

## SECOND FORTUNE MINERAL RESOURCE UPGRADE UNDER JORC 2012 GUIDELINES

### SECOND FORTUNE RESOURCE UPGRADE

19 December 2013

#### Exterra Resources Limited

ACN 138 222 705

ASX Code: EXC

[www.exterraresources.com.au](http://www.exterraresources.com.au)

#### Issued Capital:

Ordinary Shares: 181.2m

Options: 20.0m

Cash (as at 30 Sep 2013): \$0.9m

#### Directors and Management:

##### John Davis

Managing Director

##### Justin Brown

Non-Executive Director

##### Gary Morgan

Non-Executive Director

##### Peter Cole

Non-Executive Director

##### Dennis Wilkins

Company Secretary

- **89% of Main Lode Resource in the Indicated category;**
- **Increase of 12,600 oz in the Main Lode Indicated category;**
- **Robust grade distribution at high-grade Second Fortune Resource;**
- **Diluted Main Lode Resource 237,000t at 10.0 g/t Au for 76,300 oz;**
- **Second Fortune lode system remains open at 350 vertical metres;**
- **Scoping Study, mine design under new model currently in progress.**

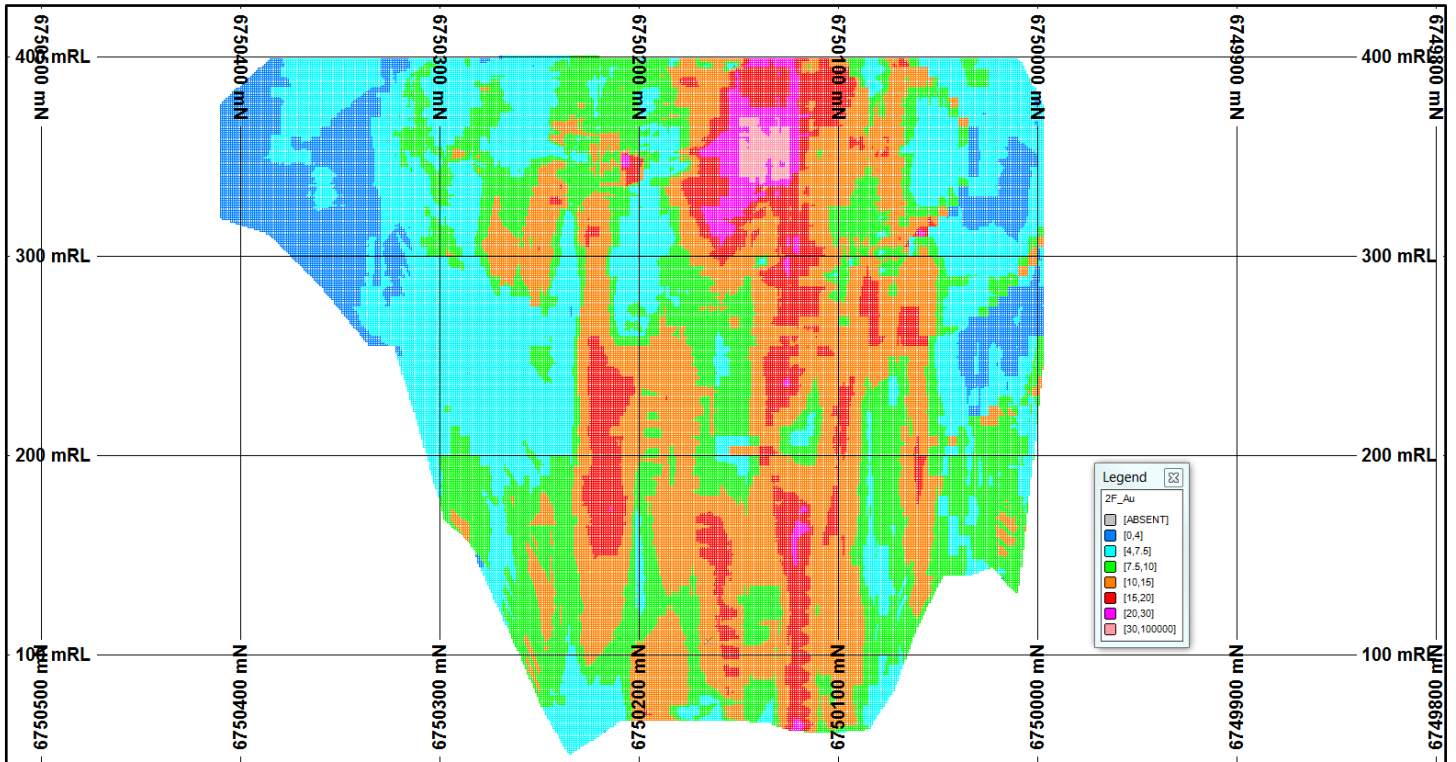
Exterra Resources Limited (ASX:EXC) is pleased to advise that a revised resource model to bring the **Main Lode Resource** at the Second Fortune project at Linden (100% Exterra) up to JORC 2012 compliance has been completed, and will support the current updated mine design Scoping Study which is currently in progress.

Exterra engaged QG Consulting Pty Ltd to carry out this mineral resource estimate.

