



23 March 2015

## MAIDEN 1.2 BILLION TONNE JORC RESOURCE PAVES WAY FOR COMMENCEMENT OF PRE-FEASIBILITY STUDY ON SAWIN THERMAL COAL PROJECT, POLAND

*Sawin confirmed as the largest coal resource within Balamara's Polish coal portfolio*

European-focused coal developer Balamara Resources Limited (ASX: BMB) ("Balamara" or the "Company") is pleased to advise that it has commenced a Pre-Feasibility Study ("PFS") on its **Sawin Thermal Coal Project** in south-eastern Poland after completing a maiden JORC (2012) compliant Coal Resource totalling **1.2 billion tonnes** for the deposit.

Balamara has appointed Salva Resources Pty Ltd ("HDR") to undertake the PFS on Sawin, which represents the largest coal resource within Balamara's Polish coal portfolio. The significant size and scale of the deposit has prompted the Company to commence a PFS immediately, with the study expected to take approximately three months to complete.

Salva Resources (HDR) delivers exploration, mining and commodities consultancy services to some of the world's largest mining and investment firms. Salva's parent company, HDR Inc., is a global, employee-owned architecture, engineering, consulting and construction services firm. With more than 9,200 professionals (including over 500 in Resources sector) in nearly 225 offices worldwide, HDR is committed to helping clients manage complex projects and make sound decisions.

The Sawin Project is located in the Lublin Coal basin in Eastern Poland, adjacent to the world-class Bogdanka thermal coal mine operated by listed Polish mining company Lubelski Wegiel Bogdanka SA (see Figure 1).

**HDR has completed a maiden Coal Resource estimate in accordance with the JORC Code (2012) for the Sawin Thermal Coal Project, which is set out in Table 1:**

*Table 1: Coal Resource Estimate for the Sawin Thermal Coal Project as at 4 March 2015 (tonnes calculated on an air dried basis)*

Resource Classification	Mass (Mt)	Ash (adb) (%)	Moisture (adb) %	Gross Calorific Value (adb) Kcal/kg)	Volatile Matter (adb) %	Relative Density (adb)	Total Sulphur (adb) %	FSI
Inferred	1,200	10	3.5	6,900	33	1.3	1.7	2
<b>TOTAL</b>	<b>1,200</b>							

*The estimate incorporates a minimum seam thickness of 0.6 m and a maximum raw ash content of 30%. Inferred Resource rounded to the nearest 5 Mt*



The Sawin Project represents a substantial future growth opportunity for Balamara alongside its Mariola Thermal Coal Project and Nowa Ruda Coking Coal Project. The Mariola Project is expected to be the Company's first project into production by end of 2016, providing a strong foundation from which to develop the other two assets thereafter.

