



## ASX ANNOUNCEMENT

5 May 2016

### **New Zinc Zone at Yalcowinna, Broken Hill**

- **Zinc zone with potential for new Broken Hill type discovery**
- **Strike length of 400 metres**
- **Elevated zinc assays to 0.26% in bedrock RAB samples beneath soil cover.**
- **Gossan, blue quartz and gahnite indicators of Broken Hill type zinc-lead-silver mineralisation.**
- **Drilling planned**

**Silver City Minerals Limited (ASX:SCI)** (“Silver City” or “the Company”) is pleased to announce it has received analytical results from a program of rotary airblast (RAB) drilling at Yalcowinna West located 35 kilometres to the northeast of Broken Hill. The drilling results have been combined with historic RAB work including earlier programs by SCI. In total the work has outlined a new zinc bedrock anomaly beneath alluvial and soil cover which is approximately 400 metres long and up to 180 metres wide. The anomaly is nominally greater than 0.1% zinc (>1000 ppm) and contains individual samples up to 0.26% zinc (Figure 1). During drilling, features typical of Broken Hill type (BHT) zinc-lead-silver mineralisation such as gossan, blue quartz and gahnite (a zinc aluminium oxide mineral) were recognised in bedrock samples.

Historic holes located 300-400 metres to the south of the new zinc zone appear to have tested a weaker (RAB) anomaly located in the hanging wall zone. The new anomaly outlined by SCI RAB has a stronger tenor of zinc and to date remains untested (Figure 2). This zinc anomaly represents a significant drill target for Broken Hill type mineralisation beneath shallow cover.

#### **Background**

During the 1970's Newmont conducted extensive regional RAB drilling on 1.6 kilometre spaced lines and identified zinc anomalism in the area. A follow-up costean across strike of a gossanous outcrop provided enough encouragement to drill a single hole (76YW01) which returned 14 metres at 0.45% zinc from 178 metres. During the 1980's further RAB was conducted and core drilling by CRA Exploration failed to intersect further significant mineralisation.

In 2012 SCI recognised significant untested zinc anomalism in the CRA RAB data 300 metres northwest of the historic core drilling (SCI Quarterly Report December 2012). This anomalism occurred in eight holes over 175 metres across strike and averaged 1000ppm zinc. A subsequent single line of RAB drilling by SCI in 2012 confirmed zinc anomalism in several holes above 1000ppm.

The recent program was designed to further delineate this zinc anomaly, resulting in a broad northwest-trending corridor 400 metres long and over 180 metres wide possibly containing up to three discrete anomalous zones. A review of the original drill logs and cross sections shows that historic drilling has only tested the weaker hanging wall mineralisation located several hundred metres southeast of the new and more significant zinc anomalism reported here (Figures 1 and 2).

### **Future Exploration**

The Company has made application for an environmental permit to undertake a first-pass drilling program as soon as possible.

## **SILVER CITY MINERALS LIMITED**



**Christopher Torrey**  
Managing Director

### **ABOUT Silver City Minerals Limited**

*Silver City Minerals Limited (SCI) is a base and precious metal explorer with a strong focus on the Broken Hill District of western New South Wales, Australia. It takes its name from the famous Silver City of Broken Hill, home of the world's largest accumulation of silver, lead and zinc; the Broken Hill Deposit. SCI was established in May 2008 and has been exploring the District where it controls Exploration Licences through 100% ownership and various joint venture agreements. It has a portfolio of highly prospective projects with drill-ready targets focused on high grade silver, gold and base-metals, and a pipeline of prospects moving toward the drill assessment stage. The Company continues to seek out quality projects for exploration and development. It has been granted tenements in New Zealand to explore for epithermal gold deposits.*

### **Caution Regarding Forward Looking Information.**

*This document contains forward looking statements concerning Silver City Minerals Limited. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward looking statements in this document are based on Silver City's beliefs, opinions and estimates of Silver City Minerals as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future development.*

