

Field related activities commenced at Kooline Silver Copper Lead Project

Black Ridge Mining NL (ASX: BRD, "the Company") is pleased to announce the commencement of field activities and supporting activities on the recently acquired Kooline Silver-Copper-Lead Project ("the Project") (ASX Release 2 November 2016).

The Project, located 55km south of the Paulsen's Gold Mine, within the Ashburton Province, produced a total of 3,600t of lead and 950kg (30,546oz) of silver over an eleven-year period (1948 and 1959). Much of the historical production came from three mines: The Gift, Jane-Audrey and Bilrose, which lie within the tenure. Many of the old workings at Kooline have demonstrated untested potential extensions both along strike and down dip. Thus, many prospects are drill-ready.

The Project includes an extensive 6km long auger soil geochemical anomaly, and is characterised by numerous high grade silver (up to 190z/t Ag) and lead occurrences (10-70% galena) with historical workings distributed over a 5km length within the tenure.



Figure 1: High Grade Rock Chip Results, Historical Mines & Auger Geochemical Target Zones



Field Activities.

Since announcing the Kooline acquisition last week, the Company has:

- Sourced all available geophysical datasets, including high resolution aeromagnetic and ground IP;
- Appointed a consultant geophysicist to reprocess and re-evaluate the datasets; and,
- Collated the limited historical drilling, geology and geochemistry into a relational database for review by BRD's technical consultants.

The Company is moving quickly to validate the legacy information and to generate new drill ready targets by considering the holistic nature of the technical information within a more evolved structural framework.

BRD's technical consultants are moving into the field mid-November to review and prioritise early targets in preparation for drilling. Additionally, they will collect pertinent geological data to strengthen the structural model to refine future drill targeting, and will establish the prospectivity of the separate lines of copper and gold mineralisation to the main silver-lead mineralisation.

In addition to the acquisition of Kooline, Black Ridge is currently evaluating a number of resource opportunities which have the potential of delivering significant shareholder value.

Competent Persons Statement:

The information in this announcement that relates to the Kooline Project Exploration Results is based on information compiled and fairly represented by Mr Jonathan King, who is a Member of the Australian Institute of Geoscientists and a consultant to Black Ridge Mining NL. Mr King has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr King consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.



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	Comments
Sampling techniques	 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 	Rock Chip Samples: Rock chip samples were taken across selected areas of interest and in proximity to historical workings.
	XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Power auger drill holes were completed to a maximum depth of 1.7m on a 200x100m grid across the area proximal to the Kooline workings.
		<u>RC Drilling:</u> No records exist for the method of sampling undertaken.
	 Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	No records of QAQC information exist.
	 Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m 	As this data was based entirely on data provided by previous project operators, the following information has been sourced from Annual Exploration reports provided to the Department of Mines and Petroleum: -
	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.	Rock Chip Sampling: No documentation on the sampling protocols for rock chip sampling was available from previous operators.
		Soil and Auger Geochemistry: A power auger was utilised to drill to a maximum depth of 1.7m on a 100x200m grid. No records exist for sample preparation or analysis methods.
		<u>RC Drilling:</u> 1m samples were taken and submitted for analysis. The samples were sorted, dried and whole sample crushed. Samples were then riffle split and a sub-fraction was pulverised in a vibrating pulveriser. A further sub sample was then digested in Aqua Regia. Au, Ag, As were determined by ICP MS and Cu, Pb, Zn were determined by ICP OES.
	 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 	No documentation of sampling method for each of the activities was provided.



Criteria	JORC Code explanation	Comments
	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.	
Drilling techniques	 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). 	Auger Geochemistry: Auger drilling was conducted with a power auger to a maximum depth of 1.7m. <u>RC Drilling:</u> No records of the specifications of RC drilling were reported.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	<u>RC Drilling:</u> No records exist for RC sample recoveries.
	 Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of 	As drilling was undertaken by previous project operators, no records of measures taken to maximise sample recovery and ensure representative nature of the samples were recorded. No sample bias has been reported in annual exploration reports of previous project operators.
Logging	fine/coarse material. • 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.	All RC holes were logged to the level of detail required for inclusion in a mineral resource estimation.
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	Logging has been conducted qualitatively and quantitatively with logging codes assigned to all intervals and descriptions of lithologies, alteration and mineralisation of interest. Percentages estimates on veining were reported.
	• The total length and percentage of the relevant intersections logged.	The entire length of all RC holes have been assigned lithological designations, descriptions of structures, alteration and mineralogy.
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. 	No core drilling completed.
	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	No record of the drill cuttings being riffled, tube sampled or rotary split were recorded nor whether samples were wet or dry.
	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	Rock Chip Sampling & Auger Geochemistry: No sample preparation methods have been documented.



