



4 NOVEMBER 2013

ASX CODE: KAS

**OUR PRIME COMMODITY IS
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LME TIN PRICE (1/11/13)

**US\$22,950 / T
(CASH BUYER)**

ABOUT KASBAH

KASBAH IS AN AUSTRALIAN LISTED MINERAL EXPLORATION AND DEVELOPMENT COMPANY.

THE COMPANY IS ADVANCING THE ACHMMACH TIN PROJECT IN THE KINGDOM OF MOROCCO TOWARDS PRODUCTION.

PROJECTS

ACHMMACH TIN PROJECT
BOU EL JAJ TIN PROJECT

CAPITAL STRUCTURE

SHARES ON ISSUE:	396M
UNLISTED OPTIONS:	20.5M
CASH @ 30/09/13:	\$9.6M

MAJOR SHAREHOLDERS

WORLD BANK (IFC)	15.8%
AFRICAN LION GROUP	15.1%
TRANSAMINE	3.3%
TRAXYS	3.3%
MGMT & DIRECTORS	3.0%
THAISARCO	2.0%

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ASX RELEASE

KASBAH ANNOUNCES INDICATED RESOURCE IN WESTERN ZONE SHALLOWS (WZS)

More shallow tin at Achmmach



HIGHLIGHTS

- **First resource reported from the prospective Sidi Addi Trend at Achmmach**
- **Drilling within the Western Zone Shallows (“WZS”) has outlined an Indicated Mineral Resource of 144 kt @ 0.90% Sn (for 1.3 kt contained tin) that may be amenable to open-pit mining**
- **The mineralised zone is 150m long, has multiple structures up to 7m wide and extends to some 100m below surface. It is open along strike to the east and down dip**
- **Pit optimisation will commence immediately with a view to integration into the Definitive Feasibility Study (“DFS”).**

Kasbah Managing Director Wayne Bramwell said:

“This is the second shallow tin resource identified at Achmmach and the first mineral resource outlined on the highly prospective Sidi Addi Trend.

Alongside the recently reported Eastern Zone Shallow (“EZS”) resource, the WZS is another highly valuable shallow opportunity that has the potential to provide early ore whilst the Central Decline (into the Meknes-Gap Zone) is being advanced.”

