02 February 2023

ASX Limited - Company Announcements Platform

ARMADA METALS LIMITED (ASX: AMM)

NEW TARGETS IDENTIFIED AT THE NYANGA MAGMATIC NICKEL-COPPER PROJECT, GABON

Highlights:

- Preliminary modelling of airborne Mobile Magnetotellurics ('**MobileMT**') survey data has defined multiple preliminary targets at the Nyanga Magmatic Nickel-Copper (Ni-Cu) Project in Gabon, which will direct future ground based NSAMT programs and drill targeting.
- The MobileMT survey has achieved the objective of assessing the Company's Libonga-Matchiti Trend ('**LMT**') and the Ngongo-Yoyo Trend ('**NYT**') with this latest technology and has successfully defined additional targets.
- A series of ground based NSAMT surveys are planned to follow up on the highest priority MobileMT targets in advance of further drilling at the Project.

Armada Metals Limited (ACN 649 292 080) ('**Armada**' or '**Company**') is pleased to announce that preliminary modelling of the MobileMT datasets has identified multiple preliminary targets which are consistent with the Company's regional mapping of the Nyanga Project intrusions. These exciting new targets will be used to design future ground-based NSAMT surveys at the Nyanga Magmatic Ni-Cu Project, Gabon.

The MobileMT survey directly measures resistivities and was designed to detect the potential for apparent conductors (by extrapolation low resistivities are equal to high conductivities – refer Figs. 1-4). The lowest resistivity values, ranging between ≤100-400 ohm-m, are considered significant by the technical team.

Further comprehensive data analysis will continue over the coming weeks.

Armada's Managing Director & CEO, Dr Ross McGowan commented:

"We are delighted that the MobileMT survey has exceeded our expectations and achieved its objective of identifying a new generation of priority Ni-Cu targets for ground-based follow-up and potential drill testing later in 2023. Importantly, the preliminary modelling represents a validation of our exploration approach to round off a successful 2022 exploration campaign.

We will now use the test survey flown over the existing Libonga targets to confidently extrapolate and define anomalies of potential exploration importance along both the Libonga-Matchiti and Ngongo-Yoyo Trends.

Further, ground-based programs will be used to de-risk any future drill programs and we are ready to start this work as we advance planned drill testing of our highest priority targets."

Next Steps

MobileMT Survey

- The preliminary interpretations and targeting will be reviewed using the Company's magmatic sulphide targeting toolkit to complete detailed regional target selection including the prioritisation of target areas. The targets will be assessed and ranked based on the Company's extensive geophysical, rock, and geochemical datasets.

Ground NSAMT Survey

- A series of ground NSAMT surveys will be completed on individual prioritised targets resulting from the more detailed MobileMT data interpretation ahead of drilling testing.

Drilling

- Drilling will be focused on testing the Company's highest priority modelled NSAMT targets for the potential occurrence of accumulated magmatic sulphides and Ni-Cu mineralisation. Drilling is expected to commence during the 2023 field season after the heavy rains.

