

# KAMEELBURG NIOBIUM ASSAYS REVEAL UP TO 9.03% Nb<sub>2</sub>O<sub>5</sub>

## Highlights

- Latest niobium assays received with results ranging from <u>5.77% to 9.03%</u> <u>Nb₂O₅</u> for all six (6) selected niobium rock chip samples
- Niobium samples located within a pyrochlore-rich dyke and has limited exposure due to its presence along the colluvium rich shadow of the giant carbonatite (with diameter spanning 1.4km and rising to 275m in height)
- Drilling of niobium-rich dyke planned discussions advancing with experienced local drilling contractors
- Further investigation to proceed on additional dykes and niobium potential along peripheral zones of the Kameelburg Project

Aldoro Resources Ltd ("Aldoro", "The Company") (ASX: ARN) is pleased to confirm latest niobium results with all six (6) dyke sample assays ranging from 5.8% to 9.03% Nb<sub>2</sub>O<sub>5</sub>. These latest results highlight the potential of the area around the periphery of the Kameelburg REE-rich carbonatite, known to contain niobium-rich dykes with historical samples reporting up to 4.75% Nb<sub>2</sub>O<sub>5</sub> (*Refer to announcement ASX: ARN 20 March 2023*).

Recent investigation at this peripheral dyke revealed an outcrop striking at 315° over 15m, up to 0.5m wide and dipping to the east at 62°. The dyke is located in a nepheline syenite host of the Kameelburg carbonatite and is obscured by colluvium, soil development and vegetation.

Sample	Easting	Northing	Elevation	Datum	Nb <sub>2</sub> O <sub>5</sub> %
KM00300_1	6209911	7702088	1457	WGS84_33S	7.58
KM00300_2	6209911	7702089	1457	WGS84_33S	8.65
KM00300_3	6209911	7702090	1457	WGS84_33S	9.01
KM00300_4	6209910	7702091	1457	WGS84_33S	9.03
KM00300_5	6209910	7702092	1457	WGS84_33S	5.83
KM00300_5_DUP	6209910	7702092	1457	WGS84_33S	5.77
KM00300_6	6209910	7702092	1457	WGS84_33S	6.49

Table 1: Niobium assay data from the 6 samples (including one duplicate) taken along the exposed section of the dyke.







Figure 1: Location of the Nb-rich dyke, sample point 13KMRC0300 located some 400m SW of the interpreted margin of the Carbonatite and striking parallel the margin.



Figure 2: Niobium bearing dyke KMRC0300 showing width and outcrop at two sites. Note the ground slope and thick regolith and vegetation cover obscuring much of the area.





#### Next steps for Aldoro

The Company plans to undertake drilling as part of further investigation into the extent of niobium enrichment within the peripheral dyke. Discussions are advancing with local experienced drill contractors on this front. Aldoro also continues to investigate additional dykes along peripheral zones of the Kameelburg carbonatite, with the intention of unlocking further niobium potential within the entire project region.

#### Table 2: Full analytical results

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Element				Ce	Dy	Er	Eu	Gd	Hf	Но	La	Lu	Nb	Pr	Sm	Tb	Tm	Y	Yb
Unit Symbol				ppm															
Analysis Method				FP6/MS															
Lower Detection Limit				0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	10	0.1	0.1	0.1	0.1	0.5	0.
Upper detection Limit				300000	50000	50000	50000	50000	50000	20000	200000	10000	300000	100000	100000	20000	10000	500000	5000
Sample	Easting	Northing	Elevation																
KM00300_1	6209911	7702088	1457	22.7	0.9	0.4	0.4	1.2	0.6	0.1	11.8	х	53021	2.8	1.8	0.2	х	4.3	0.3
KM00300_2	6209911	7702089	1457	22.5	0.7	0.3	0.3	1.1	0.3	0.1	11.3	х	60464	2.7	1.7	0.1	х	3.7	0.
KM00300_3	6209911	7702090	1457	28	1.3	0.5	0.6	1.7	0.3	0.2	13.7	х	62960	3.3	2.4	0.2	х	6	0.
KM00300_4	6209910	7702091	1457	36.7	0.7	0.2	0.4	1.1	0.4	0.1	18.1	х	63132	4	2.2	0.2	х	3.6	0.
KM00300_5	6209910	7702092	1457	7.2	0.4	0.2	0.2	0.5	0.6	х	3.7	х	40750	0.8	0.7	х	х	1.9	0.
KM00300_6	6209910	7702092	1457	13.5	0.6	0.3	0.3	0.9	0.2	0.1	6.5	х	45372	1.5	1.1	0.2	х	2.5	0.
KM00300_5_DUP	6209910	7702092	1457	7.2	0.4	0.2	0.2	0.5	0.4	х	3.6	х	40309	0.9	0.7	х	х	1.9	0.