The Resource for the Second Fortune **Main Lode** at a 4.00g/t Au lower cut-off now totals:

Indicated	206,800t at 10.2g/t Au for 68,000oz	(previously 157,500t at 11.0g/t for 55,400oz)
Inferred	30,300t at 8.6g/t Au for 8,300oz	(previously 63,400t at 10.4g/t for 21,200oz)
<b>Total</b>	<b>237,100t at 10.0 g/t Au for 76,300 oz</b>	<b>(previously 220,900t at 10.8g/t for 76,600oz)</b>

The updated Resource, although similar to that reported in 2012 for the Main Lode, is a 1.0m minimum mining width (MMW) diluted Resource and with 89% of the Resource in the Indicated category, compared with 72% in 2012. Significantly, the ore grade distribution is more robust as can be seen in Figure 1.



**Figure 1: Second Fortune Long Section Main Lode showing continuity of Resource block grades, 1.0m minimum mining width model**

Exterra elected to focus on the Main Lode Resource as it contains 58% of the total Second Fortune Resource ounces and will be the focus of the initial mine development. The West Lode, Hangingwall and Footwall lodes will potentially add further ounces to the mine development and will be assessed as the project develops. At this stage, only the Main Lode has been re-estimated and reported in line with the JORC Code, 2012 Edition.

The Main Lode is a quartz vein that strikes N-S, dips steeply to the west, and is from 0.1m up to a maximum of 2m wide, averaging 0.5m. The best known mineralisation at the Main Lode extends along strike for 300m, and extends from surface to at least 300m depth, and remains open at depth. Figure 2 shows a representative cross section of the Main Lode quartz vein block grades.

The grade distribution of the Main Lode Resource confirms the robust nature of the Second Fortune lode system being a significant high grade gold deposit, and confirms Exterra's confidence in progressing development activities. Exterra has commenced mine design, detailed scheduling and evaluation under a Scoping Study, based on the new diluted Resource model, using current gold price and costs. The Scoping Study should be completed 1<sup>st</sup> Quarter 2014.

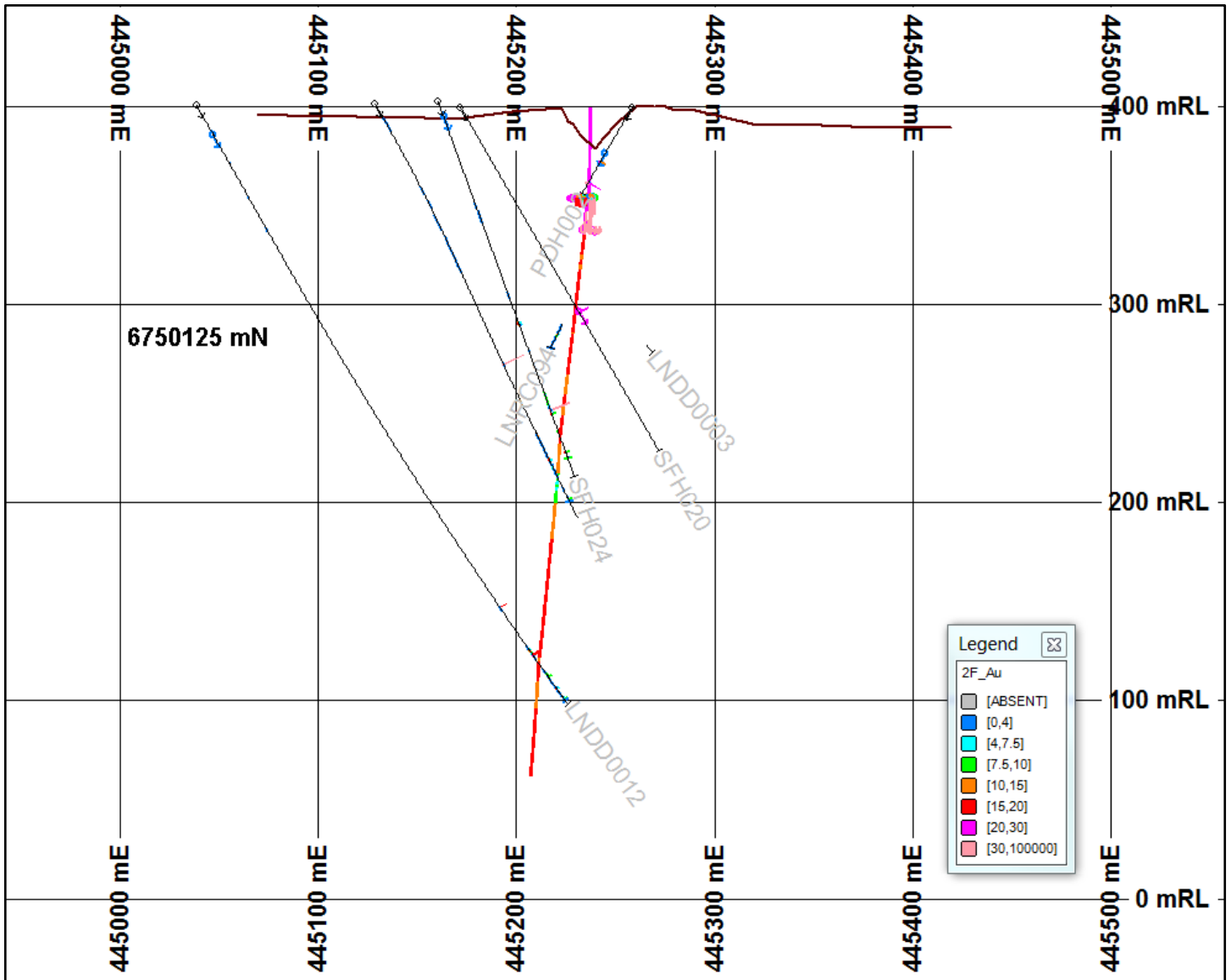


Figure 2: Main Lode Cross Section 6750125 N showing block grades.