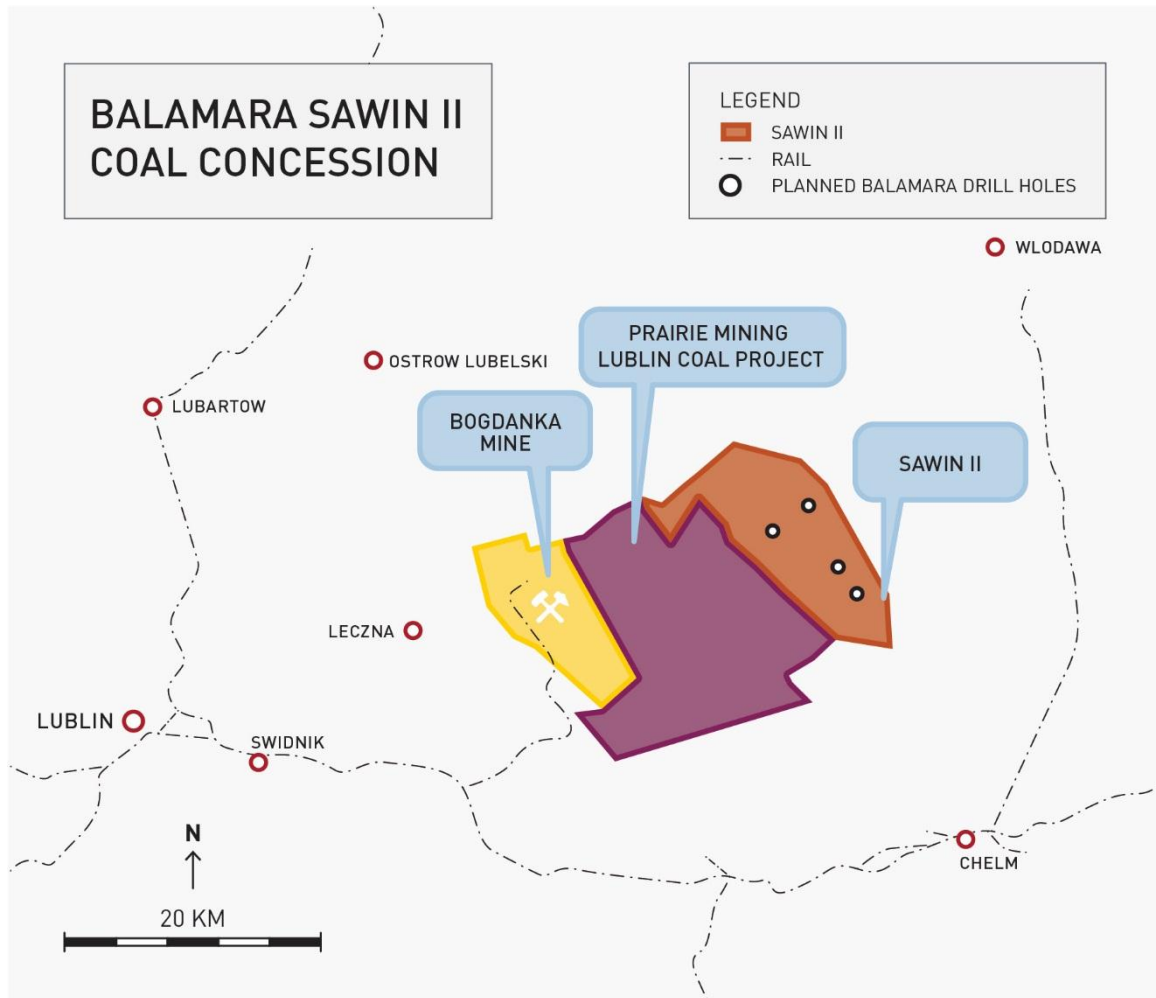


Figure 1 – Location of Sawin Coal Project in south-western Poland, in close proximity to other significant Lublin coal projects

The updated coal resource has been compiled from a total of 52 historical drill holes. A minimum seam thickness limit of 0.6m and a maximum raw ash content of 30% have been used to define coal resources. A qualitative review of modelled seam floor elevation and thickness contours, statistical analysis of thickness and coal quality attributes, domaining and general geological setting all show that the seams appear to display a relatively high degree of continuity. Despite this, the current average point of observation spacing of around 2 km over the tenement only allows for an Inferred Resource classification at this stage and infill drilling will be required to increase the confidence in the resource (Figure 1).



Coal resources have been estimated and classified in accordance with the guidelines contained within the Australian Guidelines for the Estimation and Classification of Coal Resources (2014 Edition) and are reported in accordance with the JORC Code (2012).

The historical drilling was conducted under the direction of the Polish Geological Institute. Within Poland there is a formal process for the collection, interpretation and representation of coal exploration data which is administered by the Polish Geological Institute. As part of this system, all final drill-hole logs are signed off by a Competent Person authorised by the Polish Geological Institute. This system was observed to have been in place for all historical holes drilled within the Sawin Thermal Coal Project during a site visit conducted during November 2014, when original copies of a sub-set of the drill logs was inspected by HDR at the offices of the Polish Geological Institute in Sosnowiec.

Final drill logs include information on detailed lithological logging of the drill core, geophysical logging, core recoveries, coal quality (although not always present) and seam stratigraphy. Whole cores were delivered to the laboratory in Katowice namely Katowickie Przedsiębiorstwo Geologiczne, Wydział Badan Analitycznych ( Geological Company in Katowice) for splitting, weighing and testing.

Statistical analysis shows that a bias towards higher ash in the sample occurs at core recoveries below 70%. Consequently a minimum core recovery of 70% has been used for the inclusion of samples in the estimate and for the determination of points of observation for resource classification purposes.

Scatter plots, global statistics, histograms and evaluation of model contours were used to validate the model and identify and remove spurious data values prior to conducting the resource estimate.

No restriction on the interburden thickness between seams was applied to the resource after discussion with local mining engineers in Poland, who indicated that simultaneous extraction of seams through the use of a stacked longwall system is technically feasible in situations where the interburden between seams is less than 10m.

The likelihood of eventual economic extraction has been considered and the following seams within the succession are considered to broadly pass this test and have consequently been included in the Coal Resource, namely; seams S371, S372, S373, S374, S375A, S376, S377A, S378, S379, S380, S381, S382, S384, S385B, S387, S389, S390, S391, S392, S394 and S397. No beneficiation of the coal is required as the coal is considered saleable in its raw form.

These seams are intersected by a set of generally north west-south east or north east-south west trending regional faults with throws ranging between 10m and 50m. This has resulted in a number of horst and graben structures within which the seams are relatively gently dipping.

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Underground mining of these seams is envisaged. After the thickness cut-off is applied, the average seam thickness ranges from 0.6 m up to 1.2 m. Current underground mining technology is able to mine down to an average seam thickness of 0.8 m. Seams with an average thickness of at least 0.8 m are considered have a reasonable prospect of eventual economic extraction within a time frame of 0 to 10 years (this constitutes 1 billion tonnes of the 1.2 billion tonne resource). Seams with average seam thickness below 0.8 m are considered less likely to be economically exploited in the shorter term and a longer 30 year time frame for exploitation is considered reasonable for these seams.

