

## ASX Announcement

# Kilba Mineral Resource Update

### Highlights

- The updated Indicated and Inferred Mineral Resource estimate for the Kilba Project is an Indicated Resource of 4.1 million tonnes at 0.25% WO<sub>3</sub> and an Inferred Resource of 0.83 million tonnes at 0.20% WO<sub>3</sub> for a total of 5.0 million tonnes at 0.24% WO<sub>3</sub> at Zones 8, 11 and 12.
- Infill drilling has improved the confidence level in the Kilba Mineral Resource to 86% of contained metal falling within the Indicated category.
- A 50% increase in contained metal in the new model at Zone 8 came as a consequence of significantly better than expected drill results. Future drilling to be directed at extending the resource to the west.
- Future exploration will focus on potential for additional near-surface mineralisation on strike extensions to known mineralisation identified by recent geological mapping.

Tungsten Mining NL (ASX:TGN) ("the Company") is pleased to announce an up-dated JORC 2012 Indicated and Inferred Mineral Resource estimate of 5.0 million tonnes at 0.24% WO<sub>3</sub> at Zones 8, 11 and 12 of the Kilba Project (Table 1). The Mineral Resource is located on the Company's 100%-owned Mining Lease M08/314 situated in the Ashburton Region of Western Australia (Figure 1).

Table 1: Kilba Mineral Resource estimate based on a 0.10% WO<sub>3</sub> cut-off grade

Prospect	Class	Tonnes '000 t	WO <sub>3</sub> %	WO <sub>3</sub> t
Zone 8	Indicated	540	0.27	1,500
	Inferred	150	0.31	500
	<b>Total</b>	<b>700</b>	<b>0.28</b>	<b>1,900</b>
Zone 11	Indicated	3,600	0.25	9,000
	Inferred	460	0.19	900
Zone 12	<b>Total</b>	<b>4,000</b>	<b>0.24</b>	<b>9,800</b>
	Inferred	230	0.15	400
<b>Total</b>	<b>Total</b>	<b>230</b>	<b>0.15</b>	<b>400</b>
	Indicated	4,100	0.25	10,400
	Inferred	830	0.20	1,700
	<b>Total</b>	<b>5,000</b>	<b>0.24</b>	<b>12,100</b>

*Note: Totals may differ from sum of individual numbers as numbers have been rounded to two significant figures in accordance with the Australian JORC code 2012 guidance on Mineral Resource reporting.*

The Mineral Resource estimate has been completed in accordance with the guidelines of the Joint Ore Reserve Committee (JORC) Code – 2012 Edition. CSA Global Pty Ltd ("CSA Global") was engaged to construct the resource model, as described in Appendix 1. Since commencing drilling in November 2012, the Company has drilled 37 diamond holes and 158 reverse circulation (RC) holes for 17,172 metres at Zones 8, 11 and 12 (Figure 1).

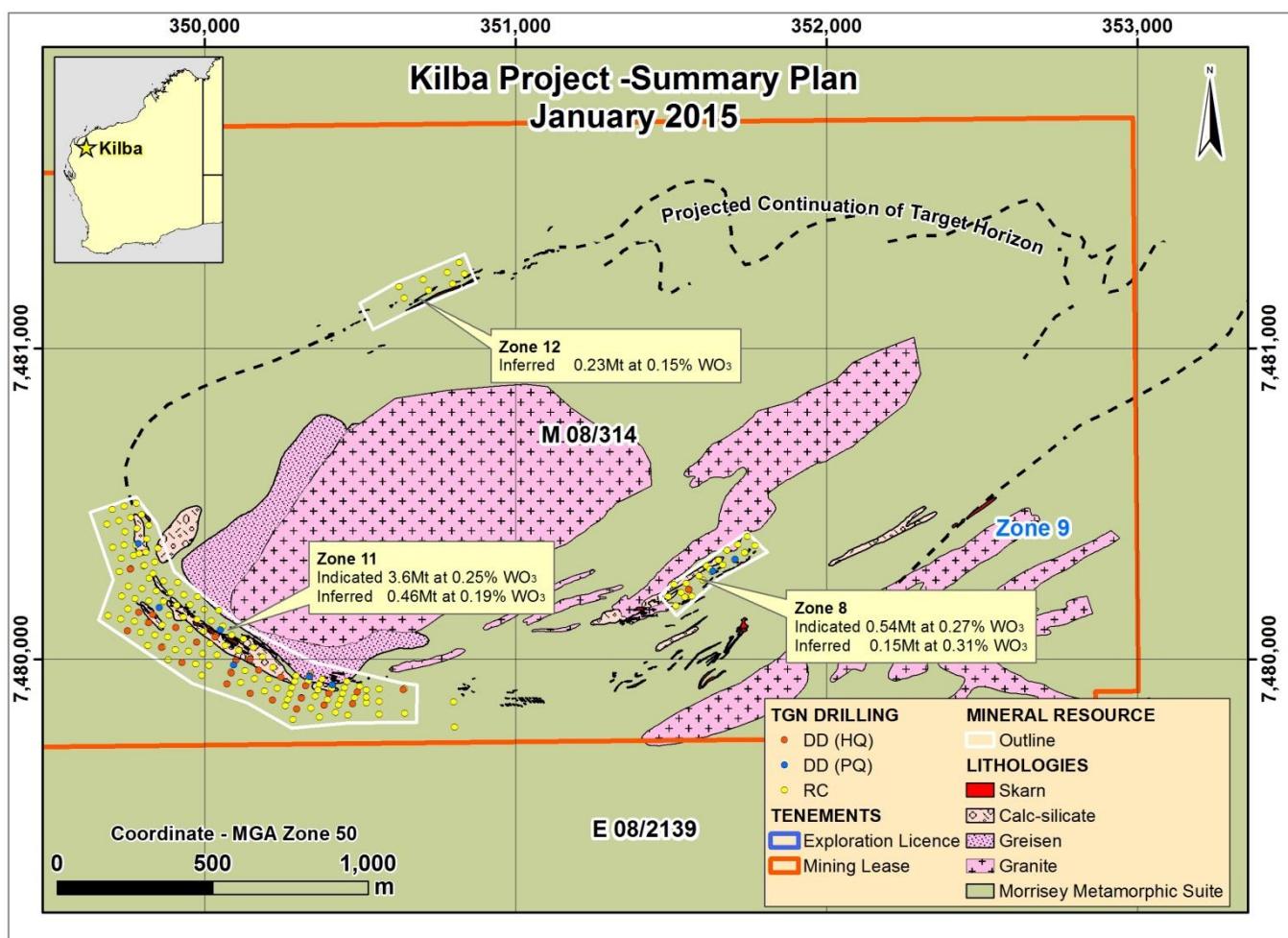


Figure 1 – summary plan showing TGN drilling and updated Mineral Resource at the Kilba Project

Tungsten Mining's recent activities have focused on Zones 8, 11 and 12 where previous drilling in the 1970s/1980s by Union Carbide Corporation intersected high-grade tungsten mineralisation. Recent exploration has identified strike extensions to the mineralised horizon east of Zone 12 and these will be investigated further.

A range of lower cut-offs have been used to report grades and tonnages, as shown in Table 2 and Figure 2. This demonstrates that within the overall resource there are significant high-grade zones of tungsten mineralisation.

Tungsten Mining Chief Executive Officer, Craig Ferrier, said "We are very satisfied with the outcome of the drilling program and resulting update in the Mineral Resources at Kilba. The objective of the 2014 drilling campaign was to increase the confidence level in key areas of the Kilba Mineral Resource ahead of formal feasibility work – this has definitely been achieved with 90% of Zone 11 Resources and 86% of the entire Kilba Mineral Resource now classified in the Indicated category."