As reported as a Market Update on the 20<sup>th</sup> September 2013, the Second Fortune Gold project is “Mine Ready” with all Regulatory Approvals for mine development received and with an Ore Sales Agreement signed with Saracen Mineral Holdings Limited for ore processing off site at the Carosue Dam plant.

Exterra is currently in discussions with a number of mining contractors with respect to detailed costing of the mine development, which has included site visits to assess the current on-site infrastructure.

**Table 1 – Second Fortune Resource Summary, Main Lode – JORC 2012**

Lode	Indicated			Inferred			Total		
	Tonnes	Grade (g/t Au)	Ounces	Tonnes	Grade (g/t Au)	Ounces	Tonnes	Grade (g/t Au)	Ounces
Main Lode	206,800	10.2	68,000	30,300	8.6	8,300	237,100	10.0	76,300

4.0 g/t Au lower cut-off

As stated above, this new mineral resource estimate was for the Main Lode only – however there are existing resource estimates for the other lodes that were prepared under the previous edition of the JORC Code (2004). The estimates for these ‘minor’ lodes are shown in Table 2 – the cut-off grade applied is the same for at the Main Lode, which is further explained in the ‘JORC 2012 Table 1’ appended to this report.

**Table 2 – Second Fortune Resource Summary, Minor Lodes – JORC 2004**

Lode	Indicated			Inferred			Total		
	Tonnes	Grade (g/t Au)	Ounces	Tonnes	Grade (g/t Au)	Ounces	Tonnes	Grade (g/t Au)	Ounces
Hangingwall Lode				58,200	8.2	15,300	58,200	8.2	15,300
Footwall Lode	18,500	8.9	5,400	52,900	7.4	12,500	71,200	7.8	17,700
West Lode	4,200	4.2	600	107,200	6.1	21,000	111,400	6.0	21,600

4.0 g/t Au lower cut-off

Table 2 was reported as an ASX release by Exterra as a Resource Upgrade under JORC 2004 Compliance on the 6<sup>th</sup> August 2012 and has not changed.

## MAIN LODE - Resource Estimation Summary

### Previous Estimates (JORC 2004)

Ravensgate Mining Industry Consultants produced the previous mineral resource estimate in July 2012. The 2012 estimate is the basis for the previous JORC 2004 resource statement, and includes mineralisation from the Main Lode and hanging wall and footwall lodes. Ravensgate also reviewed the Main Lode only in March 2013.

QG Consulting Pty Ltd was engaged by Exterra in November 2013 to bring the Main Lode up to JORC 2012 status.

### Estimate Methodology

A narrow-vein deposit such as Second Fortune is suitable for a *geostatistical* 2D estimate – this method involves accumulating the metal across entire vein intercepts. The metal accumulation in this case is the horizontal thickness (not downhole) multiplied by the Au grade. Statistical and geostatistical analysis is then performed for the thickness variable and the metal accumulation, and in-situ grades can then be back-calculated after estimation by dividing the metal accumulation estimate by the horizontal thickness estimate.

### Drill Hole Data and Geological Interpretation

There were a total of 184 drill holes; these comprise 26 historical diamond drill holes (DDH) from the late 1980’s, 14 reverse circulation (RC) holes from 1998, 89 underground face chip sample lines from the late 1980’s, and 34 holes from the 2011 - 2012 drilling campaign (14 DDH and 20 RC) completed by Exterra.

Exterra completed a 5 hole NQ diamond drilling program in February 2011 and in 2012 completed an additional 9 hole NQ diamond drilling campaign to test the depth extents of the Second Fortune mineralised lodes. Exterra completed appropriate QAQC on this recent drilling. Based on the 14 drillholes undertaken by Exterra during 2011 and 2012, the historic data set is considered to be adequately validated.

Drilling was carried out along grid east-west oriented fences perpendicular to the main north striking Second Fortune Vein. Drill-holes were typically inclined at 60 degrees on grid east azimuths. Mineralised intersections were obtained in approximately the expected positions and intersections are generally 40 meters to 60 meters apart at depth.

Exterra's diamond drilling samples were analysed for gold by 50g fire assay methods with AAS finish at SGS Laboratories, Kalgoorlie, Western Australia. Blind QAQC samples were routinely submitted with assays including Certified Standards. Sufficient QAQC and data validation has been undertaken to verify the integrity of the assay data.

QG created a new wireframe by slicing the previous set of wireframes (2012) at 12.5m spaced E-W cross-sections, and then snapped the strings to the de-surveyed drill hole file, honouring the Exterra 2011 – 2012 drilling only. The historic drilling did not have any downhole survey information, and consequently 3D position of these mineralised intercepts was not always consistent with those from the modern drilling. It would be possible to edit the wireframe so that the historic drill hole intercepts were honoured, but this would create an erratic and jagged solid.