### **Competent Persons**

*The information in this report that relates to Exploration Results is based on information compiled by Chris Torrey (BSc, MSc, RPGeo.) and Robert Gordon (BApSci;Hons) who are members of the Australian Institute of Geoscientists. Mr Torrey is the Managing Director, a shareholder and full time employee of Silver City Minerals Limited. Mr Gordon is a Senior Geologist and full time employee of Silver City Minerals Limited. Mr Torrey and Mr Gordon have 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 "Competent Persons" as defined by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Torrey and Mr Gordon consent to the inclusion in this Report of the matters based on this information in the form and context in which it appears.*

### **CONTACT DETAILS**

#### **Management and Directors**

Bob Besley - Chairman  
Chris Torrey - Managing Director  
Greg Jones - Non-Executive Director  
Ian Plimer - Non-Executive Director  
Ian Hume - Non-Executive Director  
Yanina Barila - Alternate Director  
Ivo Polovineo - Company Secretary

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ANNEXURE 1 Diagrams

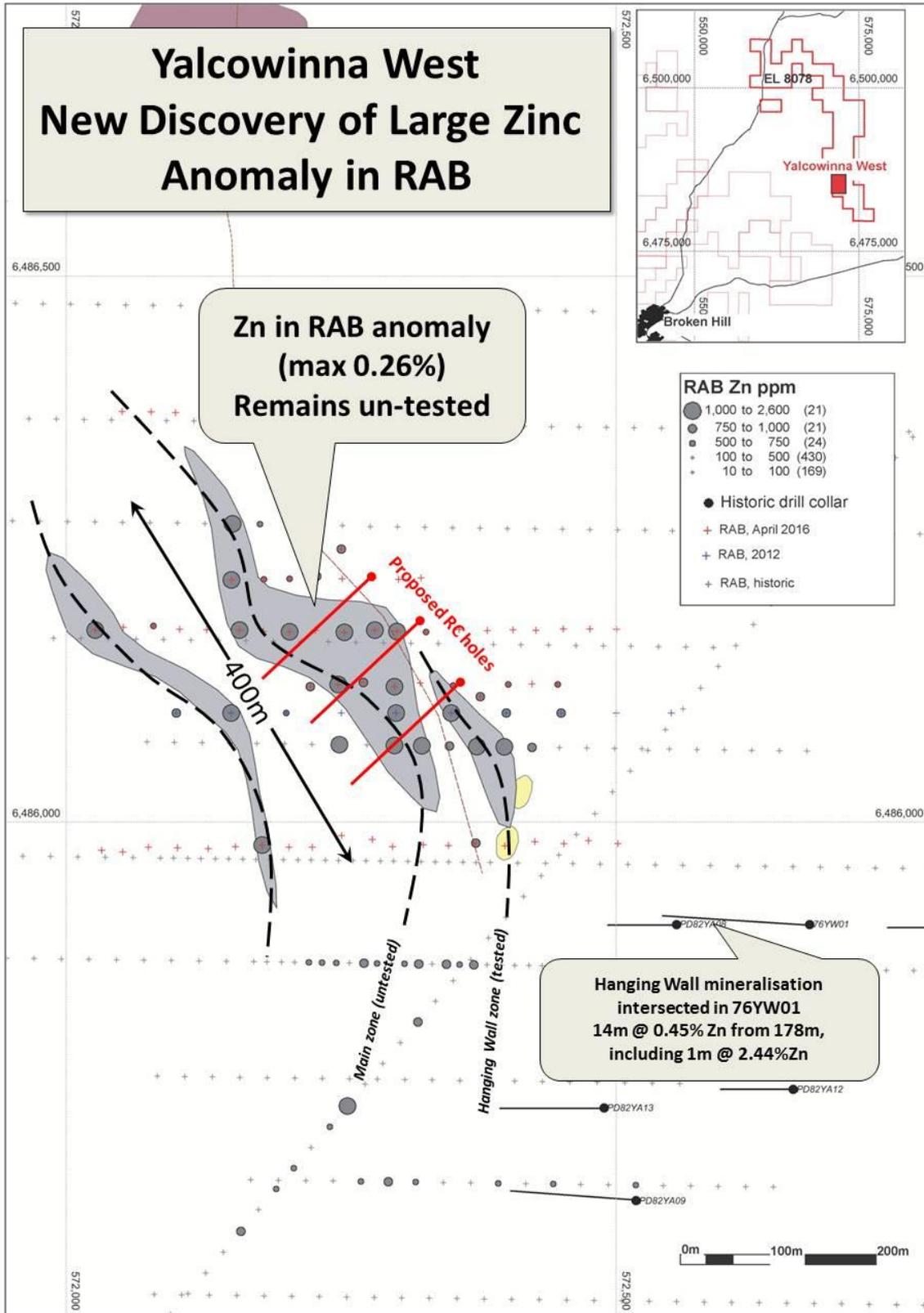


Figure 1 New Yalcowinna West zinc anomaly located under alluvial and soil cover. The anomaly is defined by RAB drilling and to date remains untested. Proposed RC drill holes are indicated.