JORC Table 1, attached to this release, provides a checklist of assessment and reporting criteria and provides information on drilling and sampling techniques, data QAQC and the estimation and classification of Coal Resources according to JORC Code (2012) guidelines.

Balamara's Managing Director Mike Ralston said the delineation of a considerable JORC resource for Sawin represented a major achievement for the Company.

"This substantial maiden resource, which has been calculated purely from historical drilling, adds significant scale to our rapidly advancing Polish coal asset portfolio and demonstrates another very attractive long-term growth option in front of us," he said.

"The Coal Resource will form the basis of a Sawin Pre-Feasibility Study which will commence immediately and is expected to be completed towards the end of 2Q 2015, helping us to quantify the scale and commercial potential of this asset and define an appropriate development pathway.

"While the Mariola Project remains our priority development opportunity, the sheer size and scale of the opportunity at Sawin clearly warrants further work to establish the commercial rationale for an operating mine there, and the overall value this asset can deliver for Balamara at some future stage."

## **ENDS**

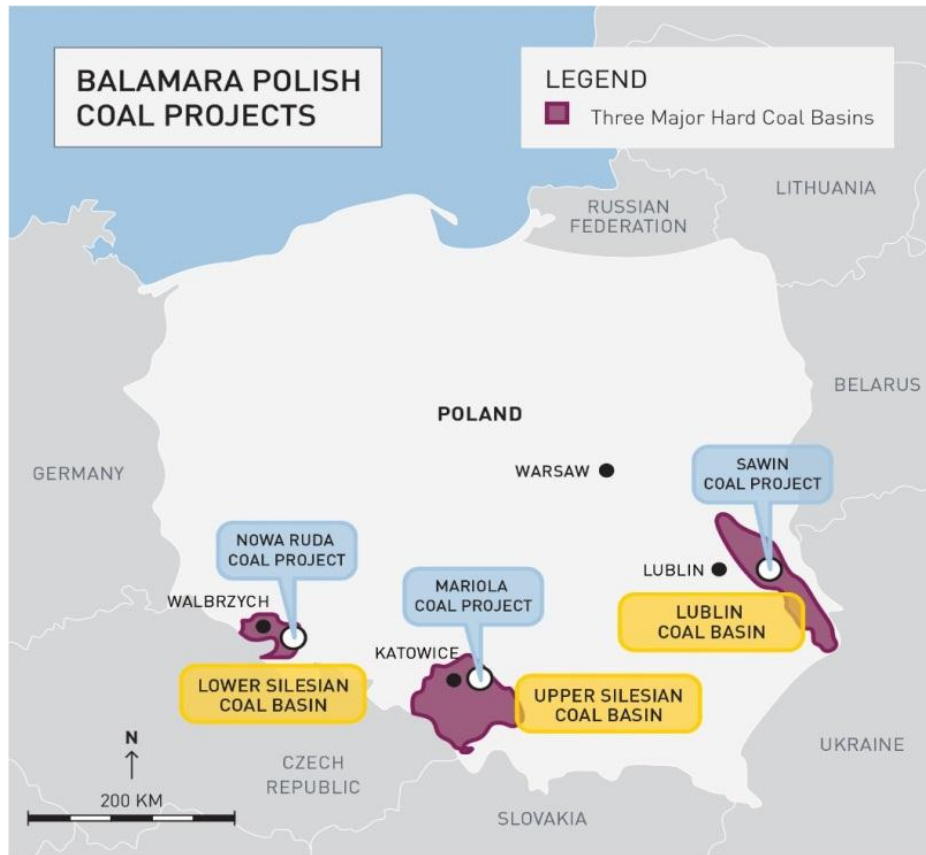
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Figure 2: Balamara's three advanced coal projects in Poland



**Competent Persons Statement:**

The information in the report, to which this statement is attached, that relates to the Coal Resources of the Sawin Thermal Coal Project, is based on information compiled and reviewed by Mr Craig Williams, who is a Member of the Australian Institute of Mining & Metallurgy and works full time for HDR.

Mr Williams, Principal Consultant - Geology and a fulltime employee of HDR, has sufficient experience that is relevant to the style of mineralisation 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" (the JORC Code). Mr Williams consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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**APPENDIX 1:**