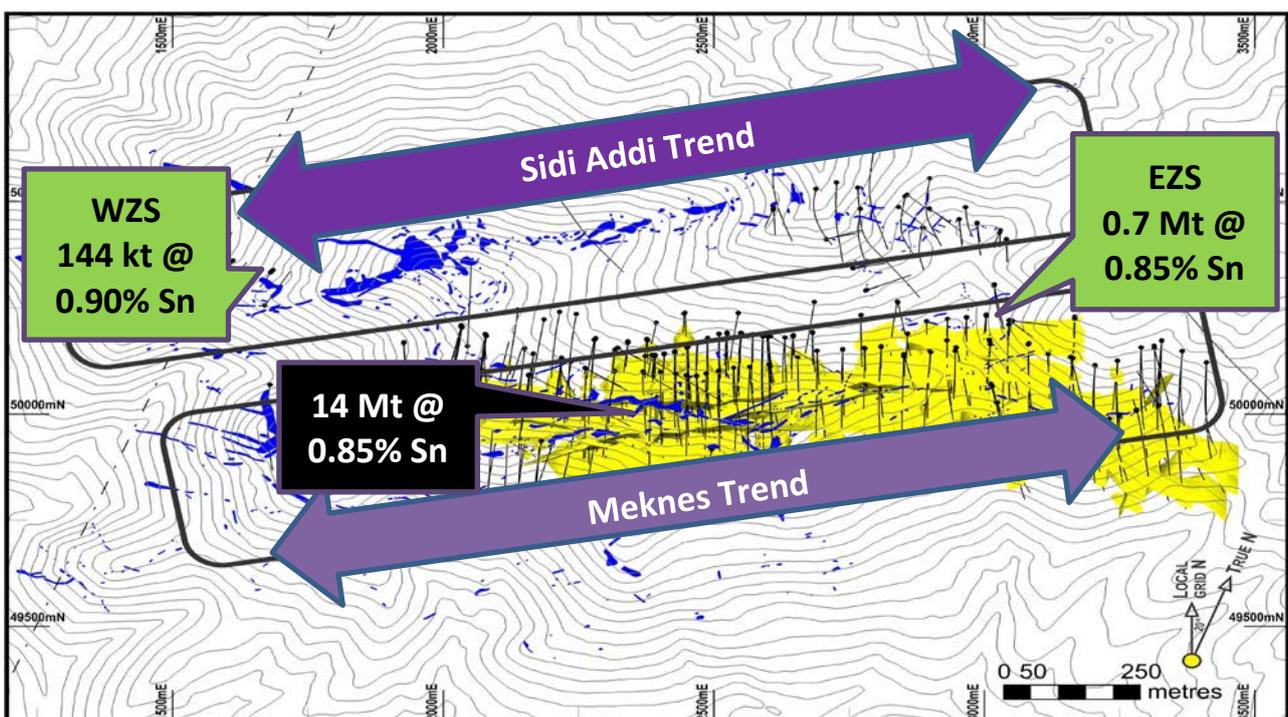
OVERVIEW

Kasbah Resources Limited (“Kasbah”, ASX: KAS) is pleased to report a maiden, Indicated Mineral Resource for the Western Zone Shallows (“WZS”) at the Achmmach Tin Project in Morocco. **The WZS Mineral Resource Estimate (refer Table 1) currently comprises 144 kt of Indicated Resource at 0.90% Sn for 1.3kt contained tin (at 0.35% Sn cut-off) and is located on the highly prospective Sidi Addi Trend at Achmmach.**

Table 1: Western Zone Shallows - November 2013 Mineral Resource Estimate (@ 0.35% Sn cut off grade ^A)			
Category	K Tonnes	Sn %	Contained Tin (kt)
Measured	-	-	-
Indicated	144	0.90	1.38
Inferred	-	-	-
Total	144	0.90	1.38

^A The tin grade has been rounded to the nearest 0.05% Sn. The 0.35% Sn cut-off grade used for reporting the resource is based on a tin price of US\$23,000/tonne and a total estimated operating cost of US\$57/tonne (mining US\$5/tonne, processing US\$38/tonne and smelting US\$14/tonne). Processing recovery for tin at an average head grade of 0.80% Sn will be approximately 70%. Bulk density was estimated by Ordinary Kriging, and has an average value within the mineralised zones of 2.89t/m³.

This resource was prepared by independent consultant QG Consulting (“QG”) of Western Australia, in accordance with the 2012 edition of the JORC Code and is the first mineral resource reported on the Sidi Addi trend at Achmmach. The Sidi Addi trend is a prospective and largely untested parallel tin system that lies approximately 500m north of the Meknes Trend (refer Figure 1).



**Figure 1: Achmmach Tin Project – Shallow Resources depicted
(Blue is mapped tourmaline units, Yellow is September 2013 Achmmach Resource Wireframes)**

KEY POINTS

The WZS November 2013 Mineral Resource Estimate was undertaken using Ordinary Kriging (OK) and is classified according to the JORC (2012) Code. The drill hole data consisted of nine HQ-sized diamond drill holes for a total of 585m. All of these drill holes directly support the WZS resource.

The objective of the WZS close spaced drilling programme was to test the continuity of surface tin mineralisation found in outcrop along strike and down to depths amenable to open pit mining. The programme (targeting sections drilled on nominally 35m-spacings) identified a mineralised zone that extends across 150m in strike, is up to 7m thick and extends from surface to approximately 100m below surface (refer Figure 2).

The mineralised zone is open along strike to the east and at depth.

