



# MLEM AT NEPEAN NICKEL PROJECT RETURNS 11 BEDROCK CONDUCTORS

*drilling planned to commence early next week*

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**BPM Minerals Ltd** (ASX: BPM) ('BPM' or 'the Company') is pleased to announce the results of a recently completed Moving Loop Electro-Magnetic ('MLEM') survey from the Company's 100%-owned Nepean Project, located in Coolgardie, Western Australia.

## HIGHLIGHTS

- **11 Electro-Magnetic late-time bedrock conductors (EM Plates)** identified from a MLEM survey, separated into three clusters: the Eastern, Western and Southern Clusters (Fig. 1).
  - **Western Cluster:** Three vertically dipping, north-south striking late-time bedrock conductors associated with a package of mafic-ultramafic rocks. The conductors range from 200-550m in length, 200m in depth and have a conductance of 1,200 siemens.
  - **Eastern Cluster:** Five prominent steeply dipping, north-south striking bedrock conductors that sit within a regional magnetic low. The conductors range from 350-700m in length, 300-400m in depth and have a conductance of 250-800 siemens.
  - **Southern Cluster:** consists of 3 steeply dipping, north-south striking bedrock conductors that are regionally associated with a package of mafic-ultramafic rocks. The conductors range from 125-300m in length, 125m in depth and have a conductance of 2,000-2,500 siemens.
- BPM has moved quickly to secure a rig with a 3,000m drilling program to planned to commence early next week.
- The Company's maiden 5,836m (139-hole) aircore program intersected ultramafic rocks which are typical host lithology for nickel sulphides, with drilling returning Ni-Cu-Co litho-geochemical anomalies from the wide spaced, first-pass (200 x 400m) drill program<sup>1</sup>.

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<sup>1</sup> ASX Announcement - 200 metre-long nickel anomaly identified from Nepean aircore drilling (7 May 2021)

- Electro-Magnetics is a commonly used geophysical technique in nickel sulphide exploration, responsible for the discovery of multiple economic deposits in the Eastern Goldfields of WA.

