

17th November 2022

ASX ANNOUNCEMENT

METALLURGICAL AND MINERAL RESOURCE ESTIMATE PROGRESS UPDATE

HIGHLIGHTS

- **Drilling program successfully completed during October**
- **Mineral Resource Estimate (MRE) well progressed targeting Q1, 2023 release**
- **Flotation test work achieving >95% of rare earth recovery into a concentrate**
- **>90% REO recoveries being achieved from initial hydrometallurgical test work to produce an intermediate saleable carbonate or chloride product**
- **Ground EM work has commenced in NSW at Whitbarrow, Redlands and Lunns Dam and drilling currently scheduled to commence in Q1, 2023**
- **Global REE market fundamentals continue to remain robust with a predicted CAGR growth of 12% between 2021 and 2026**

Parabellum Resources Limited (ASX:PBL) ('Parabellum', or 'the Company'), is pleased to update shareholders on the excellent progress the Company has made on the mineral resource estimate (JORC 2012), metallurgical test work and engineering design which form the key deliverables items required in the Scoping Study.

Parabellum Executive Director; Peter Secker commented: *"I am really pleased to inform shareholders that the Scoping Study work is progressing very well, and the metallurgical test work results achieved to date continue to support our view that the Khotgor Project can be developed into a significant rare earth operation. Over the next few months we will continue to keep shareholders informed as to operational progress across the various work streams. The PBL board feel confident that the outcomes will demonstrate a robust project set amongst a backdrop of strong pricing in REE markets that remain highly constrained outside of traditional supply coming out of China."*

Mineral Resource Estimate

The 2,000 meter infill and bulk sampling program was completed in mid-October and all core samples have now been sent for REO analysis. It is anticipated that all assay results will be completed before the end of the year and then modelling for a new Mineral Resource Estimate (MRE) under the JORC 2012 Code will be undertaken. Subject to receiving all of the assays back before the end of the year, it is anticipated that the updated MRE will be available in Q1, 2023.

The updated MRE will be reported under the JORC 2012 reporting standards and will also include the latest infill drill results. In addition, the new resource and production plan will focus on production of the NdPr suite of rare earth minerals. There are some differences between the two reporting standards and the differences between the old 2004 standards and the newer 2012 standards are summarized in this document www.jorc.org/docs/jorc_code_summary_of_changes_2004-2012_revision.pdf.



Image 1: Final core box preparation prior to being sent to SGS labs Ulaanbaatar, Mongolia

Source: Tamarise October 2022

Metallurgical Testwork

Metallurgical test work on a 1.3 tonne bulk sample from Khotgor has been underway at ALS Perth, Western Australian laboratories over the past 6 months. Initial flotation test work has indicated good extractions of rare earths and good filtration properties. Rare earth extraction was >95%, which is a very positive outcome when benchmarked against historical REE test work. Optimisation flotation work is ongoing to try and increase REO recoveries.



Image 2 Bulk Sample being prepared at AltMet

Source: Tamarise October 2022

Hydrometallurgical test work is now underway to produce an intermediate carbonate or chloride product, prior to final REO/NdPr separation. Initial test work has indicated that REO recoveries >90% can be achieved for this stage. The next phase of test work will be undertaken early in the new year to focus on production of individual REO oxide streams, with a focus on the NdPr mineral suite.

The current schedule is to complete all of the metallurgical test work during Q1, 2023 for inclusion in a Scoping Study, to be available by late Q1, 2023.

Engineering Design

Mine design and project engineering design for the Scoping Study will commence in the next quarter to meet the Scoping Study schedule. This work will be undertaken in Perth, with assistance from engineering consultants in Mongolia. Preliminary discussions with suppliers have indicated that there continues to be price escalation at both the

equipment and consumable level as the impact of increases in fuel, steel, energy, labour, chemicals, reagents and transport can no longer be absorbed by suppliers. Significant natural resource demand, specifically in the battery metals and commodities, has also resulted in production constraints at key equipment suppliers and is contributing to longer delivery times and increased equipment pricing.

These increases will be quantified over the next 6 months as proposals are received from our vendors and suppliers.