**Table 1: Sawin Resource Statement JORC CODE, 2012 Edition- Table 1 Report**

**Section 1 Sampling Techniques and Data** (Criteria in this section apply to all succeeding sections).

Criteria	Explanation	Comment
<b>Sampling techniques</b>	<p>Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity.</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p> <p>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m 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 (e.g. submarine nodules) may warrant disclosure of detailed information.</p>	<p>Testing took place on all coal seams greater than 0.40m in thickness, and included partings up to 5cm in thickness. Whole cores were delivered to the laboratory in Katowice namely Katowickie Przedsiębiorstwo Geologiczne, Wydział Badan Analitycznych ( Geological Company in Katowice) for splitting, weighing and testing. Sampling was extensive, with standard tests including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Moisture content;</li> <li>• Volatile content;</li> <li>• ash content;</li> <li>• calorific value;</li> <li>• coal type;</li> <li>• sulphur content.</li> <li>• FSI (Free Swell Index)</li> </ul> <p>Detailed records kept of core recoveries which has allowed for statistical analysis of the influence of core recovery on coal quality which allowed for assessment of sample representivity during Resource estimation.</p>
<b>Drilling techniques</b>	<p>Drill type (e.g.. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g.. 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.).</p>	<p>52 drill holes were drilled across the tenement. These varied in depth from 681m to 1350m and were drilled during 1966 to 1982.</p> <p>The majority of the drilling was completed by rotary core drilling, using core diameters which varied in width from 470mm for the initial meterage to 86mm at significantly deeper depths.</p> <p>Before 1971 - roll bits used only, after 1971 mostly impregnated bits.</p>
<b>Drill sample recovery</b>	<p>Whether core and chip sample recoveries have been properly recorded and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>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.</p>	<p>The drilling was done mainly in 1970's and 80's when technologies which allow for modern day high core recoveries were not available.</p> <p>However detailed records were kept of core recoveries which has allowed for statistical analysis of the influence of core recovery on coal quality which allowed for assessment of sample representivity during resource estimation.</p> <p>Statistical analysis shows that a bias towards higher ash in the sample occurs at core recoveries below 70%. Consequently a minimum core recovery of 70% has been used for the inclusion of samples in the estimate and for the determination of points of observation for resource classification purposes.</p>
<b>Logging</b>	<p>Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography. The total length and percentage of the relevant intersections logged.</p>	<p>Within Poland there is a formal process for the collection, interpretation and representation of coal exploration data which is administered by the Polish Geological Institute. As part of this system, all final drill hole logs are signed off by a competent person authorised by the Polish Geological Institute. This system was observed to have been in place for all holes drilled within the Sawin Coal Project during a site visit conducted during November 2014, when original copies of a subset of the drill logs was inspected by HDR at</p>

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Criteria	Explanation	Comment
		<p>the offices of the Polish Geological Institute in Sosnowiec.</p> <p>Final drill logs include information on detailed lithological logging of the drill core, geophysical logging, core recoveries, coal quality (although not always present) and the final interpretation by the competent person in terms of seam stratigraphy. All drill holes have been geophysically logged though actual geophysical logs have not been provided as the graphic logs contain an interpretation of the original geophysical logs inclusive of geophysically corrected depth against the drilling depths. The detail contained in these logs is considered sufficient for the purpose of resource estimation.</p>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<p>If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>Measures taken to ensure that the sampling is representative of the in situ material collected.</p> <p>Whether sample sizes are appropriate to the grainsize of the material being sampled.</p>	<p>As part of the standard coal exploration practice set out by the Polish Geological Institute, all coal sampling is conducted by a coal quality laboratory where the core is received, logged in detail as regards coal type, split and then sent for analysis.</p> <p>The exact nature of QAQC measures used by the laboratories concerned is not known.</p>
<p><b>Quality of assay data and laboratory tests</b></p>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>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.</p> <p>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.</p>	<p>Due to the historical nature of the majority of the sampling, HDR cannot confirm if the laboratories used for chemical analyses during the drilling, complied with International Standards and best practice procedures.</p>
<p><b>Verification of sampling and assaying</b></p>	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p> <p>Discuss any adjustment to assay data.</p>	<p>There are no twinned intersections or evidence of verification sampling of significant intersections.</p> <p>Excel spreadsheets containing collar and a lithological/seam pick information were created by Balamara Resources Limited using the graphic logs obtained from the Polish Geological Institute.</p> <p>HDR independently validated all the seam picks from the scanned graphic logs; scans of original graphic logs of the holes drilled in the concession boundary and immediately surrounding it were supplied to HDR. HDR validated 100% of the lines of data contained within the excel spreadsheets of collar and lithological/seam pick data provided, against the scanned graphic logs and made corrections where required.</p> <p>In the case of coal quality, Balamara Resources Limited captured an excel spreadsheet of raw coal quality attributes</p>