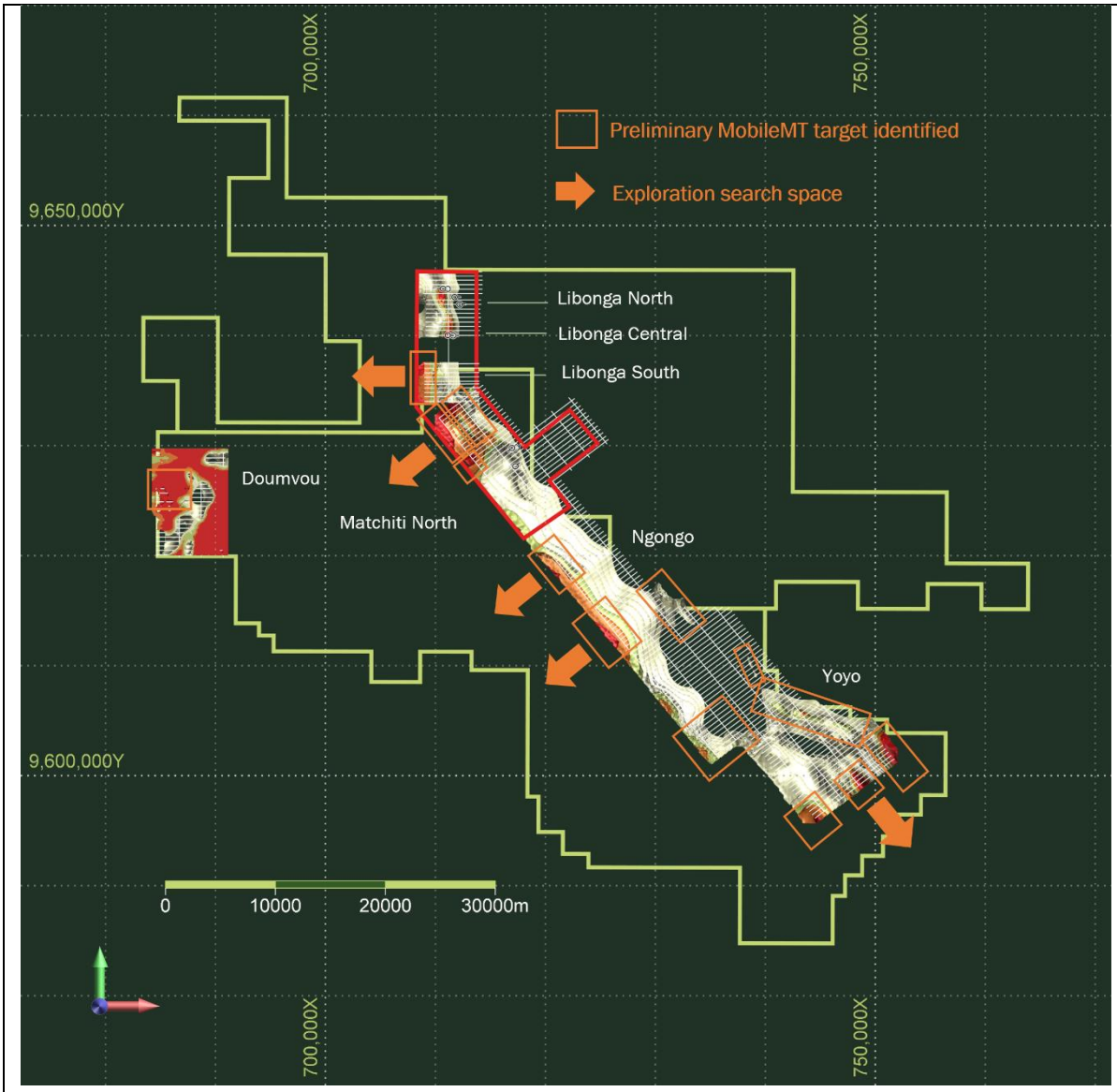

Figure 1: Mobile MT resisitivity data – resisitity ohm-m data isoshells displayed. 2022 Phase 1 drilling campaign displayed by white dots with ticks. Mobile flight lines displayed with white grid lines. The lowest resistivity values ranging between ≤100-400 ohm-m are considered significant. Legend: red isoshell ≤350ohm-m, orange isoshell ≤400ohm-m, light green isoshell ≤450ohm-m, light grey isoshells ≥500ohm-m.