Criteria	JORC Code explanation	Comments
Quality of assay data and laboratory tests	• Quality control procedures adopted for all sub-sampling stages to maximise	<u>RC Drilling:</u> The sample preparation method involved the use of crushing and pulverising the entire sample prior to splitting the sample is in accordance with industry best practices. No records of QAQC procedures were documented by prior operators.
	 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. 	No record of field duplicates was documented.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	No records exist with respect to sample sizes taken.
	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	RC drill samples were analysed by Ultratrace Laboratories Aqua Regia. Au, Ag, As were determined by ICP MS and Cu, Pb, Zn were determined by ICP OES. The methods utilised are considered total digestion and are appropriate for the style of mineralisation targeted.
	• 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.	Not used for grade reporting or interpretation.
	• 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.	No QAQC procedures were documented.
Verification of sampling and	• The verification of significant intersections by either independent or alternative company personnel.	No record of independent verification exists.
assaying Location of data points	• The use of twinned holes.	No twinned holes were recorded in the database.
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	No records of data capture or storage methods were reported in historical reports.
	• Discuss any adjustment to assay data.	No adjustments were made to assay data presented in this report
	• 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.	Drill collars, auger drilling locations and rock chip geochemical sample locations were recorded using a handheld GPS. No records of down hole surveys were documented in historical reports.
	• Specification of the grid system used.	MGA 94 Zone 50
	 Quality and adequacy of topographic control. 	A digital terrain model was generated from the high resolution magnetic survey. The quality of



Criteria	JORC Code explanation	Comments
		the DTM is sufficient for the stage of exploration for the Project.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 	Drilling is reconnaissance in nature and has not been completed on a regular grid.
	• 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.	The drilling has been completed on an irregular pattern. There is insufficient drilling to estimate a mineral resource.
	 Whether sample compositing has been applied. 	No sample compositing has been conducted
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The mineralisation is relatively steeply dipping 60 degree dip of drill holes are thus deemed representative and relatively unbiased.
	 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. 	Insufficient orientation information is available to determine if any bias exists.
Sample security	• The measures taken to ensure sample security.	No record has been kept relating to the security of the samples taken by previous operators
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No record of audits or reviews by previous operators has been located

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. 	The Kooline project consists of two exploration licences E08/2372 and E08/2373 in Western Australia. The Licences are held by Ilmenite Resources Pty Ltd. Black Ridge Mining NL has the four month exclusive option to acquire a 90% interest in the Kooline Project through the issue of 250,000,000 shares to Ilmenite Resources Pty Ltd or its nominee(s). Ilmenite Resources Pty Ltd or its nominee(s). Ilmenite Resources Pty Ltd is to retain a 10% free carried equity interest in Kooline until the completion of a DFS. Upon the completion of a DFS Ilmenite Resources Pty Ltd is required to contribute or dilute according to industry standard dilution formula. Upon diluting to a 5% equity interest, Ilmenite Resources Pty Ltd can elect to dilute to a 1.5% net smelter royalty.



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	• 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.	No known impediments exist with respect to the exploration or development of the Kooline Project.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	The majority of exploration activities conducted to date across the Kooline Project has been by Athena Resources Ltd.
Geology	 Deposit type, geological setting and style of mineralisation. 	The Kooline Project is located within the Proterozoic Ashburton Formation, uppermost stratigraphic unit of the Wyloo Group. The Ashburton Formation consist of mudstone, sandstone and minor conglomerate, banded iron formation and felsic t mafic volcanics.
		Two phases of deformation are evident resulting in SW trending folds and NW trending folds with attendant steep to vertical bedding.
		The lead-silver mineralisation at Kooline is associated with mesothermal quartz veins along shears in siltstones and greywackes. These sub vertical veins occur in multiple stacked and en echelon sets over several kilometres of strike.
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:	The drill holes reported in this announcement have the following parameters applied:
	o easting and northing of the drill hole collar	Eastings and Northings are MGA94z50, a full table of collars has been reported.
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	RL is AHD.
	o dip and azimuth of the hole	Dip is the inclination of the hole from horizontal (i.e. a hole drilled vertically down from the surface is -90°). Azimuth is reported in degrees as the direction towards which the hole is drilled. Both holes are vertical; -90° towards 360°



Criteria	JORC Code explanation	Commentary
	o down hole length and interception depth	Down hole length of the hole is the distance from the surface to the end of the hole, as measured along the drill trace. Interception depth is the distance down the hole as measured along the drill trace. Intersection width is the downhole distance of an intersection as measured along the drill trace.
	o hole length.	Hole length is the distance from the surface to the end of the hole, as measured along the drill trace
	· 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.	All drilling results including those with no significant intercepts have been reported.
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. 	No upper or lower grade truncations have been applied
	• 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.	No data aggregation conducted.
	 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No Metal equivalence are reported.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results.	The intersection width is measured down the hole trace and is not the true width.
	 If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	The mineralisation is sub vertical and drill holes were completed at -60 dip.
	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').	All drill results within this announcement are downhole intervals only. True width is not known and will be calculated from further diamond drilling but is not expected to materially differ from the widths reported



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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.	Maps and plans have been included in announcement.
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.	All results including those with no significant interceptions have been reported.
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.	No other exploration data is considered meaningful and material to this announcement. Bulk density, groundwater, geotechnical and rock characteristics were not recorded in the historical drilling
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Detailed geological mapping, infil auger geochemistry, detailed rock chip sampling and underground mapping are planned to be undertaken.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Future drilling areas have not currently been defined