralisation. Regression analysis of the field duplicates shows very good correlation. The understanding of sample representative and grade estimation is also reviewed through mine to mill reconciliations and stope reconciliations and closing reports. All core samples are visually examined against assay values and logged mineralisation.</li> <li>The sample sizes are considered appropriate to the grain size of the material being sampled.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>All assays for holes drilled by Straits Resources were conducted at accredited assay laboratories. Samples for the drill holes in the North East resource estimation are primary sulphide.</li> <li>All surface exploration holes are analysed by a 3 stage aqua regia digestion with an ICP finish (suitable for Cu 0.01-40%) ALS method ME-ICP41. All Cu samples greater than or equal to 1 % were re-submitted for an ore digest ME-OG46. Additional Au analysis by fire assay fusion with an AAS finish, 30g charge (suitable for Au 0.01-100ppm) ALS method Au-AA22. All Au samples greater than or equal to 1 g/t were re-submitted for an ore grade fire assay 30g charge (Au-AA25). Samples taken pre 2005 cannot confirm the exact assay technique, however Straits is assuming for identifying mineralised zones the assays had met industry standards at the time. The assay techniques used are considered appropriate for the Tritton resource.</li> <li>Laboratory QA/QC samples included the use of blanks, duplicates, standards (commercial and site made certified reference material) and replicates (as part of in-house procedures).</li> </ul>

Criteria	Commentary
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• Significant mineralised intersections are reviewed by the logging Geologist and Senior Geologist.</li> <li>• No twinned holes were conducted.</li> <li>• All Straits Resources geological data is logged directly into Straits Resources logging computers following the Corporate Geology codes. Data is transferred to the Corporate Acquire database and validated on entry. Down hole survey data is validated and checked for potential deviation from magnetic mineralisation before data entry.</li> <li>• No adjustments to assay data were made. If survey data is affected by mineralisation, the survey is omitted. With a general trend being applied based on the survey above and below the affected value.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• All recent surface drill hole collars have been surveyed by using a DGPS by a local contractor</li> <li>• All pre 2008 holes are surveyed by theodolite. All underground hole collars are surveyed with a theodolite by company surveyors.</li> <li>• Surveys are entered into the Straits Corporate Acquire database. A 3D dtm of the topographic surface was generated using the drill hole collars outside of the North East, Hartman and Larsen pit area. Pit and nearby infrastructure is picked up by company surveyors.</li> <li>• Resource modelling based on local North East Mine Grid. Rotation of the grid is 31.22 degrees to the west from AGD 66 true North.</li> <li>• Quality and accuracy of the drill collars are suitable for resource work and resource evaluation for Proved and Probable reserve.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• The North East Resource surface definition drilling was conducted on a nominal 100m x 100m to 50m x 50m grid</li> <li>• Infill grade control drilling was conducted on a nominal 20m x 20m grid.</li> <li>• Face samples are taken at regular intervals along strike (between 3m to 6m) with samples taken at 1m intervals across the face.</li> <li>• The North East mineralisation is defined sufficiently to define both geology and grade continuity for a Mineral Resource estimation and Ore Reserve evaluation and stope delineation.</li> <li>• Samples are collected at 1m intervals and/or to geology breaks. Minimum sample interval is 0.5m and maximum sample interval is 1.4m.</li> <li>• For the resource estimate 1m composites were generated and applied.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• This deposit may have minor BIAS due to the “fan” nature of the UG drilling and mixed sample support – incorporating drill hole and face sample data.</li> <li>• No material issues due to sampling BIAS is expected due to the extensive geological knowledge and mining history, therefore this is seen as a low risk.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• Chain of Custody is managed by the Company. Samples are stored on site in polyweave bags containing approximately 5 samples. These bags are securely tied, then loaded and wrapped onto a pallet for dispatch to the laboratory. The samples are freighted directly to the laboratory with appropriate documentation listing sample numbers and analytical methods requested. Samples are immediately receipted by the lab on arrival, with a notification to the Company Senior Geologist of the number of samples that have arrived.</li> </ul>

Criteria	Commentary
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>External reviews and audits have been conducted by AMC in 2010. No fatal flaws or significant issues with the past North East models were identified.</li> </ul>