Table 2: Breakdown of Kilba Mineral Resource estimate at different cut-off grades

Cut Off WO <sub>3</sub> (%)	Zone	Class	Volume	Tonnes '000 t	WO <sub>3</sub> %	WO <sub>3</sub> t
0.050	8	Indicated	220	630	0.24	1,500
		Inferred	60	170	0.28	490
		<b>Total</b>	<b>280</b>	<b>800</b>	<b>0.25</b>	<b>2,000</b>
	11	Indicated	1,800	5,100	0.20	10,100
		Inferred	250	730	0.15	1,100
		<b>Total</b>	<b>2,000</b>	<b>5,800</b>	<b>0.19</b>	<b>11,200</b>
	12	Inferred	190	560	0.11	600
		<b>Total</b>	<b>190</b>	<b>560</b>	<b>0.11</b>	<b>600</b>
	<b>Total</b>	Indicated	2,000	5,700	0.20	11,600
		Inferred	500	1,460	0.15	2,200
		<b>Total</b>	<b>2,500</b>	<b>7,200</b>	<b>0.19</b>	<b>14,000</b>
0.100	8	Indicated	190	540	0.27	1,460
		Inferred	52	150	0.31	470
		<b>Total</b>	<b>240</b>	<b>700</b>	<b>0.28</b>	<b>1,900</b>
	11	Indicated	1,200	3,600	0.25	9,000
		Inferred	160	460	0.19	890
		<b>Total</b>	<b>1,400</b>	<b>4,000</b>	<b>0.24</b>	<b>9,800</b>
	12	Inferred	78	230	0.15	350
		<b>Total</b>	<b>78</b>	<b>230</b>	<b>0.15</b>	<b>350</b>
	<b>Total</b>	Indicated	1,400	4,100	0.25	10,000
		Inferred	290	830	0.20	1,700
		<b>Total</b>	<b>1,700</b>	<b>5,000</b>	<b>0.24</b>	<b>12,000</b>
0.200	8	Indicated	100	300	0.37	1,100
		Inferred	35	100	0.40	400
		<b>Total</b>	<b>140</b>	<b>400</b>	<b>0.38</b>	<b>1,500</b>
	11	Indicated	540	1,600	0.39	6,100
		Inferred	55	160	0.30	470
		<b>Total</b>	<b>590</b>	<b>1,700</b>	<b>0.38</b>	<b>6,500</b>
	12	Inferred	14	42	0.26	110
		<b>Total</b>	<b>14</b>	<b>42</b>	<b>0.26</b>	<b>110</b>
	<b>Total</b>	Indicated	640	1,900	0.39	7,200
		Inferred	100	300	0.32	980
		<b>Total</b>	<b>740</b>	<b>2,200</b>	<b>0.38</b>	<b>8,100</b>
0.300	8	Indicated	58	170	0.47	780
		Inferred	22	65	0.48	310
		<b>Total</b>	<b>80</b>	<b>230</b>	<b>0.47</b>	<b>1,100</b>
	11	Indicated	270	790	0.54	4,200
		Inferred	20	59	0.38	220
		<b>Total</b>	<b>290</b>	<b>850</b>	<b>0.53</b>	<b>4,500</b>
	12	Inferred	4	13	0.34	43
		<b>Total</b>	<b>4</b>	<b>13</b>	<b>0.34</b>	<b>43</b>
	<b>Total</b>	Indicated	330	960	0.52	5,000
		Inferred	47	140	0.42	580
		<b>Total</b>	<b>380</b>	<b>1,090</b>	<b>0.51</b>	<b>5,600</b>
0.500	8	Indicated	15	45	0.74	330
		Inferred	8	23	0.67	150
		<b>Total</b>	<b>23</b>	<b>67</b>	<b>0.71</b>	<b>480</b>
	11	Indicated	100	300	0.80	2,400
		Inferred	2	5	0.62	30
		<b>Total</b>	<b>100</b>	<b>310</b>	<b>0.80</b>	<b>2,400</b>
	<b>Total</b>	Indicated	120	340	0.79	2,700
		Inferred	10	27	0.66	180
	<b>Total</b>	<b>130</b>	<b>370</b>	<b>0.78</b>	<b>2,900</b>	

Note: Totals may differ from sum of individual numbers as numbers have been rounded to two significant figures in accordance with the Australian JORC code 2012 guidance on Mineral Resource. No grade cutting was applied, because Multiple Indicator Kriging (MIK) was used for the grade interpolation. The last bin defined for MIK is calculated using the median, which gives a more conservative value for positively skewed data than the mean.

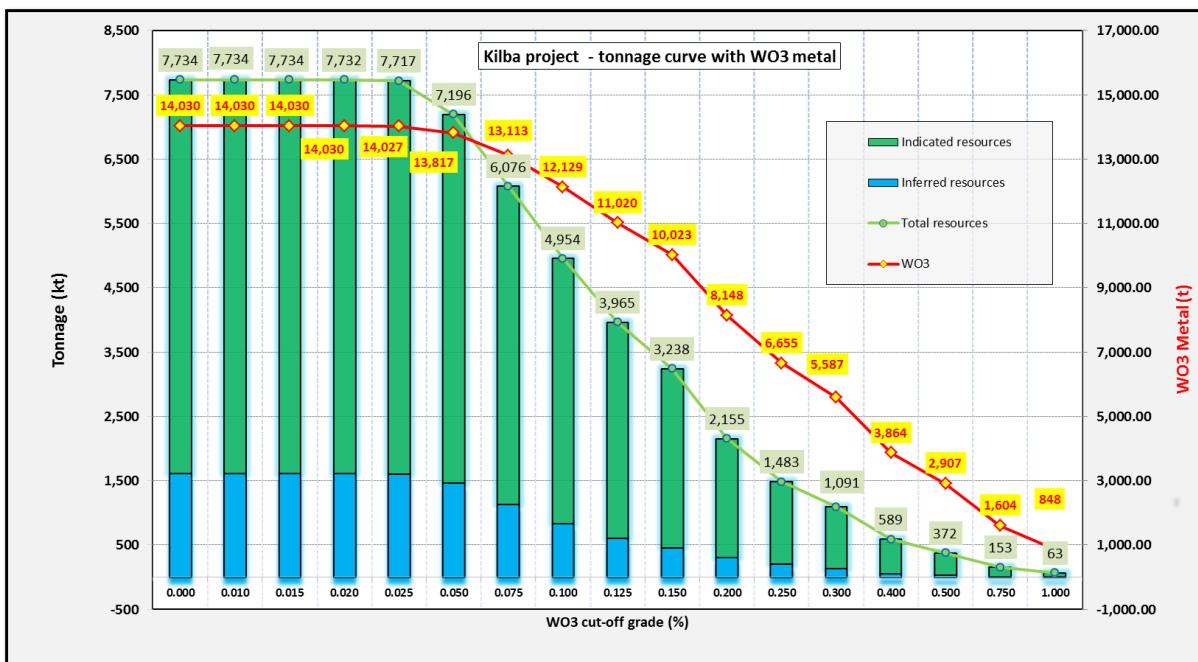


Figure 2 – Grade tonnage curve for January 2015 Mineral Resource for Kilba Project

### Zone 11

Tungsten mineralisation at Zone 11 has been delineated over a 1.2 kilometres of strike length and is associated with skarns and calc-silicate units that wrap around the Kilba granite and dip towards the south to southwest (Figure 3). Tungsten Mining has drilled 126 RC holes and 28 diamond holes for 14,208 metres at Zone 11 and these have been used in the updated resource model.

Tungsten mineralisation is associated with a 40 to 100 metre wide carbonate-rich unit of the Morrissey Metamorphic suite consisting of pelitic and psammitic schists, marble, calc-silicates and skarns. Typically high-grade mineralisation is associated with retrograde skarn units which are often surrounded by low to medium grade disseminated scheelite mineralisation in calc-silicate and sedimentary units.

In the central and western domains, mineralisation is associated with multiple low to medium-grade units, as shown by Figure 4. These units dip shallowly (25° – 50°) towards the southwest to west as it folds around the Kilba granite. Toward the east of the prospect tungsten mineralisation merges into a single high-grade zone that dips steeply (55° – 70°) towards the south, as shown in Figure 5.

### Zone 8

Tungsten Mining have drilled 23 RC holes and 3 diamond holes for 2123 metres at Zone 8 to complete 40 metre spaced sections over 360 metres of strike (Figure 6). Results from drilling at Zone 8 were again extremely encouraging with holes intersecting substantial thicknesses of moderate to strong tungsten mineralisation (Figure 7). Drilling targeted the historical Zone 8b where historical Union Carbide drilling intersected strong mineralisation and have extended mineralisation a further 60 metres to the west and 40 metres to the east.

Mineralisation at Zone 8 is associated with a similar carbonate pack to that at Zone 11, but is truncated by granites at 60 to 80 metres vertical. Geological mapping and UV lamping has identified strike extensions to Zone 8b and indicates excellent potential to increase the Zone 8 Mineral Resource. Mineralisation is open to the west and drilling in 2015 will focus on joining Zone 8a to Zone 8b.