The 3D wireframe was therefore not used as the basis for sample selection - instead, a table of intercepts ( $> 4\text{g/t Au}$ ) was created to select the samples from the DDH and RC holes within the mineralised vein. This is another advantage of the 2D estimation methodology – since the estimate is into a 2D plane, inaccuracies in the 3<sup>rd</sup> dimension are overcome. In this instance, the intercept positions in northing and RL are used, with all eastings set to a nominal plane.

For the face samples, a perimeter for each level was created to flag the high-grade intercepts. In addition, a table of intercepts for waste/low-grade material in the Hanging Wall (HW) and Footwall (FW) adjacent to the high-grade intercepts was created, as an estimate of the material surrounding the Main Lode would be required to create a diluted model.

### **Exploratory Data Analysis**

Statistics for the variables in all three domains were plotted. There are less samples in the dilution domains as the face sample lines on the 353mRL level often have no footwall samples, and there are only mineralised samples for the face samples on the 338mRL level. The accumulation variable is positively skewed, although there is only one real outlier at about 100 g/t.m. However, this intercept corresponds to a horizontal thickness of just over 1m, which is not an outlier at all. Therefore, no top-cuts were applied to the data.

Experimental variograms were generated separately for the thickness and accumulation variables the variograms generated were isotropic, as there is no clear major direction of continuity in the plane of the vein. The experimental variograms were fitted with models that had a nugget effect and one or two spherical structures. Note that both the HW and FW domains used the same variogram models, with the HW domain used as the basis for the variogram calculation.

## **Resource Estimation**

The Main Lode 3D wireframe was filled with blocks – the Datamine ‘seam’ fill option was used in the X direction. This allows the block size to vary almost infinitely in that particular direction, and provides a very close fit to the wireframe boundary.

To create the HW and FW dilution domains, the Main Lode seam model was expanded by 2m (retaining the same block centroid), and then the Main Lode model was added back over the expanded model. Therefore, the HW and FW domains are exactly 1m wide in the X direction. Three separate 2D models were created by setting the Easting to the nominal plane (445,200mE) for each domain.

Estimation was into the parent cells (not subcells), and discretisation was 5 in Y and 5 in Z. The search ellipse was isotropic, 50m in Y and 50m in Z, and was expanded by a factor of 2 if a block was not estimated with the original search parameters, and by a factor of three if not estimated by the previous two searches. 34% of the model was estimated on the first pass, 58% on the second, and 8% on the third.

## **Validation**

Initial model validation was performed visually on screen, comparing the estimated accumulation to drilling accumulations in section and plan.

A comparison between the weighted (‘de-clustered’) sample data and the volume-weighted model minima, maxima and means for each domain – shows that the mean grades for the model are comparable to the weighted composite data. As there are numerous closely spaced data on the mining level, de-clustering was undertaken to provide a better idea of the global domain statistics. Moving window de-clustering at a spacing of 40mN and 40mRL was undertaken.

The local estimates were then reviewed by graphing summary statistics of input (sample data) and output (block estimate) grades on 25m spaced northing slices and 25m elevation slices for each domain (‘swath plots’). The swath plots show there is no bias in the OK estimate, and that the local performance of the estimate is reasonable.