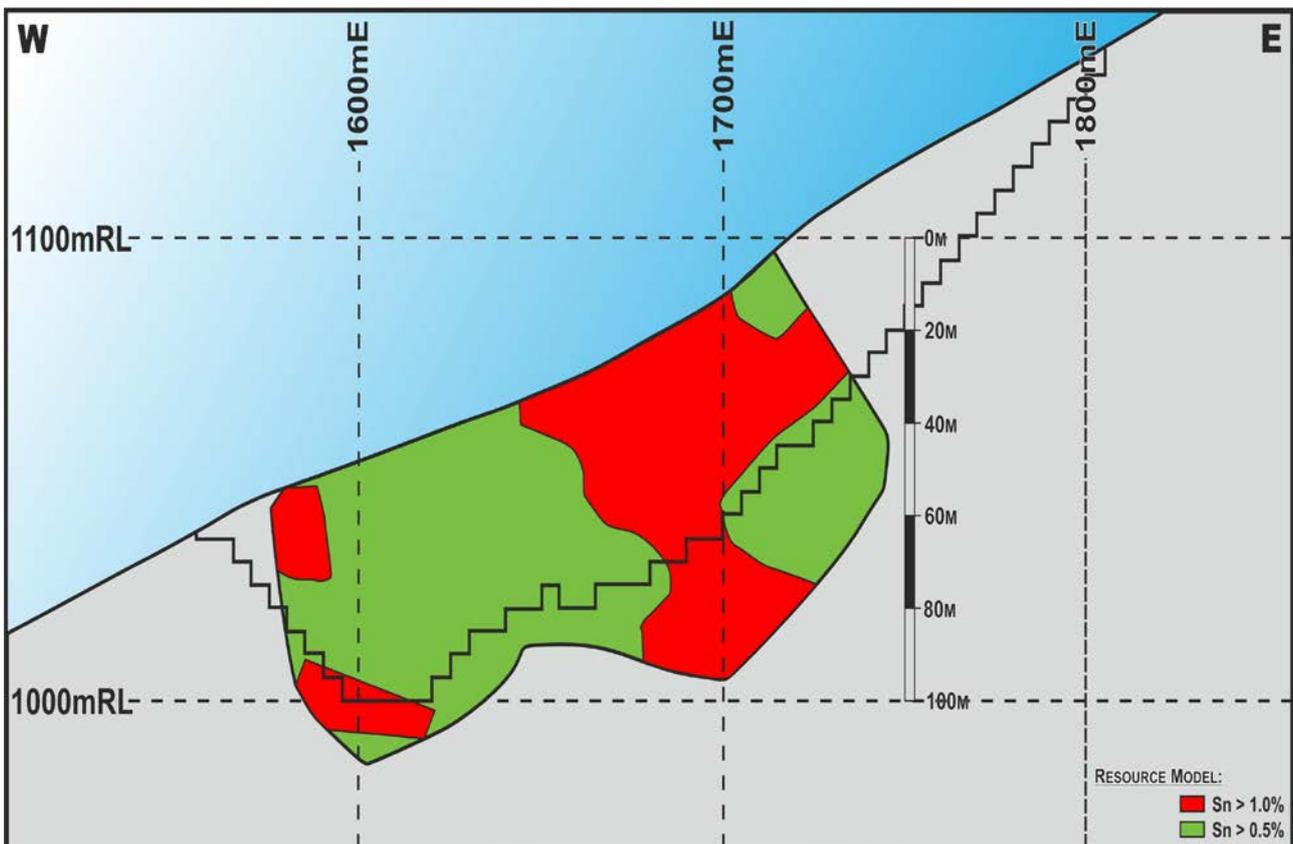


Figure 2: Simplified W-E Long section projection of November WZS Resource Model and preliminary pit shell (Resource envelopes and WZS preliminary pit shell @US\$23,000/t Sn depicted)

LOOKING FORWARD

Open pit optimisation of the WZS resource will commence immediately with a view to its integration into the DFS mine schedule.



Wayne Bramwell
Managing Director

For further information please visit:

www.kasbahresources.com

Or email:

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KASBAH - AN EMERGING TIN PRODUCER

Kasbah currently has two tin projects located in the Kingdom of Morocco. Nittetsu Mining Co. Ltd (“NMC”) and Toyota Tsusho Corporation (“TTC”) of Japan are Kasbah’s strategic development partners in the Achmmach Tin Project. NMC has secured a 5% interest in the Achmmach Tin Project and TTC can secure a 20% interest in the Achmmach Tin Project (having earned a nominal interest of 18.8% to date by paying \$16 million in cash to Kasbah in 2012). TTC is required to make a final payment to Kasbah within 90 days of completion of the DFS to earn its 20% interest. Kasbah retains a 100% interest in the Bou El Jaj Tin Project 10km from the Achmmach Tin Project.

