

**ASX Code: BML** 

TO: COMPANY ANNOUNCEMENTS OFFICE

**ASX LIMITED** 

**DATE:** 15 OCTOBER 2015

# FURTHER MASSIVE SULPHIDE INTERSECTIONS ALONG STRIKE OF MAIBELE NORTH JV CONFIRM NEW DISCOVERY ZONE

### **HIGHLIGHTS:**

### PL 110/94 MAIBELE NORTH JV WITH BCL

- A further 8 infill and step-out holes completed in September and early October 2015
- Numerous sulphide intersections returned, including:

### **New Discovery Zone Along Strike:**

- 3.6 m Massive and strongly disseminated sulphides (MARD0129) including:
  - 1.39m cumulative thickness massive sulphide (1.04m + 0.35m)
- 7.4m Strongly disseminated and stringer sulphides (MARD0140) including:
  - 0.1m massive sulphide
- 11.06 m Strongly disseminated and stringer sulphides (MARD0143).

### **Infill / Metallurgical:**

- 17.10m Disseminated sulphide (MARD0138).
- 11.15m Strongly disseminated and stringer sulphides (MARD0141).

The Board of Botswana Metals Limited ("BML") is pleased to announce further positive progress on the aggressive resource infill and step-out drilling program at the Maibele North JV project in Botswana.

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Drilling in September and early October 2015 has continued to intersect broad sulphide intersections from a number of geotechnical holes drilled within the existing resource.

In addition to this, a number of further encouraging massive sulphide intersections have been encountered along strike to the east of the resource in what is now confirmed to be a new and significant sulphide discovery.

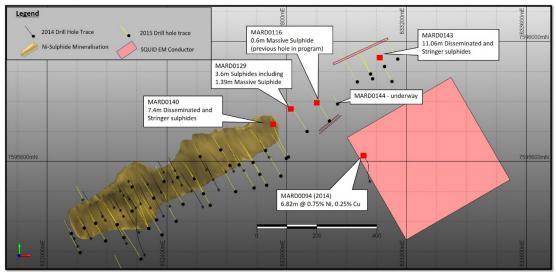


Figure 1: Illustrates the recent step out holes (yellow trace) with the sulphide intersections highlighted (red box). MARD0116 was completed and reported on earlier in the program and MARD0094 was completed during 2014.

### **Details of the Extension Holes drilled along strike to the East:**

- A further 3 holes have been drilled east of the orebody.
- All of the new holes have intersected significant sulphides, including some massive zones.
- Sulphides have now been intersected from between 80m to 400m along strike to the east of the Maibele North orebody.
- A total of 8 holes have now been drilled to the east of the Maibele North orebody, all of which have intersected significant sulphide zones.
- Drilling of the new zone is ongoing.

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Highlights of the new intersections:

- MARD0129 (80m along strike of main orebody)
  - Mineralised intersection: 200.30m to 203.9 (3.60m) Massive and stringer sulphides.
  - Significant zones:
    - Cumulative 1.39m massive sulphides in 2 zones
      - 1.04m massive sulphides.
      - 0.35m massive sulphides.
- MARD0140 (Eastern edge of main orebody)
  - Mineralised intersection: 228.50m to 235.90m (7.40m) Stringer and disseminated sulphides.
  - Significant zones:
    - 0.10m massive sulphides.
- MARD0143 (430m along strike of main orebody, beneath MARD0113)
  - Mineralised intersection: 219.74m to 230.80m (11.06 m) Strongly disseminated and stringer sulphides.

\*Note: All intersections are quoted as down-hole lengths

### Previous Intersection highlights outside the Resource include:

- **Step out Hole:** MARD0112: approximately **380m** to the northeast of the Maibele North resource intersected ~19m of sulphides from ~175m.
- **Step out Hole:** MARD0113 approximately **430m** to the east of the Maibele North resource intersected 9.85m of sulphides from 178m.
- **Step out Hole:** MARD0115 approximately **330m** to the east of the Maibele North resource intersected ~1.3m of sulphides from 178m.
- **Step out Hole:** MARD0116 approximately **160m** to the east of the Maibele North resource intersected 0.6m of Massive sulphides from ~206m.
- **Step out Hole:** 94 some **250m** to the east of the Maibele North resource intersected 6.82m of sulphides from 450m (drilled 2014).
- **Step out Hole 99**: some **400m** to the east of the Maibele North resource intercepted 5m of sulphides from 245m.

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• **SQUID technology:** all SQUID Conductors drilled to date have returned significant sulphide intersections returning a 100% success rate.

The Board of Botswana Metals remains extremely encouraged by the results of the current drilling and the commitment of the Joint Venture partners, BCL Limited, to progressing Maibele North. The results have so far highlighted the potential to upgrade the resource to an indicated status and also the great potential to increase the resource with additional sulphide zones discovered along strike and at depth.

Assay results will be released to the market as soon as they are available.

For more information contact:

### Patrick Volpe Chairman

Tel: +61 3 9855 1885 Fax: +61 3 9855 2885

Email: patv@botswanametals.com.au Web: www.botswanametals.com.au

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled by BML staff on site and provided to Mr Steve Groves who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Groves is a consulting geologist to BML and has previously been employed as the Exploration Manager at BML. Mr Groves has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Groves consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.