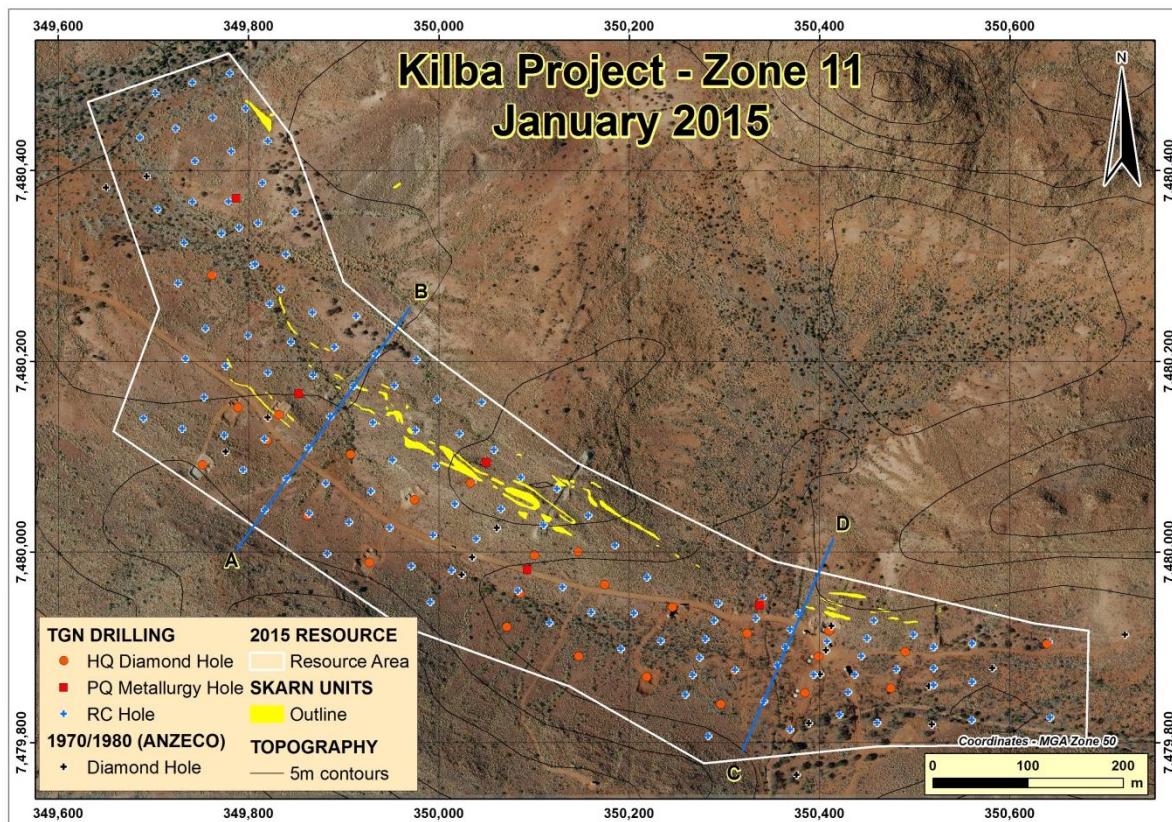


Figure 3 – plan displaying location of TGN drilling and updated Mineral Resource outline at Zone 11

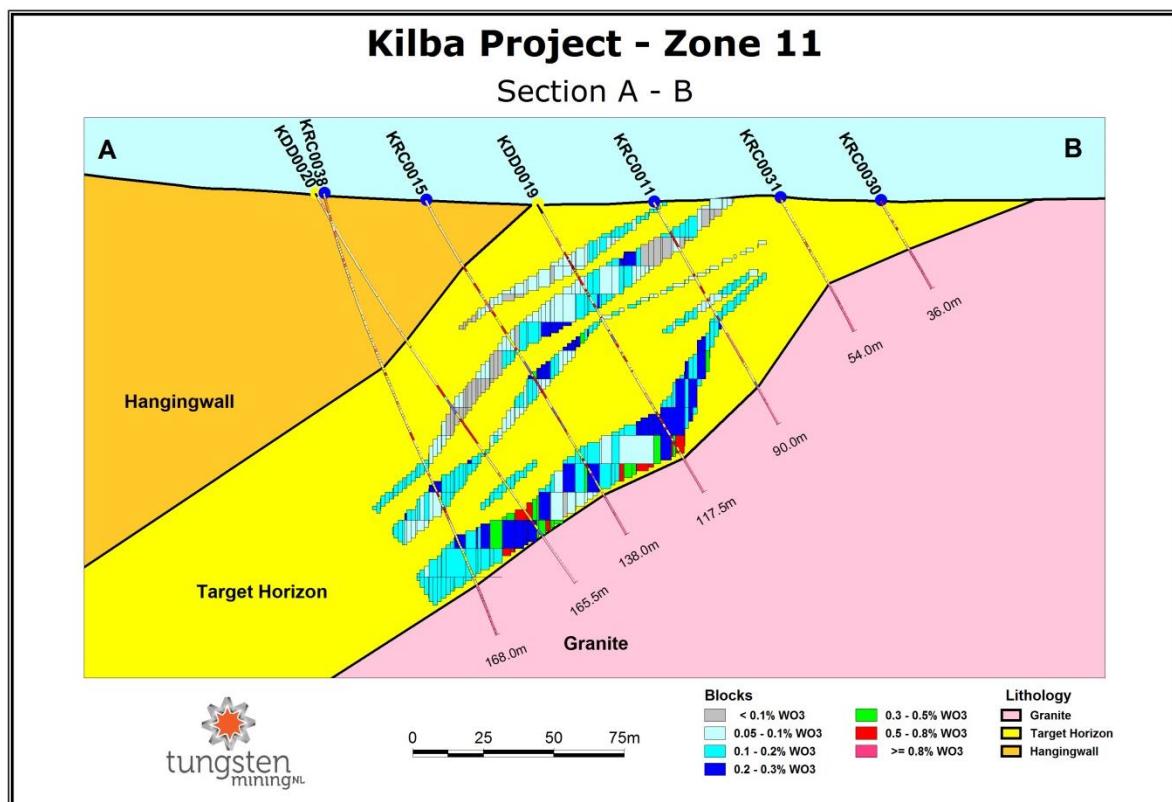


Figure 4 – cross section through Central domain of Zone 11 showing multiple low – medium grade zone of tungsten mineralisation within the 100m thick target horizon

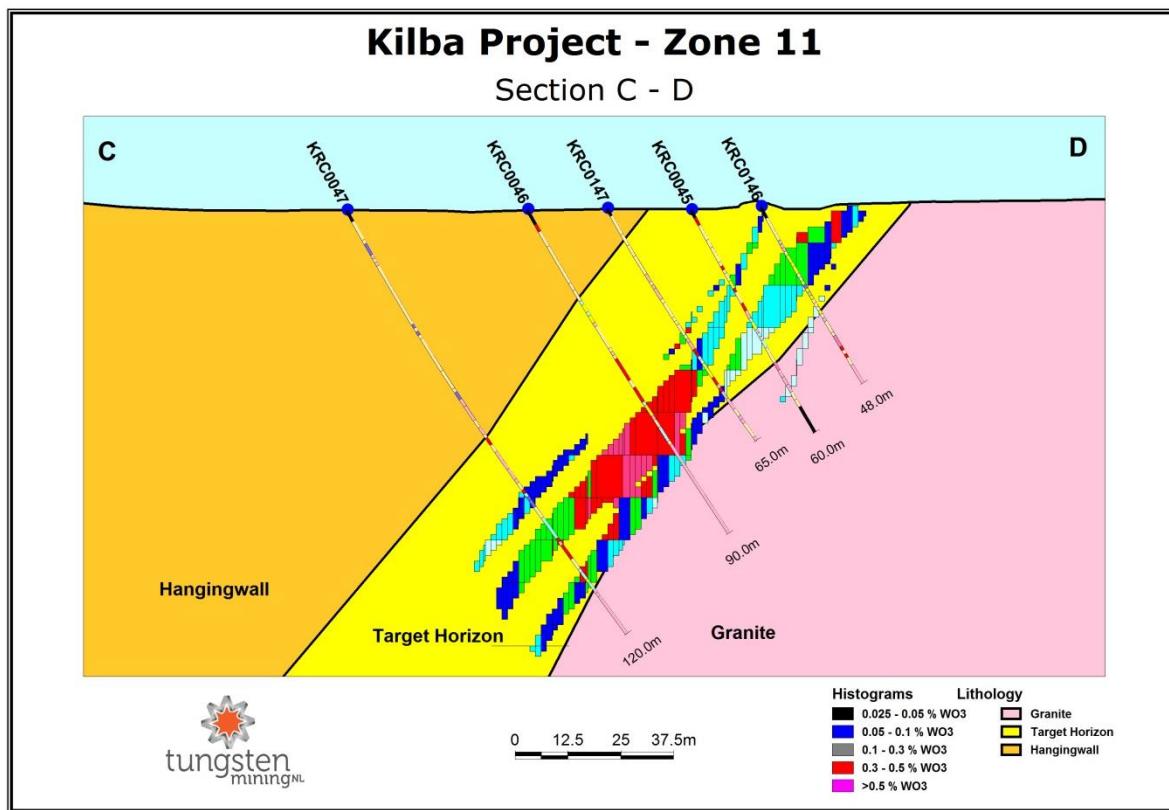


Figure 5 – cross section through Eastern domain of Zone 11 showing moderate to high-grade tungsten mineralisation merging into one moderate to steep dipping zone

