

## 62.4% NIOBIUM RECOVERY ACHIEVED FOR KAMEELBURG - ADDENDUM

Aldoro Resources Ltd ("Aldoro", "The Company") (ASX: ARN) refers to the announcement lodged with ASX on 15 July 2024 titled "62.4% Niobium Recovery Achieved for Kameelburg" and attaches an addendum to this announcement with additional information on the metallurgical results included in the announcement.

This Announcement has been approved for release by the Board of Aldoro Resources Ltd

#### **About Aldoro Resources**

Aldoro Resources Ltd is an ASX-listed (*ASX: ARN*) mineral exploration and development company. Aldoro has a portfolio of critical minerals including rare earth, lithium, rubidium and base metal projects. The Company's suite of projects include the Kameelburg REE Project in Namibia, the Wyemandoo lithium-rubidium-tungsten project, the Niobe lithium-rubidium-tantalum Project and the Narndee Igneous Complex in Western Australia.





The metallurgical results are from an open cycle, a combination of multiple tests, rather than a locked cycle where one continuous flow of material used. While this in not a continuous process, details of the circuit work are as follows:

- 1) Primary grind conducted with stainless steel rods and barrel.
- 2) Sample leached in 5% acetic acid for 30minutes.
- 3) Sample stage milled to 98% passing 100micron and deslimed at 5 micron using 1" cyclone and discarded.
- 4) The flotation cell included the following Reagents 5% Na<sub>2</sub>CO<sub>3</sub>, Armeen C at 1.0% and W22C at 100% (later two being propriety chemicals).
- 5) pH 9.14 . Eh 128 mV.
- 6) Deleterious Head grades (prior to testing) were MgO at 1.26%, CaO 40.4%, SiO $_2$  at 4.39%, P at 2.01% and Fe at 7.90% and LOI at 10.6% (ICP-MS), final assays are yet to be calculated.
- 7) The Wet High Intensity Magnetic Separator (WHIMS) was set at 10,000 gauss.

These results regarding sample KM004B were completed by Bureau Veritas Minerals Laboratory based in Perth, for the Kameelburg Project.

The Company will keep the market updated as and when more results become available.

### **Competent Person Statement**

The information in this announcement that relates to Exploration Results and other technical information complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). It has been compiled and assessed under the supervision of Mark Mitchell, technical director for Aldoro Resources Ltd. Mr Mitchell is a Member of the Australasian Institute of Geoscientists and 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 Code. Mr Mitchell consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.





## JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

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 downhole 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>	<ul> <li>Drilling conducted using a Hilti portable drill with a 100mm diameter diamond core barrel.</li> <li>Individual core lengths up to 1m were collected for bench tests.</li> <li>Multiple holes drilled at each site to obtain the fresher material.</li> <li>Samples collected from multiple sites across the carbonatite</li> </ul>
Drilling techniques	<ul> <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>	Diamond core, holes were vertical into selected sites.
Drill sample recovery	<ul> <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>	<ul> <li>Core lengths varied due to breakage at weakness in the 1m core.</li> <li>Multiple sites taken across the Carbonatite targeting the beforsite facies.</li> <li>No relationship was established between sample recovery and grade.</li> <li>.</li> </ul>
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> </ul>	<ul> <li>No detailed logging across the 1m interval only a rock classification.</li> <li>Logging was considered quantitative in nature.</li> </ul>