### APPENDIX 1 - 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> <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>Drill core is neatly arranged in 1 m core trays for HQ core (mainly oxidised horizon) and 1.5 m core trays for NQ core (mainly competent rock). Core is marked at every metre along an orientation line and later marked at 0.05 m for handheld XRF analysis.</li> <li>Spot analysis at every 0.05 m interval is analysed at the BML site office in Tshokwe using a portable XRF analyser (INNOV-X Delta Premium). Standards and blanks are used to monitor the calibration of the instrument.</li> <li>The spot values are then averaged at 0.5 m intervals, to give an estimated grade at 0.5 m intervals. This estimate is only used as a guide to determine where core should be sampled and analysed by the laboratory</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation ,openhole 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.).	The drillhole is pre-collared with HQ in the weathered rock. HQ pre-collars range from 15 m to 30 m using a standard tube. NQ diamond core drilling is used to complete the hole. Weathered rock is too friable to orientate using the spear method. Only the competent rock is orientated (from approximately 30 m to the end of hole).  Drillholes are mostly orientated between 320° and 350°, inclined between 50° and 65°.

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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>	The core length is measured after every run. Results are compared to the actual run length to calculate core recoveries. Core is handled with care to avoid breakage and crumbling. Core is washed and placed onto holding core trays.  HQ is used on friable ground, rotation speeds and water pressure are monitored to avoid destroying the core. A soft rubber mallet is used to drive out core from the barrel.  Overall core recovery in the mineralised zones is >98%.
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>	Core is washed and stored in diamond core trays in both 1 m and 1.5 m intervals, depending on whether the material recovered is oxidised or fresh. Diamond core is visually inspected, recording lithology, weathering, alteration, mineralisation, veining and structure. The core is also geotechnically logged for RQD.  Core photography is performed on every hole with photos having two full core trays with clear interval details on a white background. Wet and dry core is photographed.
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>	All relevant drilling is diamond core drilling in the mineralised and surrounding zones. Core is cut longitudinally along an orientation line with half core used for metallurgical test work. The remaining half core is cut into quarters for lab assaying and storage.      A sub-sampling approach is applied for SG whereby 10-15 cm samples are taken from specific rock types.

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CRITERIA	JORC Code Explanation	Commentary
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	An Olympus Innov-X Delta Premium portable XRF analyser was used to guide core sampling.     Blanks, duplicates and standards are inserted at a rate of approximately 13%, although the blank material is appears to have elevated values of Ni and Cu. The duplicates are prepared and inserted by the laboratory and are not inserted blindly by the onsite geologist. The performance of the CRM analyses is acceptable.
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 verification work of significant intersections has been completed.</li> <li>The Competent Person confirmed the collar positions and sampling intervals onsite.</li> <li>No twin holes have been drilled.</li> <li>No statistical adjustments to data have been applied.</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>All of the drillhole collars have been surveyed using a DGPS.</li> <li>A number of drillhole collars have been observed by MSA in the field.</li> <li>Down-the-hole surveys were conducted for all holes.</li> <li>The grid system for the project is UTM WGS84.</li> <li>The topography model was derived from the drillhole collar elevations and modelled in Leapfrog.</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>The drillholes were spaced at an average of 50 m apart on strike and from 25 m to 50 m on dip (along the drilling fence).</li> <li>The drillhole spacing is sufficient to assume geological and grade continuity for this type of mineralisation but insufficient for grade continuity to be confirmed.</li> <li>Samples have been composited according to mineralisation zone.</li> </ul>

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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>	Drillholes are mostly orientated between 320° and 350°, with dips ranging from 50° to 65° to perpendicularly intersect mineralisation.		
Sample security	The measures taken to ensure sample security.	Appropriate chain-of-custody procedures were followed to ensure sample security.		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The data were examined by the independent consultant Mr Steve Groves of Perth in Australia and considered appropriate.		

**Section 2 Reporting of Exploration Results** (Criteria in this section apply to all succeeding sections)

CRITERIA	JORC Code Explanation	Commentary
Mineral 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>	<ul> <li>The results reported in this announcement are located in PL 110/94 which is a granted Exploration Licence held by African Metals Limited, a 100% owned subsidiary of Botswana Metals Limited.</li> <li>PL 110/94 is subject to a Joint Venture agreement with BCL Limited.</li> <li>PL 110/94 expires on 31 March 2016 and is in good standing.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Interpretations and conclusions in this announcement refer in part to results generated by historic exploration work conducted by Roan Selection Trust, Falconbridge, Cardia Mining and Botswana Metals.     Botswana Metals considers all previous exploration work to have been undertaken to an appropriate professional standard.