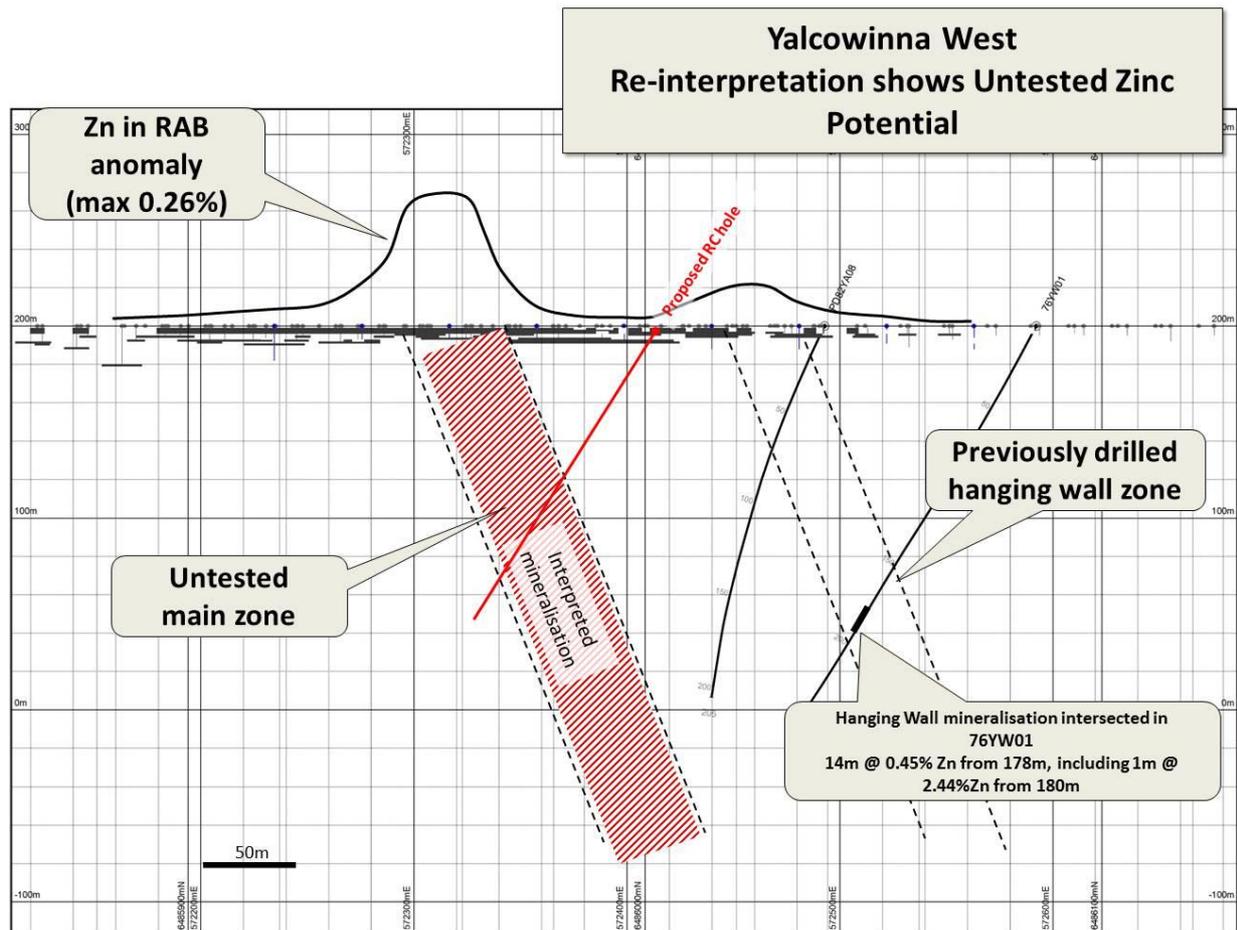


Figure 2. Interpretive cross-section of Yalcowinna West showing location of new zinc anomaly in relation to historic drilling. The new zone remains untested. A proposed hole is indicated.

## ANNEXURE 2

# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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>• Rotary air blast (RAB) holes were drilled at Yalcowinna West. 1 metre intervals were collected from the cyclone in either buckets or plastic bags by the drilling contractor. Samples were taken using a PVC spear. The bottom one metre interval of each hole was sampled. Samples were taken of other intervals between one and four metres wide where there was significant iron content, gossan or other material considered potentially anomalous in the interval.</li> <li>• RAB is an “open-hole” drilling technique and was used here primarily to obtain rock for geological observation and geochemical analyses.</li> <li>• No XRF measurement tools were used.</li> </ul>
<b>Drilling techniques</b>	<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>• Rotary air blast (RAB) drilling used an industry standard face-sampling hammer bit 75mm in diameter.</li> <li>• No down-hole surveys were taken due to the shallow nature of the drilling. All holes were collared vertical.</li> </ul>
<b>Drill sample recovery</b>	<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>• No account of recovery was made.</li> <li>• No measures were undertaken to maximize recovery.</li> <li>• No relationship between grade and recovery was recorded or noted.</li> </ul>
<b>Logging</b>	<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>	<ul style="list-style-type: none"> <li>• Representative RAB chips were geologically logged for each metre drilled to industry standard.</li> <li>• Logging is qualitative and not of sufficient detail to support future Mineral Resource estimation, mining and metallurgical studies.</li> <li>• 100% of drilled material was logged for a total of 427.5 metres</li> </ul>
<b>Sub-sampling</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The subsample was collected in a bucket or bag for each</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>techniques and sample preparation</b>	<ul style="list-style-type: none"> <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>	<p>metre. The geologist determined by observation which intervals to sample. Nominal sample weight was between 2kg and 2.5kg.</p> <ul style="list-style-type: none"> <li>• The above techniques are considered appropriate for the nature of mineralisation anticipated and the first-pass nature of the drilling program. The sample size is appropriate to the rock being sampled.</li> <li>• The logs note whether the sample was dry or damp.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<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>• Preparation was by ALS method PUL-23 whereby the sample was crushed to 70% nominal 6mm, then was riffle-split to a maximum of 3kg then pulverized to 85% passing 75 microns</li> <li>• Multi-element analysis by ALS method ME-ICP41 (<a href="http://www.alsglobal.com">www.alsglobal.com</a>) for 35 elements.