#### 4.4.2 Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>All assay results are logged against unique sample numbers. A sampling sheet detailing sample numbers and core / RC intervals is completed prior to sampling commencing. During the sampling process each sample interval is cross-referenced to the sample number and checked off against the sampling sheet. Pre-numbered bags are used to minimize errors. Assay data is received via email in a common electronic format and verified against the Acquire database.</li> <li>Data validation checks are run by the Database Manager and checked by the logging geologist.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Byron Dumbleton (Straits Resources – Mineral Resource Manager) has made numerous site visits during the drill out of the North East resource during various drilling programmes between 2008 and 2013. Mr Dumbleton was also part of the team that developed the geological interpretation and grade control procedures for the North East Deposit.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>The confidence in the North East geology model is high due extensive underground exposure and mining history. The geological model is considered good for this style of deposit. The geological setting is close to a traditional “Besshi style” VMS mineralised system.</li> <li>The nature of the North East drilling data generally intersects the mineralisation at good angles. Ore development and geological mapping is used extensively to control ore boundaries.</li> <li>The deposit is tabular in nature with good visible mineralisation. The underground mine has been operating since 2008 and has demonstrated good geological and grade continuity. Geological knowledge of the geological setting/mineralisation is high, minimizing the risk of inaccurate geological interpretations.</li> <li>Surveyed geological mapping of mineralised horizons and core logging are used to define domain boundaries. A nominal 0.8% copper cut off is used to define the grade boundaries.</li> <li>The mineralisation at depth does have faulting with significant fault movement which offsets the mineralised horizons. These faults are well understood due to underground mapping and drill hole intersections.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>The North East resource occurs as several discrete tabular lenses covering an area approximately 450m (north-south) x 500m (east-west) with mineralisation commencing from near surface.</li> <li>Primary mineralisation commences approximately 100m below surface.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>The tabular lenses have strike lengths ranging from 150m to 200m with the down dip extent ranging from 90m to 420m. The lenses vary in true width from 2m to 20m, with an average true width of 5m to 7m.</li> <li>A major faulting off set occurs at approximately 410m below surface. The faulting shifts the down dip section of the main ore lenses up approximately 90m.</li> <li>The current North East resource has been interpreted to a depth of approximately 520m below the current surface and is still open at depth. The current resource is closed off along strike.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>The resource estimation technique used for estimating grade at North East was ordinary kriging. The software package used for the grade estimation, variography and geological interpretation was Surpac. Variables estimated include Cu, Au, Ag, Fe, Zn, S and density.</li> <li>Estimation was run in one or two passes pending on the domain extents, data density and geology confidence. The first pass was run at a 30m search radius. For the second pass the search radius was run at 140m.</li> <li>Estimation domains are interpreted as hard boundaries, based on a nominal 0.8% copper solid (closed wireframe) with a minimum width of 2m down hole.</li> <li>North East resource has been mined historically both as an open pit (oxide copper mineralisation in the 1990's) and for primary chalcopyrite mineralisation (since 2008). The North East resource model only includes primary sulphide mineralisation below the oxide surface (chalcopyrite mineralisation). Reconciliations for the FY13 and Q1 and Q2 for FY14 shows mined claimed tonnes has marginally overcalled by 1.6%, marginally under called Cu grade by 1.02% and marginally overcalled copper metal tonnes marginally by 0.59% against reconciled mill production.</li> <li>No deleterious elements were estimated.</li> <li>The parent block size used was 8mN x 4mE x 4mZ with sub celling down to 2mN x 1mE x 1mZ. Each estimation domain has been flagged and modelled separately. Consideration of an appropriate parent block size included the domain dimensions and drill spacing. The block size is generally larger than the face sampled area or equivalent, and is approximately 40% less than the average grade control drill spacing along strike.</li> <li>No assumptions have been applied to the model for selective mining unit.</li> <li>No correlation has been made between variables.</li> <li>Top cuts was set to the 97.5 percentile for all elements estimated.</li> <li>Block model estimation domain volumes were validated against domain wireframes. Block model grade estimates were validated by visual comparisons (block estimates and composites), swath plots (northings at 20m increments and benches at 10m increments) and exposed underground ore development.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>The nominal 0.8% copper cut off grade used for the mineralised interpretation was chosen as this appears to reflect the natural break between background copper and mineralised copper.</li> </ul>
<i>Mining factors</i>	<ul style="list-style-type: none"> <li>The only consideration to the mining method is the minimum interpreted width (2m downhole). Otherwise no other mining</li> </ul>