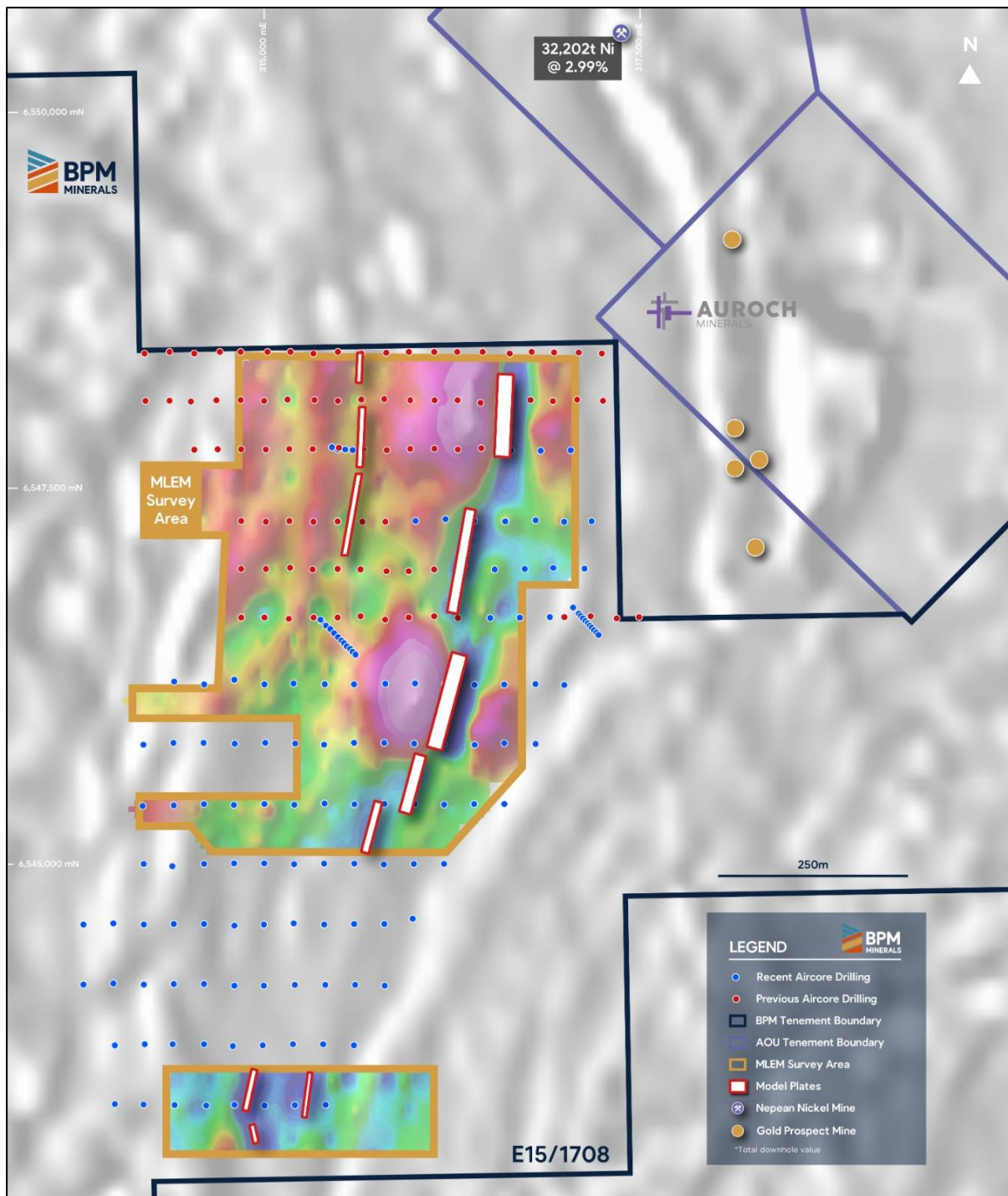


Figure 1 - Nepean Nickel Project, with 11 bedrock conductors (Model Plates) identified from the recently completed MLEM survey.



- Geologically, the ultramafic rocks are interpreted to be the same sequence of ultramafic rocks that host the Nepean Nickel Mine. It is interpreted that a regional anticlinal fold through the greenstone belt has led to this repetition.
- 32.25-line kms of MLEM surveying was undertaken by GEM Geophysics Pty Ltd between December 2021 and January 2022 using a slingram configuration. The survey was expanded from the initial proposal due to encouraging initial results, with a further week of surveying completed early in the New Year.
- Perth geophysical consultants, Resource Potentials Pty Ltd managed the program and data interpretation which resulted in the identification of the eleven conductors.

**Commenting on the results, BPM Chief Executive Officer Chris Swallow:**

*"Nepean was a listing asset for the Company which has steadily been progressed through early-stage target definition and geochemical drilling to better understand the nickel potential of the project. For the MLEM survey to delineate 11 EM plates is a compelling reason for the Company to accelerate work over the project.*

*The Company has been able to secure a drill rig at short notice and the full support of the Board and major shareholders, drilling is planned to commence early next week.*

*With Hawkins and Santy being drilled back-to-back in April/May, the addition of these compelling Nepean targets sets the Company up for a busy exploration period".*

**Next Steps**

- With much of the prospective mafic-ultramafic stratigraphy concealed beneath cover, BPM's nickel exploration will predominantly be driven by geophysics and drilling.
- In preparation for the drill testing of the conductors, the Company will commence a 3,000 metre (60-hole) aircore drilling program to test the surface projection position of the conductors, providing further geological and geochemical context to assist with prioritisation of the conductors for RC/Diamond drill testing.
- Aircore drilling at Nepean will commence early next week.

**- END -**

16 February 2022



This release is authorised by the Board of Directors of BPM Minerals Limited.

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### **Competent Person's Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Oliver Judd, who is a Member of AusIMM and who has more than five years' experience in the field of activity being reported on. The information in the market announcement is an accurate representation of the available data.

Mr. Judd has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Judd consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## ABOUT BPM MINERALS

BPM Minerals Limited (ASX:BPM) is a Perth-based gold, nickel and base-metal explorer with a portfolio of projects located across some of Western Australia's most prolific greenstone belts and base-metal basins (Fig. 2). The Company is building its landholdings within Tier-1 mining locations, close to existing deposits and world-class infrastructure.