</li> <li>• The nature and quality of the analytical methods are appropriate to style of mineralisation anticipated and are of industry standard.</li> <li>• No handheld analytical tools used.</li> <li>• The laboratory also has its own QAQC of systematic standard, repeats and duplicates.</li> <li>• No standards or blanks were used.</li> <li>• No external laboratory checks are appropriate at this early stage of assessment.</li> </ul>
<b>Verification of sampling and assaying</b>	<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>• No verification of intersections has been undertaken by alternative company personnel.</li> <li>• Twinning is not appropriate at this time</li> <li>• All logged data including sample intervals and numbers were recorded manually then entered into a digital data system.</li> <li>• No adjustments have been made.</li> </ul>
<b>Location of data points</b>	<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>	<ul style="list-style-type: none"> <li>• Drill collar locations (GDA94 MGA Zone 54) were determined by handheld GPS with an accuracy of +/- 5 metres which is considered an appropriate level of accuracy for regional, early stage target assessments.</li> <li>• Topographic control used is Shuttle Radar Topography Mission (SRTM) data. Individual points are verified by hand held GPS. This is considered sufficient for an early drill assessment.</li> </ul>
<b>Data spacing and distribution</b>	<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> </ul>	<ul style="list-style-type: none"> <li>• Sufficient numbers of samples have been collected from the drill holes to give a representative geochemical response for the bedrock at that location and serve the purpose of initial investigation. The type of sample and spacing is not sufficient for future Mineral Resource and Ore Reserve estimation.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	
<b>Orientation of data in relation to geological structure</b>	<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>• Drill hole orientation has been optimized to test for geochemical anomalism in the bedrock beneath regolith.</li> <li>• No orientation-bias has been identified.</li> </ul>
<b>Sample security</b>	<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>• Bagged samples were transported to a Broken Hill freight depot by company personnel. Samples were dispatched directly from the depot to the laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews have been undertaken.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All drilling has been undertaken within EL8078. Areas being drilled are not subject the Native Title. An access agreement with the current landowner is in place.</li> <li>• No impediments to operate are known.