Criteria	Commentary
<i>or assumptions</i>	<p>assumptions have been applied to the North East model.</p> <ul style="list-style-type: none"> <li>The model is setup for mining evaluation and stope delineation with low grade material (generally sub 0.8 Cu%) estimated outside the copper estimation domains to estimate grade for planned dilution from stope designs. Material not estimated is set to zero.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The dominant mineralisation for the North East deposit is chalcopyrite. Material mined from North East is processed at the Tritton Copper Operations copper concentrator. Copper processing recoveries for North East are on average 94.5%.</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Waste from processing is disposed at the current tailings storage facility at Tritton (or utilised as paste fill).</li> <li>Waste from underground development is stored within the Hartman's Pit or used as backfill in the mining process.</li> <li>Any potentially acid forming waste will be encapsulated within the waste dump on the surface or used as stope backfill.</li> <li>No significant environmental impacts have been identified for the North East mining operation.</li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>Bulk density estimates outside of the copper estimation domains are assigned the average bulk density value measured across the field.</li> <li>Bulk density values for material within the estimation domains have been estimated using ordinary kriging.</li> <li>Bulk density for the resource has been measured using the Archimedes Principle Method' (weight in air v's weight in water). A total of 15,133 density measurements have been used for the North East resource estimate.</li> <li>Bulk density has been estimated by the actual measurements for fresh ore material. For material outside the mineralised domains an average density value for the host material has been assigned.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>The Mineral Resource classification has been guided by drill density, level development, geological mapping and the knowledge of the geological and grade continuity.</li> <li>The classification has been guided by drill density (currently at nominal 20m x 20m above 4775mRL including face samples and surveyed ore mapping. Below 4775mRL drilling is spaced at a nominal 30m x 30m to 50m x 50m.</li> <li>The drill and input data density is comprehensive in its coverage for the resource to allow reasonable confidence for the tonnage and grade distribution to the levels of Measured, Indicated and Inferred.</li> <li>The Mineral Resource estimated appropriately reflects the view of the competent person.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>External reviews and audits have been conducted by AMC for early generations of the North East resource models. No fatal flaws or significant issues with the past North East models were identified at the time. The current model follows the same principles for their interpretation, methodology and estimation criteria.</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC code.</li> <li>The statement relates to local tonnes and grade estimates above the 4775mRL. Below 4775mRL the estimate relates to a global estimate.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"><li data-bbox="427 280 2051 371">• The North East resource model has only been modelled for the fresh sulphides (chalcopyrite). Reconciliations for the FY13 and Q1 and Q2 for FY14 shows mined claimed tonnes has marginally overcalled by 1.6%, marginally under called Cu grade by 1.02% and marginally overcalled copper metal tonnes by 0.59% against reconciled Mill production.</li></ul>

## 5 ORE RESERVE ESTIMATE

### 5.1 RESULTS

The North East Ore Reserve Estimate as at 30<sup>th</sup> June 2014 is reported according to JORC 2012.

	June 2014		
	Tonnes (kt)	Cu (%)	Cu (kt)
<b>North East</b>			
Proved	139	1.8	2
Probable	92	1.6	1
<b>TOTAL</b>	<b>231</b>	<b>1.7</b>	<b>4</b>

**Table 3: Ore Reserve Table for Public Reporting of North East Mine as at 30<sup>th</sup> June 2014<sup>1,2</sup>.**

- Ore Reserves are reported as Inclusive of the supporting Mineral Resource estimate
- Discrepancies in summation will occur due to rounding

### 5.2 CHANGES FROM PREVIOUS ESTIMATE

The previous public reported Ore Reserve estimate was as at 30<sup>th</sup> June 2013. Changes in the Ore Reserve result from a combination of depletion due to mining and estimation of additional Mineral Resource that was available for conversion to Ore Reserve.