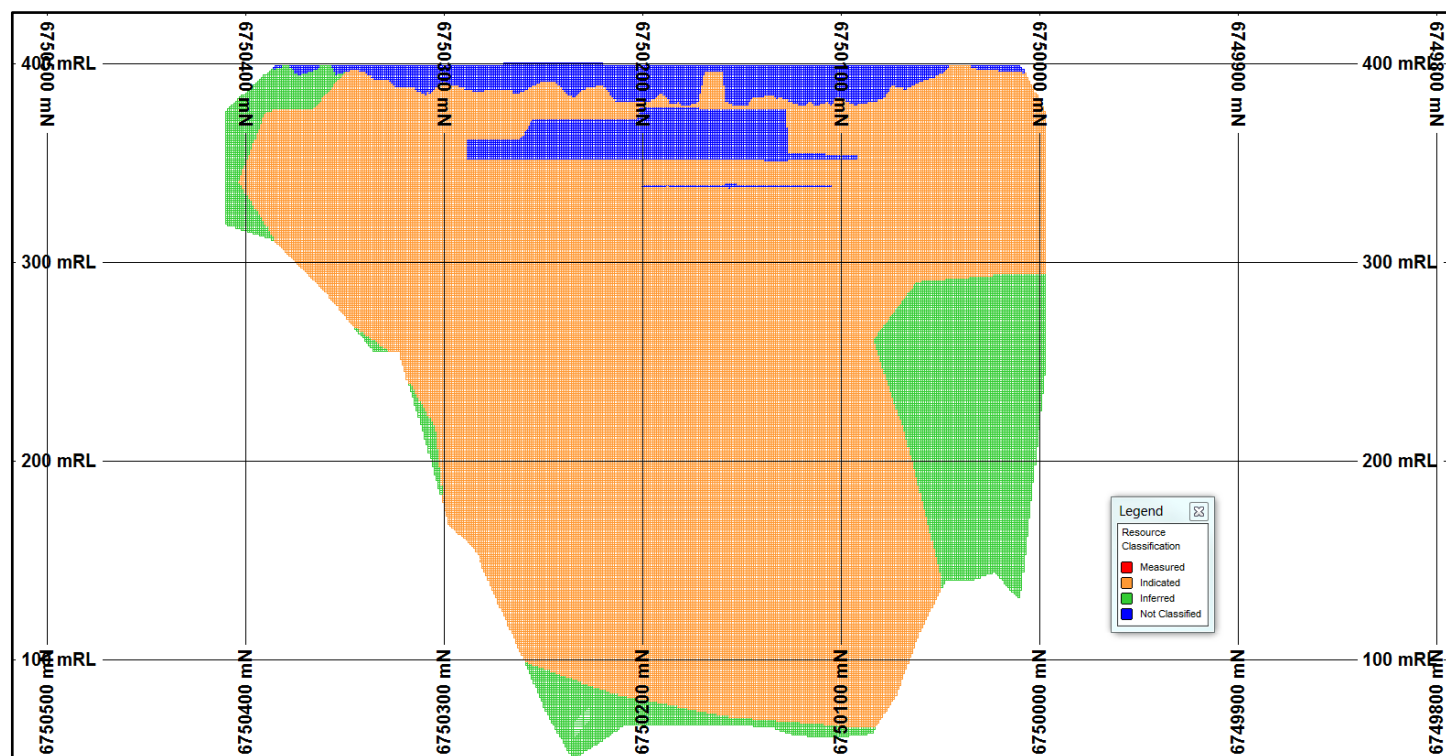
## **Post Processing and Results**

After estimation, the 2D blocks were migrated back into the 3D position, the Au grade was calculated (Accumulation/Thickness) and a density value of 2.65/m<sup>3</sup> for all three domains was set. Bulk density determinations were made on the latest diamond drilling, using the water immersion technique. The mineralised quartz vein ranges in density from 2.65 to 2.75 t/m<sup>3</sup>, so the density applied is slightly conservative.

The MMW model was then created – where a Main Lode sub-cell was less than 1m thick, the block was expanded to 1m, and the material from the adjacent dilution domains used to calculate the diluted grade (volume weighted). Where the Main Lode sub-cells were greater than 1m, no dilution was applied. Au grades for the MMW are shown in Figure 1.

The model was then flagged for mining depletion from the open-cut surface wireframe, and for the wireframe solids of the two underground working levels.

A set of strings was created to apply the resource classification – the result is shown in the long section in Figure 3, which also shows the blocks that have been depleted by mining (in dark blue).



**Figure 3: Second Fortune Long Section Main Lode showing JORC 2012 Resource Classification**

**For further information:**

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**About Exterra Resources Ltd**

Exterra Resources Limited (ASX:EXC) is a gold exploration and development company based in Perth, Western Australia, with a focus on high grade, high margin gold projects with near term production potential to fund the future growth of the company.

The Company's projects are all located in the Archaean Yilgarn Craton in WA, a world class gold province which has been a prolific producer of gold since the late 1880's and includes the Kalgoorlie "Golden Mile" deposit which has produced over 50 million ounces of gold since discovery in 1893.

Exterra's focus is on the Linden gold project in the North Eastern Goldfields region, within the Laverton Tectonic Zone, which hosts multi million ounce deposits including Sunrise Dam (Anglo Gold) and Granny Smith/Wallaby (Barrick Gold).

The Second Fortune gold mine, at Linden, 220km by road, NNE of Kalgoorlie, is currently the subject of a development study, with all Regulatory approvals received to commence project development of an underground mining operation during 2014.

### **Competent Persons Statement**

Information in this report that relates to estimation, depletion and reporting of Mineral Resources is based on and fairly represents, information and supporting documentation compiled by Michael Job who is a Fellow of the Australasian Institute of Mining and Metallurgy and a full time employee of QG Consulting Pty Ltd. Michael Job has sufficient experience 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". Michael Job consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to database compilation, sampling processes, geological interpretation and mineralisation, project parameters and costs and overall supervision and direction of Mineral Resource is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of John Davis (Member of the Australasian Institute of Mining and Metallurgy and the AIG). Mr Davis has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Davis consents to the inclusion in the release of the statements based on their information in the form and context in which they appear.

*Please note with regard to exploration targets, the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource and that it is uncertain if further exploration will result in the determination of a Mineral Resource.*

### **Forward Looking Statements**

Certain statements made during or in connection with this communication, including, without limitation, those concerning the economic outlook for the mining industry, expectations regarding gold prices, exploration costs and other operating results, growth prospects and the outlook of Exterra Resources' operations contain or comprise certain forward looking statements regarding Exterra Resources' exploration operations, economic performance and financial condition. Although Exterra Resources believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct.

Accordingly, results could differ materially from those set out in the forward looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes that could result from future acquisitions of new exploration properties, the risks and hazards inherent in the mining business (including industrial accidents, environmental hazards or geologically related conditions), changes in the regulatory environment and other government actions, risks inherent in the ownership, exploration and operation of or investment in mining properties in foreign countries, fluctuations in gold prices and exchange rates and business and operations risks management, as well as generally those additional factors set forth in our periodic filings with ASX. Exterra Resources undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.