The definitive feasibility study into the development of a 1Mtpa underground mine, concentrator and associated infrastructure at Achmmach is currently underway and a short extension to Quarter 1, 2014 is being considered to integrate open pit feed. Kasbah is targeting first tin production in 2015.

COMPETENT PERSONS’ STATEMENT

The information in this announcement that relates to Kasbah Resources Limited’s Mineral Resource estimates for the Achmmach Tin Project is based on information compiled by Michael Job, who is a full time employee of QG Consulting Pty Ltd and a Fellow of the Australasian Institute of Mining and Metallurgy. Michael Job has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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” (JORC Code). Michael Job consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

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 detailed below (for more detail please refer to the tables in **Appendix A**):

▪ **Geology and geological interpretation**

- The confidence in the geological interpretation is good. The Achmmach tin deposit is hosted within a sedimentary sequence of turbidite beds that vary from thin-bedded to graded-bedded cyclic. Tourmaline-silica breccias were formed during subsequent deformation, and following this a number of pulses of mineralisation occurred, with the tin mineralisation preferentially (but not always) precipitating in the pre-existing tourmaline silica breccias. The tin occurs as disseminated cassiterite (SnO_2) associated with sulphide and/or quartz veins.
- Surface rock-chip sampling confirms the mineralised zones extend to the surface.

▪ **Sampling and sub-sampling techniques**

- All sampling used in resource estimation was derived from diamond core drilling of HQ size, which is sampled at a nominal 1m interval using industry standard protocols and QAQC procedures. These protocols and procedures are fully documented.
- Surface sampling rock chip data was not used for grade interpolation in the Mineral Resource estimate.

▪ **Drilling techniques**

All drilling used in the resource estimate was HQ sized diamond core. Orientation of all core has been performed using the ACT tool method.

▪ **Classification criteria**

The WZS at Achmmach has been classified as Indicated according to JORC 2012.

▪ **Sample analysis method**

Tin assays were determined using fused bead X-Ray Fluorescence (XRF), which is the current industry standard for tin. This assay technique is considered “total” as it extracts and measures the entire element contained within the sample. No geophysical tools were used to determine any element concentrations used in the resource estimate.

▪ **Estimation Methodology**

Grade estimation was by ordinary kriging (OK) for Sn%, K%, S% and bulk density using Datamine™ software. Exploratory data analysis was undertaken using Isatis™ software. The estimate was into 20m (E) x 20m (N) x 5m (RL) parent cells that had been sub-celled at the domain boundaries for accurate domain volume representation.

Sample spacing is in the order of 40m (E) x 40m (N) x 1m (RL) to 20m x 20m x 1m for the western part of the Western Zone. Estimation parameters were based on the variogram models, data geometry and kriging estimation statistics. The estimates were constrained by the interpreted tourmaline-silica breccia wireframes (hard boundary between mineralised and non-mineralised zones).

▪ **Cut-off grades**

The 0.35% Sn cut-off grade used for reporting of the Mineral Resource estimate is based on the application of a simple economic model (in US\$ - Sn price of \$23,000/t, open-cut mine operating costs of \$5/t, processing and G&A costs of \$38/t and smelting costs of \$14/t, and based on annualised open-cut mining and processing of one million tonnes, with 70% Sn processing recovery).

▪ **Mining and metallurgical methods and parameters**

- Pit optimisation (Whittle 4X) was run to determine parts of the deposit that may eventually be economic to extract. The operating costs as listed above were used, with an assumed overall pit slope of 40°. A Sn price of \$23,000 was used to generate a pit shell from within which the open-cut portion of the resource was reported. Strip ratio is approximately 12.5:1.
- It is assumed that the metallurgical information gathered for the Meknes Trend mineralisation at Achmmach will also apply to the Western Zone. Cassiterite is the dominant tin-bearing mineral occurring as free grains and in complex mineral composites. Liberation generally commences at a grind of 150 microns and is largely complete at 40 microns. Acceptable recoveries are achieved from a primary grind followed by gravity concentration methods based on spiral pre-concentration and tabling. Secondary tin recovery can be achieved with the use of flotation techniques. Tin recovery based on these methods ranges from 56%, increasing up to 74% for some Achmmach ores. At a grade of 0.8% Sn, recovery is expected to be 70%.