	June 2014			June 2013		
	Tonnes (kt)	Cu (%)	Cu (kt)	Tonnes (kt)	Cu (%)	Cu (kt)
<b>North East</b>						
Proved	139	1.8	2	-	-	-
Probable	92	1.6	1	182	1.6	3
<b>TOTAL</b>	<b>231</b>	<b>1.7</b>	<b>4</b>	<b>182</b>	<b>1.6</b>	<b>3</b>

**Table 4: North East Ore Reserve comparison between current reportable Ore Reserve and previous reportable Ore Reserve<sup>1,2</sup>.**

- Ore Reserves are reported as Inclusive of the supporting Mineral Resource estimate
- Discrepancies in summation will occur due to rounding

### 5.3 STATEMENT OF COMPLIANCE WITH JORC CODE REPORTING

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

#### 5.3.1 Competent Person Statement

I, Ian Sheppard, confirm that I am the Competent Person for the North East Ore Reserve section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy, No. 105998.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of Straits Resources Limited.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest. Specifically I have rights to 4,870,921 shares in Straits Resources. Title to the shares will vest when a range of conditions have been satisfied as defined in an Employee Share Acquisition Plan. These conditions have not been met at this time.

I verify that the Ore Reserve section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Ore Reserve.

### 5.3.2 Competent Person Consent

With respect to the sections of this report for which I am responsible – Ore Reserve Estimate - I consent to the release of the 2013 Mineral Resources and Ore Reserves Statement as at 30<sup>th</sup> June 2014 for North East.

### 5.4 CONSENT TO RELEASE

<b>Signature of Competent Person</b>             Ian Sheppard Member No.105998 AuSIMM	<b>Date</b>             
<b>Signature of Witness</b>             	<b>Witness Name and Address</b>             



## 5.5 EXPERT INPUT

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below.

In compiling the Ore Reserve the Competent Person has reviewed the supplied information for reasonableness, but has relied on this advice and information to be correct.

<b>Expert Person / Organization</b>	<b>Area of Expertise</b>
<b>Wayne Race</b>	Mine design
<b>Byron Dumpleton</b>	Mineral Resource estimation model

**Table 5: Expert contribution to Ore Reserve**

## 5.6 SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> <li>The Ore Reserve estimate is based on the 31st December 2013 Mineral Resource, supported by the North East Grade Control Model Ne_gc_bm_28oct2013_rescat_as_at31dec2013.mdl digital block model. Mr Byron Dumpleton is the competent person responsible for Mineral Resource Estimation.</li> </ul> <p>Information from stoping and development on ore in mining levels above where the Ore Reserve is located has been used to assist with the December 2013 Ore Reserve.</p> <ul style="list-style-type: none"> <li>Mineral Resources are quoted as INCLUSIVE of the Ore Reserve Estimate</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Mr Ian Sheppard, the competent person responsible for the Ore Reserve estimate, has visited the North East mine on several occasions. Ground conditions, mining methods, operating costs and supporting infrastructure have been inspected. Assumptions regards modifying factors applied in the estimate are based on these inspections.</li> </ul>
<i>Study status</i>	<ul style="list-style-type: none"> <li>The North East mine is an active mining operation. Reporting of the Ore Reserve estimate is supported by an operating budget, production experience and mine plans. The combination of budgets and mine plans contains information on the modifying factors that exceeds the standard of a Feasibility Study.</li> <li>Production plans have been developed that shows how the Ore Reserve will be mined. The North East mine is an active operation with all infrastructure and mining equipment in place. The only required capital expenditure to mine the Ore Reserve is the development of decline access from the 4800mRL level to the 4750mRL level. Ore will be processed at the existing Tritton flotation concentrator where North East mine ore is being successfully treated. The combination of mine plans and existing mine and processing infrastructure exceeds the standard for the level of information contained in a Feasibility study.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>The December 2013 Ore Reserve uses copper grade, Cu%, as the cut-off grade criteria.</li> <li>There are no significant impurities in the mineralisation that require inclusion in the cut-off grade criteria.</li> <li>Different cut-off grades are applied to ore mined by development and ore mined by stoping. This reflects the difference in cost allocation to the method of mining. For ore from development mining a large portion of the costs are considered sunk at the time of mining since the development will proceed irrespective of the decision to call blasted material as ore or waste. For ore mined from stope, the majority of cost is future expenditure and so is considered in the cut-off grade that guides stope design. Material mined by</li> </ul>