# JORC Code, 2012 Edition – 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"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All diamond drill holes completed by the Company were sampled by cutting the core longitudinally in half using a diamond core saw. If an orientation line was present, then the core was cut to ensure the orientation line was retained in the half core in the tray. If an orientation line was not present a cutting line was marked by the geologist, taking account of the dominant fabric of the rock. Cross-cut marks were made at sample limits and half core was returned to the trays for storage and later reference.</li> <li>• Half core samples were placed in numbered calico bags and submitted to the laboratory for analysis. Samples varied in length up to 1.0 m with sample length controlled by lithology as determined during the logging process.</li> <li>• All sampling data was entered into a tablet computer and later downloaded into the central Access database.</li> <li>• Historic diamond core was also submitted as half core samples for analysis and has been sampled using a similar system to that currently used by the Company.</li> <li>• Historic diamond core sample intervals within the database were typically less than 1.0m in length.</li> <li>• Reverse circulation (RC) drillholes carried out by the Company were sampled every metre using a riffle or cone splitter to obtain an approx. 3kg sub-sample prior to submission to the laboratory for assay. The samples were collected in numbered calico bags and all sampling information was entered into a tablet computer and later downloaded into the central Access database.</li> <li>• All samples were submitted to SGS Laboratories Kalgoorlie for analysis.</li> <li>• Samples were analysed for gold by 50g fire assay methods with AAS finish.</li> <li>• Review of historic drilling records indicates a similar methodology was used with samples assayed by fire assay at Australian Assay Labs in Kalgoorlie.</li> <li>• In addition to the drilling data, underground channel sampling data,</li> </ul>

Criteria	JORC Code explanation	Commentary
		undertaken during underground development in the 1980's was incorporated.
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• A total of 26 historic diamond drill holes, 14 historic RC drill holes, 89 historic underground face samples were used in the resource estimation along with 20 RC holes and 14 diamond drill holes completed by the Company for a total of 7,763 metres of diamond core and 8,517 metres of RC drilling.</li> <li>• All diamond core was NQ in size and orientated.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drill core recovery in drilling by the Company was generally excellent in excess of 95%. Historic diamond drill core stored on site also shows excellent recovery.</li> <li>• RC sample recoveries were also very good with sample weights monitored and on average exceeded 2.5kg.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p><b>Diamond Core Logging</b></p> <ul style="list-style-type: none"> <li>• All geological logging carried out by the Company since 2010 was entered onto tablet computers and then uploaded into the Access database.</li> <li>• The main steps in the logging sequence were: <ul style="list-style-type: none"> <li>○ Core was marked in 1 or 2 m intervals and core block depths were checked for accuracy</li> <li>○ Core was geologically logged over regular 1 or 2 m intervals for lithology, alteration, mineralization, structure, fracture frequency, orientation and style of veining.</li> <li>○ Logs were downloaded daily into the main data storage facility.</li> <li>○ All core trays were individually photographed.</li> </ul> </li> </ul> <p><b>Reverse Circulation Logging</b></p> <ul style="list-style-type: none"> <li>• Reverse circulation drill hole chips were logged onto field sheets and later input into the site computer and later downloaded onto the main data storage facility.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• The main steps in the logging sequence were:               <ul style="list-style-type: none"> <li>○ Chips were sieved on regular 1m intervals and put into labelled chip trays.</li> <li>○ All chips were geologically logged.</li> <li>○ Logs were downloaded daily into the main data storage facility.</li> <li>○ Chip trays for the 2010 to 2013 RC drilling programs are stored on site at Linden.</li> </ul> </li> </ul>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <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></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer above for sampling techniques.</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling and assaying quality assurance and quality control (QAQC) procedures were applied routinely by the Company for all drilling carried out since 2010. They included:               <ul style="list-style-type: none"> <li>○ Blind QAQC samples routinely submitted including Certified Standards at a ratio of around 1 in 20 with 89 blank samples and a total of 171 standards of various values.</li> <li>○ Periodic re-submission of duplicate pulps to both primary and secondary labs.</li> <li>○ Review of internal laboratory quality control standards.</li> <li>○ Review of laboratory (analytical) duplicates.</li> <li>○ Sample recovery checks</li> <li>○ Sufficient QAQC and data validation to verify integrity of historic assay data.</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>○ The QAQC results indicate acceptable levels of precision and accuracy.</li> <li>• Bulk density determinations have been made for the recent diamond core drilling, using the dry sample water immersion technique for solid pieces of core for every sampled interval. Core lengths varied from 20cm to 1.0m and the rock was dominantly fresh with little/no voids.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• In 2010 the Company had their historic data input into an Access database under the direction of the Company Geology Manager. Data collated from drilling by the Company from 2010 was also input into the MS Access database and validated by Yilgarn Solutions.</li> <li>• The Company conducted an extensive database review, compilation and validation program of all historic drilling information.</li> <li>• The Company carried out detailed validation of the dataset prior to running the resource estimation. Ravensgate Mining Industry Consultants carried out an additional basic statistical and visual validation prior to estimation in 2011.</li> <li>• Given the acceptable results for the QAQC conducted by the Company and the good correlation between the historical and Company drilling (Ravensgate 2012), the drilling and sampling data is considered acceptable for resource estimation.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p><b>Drill hole collar surveys</b></p> <ul style="list-style-type: none"> <li>• Historically, drillhole collars were marked out with tape and compass on a local grid. These drill collars were picked up by GPS on MGA grid where they could be located or transformed from local grid.</li> <li>• Recent drilling located planned drillhole collars using a GPS on the MGA grid.</li> </ul> <p><b>Down hole surveying</b></p> <ul style="list-style-type: none"> <li>• All drillholes completed by the Company from 2010 to 2013 were routinely surveyed down hole with an Eastman single shot survey camera, typically at 30m intervals down hole. Historically down hole surveys using an Eastman single shot camera were conducted only on deep holes (&gt;100m) , with approximately 50% of historic holes with no down hole surveys. It is apparent from surveyed holes and geological</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>correlation that hole deviation is minimal.</p> <p><b>Topography and Depletion Surfaces</b></p> <ul style="list-style-type: none"> <li>• A digital terrain model (DTM) of the original topographic surface was created by the Company based on historical and recent collar and spot survey information.</li> <li>• Historical mining was depleted using historic open pit and underground survey plans.</li> </ul>
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Historic drilling was carried out along grid east-west oriented sections, typically spaced 50 m apart with infill sections spaced 25m apart. Drillhole intersections in the plane of the mineralized lodes vary from approximately 30m in the upper parts of the vein to 80m in the deeper parts. Drillholes were typically inclined at 60 degrees on grid east azimuths, while at the southern end of the mineralized domains, three holes were drilled at variable azimuths for purposes of mineralization geometry verification.</li> </ul>
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The drilling data was oriented to the east resulting in the majority of data being perpendicular to the strike of the orebody. The orebody dips steeply to the west.</li> </ul>
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Company sampling procedures includes delivery of samples to an offsite analytical laboratory on a regular basis. Each sample bag is sealed on site and then checked and signed as received by the laboratory. Each sample batch was accompanied by a dispatch form recording: <ul style="list-style-type: none"> <li>○ Job number.</li> <li>○ Number of samples.</li> <li>○ Sample numbers (including standards and duplicates).</li> <li>○ Required analytical methods.</li> <li>○ Instructions for storage of residues</li> <li>○ Comments about any particular sample which may affect the analytical process (high sulphide etc).</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>QAQC results did not highlight any issues with sampling techniques and on that basis external audits/reviews were not considered necessary.</li> </ul>