Figure 3: Geological Map of the Kameelburg Carbonatite derived from published data (after Prins, 1981) with >1% TREO contour. Datum is UTM WGS84 zone 33.

#### <u>References</u>

**Prins (1981**): Figure 18.9 page 18-23, Section 18.4 Ondurakorume Carbonatite Complex by V.J. Verwoerd. Geological Survey of Namibia Publication: The Geology of Namibia, Vol3: Palaeozoic to Cenozoic by R.McG.Miller





#### **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 projects include the Kameelburg REE Project in Namibia, the Wyemandoo lithium-rubidium-tungsten project, the Niobe lithium-rubidium-tantalum Project and the Nandee Igneous Complex in Western Australia.

#### Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Aldoro operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Aldoro's control.

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#### **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.

This announcement has been approved for release to ASX by the Board of Aldoro Resources





### 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>Rock samples were collected from outcrop/subcrop of the targeted dyke. At each site approximately 1-5kg of the targeted lithology was collected. Each sample was bagged and tagged (internally and labelled externally).</li> <li>Sample Duplicates. A duplicate sample was collected at the 5<sup>th</sup> of the 6 samples collected.</li> <li>Data recording. At each site pertinent geological and location information was recorded on datasheets, which were later entered into digital spread sheets. Each site was photographed covering each sample was crushed, pulverised and subsampled (Intertek SP02) and a charge fused with lithium borate and an ICP-MS finish (FP6). Prep work was conducted at Interteks Tsumeb laboratory before being exported to their Perth laboratory for analysis.</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>	No drilling reported.
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>No drilling reported.</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>	No drilling reported.







Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<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> <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>No drilling reported.</li> <li>For the rock chip and soil sampling the techniques applied are appropriate for initial investigations. They are not intended to be used is any resource calculations.</li> <li>The quality control procedures for the rock sampling are considered good in respect to the use of duplicates and standards which were used to measure the repeatability and consistency of the analytical results.</li> <li>While the measure of representativity is somewhat biased with small samples based on dominate lithology present for the purposes of exploration potential (not resource calculations) the sampling is consider adequate.</li> <li>The 1-5kg rock samples are appropriate given the dykes mineral grainsize. The soil sample size is appropriate given the amount of material sieved to get the sufficient fine material.</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 rock samples were consigned to Intertek's Tsumeb facility before being shipped to Intertek's Genalysis Laboratory in Perth for Lithium Borate Fusion and ICP-MS finish. These techniques are considered appropriate given the refractory nature of REE in conventional total acid leaches. It is unknown what assay techniques were used for the drill samples.</li> <li>No hand held instrument data is reported.</li> <li>Rock sample duplicates at every 5 samples and CRM's (OREAS-460) were conducted and were within acceptable tolerances.</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> </ul>	No drilling reported.





Criteria	JORC Code explanation	Commentary
Location of	<ul> <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>	The deturn used the WCS94 225
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>A Hitachi pXRF X-MET8000 Expert GEO unit with inbuilt GPS was used for location data</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 rock sampling was targeted on the outcropping dyke of interest from historical data.</li> <li>The surface sampling is adequate for delineating the 2D spread of any mineralisation but makes no interpretation of the vertical extent of mineralisation. The results must 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 surface samples, but for the drill samples some composition was done based on lithology.</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 grid rock sampling makes no consideration of any structures other than the dyke extending in country rock</li> <li>No drilling reported.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples collected by inhouse geologists and lodged with the laboratory under strict export/import procedures.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No sampling audit reviews are mentioned in the open file reports





# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Crite	eria	JORC Code explanation	Commentary
	ement and I tenure	<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 Licences EPL 7372. 7373 and 7895 see text and table in release for ownership, agreement type. 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 EPL 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, and are compliant with the various Acts and regulations, so the renewals should be a mere formality.</li> </ul>
	loration e by other ties	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>
Geo	logy	Deposit type, geological setting and style of mineralisation.	<ul> <li>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 concentrations in the more magnesium and iron rich beforesites. The REE mineralisation style is consistent with fractionated carbonatite intrusive plugs.</li> </ul>





Criteria	JORC Code explanation	Commentary
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 results tabulated 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>No drilling reported.</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 in the rock sampling.</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>No drilling conducted.</li> </ul>
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.	<ul> <li>Appropriate location and geology maps are presented in the body of the announcement</li> </ul>





Criteria	JORC Code explanation	Commentary
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>All rock assays have been provided, on the carbonatite and off the carbonatite see ASX:ARN 23 March 2023.</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.	<ul> <li>No other data apart from surface exploration data is presented in this release as the available metallurgical data is still underway.</li> </ul>
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>Short term future work plans involves detailed mapping sampling to reveal the high REE and Nb systems in the Carbonatite Complex. This will allow the placement of drill collarsy.</li> <li>Diagrams of future work are not provided as the review is required first.</li> </ul>