Criteria	Commentary
	<p>development has a low cut-off grade compared to ore mined by stope.</p> <ul style="list-style-type: none"> <li>• A 1.2% copper cut-off grade is applied to stope ore. The whole of stope average grade must exceed the cut-off grade for inclusion in the Ore Reserve. In special circumstances a reduced cut-off grade of 1% copper is allowed for stopes that can be mined with reduced cost where stope development is paid for by higher grade stope along strike. A single stope is included in the Ore Reserve at this lower cut-off grade.</li> <li>• A 0.8% copper cut-off grade is applied to ore mined by development.</li> <li>• All ore, in stope or development, must be inside the Mineral Resource volume defined by a 0.6% copper cut-off grade.</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>• December 2013 Mineral Resources have been converted to Ore Reserve by a process of detailed stope and development design.</li> <li>• The mining method applied at North East mine is up-hole bench mining. Stopes are mined in retreat from the end of the ore towards the access drive. Sublevel interval is 20m vertical. Rib pillars are left in waste areas to support the stope. No backfill is placed. Stope heights of over 80m vertical and 30m on strike have been mined at North East between pillars without significant stope wall failure occurring. This history experience is used to guide stope design for Ore Reserve estimation.</li> <li>• Access to the ore is from a decline mined at a gradient of 1 down for 7 horizontal. Ore and waste are removed by loader and truck to the surface (approximately 400m vertical lift). Ore is transported to the processing plant from a surface stockpile by on highway truck road train operating on a majority sealed road.</li> <li>• Geotechnical design of the stope is based on experience mining stopes immediately above. Strike length of up to 40m and vertical height of 60m is allowed. Similar stope sizes have been mined previously in the ore body without significant dilution. There are no identified major structures or changes in the rock mass that suggest such stope dimensions will be unstable in the Ore Reserve.</li> <li>• The Ore Reserve is based on engineer designed stopes and development drives. The Mineral Resource model used is <i>Ne_gc_bm_28oct2013_rescat_as_at31dec2013.md</i>.</li> <li>• Ore Reserve estimates include the volume of material that is below cut-off grade and which is considered impractical to exclude from the surrounding or adjacent volume of ore. Such internal dilution material is inclusive to the design ore volume and estimate of grade.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Mining dilution from external to the stope design volume is assumed to have nil grade and will increase the ore tonnage by 12%, Ore Reserve grades are reduced to reflect the inclusion of nil grade dilution tonnage.</li> <li>• Mining dilution from external to the drive for development ore is assumed to be nil, since there is good access to control location of the development mining and intense ground support is installed.</li> <li>• Mining recovery of ore from stope is assumed as 90%, applied after the dilution calculation.</li> <li>• Mining recovery of ore from development is assumed as 100%.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>• The North East ore is treated at the existing Tritton ore processing plant located 30km by road from the mine. Copper, gold and silver are recovered to a copper concentrate by sulphide flotation.</li> <li>• The sulphide flotation treatment method is being used successfully to treat North East mine ore. Metal recovery estimates are based on production history.</li> <li>• There is no evidence to suggest any change in the mineralogy in the mineralisation on which the Ore Reserve is based. Hence no change in metal recovery performance is expected. No metallurgy test work has been completed on the Ore Reserve.</li> <li>• North East mine ore occasionally contains elevated levels of fast floating talc that will report to the copper concentrate, reducing concentrate grade. Talc suppressant chemicals are added to the flotation cells when elevated levels of talc are present to nearly eliminate this problem. No other deleterious elements are found in the North East ore.</li> </ul>
<i>Environmental</i>	<ul style="list-style-type: none"> <li>• North East mine operates under the Tritton Resources Limited Mine Operations Plan, EPA licenses and associated local and NSW State Government approvals. The mine is located on a Mining Lease. The environmental impact of the mine and the ore processing are fully approved.</li> <li>• Waste rock from mining operations is disposed to the Hartman's Open pit. Waste rock with sulphur content of less than 1% is Not Potentially Acid Forming and can remain stockpiled at surface. The small quantity of waste rock with sulphur content greater than 1% is disposed into empty stopes underground.</li> </ul>
<i>Infrastructure</i>	<ul style="list-style-type: none"> <li>• All infrastructure necessary to support mining operations is in place.</li> </ul>
<i>Costs</i>	<ul style="list-style-type: none"> <li>• Capital cost for the modest length of decline development is based on historical actual experience at North East mine.</li> <li>• Estimates of operating cost for the development, mining and processing of the Ore Reserve are based on historical actual</li> </ul>