### 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	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>The drill hole data was provided as a series of Microsoft Excel files. Separate files were provided for each of: collars, downhole surveys, assays, and geology (separate lithology, mineralisation and alteration tables), although the geological information was only available for the 2011 - 2012 drilling. The drillhole data was compared to data files used for the previous mineral resource estimates – the assay data files were identical.</li> <li>Basic validation consisted of checking for sample interval and geological logging overlaps, checking for duplicate collars etc. - no issues were noted.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person for the mineral resource estimate, Mike Job of QG Consulting has not visited site.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>This mineral resource estimate focused on the 'Main Vein' (MV) at Second Fortune, and is a very narrow, steeply-dipping gold-bearing quartz vein that averages about 0.5m horizontal thickness – there are smaller lodes to the east and west of the MV, but these are less continuous, and may represent splays off the MV, as opposed to separate units.</li> <li>The definition of the MV is very well supported by drilling, with quartz veining and significant Au mineralization in every drill hole that has reached target.</li> <li>All of the drillhole data as outlined in Section 1 above was used for the estimate – however, there is poor control on the collar and downhole survey data from the historical drilling. Therefore, if the historic hole traces are plotted as a straight line, the 3D position of the mineralized intercepts does not always agree with those from the modern drilling, which have good survey control. This is only considered to have a local impact on the estimate, not global, and is</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>not considered material.</p> <ul style="list-style-type: none"> <li>• A 3D wireframe that takes all the 3D intercept positions at face value will therefore be jagged and erratic when viewed in plan view, as the position in easting for the historic drilling can be 5 to 10m away from the position established from the modern drilling. 'Corrections' to the downhole surveys into an appropriate 3D position would be possible – essentially this would be migrating the intercept in easting so that it fell within the plane of mineralization. However, this can largely be overcome with the use of 2D geostatistical estimation techniques, as outlined in the 'Estimation and modelling techniques' section below.</li> <li>• A 3D solid was constructed, honouring the modern drilling and underground face sampling data – the wireframe thickness was adjusted to be that of the historic drilling intercepts at the appropriate northing and RL i.e. it is assumed that the position in N and RL for the historic drilling is approximately correct, just the easting position requires adjustment. The wireframe is therefore not used for all sample selection, but is used as the final 3D position of the mineralized lode.</li> <li>• Therefore there is some uncertainty in the exact position of the mineralized lode at all locations, but the mine design will be flexible enough to position the drives etc. under geological control.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The MV is a quartz vein that strikes N-S, dips steeply to the west, and is from 0.1m up to a maximum of 2m wide, averaging 0.5m. The best known mineralisation at the MV extends along strike for 300m, and extends from surface to at least 300m depth.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> </ul>	<ul style="list-style-type: none"> <li>• As the Au mineralisation is very narrow (and not selective within the vein), it is suitable for a <i>geostatistical</i> 2D estimation methodology - this method works by estimating (usually by ordinary kriging) the vein thickness and metal accumulation (thickness x Au grade) onto a nominal 2D plane – grades are then back-calculated by dividing the estimated accumulation by the estimated thickness. This avoids the use of compositing, which by definition should be on equal sample lengths, which is very difficult to achieve with very narrow veins. The steps required for the estimate are listed below (using Datamine and Isatis mining software):</li> <li>• Sample selection for Main Vein and separate hangingwall and footwall dilution zones (single samples of between 0.5 and 1.5m downhole) via table of intercepts;</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Calculate horizontal thickness and metal accumulation of each intercept for each domain (MV, HW and FW) as well as the thickness and accumulation variables for the three domains combined;</li> <li>Migrate variables to a nominal easting;</li> <li>Statistical and geostatistical analysis of variables - the variograms generated were isotropic, as there is no clear major direction of continuity within the plane of the vein. The experimental variograms were fitted with models that had a nugget effect and one or two spherical structures. The relative nugget effect is high (~50%) with ranges in the order of 50m;</li> <li>Fill the 3D solid (as described in the 'Geological Interpretation' section) with blocks - 5mN, 5mRL, with a single seam block fitted in easting;</li> <li>Expand seam by 2m to create 1m wide HW and 1m wide FW blocks to create domains for dilution estimation;</li> <li>Migrate the centre of the block to the nominal easting (i.e., 3 separate 2D models for each domain);</li> <li>Ordinary kriging (OK) of horizontal thickness and metal accumulation into the blocks – search ranges were 50m isotropically in the plane, with a minimum of 5 samples and maximum of 20 required for estimation. The search was expanded by a factor of two if not estimated in the first pass;</li> <li>Migrate estimates back to the 3D model (match by northing and RL coordinates);</li> <li>Apply constant density of 2.65 t/m<sup>3</sup>;</li> <li>Validation/checking of estimated variables (via global and local statistics e.g., swath plots);</li> <li>Create minimum mining width (MMW) model of 1m horizontal thickness where MV is less than 1m wide by incorporating dilution from HW and FW domain models;</li> <li>Deplete models for previous open cut and underground mining</li> <li>Au is the only grade variable estimated.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>N/A – all tonnage estimates are dry – see section on Bulk Density below.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The cut-off grade of 4 g/t Au is based on a gold price of AUD \$1400/oz and total operating costs of AUD \$197 per tonne (from the current Scoping Study).</li> </ul>
Mining factors or	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining</i></li> </ul>	<ul style="list-style-type: none"> <li>Mining method is planned to be by conventional long hole open stoping with access to the orebody via a decline, cross cut and ore</li> </ul>