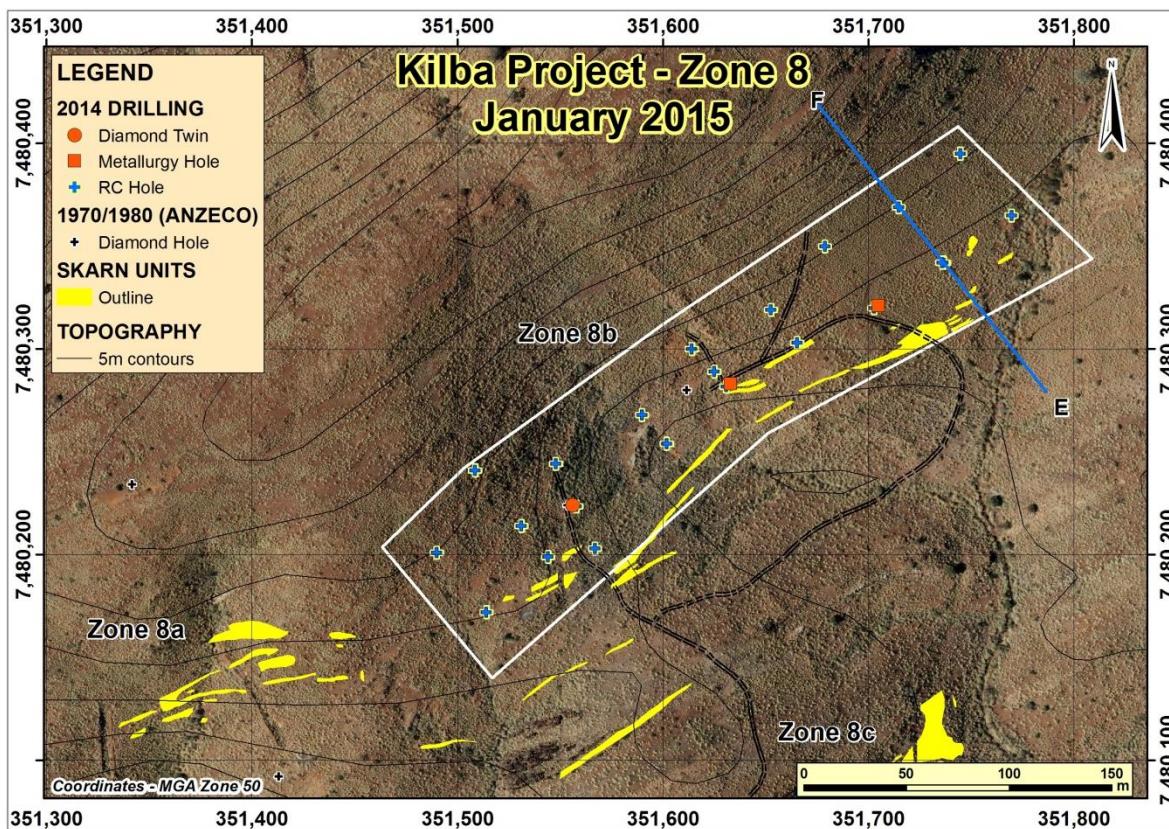


Figure 6 – plan showing location of TGN drilling and updated Mineral Resource outline at Zone 11

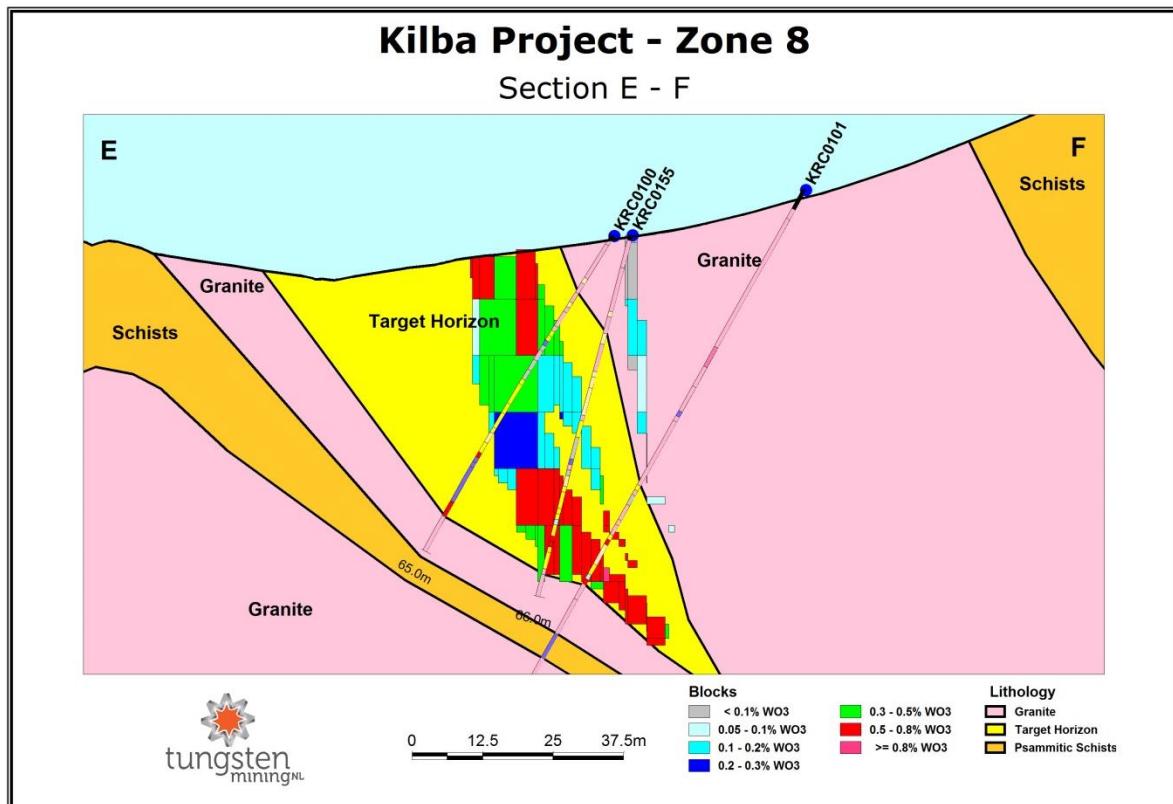


Figure 7 – cross section through Zone 8 showing broad zones of medium to high-grade tungsten mineralisation

### Zone 12

In October 2014 Tungsten Mining drilled 9 RC holes for 841 metres to complete 80 metre spaced sections over 240 metres of strike at Zone 12. The drilling tested where Union Carbide holes intersected significant tungsten mineralisation in the 1980s and intersected multiple zones of weak to moderate scheelite mineralisation (Figure 8).

Geological mapping and UV lamping has identified extensions to Zone 12 and it is considered encouraging that drilling intersected multiple zones of tungsten mineralisation. The strongest mineralisation was intersected in the western-most sections and mineralisation is open to the west.