APPENDIX A

JORC CODE TABLE 1

Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> ▪ Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. ▪ Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. ▪ Aspects of the determination of mineralisation that are Material to the Public Report. ▪ In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> ▪ All sampling used in resource estimation was derived from diamond core drilling of HQ size, which is sampled at a nominal 1m interval using industry standard protocols and QAQC procedures. These protocols and procedures are fully documented. ▪ Surface sampling data was not used in the Mineral Resource estimate. ▪ Sample representivity was ensured by use of a high quality sample retrieval method (diamond core), and industry standard protocols for sample mass reduction to the final assayed aliquot. ▪ Samples were cut into half core with an automatic core saw, dried, and crushed to 80% passing 2mm to produce a 250g sample. After initial on-site sample preparation, each sample is analysed with a handheld Niton XRF analyser to identify intervals with anomalous mineralisation, and these samples are submitted to ALS laboratory for more precise analysis. Therefore, there are gaps in the sampling, but not in the mineralised zones. The handheld XRF results are not used for resource estimation. ▪ At ALS (Loughrea, Ireland), each sample is subsequently pulverised to 85% passing 75 microns to produce a 25g charge. Tin was assayed using fused bead preparations with XRF determination.
Drilling techniques	<ul style="list-style-type: none"> ▪ Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> ▪ All drilling used in the resource estimate was HQ sized diamond core. Orientation of all core has been performed using the ACT tool method.
Drill sample recovery	<ul style="list-style-type: none"> ▪ Method of recording and assessing core and chip sample recoveries and results assessed. ▪ Measures taken to maximise sample recovery and ensure representative nature of the samples. ▪ Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> ▪ Core recovery is routinely recorded for all drill holes during geological logging. The rock at depth is very competent, with average recovery in the order of 90% - low recoveries are associated with near-surface weathering and faults or other structures that are not related to the mineralisation. There is no relationship between Sn grade and recoveries. ▪ Where difficult ground conditions were encountered, drill runs were reduced to about a metre. ▪ Logging depths were checked against core blocks and rod counts were routinely carried out by drillers and upon the geologist’s request.

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Detailed geological logging is undertaken for lithology, alteration, weathering and structural logging from oriented core. Rock quality and other geotechnical information is also logged. Logging is to geological boundaries/contacts. All core is photographed dry and wet, and the photos are kept securely in electronic format. The entire length of all drill holes is logged.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Initial sample preparation is carried out at a custom built on-site sample preparation facility. Core is sawn longitudinally, using a manual core saw at project commencement and later an automatic core saw. Samples are collected from the same side of the core, with half-core submitted for assaying and the remaining half retained for future reference. Samples are then crushed to 80% passing 2mm and rotary split to obtain a 250g sample. At this point samples are dispatched to ALS laboratories in Ireland where they are further pulverized to 85% passing 75 microns prior to analysis. Duplicates of the crushed material are submitted for assaying at a rate of 1:25. The sample sizes are on average 1m intervals. This size is considered appropriate to the grain size of the material being sampled to correctly represent the tin mineralization at Achmmach Western Zone.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Kasbah tin assays were determined using fused bead X-Ray Fluorescence (XRF) which is the current industry standard for tin. This assay technique is considered "total" as it extracts and measures the entire element contained within the sample. No geophysical tools were used to determine any element concentrations used in the resource estimate. A Thermo Scientific Niton handheld XRF XL3t analyser was used to identify core intervals to be assayed. ALS conducts their own internal laboratory QAQC (including CRMs and pulp duplicates) to ensure the precision and accuracy of their analytical methods. For the drilling program, Kasbah independently inserted: <ul style="list-style-type: none"> - Certified Reference Material with a range of values from 0.2% to 1.05% Sn at a rate of 1:20; - crushed duplicates at a rate of 1:25; and - blanks at a rate of 1:50. Statistical analysis of duplicates and standards demonstrates the data to be reliable and unbiased.