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CRITERIA	JORC Code Explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The Maibele North Prospect is hosted within the Magogaphate Shear Zone - a major geological structural feature, generally considered to mark the boundary between the Archaean aged (>2.5 billion year old) Zimbabwean Craton and the Limpopo Belt or Limpopo Mobile Zone (LMZ). The nickel-copper deposits of Selebi Phikwe lie within the northern part of the Central Zone of the Limpopo Mobile Belt, whilst the nickel copper deposits of Phoenix, Selkirk and Tekwane lie in the Zimbabwean Craton. The Central Zone of the LMZ comprises variably deformed banded gneisses and granitic gneisses, infolded amphibolites and ultramafic intrusions that that have the potential to host Ni-Cu sulphide mineralization. Ni-Cu-PGE mineralization at Maibele North and Airstrip copper is spatially associated with an ultramafic intrusion.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  easting and northing of the drill hole collar  elevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar  dip and azimuth of the hole  down hole length and interception depth hole length.  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.	Refer to Appendix 2.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.  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	With regards to the MRE:  Mineralised intersections are composited to 2 m lengths per Zone.  No discernible relationship exists regarding sample length and grade. With Regards to reported drill intersections:  Where uneven sampling intervals have contributed to an averaged result, the result has been calculated by a weighted average technique that incorporates the

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CRITERIA	JORC Code Explanation	Commentary
OKITEKIA	be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	interval width of each contributing sample.  • A grade cut off of 0.3% and internal dilution of <2m has been used in the calculation of significant intercepts.  • No grade truncations have been applied to the data.  • The Maibele North ore is interpreted to be genetically and mineralogically similar to the ore treated at the nearby Selebi Phikwe smelter where current recovery grades in the flotation plant average 84% for Ni and 95% for Cu. Where Ni Eqv calculations have been undertaken on historic assay results it has been assumed that similar high recoveries will be achievable. The current drill program has been designed to assess the metallurgical properties of the Maibele North mineralisation and the indicative recoveries will be published in due course.  • Given that that the Maibele North project is currently the subject of a Joint Venture with the nearby Mine and Smelter operator, BCL, BML assumes that no impediments in recovering and selling the metals contained in the deposit would exist provided an viable economic resource can be defined.
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>	The precise geometry of the mineralization with respect to the drill hole angle is not known and thus, all drill hole results are reported as down hole length. The drill holes in the current program are inclined reconnaissance holes based on the average dip of exposed units. The orientation of the mineralization is unknown and true width is unknown. Geotechnical logging is under way to address the geometry of mineralisation.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Plan view and/or cross section maps of the reported drill holes are included in this announcement.

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CRITERIA	JORC Code Explanation	Commentary
Balanced reporting	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.	The results in this announcement are interpreted to lie within the plane of a mineralized trend that is coincident with an ultramafic intrusion and encompasses the Maibele North and Airstrip Copper Prospects.
Other substantive exploration data	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.	There is no other material exploration considered material to the reported mineral estimate.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Should the scoping study prove positive, infill drilling would be required to upgrade the Mineral Resource classification.

## APPENDIX 2 - Details of holes drilled to 13/10/2015

Hole Number	Easting	Northing	Dip	Azi	Total Depth
MARC0099	633090	7595876	-60	335	255
MARD0107	633820	7595876	-75	335	550.4
MARD0106	632303	7595149	-60	330	376.18
MARD0100	632236	7595388	-55	330	183.05
MARD0101	632357	7595479	-55	330	140.1
MARD0102	632458	7595454	-55	330	175.05
MARD0104	632493	7595541	-55	330	125.1
MARD0105	632690	7595598	-55	330	203.1
MARD0103	632286	7595434	-55	330	156.75
MARD0110	632523	7595490	-55	330	180.06
MARD0108	632381	7595345	-55	330	227.1
MARD0109	632366.9	7595404.6	-55	330	212.05
MADD0111	632340.3	7595375.5	-55	330	19.23
MARD0113	633127.5	7595915.7	-60	330	215.1
MARD0112	633081	7595890.6	-60	330	244.13

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MARD0114	633174	7595946	-60	330	202
MARD0115	633036	7595862	-60	330	250.15
MARD0116	632942	7595734	-60	330	248.15
MARD0117	632256	7595347	-60	330	229.56
MARD0118	632340	7595375	-55	330	260.12
MARD0119	632642	7595587.5	-55	330	170.1
MARD0120	632799.65	7595609.96	-60	330	260
MARD0121	632511.82	7595615.22	-55	330	85.2
MARD0122	632611	7595586	-55	330	150.06
MARD0123	632431.7	7595400.2	-55	330	170
MARD0124	632781	7595551	-60	330	222
MARD0125	632580.52	7595638.25	-55	330	70
MARD0126	632436.4	7595545.8	-55	330	110
MARD0127	632391	7595532	-55	330	40
MARD0128	632730.8	7595635.8	-55	330	140
MARD0129	632868.1	7595698.9	-55	330	200.2
MARD0130	632284.7	7595514.5	-55	330	80.2
MARD0131	632163.1	7595393.1	-55	330	55
MARD0132	632082	7595359	-55	330	45
MARD0133	632111	7595295.5	-55	330	110
MARD0134	632124.3	7595377.5	-55	330	50
MARD0135	632196	7595334.1	-55	330	120
MARD0136	632313.9	7595273.9	-55	330	150
MARD0137	632630	7595499	-55	330	85

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