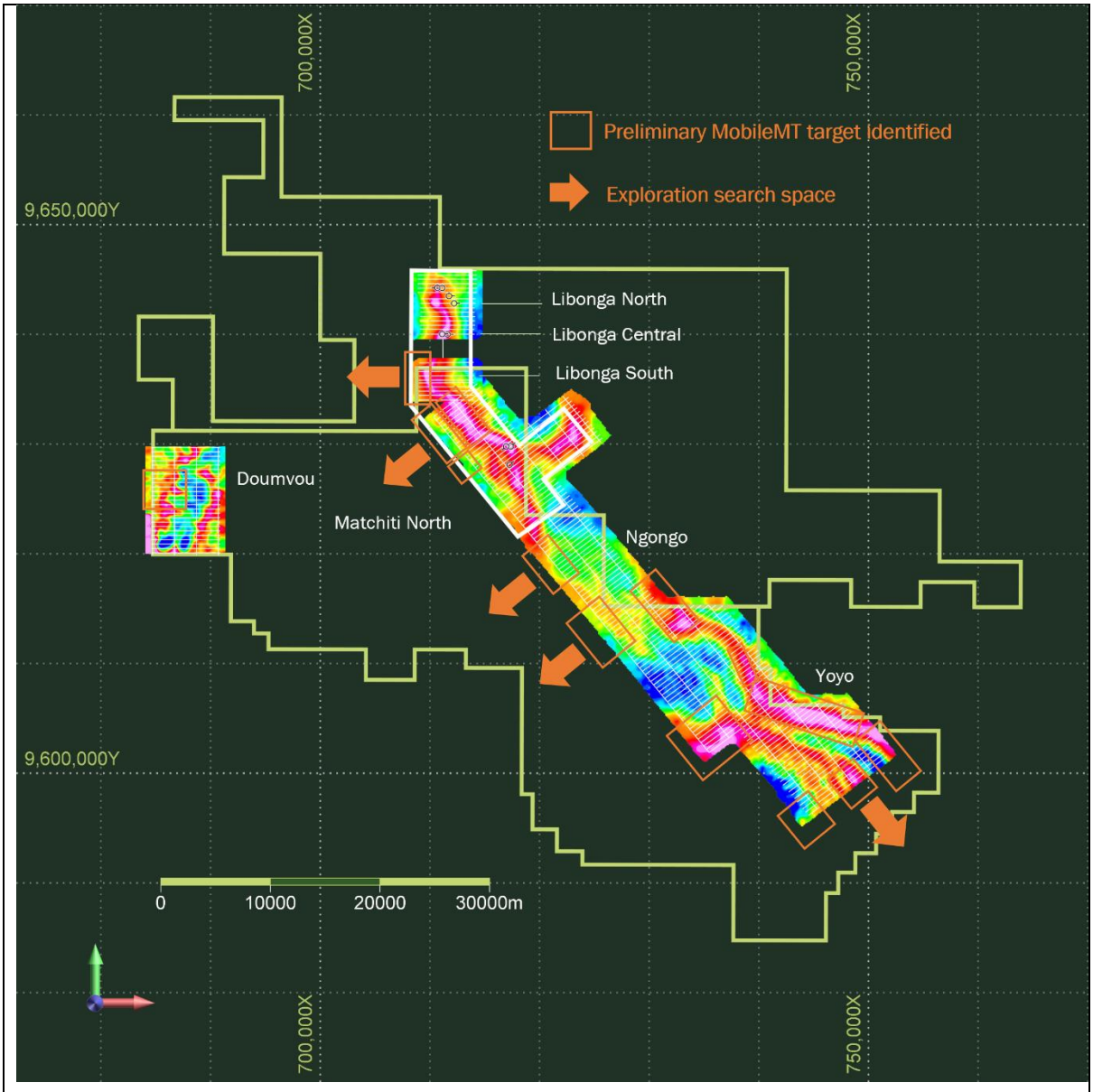

Figure 2: Mobile MT resisitivity data - apparent conductivity 140Hz slice displayed. 2022 Phase 1 drilling campaign displayed by white dots with ticks. Mobile flight lines displayed with white grid lines.

