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# GRAVITY AND MAGNETIC SURVEY INTERPRETATION COMPLETED OVER ENTIRE REKOVAC PROJECT AREA

#### **HIGHLIGHTS**

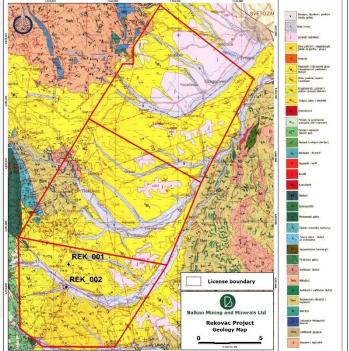
- Processing of gravity and airborne magnetic data over the entire Rekovac project is complete and provides more precise definition of additional targets for follow-up exploration programs.
- Interpretation of the gravity survey combined with the measurement of bulk density over the previous drilling core has enabled greater precision in modelling and depth definition of the Rekovac sedimentary basin.
- The gravity survey has identified two major parallel deep-seated faults that may have acted as pathways for mineral-bearing fluids.
- The results indicate that the targeted stratigraphic section on the north is buried, and thus preserved, under younger sedimentary cover.
- With this new data, the Company is carrying out an internal review of site selection as part of the proposed drilling campaign.

**Balkan Mining and Minerals Ltd (BMM or the Company) (ASX: BMM)** is pleased to announce that it received the results of gravity and airborne magnetic survey interpretation over its entire Rekovac project<sup>1</sup>.

In conjunction with the field activities, the Company engaged a local contractor to process recently acquired geophysics data to assist in outlining potential targets for follow up detail mapping and rock chips sampling over the northern portion of Rekovac project. The data was analysed in conjunction with a new compilation of gravity data, drill hole information, and outcrop geology. Geophysics interpretation aid in defining basin geometry and identifying deep-seated fault zones within the project area, which may have acted as a potential conduit for mineralising fluids.

#### **Gravity Interpretation Results**

The Rekovac basin shape is more elongated demonstrating a distinct NNE trend that parallels the regional tectonic grain of



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Tertiary arc-extensional structures. Based upon the linear configuration, the parallel sharp gradients on both NW and SE sides and the isolated and deep gravity anomaly it can be inferred that the basin was formed by faulting of basement rock. The symmetrical nature further suggests fairly uniform displacement on both flanks of the basin with a similar history of sedimentary infill from those sides. Since the extension was most active in mid-Tertiary time, this was likely an active Miocene graben, its central low probably the locus of fairly long-lived fine-grained sedimentation.

The Rekovac basin likely contains at least 20 mGal of gravity range representing a thick sedimentary section. The Rekovac gravity anomaly is at least as well confined, rising from -20 mGal in its central low to about +2 mGal at the first mapped basement outcrop, a comparable maximum difference of 22 mGal.

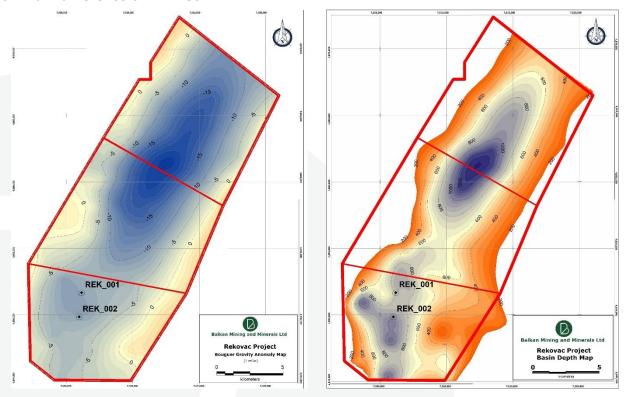


Figure 2 – Terrain corrected Complete Bouguer gravity image contoured at 1 mGal (left) and computed basin depth image contoured at 50m (right)

A new estimation of the thickness of Rekovac Neogene Basin (depth to basement) was made based on a new compilation of gravity data, drill hole information, and outcrop geology.