Criteria	Commentary
	<p>experience at the North East mine. Cost estimates are at better than Feasibility study level of confidence <math>\pm 10\%</math></p> <ul style="list-style-type: none"> <li>The cost of talc suppression chemical and dosage rates is known from recent operating experience.</li> <li>Metal price assumptions for copper, gold and silver are Straits Resources corporate long term assumptions derived from a variety of market sources.</li> <li>Exchange rate assumptions are Straits Resources corporate long term assumptions derived from a variety of market sources.</li> <li>Product transport charges are current contracted rates.</li> <li>Copper concentrate treatment and refining charges are actual cost for Tritton Mines in 2013; USD\$70/t treatment and USD\$0.07/lb refining.</li> <li>NSW Government royalty of 4% is payable on revenue less deductible items. After deductions, the effective royalty rate on revenue is approximately 3% for Tritton Resources. No private royalties apply.</li> </ul>
<i>Revenue factors</i>	<ul style="list-style-type: none"> <li>Metal price assumptions are; <ul style="list-style-type: none"> <li>a. Copper price of USD\$3.18/lb</li> <li>b. Gold price of \$1300/oz</li> <li>c. Silver price of USD\$20/oz</li> <li>d. AUD:USD exchange rate of 0.9</li> <li>e. Copper treatment charge of USD\$70/t</li> <li>f. Copper refinery charge of USD7c/lb</li> <li>g. Standard Tritton commercial terms under contract for payable metal rates</li> </ul> </li> </ul>
<i>Market assessment</i>	<ul style="list-style-type: none"> <li>Copper metal production from North East is very small compared to world copper market size. There are market restrictions. All copper concentrate is sold to Glencore International AG under a life of mine contract.</li> </ul>
<i>Economic</i>	<ul style="list-style-type: none"> <li>The economics of mining North East ore has been clearly demonstrated by the Tritton Mines budget.</li> <li>Estimation of a NPV for the small Ore Reserve that will be mined as part of larger mining operation with shared costs is not considered reasonable. No NPV is estimated.</li> </ul>
<i>Social</i>	<ul style="list-style-type: none"> <li>The North East mine operation is fully permitted as part of the Tritton Resources operations based in the township of Nyngan in the Bogan Shire NSW. Strong community support for the continued operation of the Tritton Resources mines has been evidenced in regular community consultation sessions. There are no known objections from the community against the Tritton Resources operations.</li> </ul>
<i>Other</i>	<ul style="list-style-type: none"> <li>No material natural risks have been identified for the project.</li> <li>All copper concentrate produced by Tritton Resources from North East mine will be sold to Glencore International AG under existing life of mine contracts.</li> </ul>

Criteria	Commentary		
<i>Classification</i>	<ul style="list-style-type: none"> <li>North East mine is on a granted Mining Lease. All necessary approvals to allow continued mine operation are in place.</li> <li>The Ore Reserves is classified as Probable as a result of conversion from Indicated Mineral Resource.</li> </ul> <p>No additional modifying factors are applicable to the categorization of the Ore Reserve.</p> <p>No Ore Reserve has been derived from Measured Mineral Resource.</p>		
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>There has been no external review of the Ore Reserve.</li> </ul>		
<i>Discussion of relative accuracy/confidence</i>	<b>Criteria</b>	<b>Risk Rating</b>	<b>Comment</b>
	Mineral Resource estimate for conversion to Ore Reserves	Low	Reconciliation history indicates the resource model techniques applied are a good estimation of the Mineral Resource grade. Good continuity of mineralisation between drill hole intercepts is demonstrated.
	Classification	Low	All Probable based on Indicated Mineral Resource. No complication from modifying factors.
	Site visit	Low	
	Study status	Low	Operating mine with budget and mine plans exceeding standard of Feasibility Study.
	Cut-off grade	Low	Mineralisation has sharp grade boundaries.
	Mining factors	Low	Experience from recent operations in the same rock mass.
	Metallurgy factors	Low	Ore from the same ore body is currently being processed successfully.
	Environmental	Low	All permits in place. No significant risks identified from existing operation.
	Infrastructure	Low	All infrastructure is in place.
	Costs	Low	Estimates based on current experience.
	Revenue Factors	High	Copper metal price has high annual variability. North East mine runs with thin margins and operations could be suspended during period of extended low metal price.

Criteria		Commentary	
	Market assessment	Low	Life of mine concentrate sale contract in place.
	Economics	Medium	Risk reflects impact of metal price variability.
	Social	Low	Mine is fully permitted and operating with no community objections

End Report