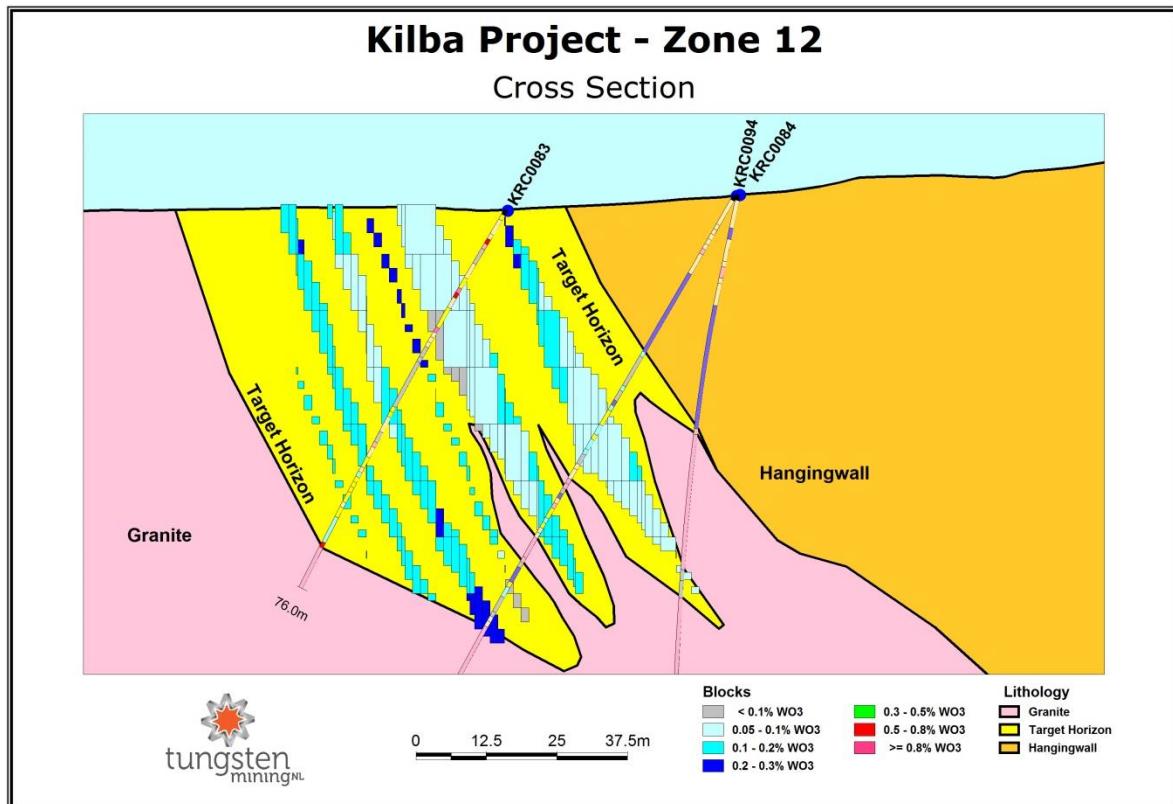


Figure 8 –cross section through Zone 12 showing multiple zones of low to medium-grade tungsten mineralisation

### Summary of Resource Estimate and Reporting Criteria

As per the 2012 JORC reporting guidelines, a summary of the material information used to estimate the Mineral Resource is as follows. A more detailed description is contained in Appendix 1.

### Drilling

The Mineral Resource has been estimated using RC and diamond drilling over several exploration campaigns completed by Tungsten Mining. Drill holes were drilled on a nominal 40 x 40 m grid on sections perpendicular to strike. Where mineralisation was variable selective infill to 20 metres on sections was completed to adequately define mineralisation. The majority of the holes were inclined at approximately 60°.

Collar locations for recent drilling were picked-up by a licensed surveyors using either a Topcon HiPer II RTK GPS or a Leica GS15 RTK GPS Viva System. Downhole surveying was initially measured by the drill contractors using either a Reflex EZ-Shot Downhole Survey Instrument or the Pathfinder survey instrument. Tungsten Mining undertook additional downhole surveys on holes using a gyroscopic probe wherever possible. Approximately 84% of recent drilling had gyroscopic surveys.

### Sampling

For RC drilling, 1 metre samples were collected from a cyclone and then riffle split to produce two representative 2 to 4 kilogram samples. In zones of mineralisation one sample was submitted for assay and the second sample placed in storage. Waste intersections were assayed over 5 metre intervals using a spear method to produce composite samples.

For diamond HQ holes the mineralised and adjacent material was split using a diamond saw to produce a half core sample for analysis. Sample intervals were defined by geological intervals and range from 0.3 – 1.2m. Core was orientated and the same side of the core was submitted for analysis.

Diamond core recovery is logged and recorded in the database. No significant core loss issue exist with average core recovery of 99%. RC recovery was visually assessed, recorded on drill logs and considered to be acceptable within the mineralized zones.

Samples collected to October 2014 were submitted to Ultra Trace Laboratories of Perth for analysis by XRF Tungsten and Molybdenum Ore -Extended Suite. Samples after October 2014 were submitted to Nagrom Laboratory of Kelmscott for analysis (Tungsten and 25 other elements) by XRF. Certified standard and blanks samples were inserted into the sample sequences in according to Tungsten Mining QAQC procedures. Duplicate samples for RC and diamond samples were collected to check repeatability of sampling and variability or nugget effect for tungsten mineralisation. Nine RC holes were twinned by diamond drilling. Twin holes intersected similar widths of mineralization at target depths, but demonstrated the particulate or nuggety nature of tungsten mineralization. Total contained metal for intersections was similar.

Results from the various QAQC sampling regimes, the twin holes and historic drilling have been reviewed by CSA Global and considered acceptable for the style of mineralisation at the Kilba Project.

## **Geology**

Tungsten mineralisation at Kilba is associated with prograde and retrograde oxidised skarns hosting scheelite mineralisation. The mineralogy of the Kilba skarns consists dominantly of wollastonite, grossularite garnet and pyroxene in prograde assemblages, altered to amphiboles, vesuvianite, epidote and clinozoisite within retrograde assemblages. Most high-grade scheelite is reportedly associated with the retrograde assemblage.

Tungsten Mining uses specially designed drill logs for skarn type deposits to capture this geological data. The modified log sheet lists percentages of various important skarn minerals as well as typical data captured during core and drill chip logging.

## **Database**

Data used in the Mineral Resource estimate is sourced from a Micromine database hosted by Tungsten Mining. Consistency of data was validated by Tungsten Mining while loading into the database and later validated by CSA Global. Global consistency was also checked later on by plotting sections using the database and reconciling assays. CSA Global conducted a site visit to the Kilba project area in March 2013 to review drilling procedures and validation of data imports.

## **Geological Interpretation**

There is a reasonable level of confidence in the geological interpretation of scheelite skarn that is traceable over numerous drill holes and drill sections and in surface mapping of the outcrops and trench exposures. The grade and lithological interpretation forms the basis for the modelling. Lithological envelopes define the prospective skarns within which the grade estimation has been completed.

The currently interpreted skarns of Zone 11 extend for approximately 1.2 km along a 300° NW strike. The width of the Zone 11 alteration package varies from 2m to 40m with a maximum 20m thickness for individual mineralised envelopes. The dip angle of the zone varies from -60 degrees at the eastern side to -25 degrees on the western side. The zone extends from the surface to 150m below the surface.

Skarns of Zone 8 extend for approximately 320 m at striking towards 050° NE direction and dip at -70. The maximal depth is approximately 75m below surface.

Skarns of Zone 12 extend for approximately 300 m at striking towards 065° ENE direction and dip at -70 towards the NW. The maximal depth is approximately 90m below surface.

## **Estimation and modelling techniques**

The 0.025% WO<sub>3</sub> grade envelopes were defined and hard boundaries between the grade envelopes were used to select sample populations for grade estimation. The interpretation was extended midway between holes and extended half distance or approximately 20m for end sections. The model and sample composite files were unfolded before geostatistical analysis and grade interpolation.

Grade estimation was by Multiple Indicator Kriging (MIK) using Micromine 2013 software. No grade cutting was applied, because MIK was used for the grade interpolation. The last bin defined for MIK is calculated using the median, which gives a more conservative value for positively skewed data than the mean.

The block model was constructed using a 20mE x 10mN x 10mRL parent block size, with subcelling to 2.5mE x 1.25mN x 1.25mRL for domain volume resolution. The search radii were determined by means of the evaluation of the semivariogram parameters, which determined the kriging weights to be applied to samples at specified distances. The first search radii for all lodes were selected to be equal to two thirds of the semivariogram long ranges in all directions. Model cells that did not receive a grade estimate from the first interpolation run were used in a further three interpolation runs.

All drilling conducted in 2014 had downhole density measurement collected by a HDCT Dual Density Logging Tool. Core density measurements collected for diamond drilling was used to apply corrections to the continuous density measurements made by wireline logging and these downhole densities were used in the Block Model.

The Mineral Resource classification is based on the evidence from the available drill sampling and surface data. For areas classified as Inferred the evidence is sufficient to imply but not verify geological and grade continuity. However, the areas with the denser drilling and robust continuation of the mineralised zones were classified as Indicated Mineral Resource.