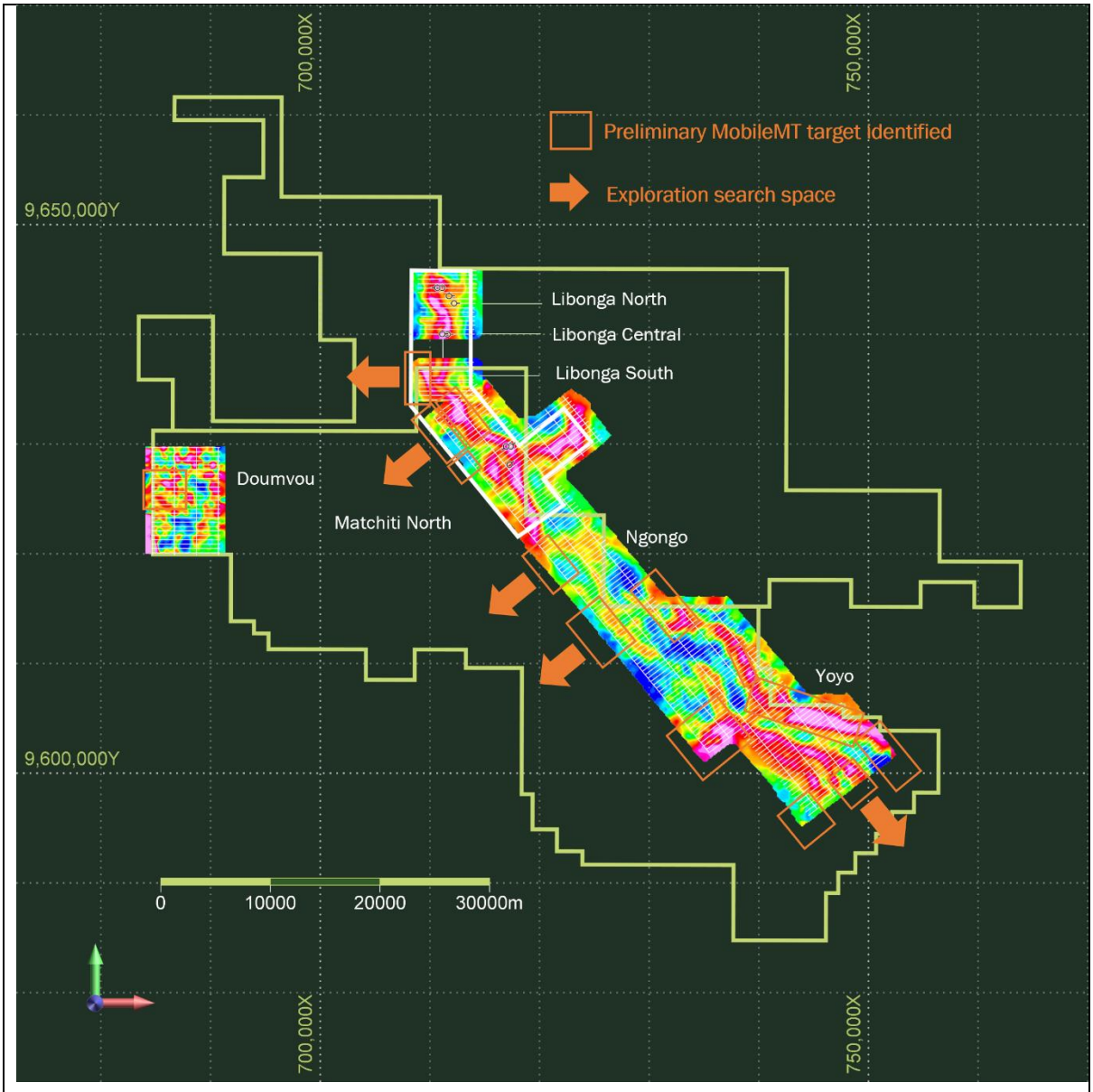

Figure 3: Mobile MT resisitivity data - apparent conductivity 708Hz slice displayed. 2022 Phase 1 drilling campaign displayed by white dots with ticks. Mobile flight lines displayed with white grid lines.

