



# POSITIVE EXPLORATION RESULTS AT MARBLE BAR

- Initial rock chip sampling programme delivering multiple gold target areas over BCI's tenement package
- Prospectivity highlighted by high-grade results from multiple locations
  - Best results of 12.1g/t Au, 5.13g/t Au, 4.47g/t Au and 3.66g/t Au from northern structural trend
  - 15.9g/t Au and 7.02g/t Au from shallow prospector workings located between the northern and southern structural trends
  - Best results of 1.51g/t Au and 1.02g/t Au from the limited rock chip sample assays that have been received to date from the southern structural trend
- First phase drill programme of 11 holes to commence shortly at four high priority targets
- Results from 180 of the 310 rock chip samples are still pending and are expected to deliver additional targets

BCI Minerals Limited (ASX:BCI) ("BCI" or the "Company") is pleased to provide an update on gold exploration at its 100% owned Marble Bar Project.



Figure 1: Marble Bar Project Location

The Marble Bar Project is located 20km north-east of the Marble Bar townsite and is prospective for both gold and lithium. The Marble Bar Project covers Archean greenstone on the margin of the Mt Edgar Granite, which regionally hosts numerous historical gold mines, deposits and prospects (refer to Figure 1 above). A prospector has recovered more than 350 gold nuggets and rocks with visible gold (refer to ASX announcement dated 17 November 2017) from the BCI tenement package.

BCI recently commenced an active exploration programme on the northern part of the Marble Bar Project for gold, where the Company has identified two prospective structural gold trends (northern trend and southern trend).

A wide-spread mapping, rock chip sampling and soil sampling programme is ongoing, focused on the two identified gold trends and other locations where the prospector has recovered gold nuggets and gold-bearing rocks. Assay results have been received for 130 of the 310 rock chip samples taken to date and include high grade results from multiple locations (refer to Figure 2 below and the table in Appendix 2 for details).

Best results from the northern gold trend of 12.1g/t Au, 5.13g/t Au, 4.47g/t Au and 3.66g/t Au were received from three distinct target areas. A first pass drilling programme is planned to commence shortly, comprising of 11 holes for approximately 1,000m at four targets.



Figure 2: Rock Chip Sample Results

Limited results received to date from rock chip sampling at the southern gold trend, which extends east from Novo Resources' Talga Talga prospect for approximately 8km, are also positive with best results of 1.51g/t Au and 1.02g/t Au. The 1.02g/t Au rock chip result is considered highly encouraging given the sample was taken from dolerite that is adjacent to a ~1m wide gossanous quartz vein that has been mapped for 400m. Results are pending from additional rock chip samples taken from the quartz vein.

Rock chip sampling of material from shallow prospector workings returned best results of 15.9g/t Au and 7.02g/t Au. The geological significance of these results is being evaluated.

Ongoing reconnaissance and mapping continues to identify additional target areas, highlighting the Project's overall prospectivity. An extension of the northern gold trend has been located west of a north-south trending fault along the Talga River, increasing the interpreted strike of the trend to 14km. A target area has been identified where the banded iron formation has been thickened by folding and faulting, and a number of crosscutting gossanous veins and faults are present. Rock chip sample results from this new target area are pending.

In addition to the first batch of 130 rock chip samples, a further 180 rock chip samples are currently being assayed, along with 320 soil samples. Geological mapping and geochemical sampling at the tenements is also ongoing.

Commenting on the results, BCI Managing Director, Alwyn Vorster, said: "*early exploration work at Marble Bar has highlighted the excellent potential of this underexplored tenement package. We have identified four targets for the upcoming drill programme in a short space of time and continue to find additional areas of interest that will be systematically explored. We look forward to updating the market further as the project evolves.*"

-ENDS-

For further information: Alwyn Vorster Managing Director BCI Minerals Limited Telephone: +61 8 6311 3400

#### **ABOUT BCI MINERALS**

BCI Minerals Limited (ASX:BCI) ("BCI") is an ASX-listed resources company with an attractive portfolio of mineral interests.

BCI's strategy is to maximise value from its iron ore portfolio, create a presence in gold and/or base metals, and become an influential Australian player in the agricultural and industry minerals industry.

Iron ore remains the Company's core focus, with the key assets of Iron Valley and Buckland providing a complementary mix of existing earnings and growth potential.

Iron Valley is an iron ore mine located in the Central Pilbara, which is operated by Mineral Resources Limited (ASX:MIN) and is generating royalty earnings for the Company.

Buckland is a 100%-owned strategic iron ore development project located in the West Pilbara region, comprising proposed mines at Bungaroo South, Kumina and other deposits, and a proposed private infrastructure solution incorporating a haul road and transhipment port at Cape Preston East.

The Company's iron ore portfolio also includes potential royalties over the Nullagine, Koodaideri South and Extension tenements.