ENDS

Craig Ferrier  
Chief Executive Officer  
30 January 2015

#### **Competent Person's Statement**

*The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Serikjan Urbisinov, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Urbisinov is not a full-time employee of the company. Mr Urbisinov is employed by the resource industry consultancy CSA Global Pty Ltd. Mr Urbisinov has sufficient experience that is relevant to the style of mineralisation and type of deposit 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 Urbisinov consents to the inclusion in the 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 Exploration Targets and Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Peter Bleakley, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Bleakley is not a full-time employee of the company. Mr Bleakley is a consultant to the mining industry. Mr Bleakley has sufficient experience that is relevant to the style of mineralisation and type of deposit 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 Bleakley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

For further information contact:

Craig Ferrier      Chief Executive Officer      Tel: +61 8 9486 8492  
Colin Hay      PPR Public Relations      Tel: +61 8 9388 0944

## Appendix 1 - JORC Code Reporting Criteria

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<p>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.</p>	<p>The deposit is sampled using Reverse Circulation (RC) and Diamond Drilling (DD) over several drilling campaigns. The latest drilling campaign was completed by Tungsten Mining utilising RC and diamond drilling.</p> <p>A total of 158 Tungsten Mining RC drillholes (13,750m) were drilled and the majority of the holes were drilled at approximately 60°. 29 HQ diamond holes (2,957m) were drilled in total and 9 of these holes (286m) were drilled to twin RC holes. 8 PQ diamond drillholes were completed to collect metallurgical samples.</p>
	<p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p>	<p>All Tungsten Mining drillhole collar locations were picked-up by a licensed surveyor. In 2013 the surveyor used a Topcon HiPer II RTK GPS and in 2014 collar locations were picked-up by a Leica GS15 RTK GPS Viva System. Pickup accuracy of was 10mm horizontal and 20mm vertical for both surveys.</p> <p>Downhole surveying was initially measured by the drill contractors using either a Reflex EZ-Shot Downhole Survey Instrument for DD holes (2012/2013) or the Pathfinder survey instrument for RC drilling and for 2014 DD holes. Tungsten Mining completed additional downhole surveys on open holes using a gyroscopic probe. Approximately 84% of recent drilling has gyroscopic surveys.</p> <p>Certified standard and blanks samples were inserted into the sample sequences in according to Tungsten Mining QAQC procedures. Duplicate samples were collected to check repeatability of sampling and variability or nugget effect for tungsten mineralisation. Results from this QAQC sampling were considered excellent.</p>
	<p>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.</p>	<p>The RC drilling crew collected 1 metre intervals from the cyclone and then riffle split the bulk sample to produce two representative 2 – 4 kilogram samples in calico bags. The riffle splitter was cleaned by mechanical vibration and hosing with pressurised air to eliminate sample contamination. One of the calico samples is for analysis and the second duplicate sample is retained as a reference sample for possible reanalysing / QAQC activities.</p> <p>For HQ diamond holes the mineralised and adjacent material was split using a diamond saw produce a half core sample. Sample intervals were defined by geological intervals and range from 0.3 – 1.2m. Core was orientated and the same side of the core was submitted for analysis. One half of the cut core is left in core boxes and retained in core storage. Sampling was extended 5 – 10 metres in both directions from mineralized zones. The core that is not sampled is kept uncut.</p> <p>Samples collected before October 2014 were submitted to Ultra Trace Laboratories of Perth for analysis by XRF Tungsten and Molybdenum Ore - Extended Suite. Sample collected in October and November 2014 were submitted to Nagrom Laboratory of Kelmscott for analysis (Tungsten and 25 other elements) by XRF.</p>
Drilling techniques	<p>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).</p>	<p>Tungsten Mining have completed 158 RC drillholes in three main programs at Zones 8, 11 and 12. RC holes depths ranged from 10 to 174 m, averaging 87 m. RC drilling used a face-sampling hammer that produced a nominal 140m diameter hole.</p> <p>Tungsten Mining drilled 29 HQ3 and 8 PQ3 diamond drillholes. Diamond holes were drilled from 30 to 179m, averaging 92m. Core was orientated using either an Ace Orientation tool or an OriShot Orientation tool.</p> <p>Tungsten Mining diamond drill and RC holes were surveyed in-rods at 30 meter intervals using a Pathfinder survey instrument. Open holes were later surveyed utilizing a gyroscopic probe.</p>

Criteria	JORC-Code Explanation	Commentary
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<p><i>RC recovery was visually assessed, recorded on drill logs and considered to be acceptable within the mineralized zones.</i></p> <p><i>Diamond core recovery is logged and recorded in the database. No significant core loss issues exists.</i></p>
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<p><i>Diamond core was reconstructed into continuous runs for orientation marking, depths being checked against the depth marked on the core blocks and core recovery.</i></p> <p><i>RC samples were visually checked for recovery, moisture and contamination. A cyclone and splitter were used to provide a uniform sample and these were routinely cleaned. The drill contractor blew out the hole at the beginning of each drill rod to remove excess water and maintain dry samples.</i></p>
	<i>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.</i>	<p><i>Sample Recovery for diamond holes is generally very high (over 99%) within the mineralised zones. Ground conditions for RC drilling were good and drilling returned consistent size samples.</i></p> <p><i>No significant bias is expected, and any potential bias is not considered material at this stage.</i></p>
Logging	<i>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.</i>	<p><i>Tungsten Mining uses specially designed drill logs for skarn type deposits to capture the geological data. The modified log sheet lists percentages of various important skarn minerals.</i></p> <p><i>During logging part of the RC sample is washed, logged and placed into chip trays. The chip trays are stored in a designated building at site.</i></p> <p><i>Diamond core was geotechnically logged for recovery and RQD. Information on structure, lithology and alteration zones were recorded. Diamond core trays are stored on the site for future reference.</i></p> <p><i>All drill data is digitally captured and stored in a central database.</i></p>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<p><i>Diamond core and RC chips logging included records of lithology, mineralogy, textures, oxidation state and colour. Visual estimates of percentages of key minerals associated with tungsten mineralization and veining are made. Core was photographed in both daylight and UV light to estimate scheelite content.</i></p>
	<i>The total length and percentage of the relevant intersections logged.</i>	<p><i>All drill holes were logged in full</i></p>
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<p><i>All HQ diamond drill core was cut in half by an Almonte diamond saw. The PQ metallurgical KDD0016 was crushed to 10mm and a 2 – 3 kg portion split off for assaying. The remaining 7 PQ holes will be assayed before metallurgical sampling.</i></p>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	<p><i>RC samples were collected on the rig using a cyclone and put through a riffle splitter to produce two 2 – 4 kg samples. Almost all samples were dry and no mineralised intervals were recorded as having wet samples.</i></p>
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<p><i>Samples were dried, crushed to 100% passing 6.3mm using a jaw crushers. Samples in excess of 2kg are riffle split and pulverised to 80% passing 75µm in LM5 pulveriser.</i></p>
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<p><i>Field QAQC procedures included the insertion of field duplicates, blanks and commercial standards. Standards were inserted at intervals of 30.</i></p> <p><i>Duplicate and blanks were inserted behind mineralised samples on a one in 30 sample basis.</i></p>
	<i>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.</i>	<p><i>Approximately 1 in 30 RC field duplicates were taken from 1m riffle split samples at the rig. Repeatability in RC duplicate samples was found to be excellent.</i></p> <p><i>Half core samples were duplicated by quarter core samples. Repeatability of these samples was considered good, but demonstrated the particulate or nuggety nature of the scheelite mineralization.</i></p> <p><i>Nine diamond holes were drilled to twin RC drilling. These holes intersected similar zones of mineralization at target depths and again showed the particulate or nuggety nature of tungsten mineralization. Overall contained metal was similar.</i></p>