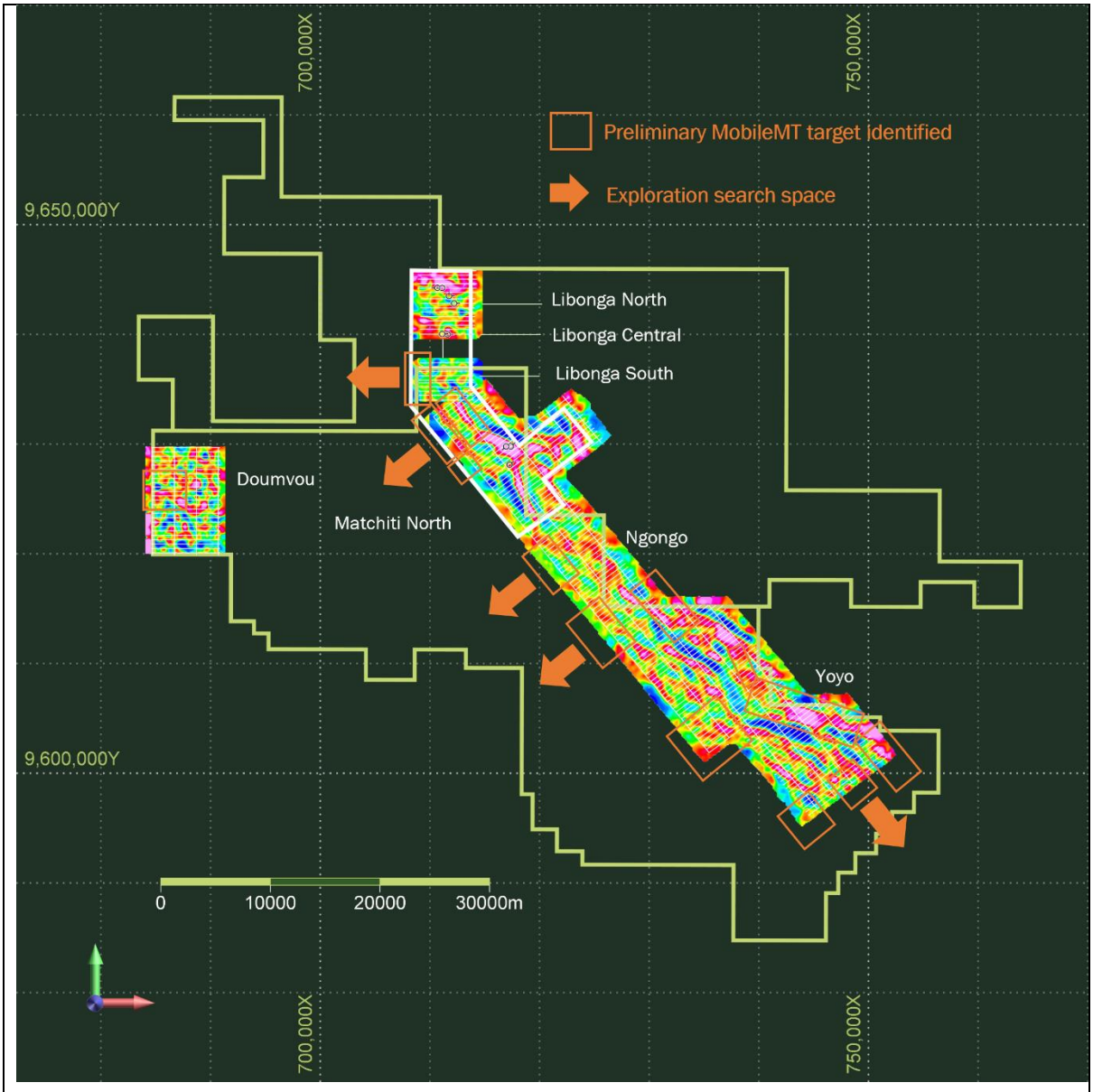

Figure 4: Mobile MT resisitivity data - apparent conductivity 7136Hz slice displayed. 2022 Phase 1 drilling campaign displayed by white dots with ticks. Mobile flight lines displayed with white grid lines.

This announcement has been authorised on behalf of the Armada Metals Limited Board by: Dr Ross McGowan, Managing Director & CEO.

-ENDS-

For further information, please contact:

Dr Ross McGowan – Managing Director & CEO
Armada Metals Limited

E: ross@armadametals.com.au

Twitter: @ArmadaMetals
LinkedIn: https://www.linkedin.com/company/armada-metals-limited
Website: www.armadametals.com.au

Background on Armada

Armada was established to define new belt-scale discovery opportunities for key commodities (principally nickel and copper) in under-explored regions of Africa. Armada is exploring a multi-target project opportunity for magmatic Ni-Cu sulphides in the Nyanga area, southern Gabon. The Company is supported by a Board and Africa-based technical team, both with a track record of successful African projects. Key members of the Armada targeting team were a part of the team awarded the 2015 PDAC Thayer Lindsley Award for an International Mineral Discovery (as members of the Kamoa discovery team with Ivanhoe Mines).

Background on Expert Geophysics Limited

Expert Geophysics Limited (EGL) is a company specialising in airborne geophysical surveys worldwide with advanced electromagnetic systems. EGL offers the latest innovations in airborne electromagnetic technology to the mineral exploration, oil and gas and geothermal industries among others. The principals of the company have combined over 120 years of experience in the development and interpretation of helicopter borne electromagnetic systems, and since 2018 the company has contributed significantly to their many client's successes in the mineral exploration industry. EGL's flagship technology is the Mobile MagnetoTellurics (MobileMT) system which is the most advanced generation of airborne AFMAG technology. Utilising naturally occurring electromagnetic fields, the system combines the latest advances in electronics, airborne system design, and sophisticated signal processing techniques. This results in resistivity mapping to depths and resolutions unequalled in the airborne industry in addition to primary drill target generation.

Competent Persons Statement

The information in this report relates to mineral exploration results and exploration potential, compiled under the supervision of Mr. Thomas Rogers who is a Competent Person and a member of a Recognised Professional Organisation (ROPO). Mr. Rogers is contracted to the Company as Technical Manager with sufficient experience relevant to both the style of mineralisation and type of deposit under consideration, and to the activity that 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. Rogers is a member of the South African Council for Natural Scientific Professions, a ROPO. Mr. Rogers consents to being included in this report, and is aware of the information and context of the report.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Armada Metals Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Armada Metals Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Appendix 1: The Nyanga Project Background

The Company has developed a multi-target exploration pipeline. Advanced exploration has so far been focused on the 25km-Long Libonga-Matchiti Trend ('LMT').

A number of targets are located along the 25km-long Libonga-Matchiti Trend ('LMT'). This trend is marked by anomalous copper and nickel in soils along gabbro to peridotite fractionation suite units outcropping at surface.