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Criteria	Explanation	Comment
		<p>reported against sampled intervals from photographs of hard copies of tables containing this information, stored by the Polish Geological Institute. HDR validated 100% of this excel database against the photographs which are the primary data source. Corrections were made to the excel database as required.</p> <p>Further verification of coal quality data was performed by means of scatter plots of the uncomposed sample data prior to import into the Minescape software. A few outlier values were removed. Once imported into Minescape, samples were composited against seam intervals. Histograms of seam composites were constructed to check for further outliers. No outliers were found however a few high ash composites were verified against the original data and found to be a true reflection of the input data.</p> <p>A density ash regression was used to insert density values where none existed for around 2% of the coal quality sample data used in the estimate.</p> <p>Statistical analysis of the influence of core recovery on coal quality allowed for an assessment of sample representivity, which in turn allowed for effective discrimination of valid coal quality samples within the database supplied, considered acceptable for the purpose of resource estimation.</p> <p>Documentation regarding the capture of data into this database and QAQC measures in place are not available.</p>
<p><b>Location of data points</b></p>	<p>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.</p> <p>Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	<p>No information is available regarding the surveying organization and equipment used to survey the drill hole locations.</p> <p>The Polish CS1992 coordinate system (Lwowski Geodetic System) was used within the modelling and all subsequent plans (converted from original local grid system).</p> <p>The topography for the concession area was captured, by means of georeferencing and digitising spot heights and topographic contours from a 1984 1:25 000 map of the concession area. These spot heights together with collar elevations were used to construct a gridded model of the topographic surface for resource modelling purposes.</p> <p>No down hole survey information available which imparts a relatively high degree of uncertainty in seam elevation due to the fact that the holes are very deep.</p> <p>This results in currently high degree of uncertainty in seam elevation due to a unknown/low data accuracy for the collar elevation/topographic surface and a lack of down hole verticality information.</p>
<p><b>Data spacing and Distribution</b></p>	<p>Data spacing for reporting of Exploration Results.</p> <p>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.</p> <p>Whether sample compositing has been applied.</p>	<p>52 drill holes have been utilised within the 3D geological model. Not all of these 52 drill holes are found within the lease area but are included in the construction of the geological model to increase confidence in the model around the edges of the concession area. On average the spacing between holes is around 2km which is considered sufficient to establish continuity at a low level of confidence (Inferred).</p> <p>Full seam composites used.</p>





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Criteria	Explanation	Comment
<b>Orientation of data in relation to geological structure</b>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<p>All holes have been drilled and modelled as vertical. No verticality records exist or were provided for all drilling done on the tenement.</p> <p>No bias is considered to have been introduced by orientation of drill holes – modelling software takes into account the orientation of the seams in relation to the drilling and determines both true and vertical thickness for the seams.</p>
<b>Sample Security</b>	The measures taken to ensure sample security.	No documentation is available on the sample security measures taken during the historical drilling campaign.
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	No audits and reviews conducted on sampling techniques and data other than normal data checks conducted prior to resource modelling by HDR.

## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Comment
<b>Mineral tenement and land tenure status</b>	<p>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.</p> <p>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.</p>	<p>Balamara Resources Ltd have been awarded the exploration concession for the Sawin concession area in 2014 (34/2014/p) covering an area of 137.27km<sup>2</sup>. The coordinates of the concession boundary were taken off the official concession award documentation provided to HDR by Balamara Resources Ltd.</p> <p>HDR have not independently verified this tenure and were not asked to do so as part of this resource estimate.</p>
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	A total of 64 historical exploration drill holes have been drilled in and around the tenement. All 64 historical drill holes have original records available. The Polish State Geological Institute undertook the drilling and documentation of these drill holes, which were drilled between 1966 and 1982, with the majority of the drill holes drilled during the 1970's and 1980's
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The resource model comprises 26 seams to a maximum depth of 929.9m below surface, which upon review of data quality and seam thicknesses were reduced to 21 'key' seams for resource classification purposes, namely; S371, S372, S373, S374, S375, S376, S377, S378, S379, S380, S381, S382, S384, S385B, S387, S389, S390, S391, S392, S394, S397 together with associated daughter seams to these parent seams. These seams are intersected by a set of generally north south and east west trending regional faults with throws ranging between 10 m and 70 m. This has resulted in a number of horst and graben structures within which the seams are relatively gently dipping, which will allow for extraction using underground longwall mining



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Criteria	Explanation	Comment
		methods.
<b>Drill hole information</b>	<p>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:</p> <ul style="list-style-type: none"> <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> <p>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.</p>	<p>This report pertains to resource estimation not exploration results. As such the details of the 52 drill holes used in the estimate are too numerous to list in this Table 1, but are included in the Appendices to the release</p> <p>No dip and azimuth supplied as all holes drilled are vertical.</p>
<b>Data aggregation methods</b>	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations and cut-off grades are usually material and should be stated.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>All samples have been composited over full seam thickness using length and density weighting and reported using Minescape modelling software.</p> <p>Review of coal quality and seam thickness data was done prior to compositing and a few outlier values which probably relate to data transcription errors were removed prior to compositing</p> <p>Full seam compositing removes the influence of high quality samples.</p> <p>No metal equivalents used.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</p>	<p>The orientation of sampling (vertical) is not seen to introduce any bias as all drilling is vertical and seams mostly gently dipping.</p>
<b>Diagrams</b>	<p>Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.</p>	<p>See figures in this release.</p>
<b>Balanced reporting</b>	<p>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be</p>	<p>No reporting of exploration results.</p>



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Criteria	Explanation	Comment
	practised to avoid misleading reporting of Exploration Results.	
<b>Other substantive exploration data</b>	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 additional information used for the purpose of the estimate.
<b>Further work</b>	The nature and scale of planned further work (e.g.. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will be necessary to improve the confidence in the continuity of both seam thickness and key coal quality attributes. In addition to this information on the insitu moisture content of the seams needs to be collected in order to allow for a Preston Sanders conversion of air dried density to insitu density.  This will likely entail targeted core drilling across the deposit. A secondary objective of this additional drilling will be to verify the quality of the historical drilling given that no information on QAQC measures taken at the time is currently available.