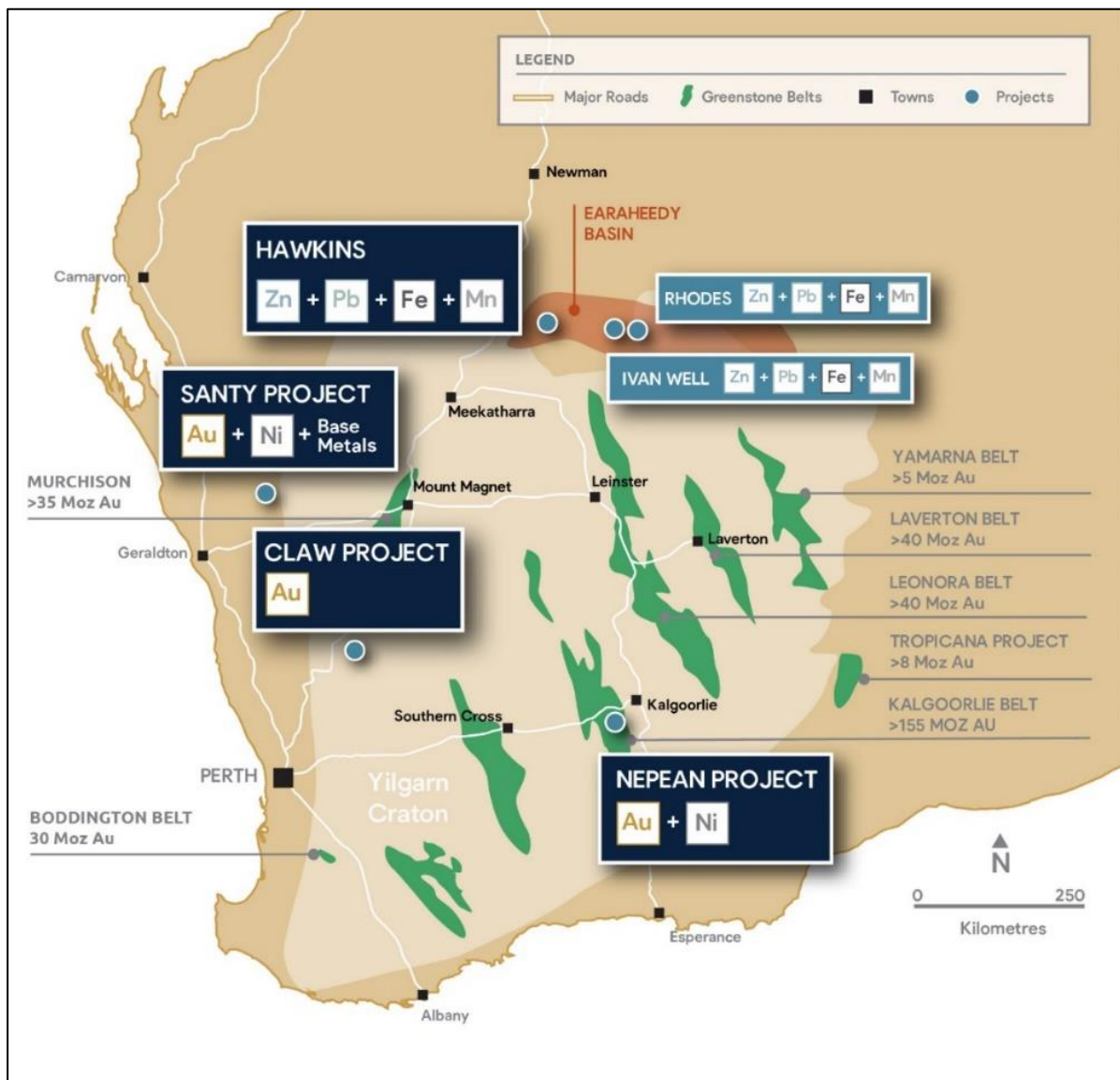


Figure 2 - BPM Minerals Western Australian Base and Precious Metals Projects.