This provides a detailed image of the geometry of the basement surface were cut by the fault, and thus an estimate of the vertical offset across the fault, at least since the Neogene sediments were deposited. Drilling data is used explicitly in the inversion to constrain the solution, and the

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inversion is fully 3-dimensional, thus providing much more detail in the map of sediment thickness and the geometry of the basement surface.

The boratiferous sediment section, which occupies the southwestern rim, likely extends to the northeast into a thick section of restricted-circulation (saline-alkaline lacustrine) sediments in its early Miocene history.

#### **Magnetic Survey Interpretations**

The purpose of the airborne magnetic survey interpretation was to gather data that would help identify areas with the presence of "blind" Calc – Alkaline volcanic formations that may serve as a source of the volatile elements. Growth faults are believed to have channelled mineral-rich fluids (brines) to the host strata during basin formation.

The overall magnetic field over the northern portion of the project area has been found to be low to moderately low, with values diminishing to the north of the project area, probably due to the thickening of nonmagnetic younger sediments cover. Within this relative low background, a slightly higher magnetic pattern (10nT above background) may indicate a spring source have been found in the northern central part of the project area. The spring water broadly discharged elevated elements into the lake waters along faulted margins. Those type of subaqueous springs has long been held as a preferred explanation for lithium borate origins.

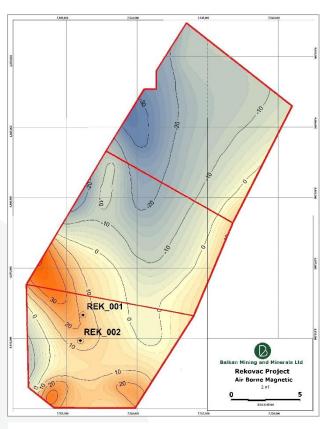


Figure 3 -Magnetic contour image contoured at 2nT

#### **Drilling update**

The Company is carrying out an internal review of these new and encouraging results in order to prioritise drill sites for follow-up testing. The new data will enable the Company to optimise its drilling program and its impact on the potential expansion of drill areas. Therefore, at this stage, the Company has decided to defer drilling at the REK\_003 whilst sites to the north can be considered and the entire program reviewed and additional access agreements completed.

The Company will update the market of progress in due course.

#### **Managing Director Ross Cotton, commented:**

"With 1,800 meters of drilling under contract, the new data has provided ample targets for the full proposed program to be realised. We believe that additional locations should be included in

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the program and all necessary arrangements made with local stakeholders to expedite the program in its entirely. Whilst this will add lead time to the breaking of ground at REK\_003, we look forward to updating shareholders with developments at Rekovac, Dobrinja and Pranjani as well as new opportunities that may arise."

#### For further information please contact:

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### Authorised for release by the Board of Balkan Mining and Minerals Limited -ENDS-

#### **ABOUT BALKAN MINING AND MINERALS**

Balkan Mining and Minerals is an ASX listed company focused on the early-stage exploration through to the development of borate and associated lithium in the Balkans. The Company's Projects comprise the Rekovac, Dobrinja and Pranjani Lithium-Borate Projects which are located within the Republic of Serbia.

#### **Competent Person Statement**

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Mr Dejan Jovanovic, a Competent Person who is a Member of the European Federation of Geologist (EurGeol). The European Federation of Geologists is a Joint Ore Reserves Committee (JORC) Code 'Recognised Professional Organisation' (RPO). An RPO is an accredited organisation to which the Competent Person under JORC Code Reporting Standards must belong in order to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Mr Jovanovic is the General Manager, Exploration and is a full-time employee of the Company. Mr Jovanovic has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jovanovic consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward-looking Statements**

Certain statements included in this release constitute forward-looking information. Statements regarding BMM's plans with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that BMM's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that BMM will be able to confirm the presence of additional mineral resources, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of BMM's mineral properties. The performance of BMM may be influenced by a number of factors which are outside the control of the Company and its Directors, staff, and contractors.

These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

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These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of exploration sample, mapping and drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves and resources, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the company's prospects, properties and business strategy.

There is continuing uncertainty as to the full impact of COVID-19 on BMM's business, the Australian economy, share markets and the economies in which BMM conducts business. Given the high degree of uncertainty surrounding the extent and duration of the COVID-19 pandemic, it is not currently possible to assess the full impact of COVID-19 on BMM's business or the price of BMM securities.