BCI is developing an agricultural and industrial minerals business, which currently includes the 100%-owned Mardie Salt Project, which has a completed Scoping Study, and the Carnegie Potash Project where BCI is a joint venture partner of Kalium Lakes Limited (ASX:KLL).

BCI is also seeking to create a presence in gold and/or base metals, primarily targeting its 100% owned regional exploration tenements and acquiring new project level interests in Australian assets.

#### **KEY STATISTICS**

Shares on issue:	395.0 million	
Cash and cash equivalents:	\$23.6 million	as at 30 September 2017
Board:	Brian O'Donnell	Non-Executive Chairman
	Alwyn Vorster	Managing Director
	Michael Blakiston	Non-Executive Director
	Jenny Bloom	Non-Executive Director
	Martin Bryant	Non-Executive Director
	Andy Haslam	Non-Executive Director
Major shareholders:	Wroxby Pty Ltd	27.7%
Website:	www.bciminerals.com.au	

### **APPENDIX 1: COMPETENT PERSONS STATEMENT**

The information in this report that relates to Exploration Results at Marble Bar is based on, and fairly represents, information which has been compiled by Mr Martin Bennett, who is a Member of the Australasian Institute of Geoscientists and a full-time employee of BCI Minerals Limited. Mr Bennett has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bennett consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

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Easting	Result (g/t Au)
800494	0.20
800439	0.09
800407	0.18
800135	0.01
800217	0.00
800357	0.00
800320	0.01
800305	0.01
800296	0.01
800289	0.14
800324	0.05
800567	0.47
800394	0.01
800188	0.01
802513	4.47
802462	0.01
802510	0.01
802402	0.10
802400	0.01
802772	0.02
802781	0.14
800901	0.06
800901	0.05
800898	0.01
800881	0.01
801843	0.01
802697	12.1
802733	0.67
805856	0.11
806007	0.01
806007	0.01
806007	0.01
800384	0.02
803667	0.15
803667	0.20
803062	0.18
803062	0.02
803062	7.02
802696	15.9
802696	5.64
802783	0.10
802791	0.15
	Easting           800494           800439           800439           800407           800135           800217           800357           800320           800320           800320           800320           800320           800320           800320           800320           800320           800321           800296           800296           800289           800289           800289           800289           800296           800281           802513           802462           802510           802462           802510           802402           802402           802402           802402           802400           802402           802402           802402           802402           802402           802781           800901           800881           800881           800881           806007           8

### **APPENDIX 2: ROCK CHIP SAMPLE RESULTS**

Norunny	Easting	Result (g/t Au)
7680519	803846	0.22
7680520	803844	0.03
7680530	803851	0.01
7680569	803785	0.01
7680505	803811	0.00
7680380	803699	0.01
7680690	803789	0.01
7680376	803711	0.03
7679249	802696	0.42
7679465	800835	0.03
7679425	801020	0.07
7679370	800994	0.05
7679416	801017	0.03
7678600	800708	0.05
7678581	800689	0.06
7678565	800645	0.17
7678565	800645	0.14
7678469	800647	0.07
7678469	800647	0.06
7678520	800657	0.09
7678565	800645	0.09
7678510	800661	0.05
7678445	800603	0.04
7678432	800652	0.05
7678536	800353	0.07
7678841	800313	0.07
7681757	802583	0.03
7681920	802466	0.01
7680996	802816	0.01
7680967	802763	0.04
7680833	803682	3.66
7680894	803377	0.08
7680957	803200	0.98
7681353	803193	0.04
7680494	800847	0.08
7680538	800835	0.07
7680449	800837	0.08
7680480	800826	0.18
7680474	800830	0.09
7680431	800811	5.13
7680449	800912	0.05
7680466	800867	0.06
7680269	800433	0.08
7680241	800412	0.10
7680194	800319	0.05
7680210	800350	0.05
7680221	800362	0.05
7680050	801162	0.04
7679921	801165	0.06
7680503	801268	0.06
7680181	801156	0.07
7680433	801242	0.03
7680652	800907	0.08
7680889	800883	0.09
7680883	800883	0.08
7681002	800901	0.08
7681153	800851	0.09

Northing	Easting	Result (g/t Au)
7681171	800957	0.08
7680793	800892	0.08
7680239	801692	0.10
7680385	801672	0.10
7681422	803692	0.03
7678610	800215	0.06
7678614	800215	0.18
7678610	800216	0.05
7678622	800234	0.05
7677332	800351	0.05
7677332	800351	0.11
7677332	800351	0.06
7677693	799628	1.51
7677739	799618	0.11
7680031	801806	0.07
7678525	803585	0.07
7678525	803633	0.07
7678154	803808	0.03
7678154	803808	0.03
7677833	803687	0.05
7677833	803687	0.07
7677833	803687	1.02
7677818	803695	0.06
7677996	803271	0.04
7677837	801903	0.05
7677837	801903	0.05
7677860	802034	0.04
7677856	802051	0.04
7677863	802065	0.04
7677827	801749	0.04
7677813	801671	0.04
7680250	799778	0.04
7679859	799323	0.05
7677938	802038	0.06
7677690	801468	0.05

# **APPENDIX 3: JORC CODE, 2012 EDITION – TABLE 1 REPORT**

Section 1 – Sampling Techniques and Data

(Criteria In this section apply to all following sections.)