The Ngongo-Yoyo Trend ('NYT') extends for up to 40km from the LMT in a south-easterly direction.

The Doumvou target is one of six regional targets mapped along a structural corridor parallel to the coastline (Refer Company Prospectus).

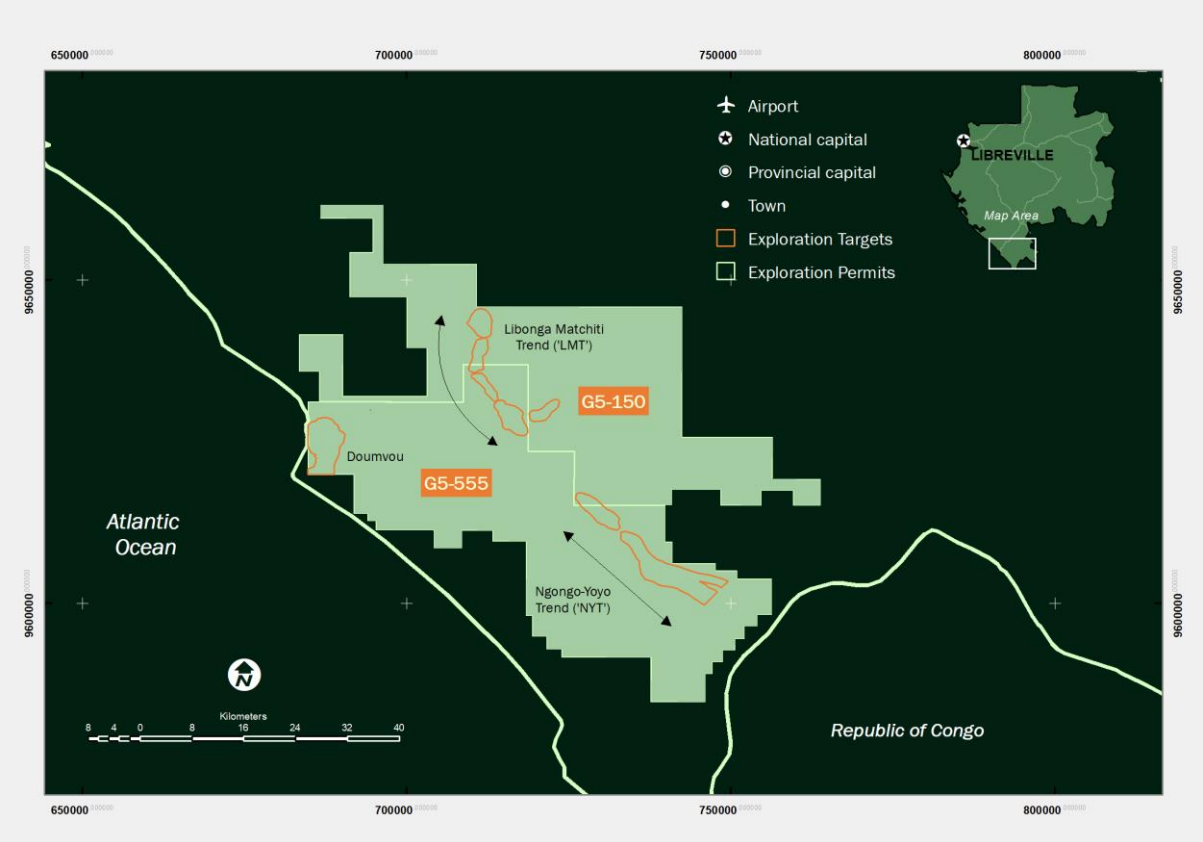

Figure 5: Location of the LMT and NYT within the Company's exploration licences.

Appendix 2: MobileMT Results – Technical Discussion

Technical Discussion – MobileMT Survey Results

- The purpose of the MobileMT survey was to optimise the definition of anomalies of potential importance, by providing direct detection of apparent conductors with a suitable depth of investigation to aid in resolving the geological context of the intrusion complexes at the Nyanga Project scale.

- In conjunction with inversions of MobileMT data, the Company will complete magnetic susceptibility inversions of the magnetic data. Interpretations using physical property measurements on core from the Phase 1 drilling program along the LMT demonstrate the more evolved, fractionated gabbros have a more elevated magnetic response in the areas drill tested to date. Unmineralised, more primitive, ultramafic units mapped have little or no magnetic response.

- Low resistivity anomalies are equivalent to high conductivity bodies (this is also known as apparent conductivity). The preliminary MobileMT survey results are displayed in Figs 1-4. The very low resistivity values of ≤100-400 ohm-m are displayed by red isoshells – these are concluded as priority targets for further analysis. The ≥400-700 ohm-m isoshells provide a context to the apparent conductors and display typical tubular morphologies.