**TABLE 1 - MLEM Plates - Details**

| Plate ID | MGA East | MGA North | Depth (m) | Dip (deg) | Dip Direction (deg) | Length (m) | Depth Extent (m) | Conductance (Siemens) |
|----------|----------|-----------|-----------|-----------|---------------------|------------|------------------|-----------------------|
| E1_CON1  | 316265   | 6546065   | -225      | 75        | 285                 | 650        | 400              | 800                   |
| E2_CON1  | 316645   | 6547975   | -180      | 75        | 272.5               | 550        | 400              | 600                   |
| E3_CON2  | 316345   | 6547005   | -280      | 80        | 280                 | 700        | 400              | 500                   |
| E4_CON3  | 316025   | 6545520   | -180      | 75        | 285                 | 400        | 300              | 250                   |
| E5_CON3  | 315740   | 6545235   | -200      | 80        | 285                 | 350        | 300              | 500                   |
| S1_CON3  | 314950   | 6543210   | -200      | 80        | 257.5               | 125        | 125              | 2500                  |
| S2_CON3  | 314925   | 6543490   | -280      | 80        | 282.5               | 280        | 125              | 2500                  |
| S3_CON3  | 315280   | 6543465   | -260      | 80        | 97.5                | 300        | 125              | 2000                  |
| W1_CON3  | 315605   | 6547320   | -330      | 90        | 280                 | 550        | 200              | 1200                  |
| W2_CON3  | 315665   | 6547835   | -300      | 90        | 92.5                | 400        | 200              | 1200                  |
| W3_CON3  | 315650   | 6548295   | -250      | 90        | 92.5                | 200        | 200              | 1200                  |



## 1. JORC Code, 2012 Edition - Table 1 report template

### 1.1 Section 1 Sampling Techniques and Data

| Criteria            | JORC Code explanation   | Commentary  |
|---------------------|---|---|
| Sampling techniques | <ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <p><b>Moving Loop Electro-Magnetic (MLEM) Geophysical Survey undertaken by GEM Geophysics Pty. Ltd.</b></p> <p><b>Configuration:</b> Slingram (Receiver outside of transmitter loop)<br/> <b>Receiver position:</b> 200 m to the west of the transmitter loop<br/> <b>Receiver:</b> Jessy Squid (B-Field)<br/> <b>Receiver components:</b> Z, X, Y<br/> <b>Transmitter loop size:</b> 200 x 200 m, single turn<br/> <b>Transmitter current:</b> 80 Amps<br/> <b>Transmitter base frequency:</b> 0.5 Hz<br/> <b>No. of survey lines:</b> 17<br/> <b>No. of survey stations:</b> 662<br/> <b>Survey line-km:</b> 32.25<br/> <b>Areas surveyed:</b> 2<br/> <b>Line spacing within survey areas:</b> 200 to 300 m</p> |
| Drilling techniques | <ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>   | No drilling undertaken  |

| Criteria                                       | JORC Code explanation  | Commentary             |
|--|--|------------------------|
| Drill sample recovery                          | <ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>   | No drilling undertaken |
| Logging  | <ul style="list-style-type: none"> <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>   | No drilling undertaken |
| Sub-sampling techniques and sample preparation | <ul style="list-style-type: none"> <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</li> </ul> | No drilling undertaken |



| Criteria                                   | JORC Code explanation  | Commentary  |
|--|--|---|
|  | <i>material being sampled.</i>   |   |
| Quality of assay data and laboratory tests | <ul style="list-style-type: none"> <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> | No drilling undertaken  |
| Verification of sampling and assaying      | <ul style="list-style-type: none"> <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>  | <p>The program was managed and data interpreted by Perth geophysical consultants Resource Potentials Pty. Ltd.</p> <p>Data is sent from the contractor to the geophysical consultant on a daily basis with data ultimately stored within a database and stored/backed up on an off-site online cloud.</p> |
| Location of data points                    | <ul style="list-style-type: none"> <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>  | <p>Handheld Garmin GPS (accuracy +/-3m) was used to locate wire loops and stations.</p> <p>MGA94_Z51 is the grid system utilised for reporting.</p>   |
| Data spacing and distribution              | <ul style="list-style-type: none"> <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</li> </ul>   | <p><b>Configuration:</b> Slingram (Receiver outside of transmitter loop)</p> <p><b>Receiver position:</b> 200 m to the west of the transmitter loop</p> <p><b>No. of survey lines:</b> 17</p>   |