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Samples were collected by taking selective or representative samples of rocks and minerals using a hammer.</li> <li>Where possible representative samples are collected.</li> <li>Selective samples are taken where appropriate to test specific rocks of interest.</li> </ul>
Drilling Techniques	<ul> <li>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).</li> </ul>	No drilling has been undertaken.

Criteria	JORC Code Explanation	Commentary
Drill Sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Not applicable. No drilling has been undertaken.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The type of rock or mineral was recorded including details of the geological setting.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Sub-sampling and quality control techniques are not applicable, and the rock chip sampling is not being used for a Mineral Resource estimate.

Criteria	JORC Code Explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The rock chip samples were crushed and pulverised by the laboratory prior to analysis using an Aqua Regia total digest followed by analysis using ICP-MS.</li> <li>The laboratory utilised its standard QAQC procedures, which include insertion of standards, blanks and duplicates. No issues were identified.</li> <li>No standards or blanks were added to the sample submission by BCI given the rock chip samples are not being used for Mineral Resource estimation.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No drilling has been undertaken.</li> <li>No duplicate samples were taken.</li> <li>Data is checked prior to entry into the database.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Rock chips were located using a handheld GPS in the MGA 94 grid datum (Zone 50).</li> <li>The location of the rock chips are used as a guidance for future exploration. They are not used in a Mineral Resource estimate.</li> <li>The quality and adequacy of the surface topography is not applicable as the information is not being used in a Mineral Resource estimate.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Not applicable. The location of the rock chip samples does not allow inference as to the potential size of a host gold lode.</li> <li>The location, quantity or quality of the rock chip samples will be used to guide future exploration in the area and is not being used in a Mineral Resource estimate.</li> <li>No compositing has occurred.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The rock chip sample locations are used as a guidance for future exploration and not for a Mineral Resource estimate. Where applicable samples are collected along the orientation or strike of the geological structure.</li> <li>No drilling has been undertaken.</li> </ul>
Sample security	The measures taken to ensure sample security.	Rock chip samples are freighted to the laboratory in Perth for analysis.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	Sampling techniques are reviewed by company geologists on a regular basis to ensure best practise techniques are implemented.

# Section 2 – Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
General tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	• E45/4309, E45/4328 and E45/4631 are held by Metal Holdings Pty Ltd which is a 100% owned subsidiary of BCI Minerals Limited ("BCI"). The tenement applications were lodged in 2013 (E45/4309 and E45/4328) and 2015 (E45/4631) and accompanied the required Section 58 document in accordance with WA Mining Act. E45/4309 and E45/4328 were granted in February 2015 and E45/4631 was granted in July 2016. All tenements are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Gold nuggets were found by independent prospectors who held valid Section 40E permits to prospect on BCI's tenure.</li> <li>Previous work includes small scale mining (1880s to 1940s), mostly in the northern part of the project area, and mining of alluvial tin in the southern part of the project (mostly in the Moolyella mining area south of BCI's tenure. More recent work by other companies includes soil and rock chip sampling, with a broad &gt; 30 ppb gold anomaly being defined by Montezuma Resources in the north-eastern part of E45/4309. In the north east portion of E45/4309, three holes were drilled by Compass Resources, following up anomalous rock chip samples (up to 140g/t), with the best drill results being 1m @ 4.6 g/t Au.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• The tenements are located within the East Pilbara Granite-Greenstone Terrane. The tenements cover the contact between the Mt Edgar Granite Batholith and the metamorphosed Archaean mafic volcanics, felsic volcanics (including the Duffer Formation) and metasediments of the Warrawoona Group which wrap around the Mt Edgar Granite.

Criteria	JORC Code Explanation	Commentary
Drill hole Information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>No drilling has been completed.</li> <li>Information relating to the rock chip samples is shown in the table in Appendix 2.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No average weighting of grade has been completed.</li> <li>No high grade or low grade cutting has been completed.</li> <li>Metal equivalence is not applicable to this release.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>No drilling has been completed.</li> <li>Mapping underway by BCI is indicating a correlation between nugget locations and chert/BIF and ultramafic lithologies that have also been mapped at 1:100,000 scale by GSWA.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Maps are presented in the ASX announcement.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>No drilling has been completed, so BCI is not reporting drill intersections.</li> <li>Assay results for all rock chip samples are reported in Appendix 2.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Historic exploration results are currently being compiled and will be reviewed against future exploration results.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Rock-chip and soil sampling is ongoing and a first phase drill programme is planned to commence shortly.</li> </ul>