- The Company has developed a target screening toolkit to geologically assess and rank these preliminary targets based on scale, morphology, geological context, and amplitude of conductors.

Figure 6: *Location of the MobileMT survey lines (light green) along the LMT, NYT and at the Doumvou target.*

Appendix 3: JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	*JORC Code explanation*	*Commentary*
Sampling techniques	▪ Nature and quality of sampling (e.g., 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 (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.	***MobileMT Survey*** ***The main instrumentation installed on the proprietary MobileMT tow-bird:*** *• Three orthogonal induction coils (1.4 m diameter each) to measure naturally occurring magnetic fields in the frequency range 25 Hz – 20,000 Hz* *• Geometrics G822A Cesium Magnetometer, installed in a separate towed-bird, 20 m above the MobileMT bird, sensitivity of 0.001 nT/10 Hz sampling* *• GPS antenna, installed on the towed-bird with the magnetometer.* ***The main instrumentation installed on the helicopter:*** *• Expert Geophysics Ltd ('EGL') PC-104 based Data Acquisition System* *• EGL Navigation system with Pilot Steering Indicator* *• Smartmicro model UMRR-0A Radio Altimeter, 0 – 500 m range* *• GPS antenna, installed on the helicopter tail* ***Base Stations and Ground Support instrumentation comprises:*** *• MobileMT Ground Base Station, 4-channel (2 channels for signal and 2 channels for reference signal), to measure variations of the electric field in two directions with 4 pairs of electrodes. Electrical line length – 100 m each line, direction YX – 224 degrees, YZ – 134 degrees.* *• GEM Systems GSM-19 Base Station Magnetometer, 0.1 nT sensitivity, with data logger* *Line spacing: 400m (and 200m infill lines)* *Frequency: 35-22,654Hz* *Average terrain clearance of the helicopter platform was 180m at an average speed of 24m/sec.* *Average terrain clearance of the magnetometer*

Criteria	JORC Code explanation	Commentary
		during the survey was 103m. *Average electromagnetic sensor terrain clearance was 85m.* *Surveying was testing resistivity.* *Data was reviewed daily by the principal geophysicist from Expert Geophysics Ltd.* *Survey parameters and results were reviewed at regular intervals by an independent geophysicist from GeoFocus Pty Ltd.*
Drilling techniques	▪ Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, 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).	*Not applicable to this release.*
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 to this release.*
Logging	▪ 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.	*Not applicable to this release.*
Sub-sampling techniques and sample preparation	▪ If core, whether cut or sawn and whether quarter, half or all cores taken. ▪ If non-core, whether riffled, tube	*Not applicable to this release.*

Criteria	JORC Code explanation	Commentary
	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.	
Quality of assay data and laboratory tests	▪ 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 (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	***MobileMT Survey*** *Inversion software: The 2D inversion of MobileMT EM data was performed for all surveyed lines using MARE2DEM 2021 version program code.* *Production reports and daily field data is reviewed by the off-site principal geophysicist from Expert Geophysics Ltd and by an independent consultant geophysicist from GeoFocus (Pty) Ltd.*
Verification of sampling and assaying	▪ 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.	***MobileMT Survey*** *All primary analytical data were recorded digitally and sent in electronic format to Expert Geophysics Ltd for quality control and evaluation.* *2D Inversion models of data were generated by GeoFocus Pty Ltd.* *Inversion parameters and the inversion models were quality control checked by independent geophysical consultant at GeoFocus Pty Ltd.*
Location of data points	▪ Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine	***MobileMT Survey*** *WGS-84 32S datum.*

Criteria	JORC Code explanation	Commentary
	workings and other locations used in Mineral Resource estimation. ▪ Specification of the grid system used. ▪ Quality and adequacy of topographic control.	
Data spacing and distribution	▪ 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.	***MobileMT Survey*** *Survey lines were between 200m and 400m.* *Survey line spacing is considered adequate for the reporting of these exploration results.* *These data are not to be used to estimate mineral resources or ore reserves.*
Orientation of data in relation to geological structure	▪ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. ▪ 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.	***MobileMT Survey*** *Flight lines were positioned perpendicular to the modelled strike of the intrusions mapped.* *Flight lines were positioned on existing drill fence lines for an orientation survey.*
Sample security	▪ The measures taken to ensure sample security.	*Not applicable to this release.*
Audits or reviews	▪ The results of any audits or reviews of sampling techniques and data.	*The program is managed and continuously reviewed the Company CP.*