(Ref: www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/mining-companies-flag-rising-inflation-in-q3-21-climbing-costs-into-2022-67745078)

Rare Earth Market update

The global rare earths market size is expected to grow at a CAGR of 12% between 2021 and 2026. The increasing number of applications for rare earth magnets using both Nd and Pr in both electric vehicles and wind turbines are the predominant applications driving this growth, with a hybrid vehicle using up to 1kg of Neodymium per vehicle and a full electric vehicle using more.

In 2021 the price of dysprosium oxide rose above \$100,000 per tonne, driven by growing demand in the magnet, lasers and nuclear sectors.

(Ref: www.marketsandmarkets.com/Market-Reports/rare-earth-metals-market-121495310)

NSW Copper Gold exploration

Unprecedented rainfall continued to impede progress during October, however pleasingly, our NSW exploration team has re-commenced targeting work at the key projects of Whitbarrow, Redlands and Lunns Dam. Ground EM work at Redlands has re-commenced and additional EM work is planned for Miandetta in December. Subject to the weather remaining dry into 2023, we are currently scheduled to commence an RC drilling program on the high priority EM targets early in Q1CY2023.

This announcement has been authorised for release by the Board.

ENDS.

For further information please contact:

Peter Secker
Executive Director

E: info@parabellumresources.com.au

Evy Litopoulos,
ResolveIR (Investor Relations)

E: evy@resolveir.com

ABOUT PARABELLUM RESOURCES LIMITED (PBL)

PBL is an ASX listed mineral exploration company committed to increasing shareholder wealth through the acquisition, exploration and development of mineral resource projects. PBL entered into an agreement with Temarise Limited (UK) that holds the exclusive option to acquire 80% of Khotgor REE project, Mongolia. Furthermore, PBL holds 100% interest in 4 projects situated in a highly prospective region in New South Wales, Australia. PBL's existing project portfolio offers exposure to copper and gold.

COMPETENT PERSONS REPORT

Certain Exploration Results referred to in this announcement were first reported in accordance with ASX Listing Rule 5.7 in the Company's prospectus dated 4 October 2021 (**Prospectus**). The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

The new information in this announcement that relates to geology and exploration results and planning was compiled by Mark Arundell, who is a Member of the Australasian Institute of Geoscientists (AIG) and Chief Geologist of Parabellum Resources Ltd. Mr Arundell has sufficient experience which 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Arundell consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears. Mr Arundell holds securities in the Company.

FORWARD LOOKING INFORMATION

Various statements in this announcement constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance or achievements expressed or implied in these forward-looking statements will be achieved.

APPENDIX A - JORC CODE, 2012 EDITION

Table 1 – JORC Code 2012 Edition

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 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 (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> samples collected from drill cores collected from an historic drilling program in 2008 - 2012
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Core
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> samples collected from drill cores collected from an historic drilling program in 2008 - 2012
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> samples collected from drill cores collected from an historic drilling program in 2008 - 2012

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • 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. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • Half drill core samples collected from drill cores collected from an historic drilling program in 2008 - 2012
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> • Assay of the collected sample undertaken by ALS Laboratories in Perth
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • Drill core samples were composited into a bulk composite sample for metallurgical testwork
Location of data points	<ul style="list-style-type: none"> • 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. • Specification of the grid system used. • Quality and adequacy of topographic control. 	Reliance upon drill surveys undertaken in 2008 – 2012 and subsequently checked in 2022
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied. 	N/A

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> Bulk composite sample from multiple drill holes
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	Samples air freighted from Mongolia to ALS Perth by DHL.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	Nil

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"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	<ul style="list-style-type: none"> Mining License MV-015631 granted in Mongolia 2010 and valid for 30 years held by Khotgor Minerals, Mongolia
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Half drill core samples collected from drill cores collected from an historic drilling program in 2008 - 2012
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Rare earth oxide apatite mineralisation
Drill hole Information	<ul style="list-style-type: none"> 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"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Bulk composite sample from multiple drill holes

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> N/A
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	<ul style="list-style-type: none"> N/A
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> N/A
Balanced reporting	<ul style="list-style-type: none"> 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. 	N/A
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> N/A
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> N/A