| Criteria  | JORC Code explanation  | Commentary  |
|---|--|---|
|   | <p>Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</p> <ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>  | <p><b>No. of survey stations:</b> 662<br/> <b>Survey line-km:</b> 32.25<br/> <b>Line spacing within survey areas:</b> 200 to 300 m</p>  |
| Orientation of data in relation to geological structure | <ul style="list-style-type: none"> <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> | Surveys were undertaken perpendicular to the strike of the interpreted geology.   |
| Sample security   | <ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>  | Data is sent from the contractor to the geophysical consultant on a daily basis with data ultimately stored within a database and stored/backed up on an off-site online cloud. |
| Audits or reviews                                       | <ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>  | The program was managed and data interpreted by Perth geophysical consultants Resource Potentials Pty. Ltd.   |

## 1.2 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 | <ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with</li> </ul> | <p>The Nepean Project consists of a single granted Exploration Licence E15/1708 covering 39.17km<sup>2</sup>.</p> <p>The project is held within Santy Gold Pty. Ltd., a wholly owned subsidiary of BPM Minerals Ltd.</p> |

| Criteria                                 | JORC Code explanation  | Commentary   |
|--|--|--|
|  | <i>any known impediments to obtaining a licence to operate in the area.</i>  | <p>The project is within unallocated Crown Land (UCL) and is not within an area deemed as wilderness, national park or any other area of deemed environmental interest.</p> <p>A 2% gross revenue royalty is in place over the project with the tenement vendor Beau Resources Pty. Ltd.</p> <p>The project is located approximately 30km south of Coolgardie, Western Australia. It is readily accessible from Coolgardie via a road accessing the Nepean Nickel Mine and thereafter southwards along the unsealed road. Internal access is via station tracks and fence lines.</p> <p>The project is within the Marlinyu Ghoorlie native title claim area (WC2017/007), necessary heritage clearances have been carried out prior to exploration activities.</p> |
| <i>Exploration done by other parties</i> | <ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul> | <p>The majority of past exploration work within the project area including drilling, surface sampling; geophysical surveys and geological mapping has been largely completed by Alliance Resources Ltd, and Metals Exploration NL (1980's) and Endeavour Resources Ltd (1980's). Other explores to have completed exploration programmes proximal to the Nepean project comprise Tritton Resources, Resolute Ltd and Mincor. The reports are available on the West Australian Mines Department WAMEX open file library. Geology Deposit type, geological setting and style of mineralisation.</p>  |
| <i>Geology</i>                           | <ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul> | <p>The Nepean Project lies on the southern extension of the greenstone belt hosting the Nepean Nickel Mine, the Queen Victoria Rocks Nickel Prospect, and the gold workings in the Nepean area. The north-south trending greenstone belt can be traced via aeromagnetism through the tenement from north to south. It is cut by</p>  |

| Criteria                 | JORC Code explanation   | Commentary  |
|--------------------------|---|---|
|                          |   | east-west trending Proterozoic dolerite dykes. The majority of the Project is soil covered with outcrop/subcrop making up only 30% of the Project area. |
| Drill hole Information   | <ul style="list-style-type: none"> <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 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> </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> | No drilling undertaken  |
| Data aggregation methods | <ul style="list-style-type: none"> <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>   | No data aggregation methods have been used.   |
| Relationship between     | <ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>   | No drilling undertaken  |

| Criteria   | JORC Code explanation   | Commentary  |
|--|---|---|
| <i>mineralisation widths and intercept lengths</i> | <ul style="list-style-type: none"> <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>  |   |
| <i>Diagrams</i>                                    | <ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>  | Suitable diagrams have been included within the body of text.   |
| <i>Balanced reporting</i>                          | <ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>   | This report is considered balanced and representative with all pertinent results reported.  |
| <i>Other substantive exploration data</i>          | <ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> | All meaningful and relevant exploration data has been reported within this report is referenced towards previous reports.   |
| <i>Further work</i>                                | <ul style="list-style-type: none"> <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>                                       | Aircore drilling across the surface projection of the EM plates to gather geological and geochemical context. This will be used to prioritise plates for deeper RC/DDH drill testing. |