Criteria	JORC Code explanation	Commentary
	<ul> <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>	
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>	<ul> <li>Core was kept whole for metallurgical purposes.</li> <li>The core sampling and the techniques applied are appropriate for metallurgical investigations. They are intended to be used is TREE and Nb recovery purposes.</li> <li>The quality control procedures for the core sampling are considered appropriate.</li> <li>Due to the small number of metallurgical samples these are not considered representative and not used in resource calculations, the sampling is considered adequate.</li> <li>The size of the samples is considered appropriate for bench testing.</li> </ul>
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>	<ul> <li>The core samples were consigned to Bureau Veritas Laboratory in Perth for bench testing which includes crushing homogenising for head assay analysis by laser ablation ICP MS.</li> <li>The results are from an open cycle, combination of multiple tests, rather than a locked cycle where one continuous flow of material used.</li> <li>The open circuit work included</li> <li>Primary grind conducted with stainless steel rods and barrel.</li> <li>Sample leached in 5% acetic acid for 30minutes.</li> <li>Sample stage milled to 98% passing 100micron and deslimed at 5 micron using 1" cyclone</li> <li>Reagent used 5% Na2CO3, Armeen C at 1.0% and W22C at 100% (the latter two are proprietary reagents) in floatation cells.</li> <li>pH 9.14, Eh 128 mV</li> <li>Deleterious Head grades (initial sample analysis) MgO at 1.26%, CaO 40.4%, SiO2 at 4.39%, P at 2.01% and Fe at 7.90% and LOI at 10.6%, final grades are yet to be calculated.</li> <li>WHIMS set at 10,000 gauss.</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul> <li>Standards are not considered relevant to the metallurgical process.</li> </ul>
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>	<ul> <li>No verification sampling required as the samples are for bench testing for REE and Nb extraction.</li> </ul>
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>	<ul> <li>The datum used the WGS84-33S,</li> <li>Orthophotos were acquired using a digital camera mounted in a fixed wing aircraft. Ground control points were used for Topographic control</li> </ul>
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>The metallurgical samples were targeted using historical analytical data, site evaluation (wide outcrop with limited surface alteration).</li> <li>The core samples are designed for developing a metal recovery flow sheet that is scalable. The results are not be considered in any context of mineral grade or resource estimation. Therefore, no resource inferences can be made. The drilling data is not sufficient to indicate any continuity of mineralisation at depth.</li> <li>No mineral compositing has been done for the core.</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>	<ul> <li>The core sites were based on the various beforsite phases for designing a metallurgical extraction process for REE and Nb.</li> <li>The type of drilling and scope of the sampling is not aimed at identifying key mineralisation structural orientations.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were collected by company personnel and chaperoned until freighted by DHL to Bureau Veritas.</li> </ul>





Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data	No audit reviews were conducted

# 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> <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 any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Exclusive Prospecting Licence EPL 7373 is held by Aldoro's JV partner Logan Exploration and Investments CC, the licence is currently being renewed. No native title, wilderness or National Parks impacted. Licences are on local pastoral licences, sub surface minerals owned by the state.</li> <li>All three Project EPL's are held by the related agreement parties. All three licences have renewals pending, as this is their first renewal period no impediments are envisaged. All necessary documents to fulfil the renewal process have been lodged.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous relevant exploration was undertaken by: AMCOR (1960s-70s), results are not quoted in this release.</li> <li>Kinloch Resources Limited (2012-2016), results are not quoted in this release</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The Kameelburg Project is located in the northern Central Damara Orogenic Belt in Namibia and covers the Cretaceous Kameelburg Carbonatite plug and associated radial dykes intruding precursor syenites in the older host Neoproterozoic marbles and schists. The plug is approximately 1.4km in diameter and rises up to 275m above the surrounding peneplain. The intrusion consists of an initial pre-curser phase of nepheline syenite/syenite followed by two sovite and three beforsite phases with remanent rafts of volcanic breccia and syenite, the vestiges of earlier intrusive phases. The country rock consists of marbles, quartzite's, mica schists of the Damara Supergroup. Rare earth metals are known to occur in all five phases with higher





Criteria	JORC Code explanation	Commentary
		concentrations in the more magnesium and iron rich beforesites. The REE mineralisation style is consistent with fractionated carbonatite intrusive plugs.
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>	<ul> <li>Rock assay results have previously been tabulated, see         ASX:ARN 20 March 2023) in the report have co-ordinates the         RL's are derived by the handheld GPS the DEM values are yet         to be allocated.</li> <li>Drilling information is supplied in the text. All holes were short         vertical holes designed to collect enough material for bench         testing.</li> <li>No pertinent information has been excluded in this release.</li> </ul>
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>	<ul> <li>No weighting or averaging techniques or truncations are undertaken.</li> <li>No data aggregation methods were used.</li> <li>No metal equivalents have been used.</li> </ul>
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>	<ul> <li>No relationships between mineralisation widths and intercepts have been made.</li> <li>No comment on the geometry of the mineralisation has been made.</li> <li>Conversion of down hole to True width has not been done as no down hole orientation data is available.</li> </ul>





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Diagrams	<ul> <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>	<ul> <li>Appropriate location and geology maps are presented in the body of the announcement</li> </ul>
Balanced reporting	<ul> <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>	<ul> <li>Nb calculations use an element to oxide factor of 1.4305 (Nb<sub>2</sub>O5).</li> <li>All relevant exploration data has been presented</li> </ul>
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 relevant data has been reported
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>	<ul> <li>The forward work programmes include completing the geological mapping and sampling, modelling for drill collar locations and drilling at both the Nb dykes and the REE rich beforsite dykes. The metallurgical sampling was outlined in the ASX:ARN 26 September 2023.</li> <li>The metallurgy is ongoing with a focus now turned to a finer grind and micro floatation cells for both the REE and Nb recovery.</li> <li>No diagrams of future work are provided in this release.</li> </ul>