Criteria	JORC Code explanation	Commentary
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> ▪ <i>The verification of significant intersections by either independent or alternative company personnel.</i> ▪ <i>The use of twinned holes.</i> ▪ <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> ▪ <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> ▪ All significant intercepts are reviewed and confirmed by senior personnel before public release and use in resource estimation. ▪ No twinned holes have been drilled at Achmmach Western Zone to date. ▪ Data is collected by qualified geologists and entered into spread sheets with pre-determined lookup fields. The spread sheets are locked and have validation rules attached in order to limit potential data entry errors. ▪ After entry and validation, data is imported via a GBIS frontend onto a SQL server database. The import process includes further validation steps. ▪ Data is stored on a server located in a locked room on site and replicated to the Perth Office. Backups are also regularly made. ▪ Regular data validation reviews are conducted by Kasbah senior personnel prior to resource estimation. ▪ No adjustments or calibrations are made to the raw assay data. Data is imported directly into the database in raw original format.
<p>Location of data points</p>	<ul style="list-style-type: none"> ▪ <i>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.</i> ▪ <i>Specification of the grid system used.</i> ▪ <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> ▪ Drill hole collars were set out using hand-held GPS or by offset from nearby previously drilled holes. The final drill hole collar coordinates were established by a licensed contract surveyor, using a total station Topcon. Sub-metre accuracy horizontally and vertically is expected from the surveying equipment used. Quality Control collar location checks (repeats of previous pickups) were inserted at each survey campaign in order to monitor accuracy and consistency of the equipment at a rate of 1:10. ▪ Down hole surveys were conducted using a multi-shot Reflex instrument at 8m from the collar, and then at 25m intervals. ▪ The coordinate system is UTM 30N and datum is WGS84. A local grid was introduced over the Achmmach Tin Project with the easting axis parallel to the overall tin mineralization trend. The local grid is rotated 20° anticlockwise from the UTM system. ▪ The Digital Elevation Model topographic surface was derived from a stereo image pair of a GeoEye-1 acquisition in December 2011, which has +/- 1m vertical accuracy.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> ▪ <i>Data spacing for reporting of Exploration Results.</i> ▪ <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>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> ▪ Drill sections are at a 20m to 40m spacing (Easting), with holes at varying intervals along the sections. Multiple holes are drilled from the same drill pad in a fan configuration leading to variable pierce point spacings, which is about 20m x 40m down to about 20m x 20m. ▪ It is the opinion of the Competent Person that mineralised envelopes have sufficiently demonstrated geological and grade continuity to support the definition of Mineral Resource as defined in the 2012 JORC Code and the classifications applied to these. ▪ For the mineral resource estimation, samples have been composited to 1m, which is by far the most frequent raw sampling interval. 25% of samples are >1m in the mineralised zone (maximum of 1.5m), but 70% of this 25% being 1.1m
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> ▪ <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>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> 	<ul style="list-style-type: none"> ▪ The majority of the holes have been drilled in a fan pattern to grid SSW, and two flatter holes have been drilled towards grid NNE. The orientation of the holes is perpendicular to the major geological structure. ▪ No orientation sampling bias has been identified in the data at this stage.
Sample security	<ul style="list-style-type: none"> ▪ <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> ▪ Sample security is managed by Kasbah from the site up to the city of Meknes. From there a local transport company, STDM, is responsible to deliver the samples to DSV in Casablanca. From Casablanca, DSV is responsible for clearance and air freight of samples to ALS in Ireland. Sample bags and drums are sealed with security tags for transportation.
Audits or reviews	<ul style="list-style-type: none"> ▪ <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> ▪ There have been no audits or reviews specifically for the Western Zone, although the procedures and protocols used are the same as for the Achmmach Project as a whole. Reviews of the sampling techniques were conducted in 2009 and 2010.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1 also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> ▪ <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 validation procedures used.</i> 	<ul style="list-style-type: none"> ▪ The geological data is stored in a GBIS™ database. Geological logging is on paper log sheets with pre-defined templates. This data is then entered into comma delimited Excel spread sheets, before import into the database. Validation occurs during import, where only licit values for the various fields are accepted. Geologists then visually check and validate the data. Sample despatch and sample number information is also recorded in spread sheets, and entered into the database. The assay data is supplied by the lab in *.sif text file format, which loads directly to the database.
Site visits	<ul style="list-style-type: none"> ▪ <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> ▪ <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> ▪ The Competent Person for this resource estimate, Mike Job, has not visited the site. However, personnel previously employed by QG visited the Achmmach Project in April 2009 and March 2010.
Geological interpretation	<ul style="list-style-type: none"> ▪ <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> ▪ <i>Nature of the data used and of any assumptions made.</i> ▪ <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> ▪ <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> ▪ <i>The factors affecting continuity both of grade and geology.</i> 	<ul style="list-style-type: none"> ▪ The confidence in the geological interpretation is good. The Achmmach tin deposit is hosted within a sedimentary sequence of turbidite beds that vary from thin-bedded to graded-bedded cyclic. Tourmaline-silica breccias were formed during subsequent deformation, and following this a number of pulses of mineralisation occurred, with the tin mineralisation preferentially (but not always) precipitating in the pre-existing tourmaline silica breccias. The tin occurs as disseminated cassiterite (SnO₂) associated with sulphide and/or quartz veins. ▪ Surface rock-chip sampling confirms the mineralised zones extend to the surface. The rock-chip samples were not used for grade interpolation. ▪ For the resource estimate, the main aim was to produce an interpretation of the tourmaline breccias – this consists of a series of moderately to steeply north-dipping mineralised zones that extend from the surface. ▪ The tourmaline breccias have been used as ‘hard-boundaries’ for the tin (and potassium and sulphur) estimates.
Dimensions	<ul style="list-style-type: none"> ▪ <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> 	<ul style="list-style-type: none"> ▪ Tin mineralisation at Achmmach Western Zone extends 150m in strike length, has multiple structures up to 7m wide and extends from the surface to 100m below the surface.