**Section 3 Estimation and Reporting of Mineral Resources** (Criteria listed in section 1 and section2 also apply to this section.)

Criteria	Explanation	Comment
<b>Database integrity</b>	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.  Data validation procedures used.	An excel database made up of a collar file and a lithology file was created by Balamara Resources Ltd using the graphic logs obtained from the Polish Geological Institute. HDR validated 100% of scanned copies of the graphic logs provided to them by Balamara Resources Ltd against the excel database provided. Corrections were made to the excel database as required. In addition to this, notes taken in November 2014 during a site visit by the CP on a subset of around 10% of the holes were verified against the scanned logs and the excel database to ensure consistency.  Seam elevations and thicknesses obtained in this way were further validated within the 3D modelling software used (Minescape) during geological model construction to ensure that no transcription errors remained. This included both visual inspection of seam elevation and thicknesses as well as calculation and evaluation of seam thickness statistics.  In the case of coal quality, Balamara Resources Ltd captured an excel database of coal quality attributes reported against sampled intervals from photographs of hard copy printouts stored by the Polish Geological Institute. HDR validated 100% of this excel database against the photographs which are the primary data source. Corrections were made to the excel database as required.  Prior to importing the validated excel coal quality database into the Minescape software, scatter plots of coal quality attributes used in the model were constructed and a small number of clear outliers (potential assay or subscription errors) were removed. A density ash regression was



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Criteria	Explanation	Comment
		constructed and used to determine the raw density of a few samples that had ash values but no density values. Further to this, once the coal quality sample information was imported into Minescape and composited, histograms of composited raw ash% per seam were constructed and evaluated to ensure validity of the composited coal quality attributes. A few outliers were noted and checked against the original hard copy logs and found to be a true reflection of the original source data. As such these small number of outlier ash values were not removed as they are considered to reflect natural ash variation within the seam.
<b>Site Visits</b>	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	Craig Williams, geologist and Competent Person for the Resource visited the site from Tuesday 18 November to Wednesday 19 November, 2014.  The site visit entailed discussion around the format and quality of the data captured by Balamara Resources Ltd and a visit to the collar positions of four holes that are planned for drilling within the Sawin concession area. The nearby Bogdanka coal mine was also visited.
<b>Geological interpretation</b>	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.  Nature of the data used and of any assumptions made.  The effect, if any, of alternative interpretations on Mineral Resource estimation.  The use of geology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.	The geological structure for the concession area was obtained from a structural plan of the deposit provided to HDR by Balamara Resources Limited. This structural plan was contained in a report titled "Dokumenacja Geologiczna Zloza Wegla Kamiennego" published in 1987 by the Polish Geological Institute which contains drill hole logs, tables containing raw coal quality data and structural plans modelled for each seam.  Given the relatively large distance (2km) between drill holes, it is likely that as yet undiscovered smaller scale faulting exists within the deposit.  The consistency of the seam picks as obtained from the hard copy logs stored by the Polish Geological Institute was checked during 3D model construction and adjustments were made where necessary. In general most of the original seam picks are of good quality as they allowed for the gridding of an internally consistent structural model. It is known that extensive use of palynological studies was made during the 1960's to 80's when the holes were originally correlated, although details of this are not known to exist at the present time.  Original throws on the faults read off the structural plan of the deposit were adjusted iteratively within the modelling software to produce the most consistent seam floor contours.  The seams within the Sawin North Concession appear to display a relatively high degree of continuity however drilling is currently only close enough to allow for a low level of confidence.
<b>Dimensions</b>	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	This resource model contains 26 seams to a maximum depth of 929.9m below surface. The strike length of the most continuous seams within the concession is approximately 19 km and the down dip extent is around 8 km.
<b>Estimation and modelling techniques</b>	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points.	FEM interpolator used for surface elevation, thickness and trend. Inverse distance squared used for coal quality throughout.  Based on experience gained in the modelling of over 40 coal deposits around the world, the FEM interpolator is considered to be the most appropriate for structure and