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Previous exploration work at Yalcowinna West Prospect has been undertaken by two companies during the 1970's and 1980's. Activities included RAB drilling over broadly spaced lines, costean sampling and mapping, core drilling and surface and downhole geophysics. As the prospect is located within an area of extensive cover little previous geological mapping was undertaken. Drilling, logging, sampling and assaying of drill core was undertaken to the quality acceptable to the industry at the time and is of sufficient quality to make geological interpretations. Drilling ranges in age from 1976 to 1982. All collars from the 1982 drilling have been located and surveyed by SCI with hand-held GPS. The 1976 hole location is calculated from the relative position to other holes as shown on maps in annual reports. Down-hole survey data is available from the annual reports for the 1976 hole, but is not available for later holes. Down-hole survey data was created for plotting purposes by measuring off the drill hole trace in cross sections from annual reports. Assay data has been extracted from analytical assay sheets, plans, sections and old logs. We are unable to comment on the quality of geophysical surveys but these appear to have been undertaken to industry standard using</li> </ul>

Criteria	JORC Code explanation	Commentary
		the best technology of the time. SCI considers that several geochemical anomalies remain untested by drilling.
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Broken Hill type Pb-Zn-Ag mineralisation</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Given the nature of RAB drilling is to obtain reconnaissance geological and geochemical data beneath a cover of regolith, a list of hole details is not justified. Hole depths range from 2 to 18 metres and average 6 metres. Hole locations and material geochemical results are shown in plan (Annexure 1).</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No industry standard weight-averaging techniques have been used to present data in this report.</li> <li>• No upper cut has been incorporated.</li> <li>• No nominal cutoff grades have been used.</li> <li>• No short lengths of high grade have been aggregated</li> <li>• No metal equivalent has been reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</i></li> </ul>	<ul style="list-style-type: none"> <li>• The relationship between mineralisation intercepts and intercept lengths is unknown.</li> <li>• For most holes only the last 1 metre sample was assayed.</li> <li>• True widths are unknown.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See Annexure 1</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• This public report depicts a single grade for each hole, usually the bottom-of-hole sample, in a diagram. (Annexure 1)</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and</i></li> </ul>	<ul style="list-style-type: none"> <li>• All available information of significance has been included in this or previous reports.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC drilling is proposed.</li> </ul>