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	▪ Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. ▪ The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	▪ *The Nyanga Ni-Cu project consists of two (2) exploration licences: G5-150 and G5-555. The two licences combined cover a total area of 2,725 km².* ▪ *The exploration licences comprising the Nyanga Project are wholly held by Armada Exploration Gabon SARL, a wholly owned subsidiary of Armada Exploration Limited, in turn a wholly owned subsidiary of the Company.* ▪ *The permits are in good standing and no known impediments exist.*

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	▪ Acknowledgment and appraisal of exploration by other parties.	***SYSMIN (2005-2009)*** ***Geophysics*** ▪ *The contractor used for the portion flown across the Nyanga Basin was Council for Geoscience ('CGS'), South Africa (see below for details of the survey).* ▪ *SYSMIN magnetic and radiometric data acquisition (Block 3) (2009).* ▪ *The contractor used was Council for Geoscience ('CGS'), South Africa.* ▪ *Block 3 was flown at a mean altitude of 120m.*

Survey Parameters – fixed wing platform

Parameter	*Unit*	*Remarks*
Flight Line Direction	*0°*	
Flight Line Spacing (m)	*500*	
Tie Line Direction	*90°*	
Tie Line Spacing (m)	*5000*	
Altitude (m)	*120*	*Safety reasons – forest canopy*
Area (km2)	*-*	*Not reported*
Actual Line Kilometres (km)	*151,667*	

Geochemistry
- *During the period from 2005 to 2009, 14 million Euros of European Union funding was provided for a dual geological and geophysical survey program (SYSMIN) by the French, South African and Gabonese Geological Surveys to outline the mineral prospectivity of Gabon.*
- *This project had four components:*
  - *Geophysical data acquisition and re-processing.*
  - *Geological mapping leading to the publication of revised countrywide 1:1,000,000 and 1:200,000 scale geological maps.*
  - *Regional geochemical sampling.*
  - *The production of mine inventories.*
- *All samples and data are archived at the Geology Department of the Mines Ministry, Libreville Gabon.*
- *This first three components cover the exploration permits and the complete datasets*

Criteria	JORC Code explanation	Commentary
		were acquired from the DGMG by Armada. ▪ *In 2018 Armada geological staff reanalysed all samples stored in archive as part of a QAQC exercise. Analysis was completed using the Armada PXRF. Armada sampling protocols were adopted for this exercise. Results of this exercise are stored in the company database along with the existing data files from the SYSMIN program.* ▪ *Data for 2,561 soil sample and 162 sediment samples, within exploration licence G5-150 and G5-555, are stored in the Armada geochemical database.*
Geology	▪ Deposit type, geological setting, and style of mineralisation.	▪ *In several terranes, including the Mid Continental Rift, it is observed that the most ultramafic intrusions form more tubular conduits than the more fractionated gabbros that form broader more horizontal sill-like morphologies (with low-grade mineralisation common). Therefore, the anticipated morphologies of magmatic sulphide mineralisation are in keels of differentiated sills (e.g., Tamarack, Talon Metals Corp.), subvertical dyke-like bodies (e.g., Eagle, Lundin Mining Corp.), and sinuous chonoliths (e.g., Thunder Bay, Clean Air Metals Inc.).*
Drill hole Information	▪ A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all material drill holes: – easting and northing of the drill hole collar – elevation or RL (Reduced Level – elevation above sea level in metres) 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.	▪ *Not applicable to this release.*
Data aggregation methods	▪ In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade	▪ *No cut-off grades are being reported.* ▪ *No aggregate intercepts are being reported.*

Criteria	JORC Code explanation	Commentary
	truncations (e.g., 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.	▪ *No metal equivalent values are reported.*
Relationship between mineralisation widths and intercept lengths	▪ 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 (e.g., 'down hole length, true width not known').	▪ *Not applicable to this release.*
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.	▪ *Relevant diagrams have been included in 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 Company awaits full geochemical and lithological characterisation results for balanced reporting purposes.*
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	▪ *No other substantive data exists.* ▪ *All meaningful data has been included.*

Criteria	JORC Code explanation	Commentary
	characteristics; potential deleterious or contaminating substances.	
Further work	▪ 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.	▪ *A series of ground-based NSAMT surveys are planned along the Libonga-Matchiti Trend and the Ngongo-Yoyo Trend in Q1-2023.* ▪ *Drilling programs to test apparent conductors are scheduled for the 2023 field season.*