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Criteria	Explanation	Comment
	<p>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</p> <p>The assumptions made regarding recovery of by-products.</p> <p>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</p> <p>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</p> <p>Any assumptions behind modelling of selective mining units.</p> <p>Any assumptions about correlation between variables.</p> <p>Description of how the geological interpretation was used to control the resource estimates.</p> <p>Discussion of basis for using or not using grade cutting or capping.</p> <p>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</p>	<p>inverse distance the most appropriate for coal quality.</p> <p>Grid cell size of 25 m for the topographic model, 100m for the structural model and 100m for the coal quality model.</p> <p>Visual validation of all model grids was performed.</p> <p>No block model was used – all calculation based on grids.</p> <p>No assumptions made regarding correlation or selective mining units.</p> <p>Raw sulphur has been estimated into the model which will allow for some assessment of acid mine drainage during mining studies to be conducted. However the potential to remove this sulphur during beneficiation needs to be assessed by conducting float sink analysis of samples obtained from future drilling.</p> <p>No independent check estimates are available.</p>
Moisture	<p>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</p>	<p>All tonnages estimated on air dried moisture basis (air dried density used).</p> <p>Although the Coal Guidelines recommend the use of the lower insitu density at a higher in situ moisture basis, the lack of information on in situ moisture did not allow a Preston Sanders correction to be made to convert from air dried density to in situ density.</p> <p>Regression formulas are available which convert Moisture Holding Capacity (MHC) to in-situ Moisture however no MHC information is available. The relationship between total moisture and in-situ moisture is not consistent as the relationship between the two is highly dependent on how the samples were handled prior to delivery to the laboratory.</p> <p>Therefore it was considered better to use the more accurately known air dried density than to try and correct to insitu moisture using a poorly understood relationship between total moisture and insitu moisture.</p> <p>As the average total moisture for all samples is around 7.7% and the average air dried moisture is around 3.5%, if there is a close relationship between total moisture and in situ moisture, then the overestimation of tonnage due to the use of an air dried density is likely to be in the order of around 1.5%.</p>
Cut-off parameters	<p>The basis of the adopted cut-off grade(s) or quality parameters applied.</p>	<p>Resources based on a minimum seam thickness of 0.6 m, which is the economic limit on seam thickness set by the Polish Government for seams that will be mined using underground mining methods. In addition to this maximum raw ash% content per seam of 30% was used for resource definition.</p>



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Criteria	Explanation	Comment
		No restriction on the interburden thickness between seams was applied to the resource after discussion with local mining engineers who indicated that simultaneous extraction of seams through the use of a stacked longwall system is technically feasible in situations where the interburden between seams is less than 10 m.
<b>Mining factors or assumptions</b>	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	Underground mining of seams envisaged. After thickness cut-off applied, seams average thickness ranges from 0.6 m up to 1.2 m. Current underground mining technology is able to mine down to an average seam thickness of 0.8 m. Seams with an average thickness of at least 0.8 m are considered economically exploitable within a time frame of 0 to 10 years (this constitutes 1 billion tonnes of the 1.2 billion tonne resource). Seams with average seam thickness below 0.8 m are considered less likely to be economically exploited in the shorter term but it is considered that within a longer 30 year time frame, mining technology will have advanced to allow for exploitation of these thinner seams as well.
<b>Metallurgical factors or assumptions</b>	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	No assumptions made regarding metallurgical amenability as this is a coal resource quoted on a raw insitu quality (adb) basis.
<b>Environmental Factors</b>	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	HDR has not conducted any environmental assessment in the concession area. Balamara Resources Ltd is currently completing environmental assessments.
<b>Bulk density</b>	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	See discussion on density with regard to moisture basis in this Table.
<b>Classification</b>	<p>The basis for the classification of the Mineral Resources into varying confidence categories.</p> <p>Whether appropriate account has been taken of all relevant factors i.e. relative confidence in tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.</p> <p>Whether the result appropriately reflects the Competent Person(s)' view of the deposit.</p>	<p>Resource Classification is based on an assessment of the variability of critical variables (raw ash% and seam thickness) through statistical analysis, geostatistical analysis and by an assessment of the degree of geological complexity (general seam dip and structure).</p> <p>A limited geostatistical study, which looked at the spatial continuity of the composite raw ash% in one of the main seams in the resource (S382), was conducted to identify the relationship between data spacing and confidence in the estimate.</p> <p>Raw ash% was selected as the statistics indicate that coal quality is likely to be more variable than seam thickness and hence the most variable critical variable was used to assess the confidence in the resource estimate.</p>