Criteria	JORC Code explanation	Commentary
assumptions	<i>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.</i>	<p>drives, with the decline portal in the floor of the current open pit. The mine depth is expected to extend to at least 350 vertical metres from surface.</p> <ul style="list-style-type: none"> <li>The operation plans to utilise a small jumbo, loader and truck fleet to carry out the decline development, and a small jumbo and loader to undertake the stoping operations. Surface access will be via a decline and emergency egress via the existing shaft in the pit floor.</li> <li>Ore will be brought to the surface ROM pad where it will be trucked off site to a nearby processing facility. Waste rock from mine development will be deposited on planned waste dump.</li> <li>Expected ore production will be approximately 70,000 tpa producing approximately 20,000 ozs per annum. Pre-production capital costs expected to be \$5 million, with a total operating cost (including processing, transport etc.) of approximately \$197 per tonne.</li> <li>A MMW of 1m is possible using the specialized small equipment proposed – the MMW diluted model will be the basis for the mine design, but development in ore and stoping will be under strict geological control.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical test work completed by ALS in March 2013 on composite diamond drill core samples of the ore zone confirmed recoveries of 98% for a 75 µm grind and 95% for a coarse 160 µm grind with low reagent consumptions.</li> <li>Exterra have an ore purchase agreement with Saracen Mineral Holdings Ltd, based on an agreed grade and recovery, and ore will be trucked to Saracen's Carosue Dam processing plant and blended on site by Saracen.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Due to ore being processed off site there is no requirement for tailings storage facilities.</li> <li>The majority of the project area is disturbed from historic mining activities. A total of 9ha of new clearing is required for development of a new evaporation pond, extension of the waste rock dump, explosives magazine and haul road. This will result in a total project disturbance footprint of approximately 48ha of which 39ha is historic disturbance, including camp site, air strip etc.</li> </ul>
Bulk density	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the</i></li> </ul>	<ul style="list-style-type: none"> <li>Bulk density determinations have been made for the recent diamond core drilling, using the dry sample water immersion technique for</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <ul style="list-style-type: none"> <li><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></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>solid pieces of core for every sampled interval. Core lengths varied from 20cm to 1.0m and the rock was dominantly fresh with little/no voids. The bulk density of the mineralized zones ranges from 2.65 to 2.75 t/m<sup>3</sup>, and the waste averages 2.8 t/m<sup>3</sup>. Therefore, a conservative bulk density of 2.65 t/m<sup>3</sup> was used for the entire mineralized quartz vein.</p>
Classification	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><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></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The majority of the deposit is classified as Indicated where the drilling is spaced on about 30m centres or less, and the resource is classified as Inferred only at the edges of the interpretation, for areas greater than 30m from the drilling.</li> <li>Confidence in the data is good, except for the 3D positioning of the intercepts from the historical data – this has been accounted for by the 2D estimation technique.</li> <li>The resulting Mineral Resource classification appropriately reflects the view of the Competent Person.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>This current mineral resource estimate has not been independently audited or reviewed, although it has been internally reviewed by other QG personnel.</li> </ul>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <li><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></li> <li><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></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>The statement relates to global estimates of tonnes and grade.</li> </ul>