Except for statutory liability which cannot be excluded, each of BMM, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in these forward-looking statements and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in forward-looking statements or any error or omission. BMM undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

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### 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)</li> </ul>	<ul> <li>Geophysics</li> <li>The regional gravity data were acquired using a WORDEN gravity meter.</li> <li>The area is covered by 445 uniformly distributed gravity stations (data density is 0.7 stations per km²).</li> <li>The regional airborne magnetic data were acquired using Geometrics G-803 HP magnetometer.</li> <li>The survey block was flown at 2000 m line spacing at a heading of 000°/180° (E-W); with a flying altitude of 500m.</li> </ul>		
Drilling techniques	may warrant disclosure of detailed information.  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).	The Company did not conduct any drilling. Samples were collected from the existing drill core.		
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.     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 fine/coarse material.	Not Applicable		
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>	Not Applicable		
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>	Not Applicable		

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Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Geophysics     Acquired regional gravity and magnetic survey were undertaken by Yugoslav geological survey during the '70s and '80s. There is no detailed information about quality control from that time, but the data provider stated that data have been checked in recent years and that there is no significant deviation observed.
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>	Not Applicable
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>	Geophysics The coordinates were tight into Serbian Gauss Kruger coordinate system.  25K government topographic maps were used for topographic control.
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>Gravity</li> <li>Samples for bulk density were selected at approximately every 2 m downhole.</li> <li>Geophysics</li> <li>The area is covered by 270 uniformly distributed gravity stations (data density is 0.7 stations per km²).</li> <li>The airborne magnetic survey was run with lines oriented 000°/180° E-W and spaced about 2km apart; with a flying altitude of 500m.</li> <li>The distribution of observations points is considered to be sufficient to establish the degree of geological continuity.</li> <li>No compositing has been applied.</li> </ul>
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>	Not applicable
Sample security	The measures taken to ensure sample security.	Not applicable
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No verification was performed at this stage.

**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	The 100% owned subsidiary in Serbia, Balkan Istrazivanja doo is a holder of the Rekovac exploration licenses.

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	<ul> <li>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>	Project	Licence Name	Exploration Area Number	Area (km²)	Granted date	Expiry date	Resolution Number
		Rekova	c Rekovac	2224	75.42	05/11/2020* (renewal date – 1 <sup>st</sup> renewal)	05/11/2023	310-02- 01852/ 2016-02
			Ursule	2429	99.36	18/03/2021	18/03/2024	310-02- 1923/ 2019-02
			Siokovac			22/03/2021	22/03/2024	837/ 2019-2
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Previous drilling, sampling and interpretation of historic geophysics data were conducted by Jadar Resources Ltd. A information regarding previous exploration results can be found on Jadar's website in for of announcements or in the Independent Technical Assessment Report used in the prospectus.					es Ltd. All an be or in the	
Geology	Deposit type, geological setting and style of mineralisation.	Neogene lithium - borate deposits of the type being explored are typically found in tectonically active zones associated with deep-seated faulting. Lithium and borate deposits are formed as stratiform chemical precipitates in closed basins with buried saline-alkaline mudflat environments, usually with a large areal extent (3-5km²). The deposits are typically accompanied by fine pelitic stratas enriched in Na, Mg, Sr and ash-flow tuffs, dolomite, analcime and travertine an indication of spring apron accumulations.					ociated osits are d basins sually e typically Mg, Sr	
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	All drill hole information has been reported by Jadar Resources Ltd who was the license holder and conducted the initial exploration program. Additionally, referenced in Independent Technical Assessment Report used in the prospectus.					ducted ced in the	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	sa • No	mples cut-off g	rades were	e used	one on the so		chip

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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>	Not applicable
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.	Appropriate plan maps and sections are appended to the 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.	The announcement is believed to include all representative and relevant information and is believed to be comprehensive.
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.	All material information has been reported previously by Jadar Resources Ltd and or in the Independent Technical Assessment Report used in the prospectus.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	These updated geophysics modelling allows the Company to more precisely define the targets for follow up exploration programs including detail mapping and surface sampling.