Criteria	JORC Code explanation	Commentary
<p>Estimation and modelling techniques</p>	<ul style="list-style-type: none"> ▪ <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> ▪ <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> ▪ <i>The assumptions made regarding recovery of by-products.</i> ▪ <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> ▪ <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> ▪ <i>Any assumptions behind modelling of selective mining units.</i> ▪ <i>Any assumptions about correlation between variables.</i> ▪ <i>Description of how the geological interpretation was used to control the resource estimates.</i> ▪ <i>Discussion of basis for using or not using grade cutting or capping.</i> ▪ <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> ▪ Grade estimation was by ordinary kriging (OK) for Sn%, K%, S% and bulk density using Datamine™ software. Exploratory data analysis was undertaken using Isatis™ software. The estimate was into 20m (E) x 20m (N) x 5m (RL) parent cells that had been sub-celled at the domain boundaries for accurate domain volume representation. Sample spacing is in the order of 40m (E) x 40m (N) x 1m (RL) to 20m x 20m x 1m for the western part of the Western Zone. Estimation parameters were based on the variogram models, data geometry and kriging estimation statistics. The estimates were constrained by the interpreted tourmaline-silica breccia wireframes (hard boundary between mineralised and non-mineralised zones). ▪ The experimental variograms were generated with traditional variograms for all variables in the Western Zone. The variograms were modelled with a nugget effect and two spherical structures. The relative nugget effect for Sn is moderate at 40% of the total sill, and the ranges are in the order of 80m. All variables were modelled independently, as the correlations are relatively weak. ▪ Top-cuts were not used for any of the variables. Sn is positively skewed, but there are very few extreme samples in the upper tail. Comparisons between an estimate using uncut data, and one using a grade cap of 3% Sn shows that the estimates only differ by 0.03% Sn (absolute) globally, with no difference at all in tonnages reported above a 0.35% Sn cut-off. ▪ The model estimates were assessed against the drill-hole sample data for Sn visually, and the global statistics of input and output data were compared. The estimates were also validated by graphing summary statistics for the samples and estimates within 20m spaced easting slices, 20m spaced northing slices and 10m spaced RL slices for each domain. <p>All of the above checks indicate that the model honours the sample data satisfactorily. As there has been no mining at Achmmach Western Zone, no reconciliation data is available.</p>
<p>Moisture</p>	<ul style="list-style-type: none"> ▪ <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> ▪ Tonnages are estimated on a dry basis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The 0.35% Sn cut-off grade used for reporting of the Mineral Resource estimate is based on the application of a simple economic model (in US\$ - Sn price of \$23,000/t, open-cut mine operating costs of \$5/t, processing costs of \$38/t and smelting costs of \$14/t, and based on annualised open-cut mining and processing of one million tonnes, with 70% Sn processing recovery).
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Pit optimisation (Whittle 4X) was run to determine parts of the deposit that may eventually be economic to extract. The operating costs as listed above were used, with an assumed overall pit slope of 40°. A Sn price of \$23,000 was used to generate a pit shell from within which the open-cut portion of the resource was reported. Strip ratio is approximately 12.5:1.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> It is assumed that the metallurgical information gathered for the Meknes Trend mineralisation at Achmmach will also apply to the Western Zone: Cassiterite is the dominant tin-bearing mineral occurring as free grains and in complex mineral composites. Liberation generally commences at a grind of 150 microns and is largely complete at 40 microns. Acceptable recoveries are achieved from a primary grind followed by gravity concentration methods based on spiral pre-concentration and tabling. Secondary tin recovery can be achieved with the use of flotation techniques. Impurities and sulphides can be removed from the gravity concentrate with the use of magnetic and flotation techniques. Tin recovery based on these methods ranges from 56%, increasing up to 74% for some Achmmach ores. At a grade of 0.8% Sn, recovery is expected to be 70%.
Environmental factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Past exploration and forestry activity at Achmmach has left a large area of disturbed and cleared ground to the immediate south of the deposit that has been selected as the site for a future ROM pad, treatment plant, paste plant and other infrastructure. The tailings management facility will be located in the adjacent cleared valley. Fresh ground disturbance will therefore be minimal. The tails will be mildly acid generating due to the minor sulphides in the ore – it is proposed to neutralise the acid by adding local crushed limestone to the tails. Crushed limestone will also be added to the waste dump in layers to mitigate acid formation.