Criteria	JORC-Code Explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to accurately represent the tungsten mineralisation at Kilba based on the thickness and consistency of the intersections, the sampling methodology and the percent value assay ranges for the primary elements.
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.	XRF has proven to be a very accurate analytical technique for a wide range of base metals, trace elements and major constituents found in rocks and mineral materials. Glass fusion XRF is utilised for assaying, since it provides good accuracy and precision; it is suitable for analysis from very low levels up to very high levels
	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.	A handheld magnetic susceptibility meter (KT-10) was used to measure magnetic susceptibility for every sample. Data is stored in the database. All drilling in 2014 had downhole natural gamma, caliper, guard resistivity and density measurement collected by a HDCT Dual Density Logging Tool.
	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.	Field QAQC procedures included the insertion of field duplicates, blanks and commercial standards. Assay results have been satisfactory demonstrating acceptable levels of accuracy and precision.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No independent personnel have verified intersections in RC or DD drilling. TGN personnel conducted UV lamping to visually estimate scheelite content and confirm drill intersections..
	The use of twinned holes.	RC holes that intercepted high grades zones were verified by closely drilled diamond twin holes in 2013 and 2014.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Logging takes place at the drilling site. Panasonic Toughbook computers are used to record the logging. A set of standard Excel templates are used to capture the data. Data was validated on-site by the supervising geologist before being sent to Perth office. Drill logs were then loaded into Micromine and validated for logging codes, missing intervals, overlapping intervals, hole location and downhole surveying. Validated data is then loaded into a relational database for storage.
	Discuss any adjustment to assay data.	No adjustments were made, other than for values below the assay detection limit which have been entered as the negative of the detection limit
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.	Once each drillhole is drilled to the targeted depth, it is routinely downhole surveyed. Downhole surveying was measured by the drill contractors using either a Pathfinder survey instrument or a Reflex EZ-Shot Downhole Survey Instrument. All drillholes had measurements covering the length of the hole with the reported accuracy of $\pm 2$ degrees. The instrument measures magnetic azimuth and dip. The correction for magnetic azimuth (0.8 degrees) is applied when the drillhole database is processed.  Tungsten Mining completed additional downhole surveys on open holes using a gyroscopic probe. Due to hole blockages, only 84% of drilling has gyroscopic surveys with reported accuracy of $\pm 1.0$ degrees for azimuth and $\pm 0.1$ degrees for dip.  Holes have been picked up using a Carlson Surveyor + DGPG unit to sub-metre accuracy. Periodically drillhole collar locations were picked-up by a licensed surveyor using either a Topcon HiPer II RTK GPS or a Leica GS15 RTK GPS Viva System (accuracy - 10mm horizontal and 20mm vertical).
	Specification of the grid system used.	The grid system is MGA GDA94 Zone 50.
	Quality and adequacy of topographic control.	AAM Pty Limited (AAM) was commissioned to fly aerial photography of the area in November of 2012 to obtain detailed topographic surface. AAM provided Tungsten Mining with a surface Digital Terrain Model (DTM) with 0.15 m vertical accuracy, 0.5 m contours and a 15 centimetre (cm) resolution digital orthophoto.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill holes were generally drilled using 40 x 40 m grid for Zone 11 and Zones 8. Selected sections have 20m infill holes. Zone 11 was drilled at a 80 x 40 m spacing.

Criteria	JORC-Code Explanation	Commentary
	<i>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.</i>	<i>The data spacing and distribution is sufficient to demonstrate spatial and grade continuity of the mineralised horizon to support the definition of Inferred/Indicated Mineral Resources under the 2012 JORC code.</i>
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	<i>The drill sections have been orientated approximately perpendicular to the strike of the mineralised skarn units observed at Kilba. Holes are dominantly drilled at -60° towards skarn units to return intervals with thickness as true as possible.</i>
	<i>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.</i>	<i>Diamond drilling has confirmed that drilling orientation did not introduce any bias regarding the orientation of the skarn units.</i>
Sample security	<i>The measures taken to ensure sample security.</i>	<i>All sample numbers are generated in the site office. Once samples intervals are selected, the numbers are assigned to each sample. The sample number, drillhole name and sampled interval are recorded in the sampling sheets. All sample bags are properly sealed and transported to Nanutarra roadhouse where they are couriered to the laboratory in Perth.</i>
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<i>Sampling techniques are consistent with industry standards. Consistency of data was validated by TGN while loading into the database (Depth from &lt; Depth to; interval is within hole depth, check for overlapping samples or intervals, etc.). Any data which fails the database constraints and cannot be loaded is returned for validation, etc.). Global consistency was also checked later on by plotting sections using the database and reconciling assays. All samples were viewed under UV light and visual estimates of scheelite content recorded. These estimates were compared against assay grades.</i>

## Section 2 - Reporting of Exploration Results

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

Criteria	JORC-Code Explanation	Commentary
Mineral tenement and land tenure status	<i>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.</i>	<i>Kilba prospect comprises one Mining Lease and one Exploration License covering an area of approximately 35 km<sup>2</sup> (3,548 hectares). Current registered holders of the tenements are SM3-W Pty Ltd and BRL Exploration Pty Ltd.</i>  <i>The Buurubalayji Thalanyji Aboriginal Corporation is entitled to a production fee of 0.75% plus GST of the sale price realised by the tenement holder for all minerals or commodities recovered and sold. The normal Western Australian state royalties apply.</i>  <i>Tungsten Mining has 100% interest in all tenements. The project has a current expenditure commitment of \$100,500 per reporting year.</i>
	<i>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.</i>	<i>The tenements are in good standing</i>
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<i>There are 32 historic drillholes and 5 trenches in the area that were drilled in 3 campaigns from 1975 till 1981 by the previous operator (ANZECO / Union Carbide). This data has been used for geological interpretation, but assay data cannot be verified and hasn't been used for grade interpolation.</i>

Criteria	JORC-Code Explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	<p>Mineralization is associated with scheelite tungsten skarns. The mineralogy of the Kilba skarns consist dominantly of grossularite garnet and pyroxene intermediate in composition between diopside and hedenbergite (salite) for prograde skarns.</p> <p>This assemblage is altered to dark green to black amphiboles (dominantly actinolite to ferroactinolite), vesuvianite, epidote and clinozoisite in retrograde skarns. This garnet mineralogy is most typical of oxidised rather than reduced skarns (i.e. oxidised ore fluids). Higher temperature prograde and lower-temperature retrograde assemblages can be recognized. Most scheelite is reportedly associated with the retrograde assemblage</p>
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:	In the company's opinion this material has been adequately reported in previous announcements for drilling.
	<ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	
	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.	
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.	Not reporting exploration results"
	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.	In previous announcements all high-grade assays >1.0% WO <sub>3</sub> are reported beneath the relevant intersection. Interval waste up to 3m is included in intersections provided the adjacent zone and waste are >0.1% WO <sub>3</sub> .
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Drill hole angles of generally -60° toward the North to Northeast are adequate to drill mineralised skarn units.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drilling is generally perpendicular to the strike of mineralisation. Holes intersect mineralisation at between 60 - 90° and true thickness will be between 70 – 100% of the intersection thickness.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	Geometry of the mineralisation with respect to the drill hole angle is 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 diagrams in body of text

Criteria	JORC-Code Explanation	Commentary
Balanced reporting	<i>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.</i>	<i>Not reporting exploration results".</i>
Other substantive exploration data	<i>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.</i>	<i>In the company's opinion this material has been adequately reported in previous announcements. Metallurgical testing is ongoing.</i>
Further work	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p><i>Drilling will be planned to test for strike extensions and new targets around the Kilba granite.</i></p> <p><i>All relevant diagrams are included in this document.</i></p>

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

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

Criteria	JORC-Code Explanation	Commentary
Database integrity	<i>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.</i>	<i>Data used in the Mineral Resource estimate is sourced from Micromine DAT files. All data was validated in Micromine software and verified that all the available data was submitted.</i>
	<i>Data validation procedures used.</i>	<i>Validation of the data import include checks for overlapping intervals, missing survey data, missing and incorrectly recorded assay data, missing lithological data and missing collars.</i>
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	<i>Serikjan Urbisinov, Principal Resource Geologist for CSA Global Pty Ltd, conducted a site visit to the Kilba project area in March 2013. A site visit report was compiled and attached to the resource estimation report.</i>
	<i>If no site visits have been undertaken indicate why this is the case.</i>	<i>Not applicable</i>
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	<i>There is a reasonable level of confidence in the geological interpretation of scheelite skarn that is traceable over numerous drill holes and drill sections and in surface mapping of the outcrops and trench exposures.</i>
	<i>Nature of the data used and of any assumptions made.</i>	<i>Any additional work is expected to have a reasonable prospect of increasing the interpreted total mineralised volumes in the tenement as there are significant areas that have not yet been drill tested along the granitic intrusion contact.</i>
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	<i>Surface mapping of mineralised outcrop, drill hole intercept logging and assay results have formed the basis for the geological interpretation.</i>
		<i>The precise limits and geometry cannot be absolutely defined due to the limitations of the current drill coverage. Further work is required to better define the geometry and limits of the mineralised skarn zones, but no significant downside changes to the interpreted mineralised volume are anticipated.</i>