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Criteria	Explanation	Comment
		<p>Results from the variography and population statistics for the S382 seam raw ash% were used to perform a Drill Hole Spacing Analysis (DHSA) study. This study shows that the relative error in the estimation of raw ash% for this seam is likely to be in the order of up to 10% at a spacing of up to 1000m, up to 20% for a spacing of up to 1750m and up to 50% for a spacing of up to 4000m, on a global basis over a 5 year mining period, assuming a production rate of around 5 Mtpa (Note this assumed production rate is a rough estimate for the purpose of the DHSA and should in no way be used for reserving or valuation purposes).</p> <p>It is considered on this basis that the following distances between points of observation should be used for resource classification purposes:</p> <ul style="list-style-type: none"> <li>• Measured: 1000m</li> <li>• Indicated: 1750m</li> <li>• Inferred: 4000m</li> </ul> <p>A qualitative review of modelled seam floor elevation and thickness contours, statistical analysis of thickness and coal quality attributes, domaining and general geological setting all show that the seams within the Sawin North Concession appear to display a relatively high degree of continuity, allowing for a lower level of drilling density for the same level of confidence as compared to a more complex/less continuous coal deposits. However two main factors are considered to impart a low level of confidence in the current estimate. Firstly, the drill spacing determined from geostatistics only allows for Inferred Resources if one applies this distance to both orthogonal directions of continuity and secondly the currently high degree of uncertainty in seam elevation due to a relatively high degree of uncertainty in seam elevations due to unknown/low data accuracy for the collar elevation/topographic surface and a lack of down hole verticality information.</p> <p>The above classification adequately reflects the CP's view of the deposit.</p>
<p><b>Audits or reviews</b></p>	<p>The results of any audits or reviews of Mineral Resource estimates.</p>	<p>No audits or reviews of this estimate have been done to date.</p>
<p><b>Discussion of relative accuracy/confidence</b></p>	<p>Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</p> <p>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</p> <p>These statements of relative accuracy and confidence of the estimate should be compared with production data, where</p>	<p>A Drill Hole Spacing Analysis (DHSA) study shows that the relative error in the estimation of raw ash% for this seam is likely to be in the order of up to 10% at a spacing of up to 1000m, up to 20% for a spacing of up to 1750m and up to 50% for a spacing of up to 4000m, on a global basis over a 5 year mining period, assuming a production rate of around 5 Mtpa (Note this assumed production rate is a rough estimate for the purpose of the DHSA and should in no way be used for reserving or valuation purposes).</p> <p>It is considered on this basis that the following distances between points of observation should be used for resource classification purposes:</p> <ul style="list-style-type: none"> <li>• Measured: 1000m</li> <li>• Indicated: 1750m</li> <li>• Inferred: 4000m</li> </ul> <p>There is approximately a 1.5% overestimation of tonnes due to the use of an air dried density instead of an in-situ density.</p>



Criteria	Explanation	Comment
	available.	

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**APPENDIX 2: Drill Hole Data- Drill holes contributing to the Resource Estimation**

BH Number	X	Y	Z	Depth
L_118	791077.7	395383.5	179.76	936.9
L_123	790126.8	396679.7	171.28	937.2
L_128	789331	397686.1	174.1	905.6
L_133	788323.8	398945.6	171.5	913.1
L_139	788024.1	399818.3	171.5	905.4
L_71	791938.1	394661.1	177.28	931.7
L_77	792646.9	393271.6	177.26	936.5
L_81	794125.5	392455.5	175.92	896
L_87	794786.2	391672.4	178.04	882
L_89	795223.1	390559.5	178.64	904.1
L_92	796068.4	389663	191.17	910
L_98	798484	388351.6	208.54	900
MilG_1	794068.8	403442.2	168.65	1204
MilG_5	794222.4	397722.9	173.15	940
OstrIG_2	789669.7	399449.6	171.47	1265
Sn_10	791763.5	397442.6	172.31	987
Sn_11	794394.8	399937.7	175.08	1350
Sn_12	796153.1	400873.7	170.26	810.5
Sn_14	793531.9	395407.1	180.48	963
Sn_15	796394.5	398682.1	175.06	817
Sn_16	798451	399969.6	176.36	802
Sn_17	800812.1	402532.3	166.36	751.3
Sn_18	794983.7	393402.4	182.02	901
Sn_19	798981.3	395871.7	176.52	864
Sn_20	796907.3	391461.9	180.77	854.1
Sn_21	798749.4	393232.9	183.27	922
Sn_22	800360.1	394228	182.82	841.5
Sn_23	801862.6	396731.8	182.22	756
Sn_24	805196.3	398800.2	179.36	710.7
Sn_25	799142.3	389971.9	208.8	1320
Sn_26	800790	391492.9	211.26	816
Sn_27	802370.9	393000.3	206.11	823.5
Sn_28	804282.3	394402.2	184.89	742
Sn_29	806576.1	396110.6	186.56	683
Sn_31	804401.6	391104.8	186.3	762
Sn_32	807335.4	393309.4	221.63	740.5
Sn_35	805666.4	388954	182.95	690
Sn_36	806643.2	390760.7	189.4	738
Sn_39	808237.8	388444	176.98	681

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BH Number	X	Y	Z	Depth
Sn_40	791208.6	400882	170.35	928
Sn_41	794672.1	396574.9	175.86	948
Sn_43	799713.3	400815.8	172.56	782
Sn_44	801760.1	399183.8	182.14	780
Sn_45	803562.5	396916.4	179.1	731
Sn_8	792298.7	401781.3	169.43	854.7
Sn_9	792271.3	399512.7	173.1	927
SnIG_3	805924.1	392431.9	197.04	1219.5
SnIG_4	802975	389812	187.98	785.6
SnIG_5	796841.1	394901.6	180.22	921.4
SnIG_6	800474.5	398276.5	181.72	805
SnIG_7	802970.1	400685.1	172.17	1175
Sn_30	800998.7	387749.2	194.78	789.5

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