Criteria	JORC Code explanation	Commentary
Bulk density	<ul style="list-style-type: none"> ▪ <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> ▪ <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> ▪ <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> ▪ Bulk density data is routinely gathered from the diamond core for both the mineralised and non-mineralised zones. The water immersion technique is used on solid lengths of core (0.2m to 1.1m), and the scale is calibrated every day with a certified set of weights. ▪ As the vast majority of the core is within solid, fresh rock, there is no need for dipping in wax before immersion in water, and there is very little moisture content and low porosity. ▪ Bulk density was estimated by OK, and due to the good coverage over the deposit, no assumed values were needed. The bulk density of the tourmaline breccias is very consistent.
Classification	<ul style="list-style-type: none"> ▪ <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> ▪ <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> ▪ <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> ▪ The Western Zone at Achmmach estimate has been classified as Indicated according to the JORC 2012 code, with the following factors taken into account in classification: data quality and quantity (including sampling and assaying, spatial locations; and geological logging); geological interpretation (particularly aspects that impact on mineralisation) and domaining (including spatial continuity of Sn mineralisation); the quality of the Sn estimate; and how the resource has been classified in previous estimates. ▪ Diamond drill spacing is on 20m - 40m spaced sections, with data quantity considered good for the Western Zone. There were no areas that were considered poorly sampled, assayed or logged that could affect resource classification in a detrimental manner. ▪ Geological domaining is considered appropriate, and the geometry of the domains is considered to be reasonably robust. The interpretations have not been extrapolated far beyond the limits of drilling (usually about 20m up and down dip, and up to 20m along strike), so the resulting volume (and tonnage) is not considered overly-optimistic. ▪ Rock chip sampling at surface shows that tin mineralisation continues to, and is strong at the surface. ▪ The background domain, even where there is some unconstrained mineralisation, has not been classified as a mineral resource. ▪ The resulting Mineral Resource classification appropriately reflects the view of the Competent Person.
Audits or reviews	<ul style="list-style-type: none"> ▪ <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> ▪ This current mineral resource estimate has not been independently audited or reviewed, although it has been reviewed by other QG personnel as a matter of normal procedure.

Criteria	JORC Code explanation	Commentary
<p>Discussion of relative accuracy/confidence</p>	<ul style="list-style-type: none"> ▪ <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 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>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> ▪ The relative accuracy of the Mineral Resource estimate is described in the above discussion on Classification, and is as per the guidelines of the JORC 2012 code. ▪ The statement relates to global estimates of tonnes and grade. ▪ No production data is available.