Criteria	JORC-Code Explanation	Commentary
	<p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p>	<p><i>The grade and lithological interpretation forms the basis for the modelling. Lithological envelopes defining the prospective skarns within which the grade estimation has been completed.</i></p>
	<p><i>The factors affecting continuity both of grade and geology.</i></p>	<p><i>Contact metamorphism, skarn alteration and tungsten mineralisation are also linked to the intrusion of the Kilba granite. The continuity of the mineralised zones is closely related to the contact with the central monzogranite stock that has a form of an elliptical dome. The scheelite content depends on the type of skarn present. Most scheelite is reportedly associated with the retrograde assemblage.</i></p>
Dimensions	<p><i>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.</i></p>	<p><i>The currently interpreted skarns of Zone 11 extend for approximately 1.2 km along 300° NW strike. The width of the Zone 11 varies from 2m to 60m with maximum 10m thickness for individual mineralised envelopes. The dip angle of the zone varies from -60 degrees at the eastern side to -25 degrees on the western side. The zone extends from the surface to 150m below the surface.</i></p> <p><i>Skarns of Zone 8 extend for approximately 330 m at 50° NE direction and dip at -70 degrees. The width of the zone is approximately 50m. The maximal depth here is approximately 80m below surface.</i></p> <p><i>Skarn of Zone 12 extend 360m at 65° NE direction and dip at -70 degrees. The width of the zone is approximately 50m. The maximal depth here is approximately 90m below surface.</i></p>
Estimation and modelling techniques	<p><i>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.</i></p>	<p><i>CSA made a decision that the model and sample composite files should be unfolded before geostatistical analysis and grade interpolation. Without unfolding the deposit would have to be domainated according to the general dipping of different parts of the structures. In that case every structural domain would have to be estimated separately, and that would downgrade the reliability of the estimate.</i></p> <p><i>Grade estimation was by Multiple Indicator Kriging (MIK) using Micromine 2013 software. The interpretation was extended perpendicular to the corresponding first and last interpreted cross section to the distance equal to a half distance between the adjacent exploration lines which is approximately 20m;</i></p> <p><i>If a mineralised envelope did not extend to the adjacent drillhole section, it was projected half way to the next section and terminated. The general direction and dip of the envelopes was maintained.</i></p>
	<p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p>	<p><i>CSA Global carried out a Mineral Resource estimate for Tungsten Mining in June 2013.</i></p> <p><i>There is a good comparison between the June 2013 estimate and the January 2015 estimate, as expected with the same methodology applied being used with addition of 115 RC and 13 Diamond exploration drillholes.</i></p> <p><i>No previous mining activity for tungsten has taken place in the area.</i></p> <p><i>The MIK estimate was completed concurrently with two check Inverse Distance Weighting (IDW) estimates. The MIK estimate used the parameters obtained from the modelled variograms. The results of the check estimates correlate well.</i></p>
	<p><i>The assumptions made regarding recovery of by-products.</i></p>	<p><i>No assumptions have been made.</i></p>
	<p><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></p>	<p><i>No other elements were estimated</i></p>
	<p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p>	<p><i>The block model was constructed using a 20mE x 10mN x 10mRL parent block size, with subcelling to 2.5mE x 1.25mN x 1.25mRL for domain volume resolution. The parent cell size was chosen on the basis of the general morphology of mineralised bodies and in order to avoid the generation of too</i></p>

Criteria	JORC-Code Explanation	Commentary
		<p>large block models. The subcelling size was chosen to maintain the resolution of the mineralised bodies and to provide a smooth transition of the block model into Surpac for subsequent mining studies. The subcells were optimised in the models where possible to form larger cells.</p> <p>The search radii were determined by means of the evaluation of the semivariogram parameters, which determined the kriging weights to be applied to samples at specified distances. The first search radii for all lodes were selected to be equal to two thirds of the semivariogram long ranges in all directions. Model cells that did not receive a grade estimate from the first interpolation run were used in the next interpolation with greater search radii equal to full long semivariogram ranges in all directions. The model cells that did not receive grades from the first two runs were then estimated using radii incremented by the full long semivariogram ranges. When model cells were estimated using radii not exceeding the full semivariogram ranges, a restriction of at least three samples from at least two drillholes was applied to increase the reliability of the estimates.</p>
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate
Estimation and modelling techniques (continued)	Any assumptions about correlation between variables.	No strong correlations were found between the grade variables
	Description of how the geological interpretation was used to control the resource estimates.	The 0.025% WO <sub>3</sub> grade envelopes were defined. Hard boundaries between the grade envelopes used to select sample populations for grade estimation.
	Discussion of basis for using or not using grade cutting or capping.	No grade cutting was applied, because MIK was used for the grade interpolation. The last bin defined for MIK is likely to contain occasional very high values, the estimate for this bin only is calculated using the median, which gives a more conservative value for positively skewed data than the mean.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation of the block model consisted of comparison of the block model volume to the wireframe volume. Grade estimates were validated by statistical comparison with the drill data, visual comparison of grade trends in the model with the drill data trends. No reconciliation data is available at this early stage of the project.
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 are estimated on a dry basis
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Statistical analysis showed natural breaks in the WO <sub>3</sub> grade population distribution at approximately 0.025% which formed the basis for the decision regarding determination of mineralisation envelope cut-off grade. The Mineral Resource is quoted from estimated blocks above this cut-off grade.
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.	At this stage of resource development it is assumed that mining would be by open pit methods. No pit optimisation work has been carried out on the updated Mineral Resource at Kilba to determine mining methods, stripping ratios and potential pit size.

Criteria	JORC-Code Explanation	Commentary
Metallurgical factors or assumptions	<p><i>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.</i></p>	<p><i>Diagnostic metallurgical tests were carried using a composite sample from a large-diameter (PQ) drill core to characterise the Kilba ore in terms of its amenability to gravity separation, and to give a prediction of the overall tungsten recovery and grade achievable as a saleable concentrate.</i></p> <p><i>These tests were carried out at the metallurgical laboratory of ALS-Ammtec in Perth. The major component of the testwork was heavy liquid separation which produced a matrix of tungsten recovery results based on liquid density versus ore top size. The results show that the tungsten is present as coarse-grained scheelite and the optimum liberation size of the tungsten is around 1 - 2mm for an 80% tungsten recovery. The testwork to date has shown that the ore should respond well to conventional gravity separation at a production scale using well established technology including spirals and shaking tables.</i></p> <p><i>Further gravity separation testwork to verify the gravity response of the ore was conducted at Nagrom laboratories in Perth. The results confirmed the finding of the original testwork in that a saleable concentrate with high tungsten recovery is achievable.</i></p>
Environmental factors or assumptions	<p><i>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.</i></p>	<p>No detailed assumption regarding possible waste and process residue disposal options have been made at this stage.</p> <p>Some environmental surveys across the project area encompassing sites of potential mining activities and related infrastructure have been completed and to date no significant issues have been identified.</p> <p>Heritage clearance surveys have been completed prior to each round of drilling and no heritage site as defined by Section 5 of the Aboriginal Heritage Act 1972 was identified during any of the surveys.</p>
Bulk density	<p><i>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.</i></p>	<p><i>Bulk density measurements were made on the core selected from 13 diamond drillholes using a method that applies the Archimedes' Principle (water displacement) by Tungsten Mining field personnel. Measurements were made on 20-30cm length samples that were collected every second metre down the hole. As the samples were competent and non-porous the following simple buoyancy method was used.</i></p> <p><i>During 2014, a total of 114 RC holes and 13 diamond holes were completed in the project area. All but four of these holes, which were found to be blocked were logged by Pilbara Wireline Services with a range of tools including gamma density. The obtained data was corrected to a dry bulk density equivalent by direct comparison with core density measurements over a statistically meaningful population of samples.</i></p>
	<p><i>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.</i></p>	<p><i>While core density measurements were made on samples from all 13 diamond holes, four of these (two each from the Zone 11 and Zone 8 prospect areas) were twinned adjacent to RC holes allowing for an absolute calibration gamma density data for both diamond and RC holes to a dry core equivalent.</i></p> <p><i>Some porosity can be expected however the bulk density assigned is considered to be reasonable.</i></p>

Criteria	JORC-Code Explanation	Commentary
	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	<i>The bulk density values were interpolated into the block model. The interpolation of the density values was similar to the interpolation of the tungsten grades, since it is believed the scheelite directly correlates with the density values.</i>
Classification	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i>	<i>The Inferred Mineral Resource classification is based on the evidence from the available drill sampling and surface mapping. This evidence is sufficient to imply but not verify geological and grade continuity. However, the areas with the denser drilling and robust continuation of the mineralised zones were classified as Indicated Mineral Resource</i>
	<i>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).</i>	<i>The Inferred and Indicated classification has taken into account all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project.</i>
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	<i>The Mineral Resource estimate appropriately reflects the view of the Competent Person.</i>
Audits or reviews.	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	<i>No audits of the Mineral Resource estimate have been undertaken at this time</i>
Discussion of relative accuracy/confidence	<i>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.</i>	<i>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource to an Inferred and Indicated classification as per the guidelines of the 2012 JORC Code</i>
	<i>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.</i>	<i>The statement refers to global estimation of tonnes and grade</i>
	<i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<i>No production data is available</i>