

KAMEELBURG CARBONATITE GEOLOGICAL EXPLORATION UPDATE

Highlights

- Geological mapping of the Kameelburg main carbonatite in progress with primary focus on multiple beforsite dykes.
- A total of 22 highly prospective rock samples have been collected to date and lodged with Intertek for analysis.
- Completion of SEM Mineralogy for seven metallurgical samples as part of optimising Niobium and REE recovery flow sheet design.
- Highly experienced mineralogist identifies Ce monazites and ancylite as the dominant rare earth minerals and ferrocolumbite as the dominant Niobium mineral for selected samples.
- Preparations for maiden diamond drilling programme advancing.

Aldoro Resources Ltd ("Aldoro", "The Company") (ASX: ARN) is pleased to provide an update on geological mapping for the main Kameelburg carbonatite body in priority areas along the southern and eastern margins of the large carbonatite plug. To date twenty-two (22) beforsite samples have been collected. In addition, the Scanning Electron Microprobe (SEM) mineralogical interpretation of the seven (7) metallurgical samples was received identifying key Niobium (Nb) and Rare Earth Elements (REE) bearing minerals being monazite, ancylite, huanghoite and ferrocolumbite.

Sample_ID	Easting	Northing	Datum	Description	
V0701	630507	7702220	WGS84_33S	Dark, brown weathered beforsite with amphibole (green amphibole)and brick-red oxidized zones/spots	
V0702	630504	7702226	WGS84_33S	rse-grained beforsite with amphibole mineral, brick-red oxidized spots and dolomite	
V0703	630502	7702227	WGS84_33S	Siderite-rich unit with some dark mineral	
V0704	630509	7702230	WGS84_33S	Coarse-grained beforsite with amphibole mineral, brick-red oxidized spots and phenocrysts of dolomite	
V0705	630514	7702264	WGS84_33S	Very coarse-grained, light brown weathered beforsite with brick-red oxidized spots	
V0706	630500	7702366	WGS84_33S	Light brown weathered amphibole beforsite	
V0707	630545	7702385	WGS84_33S	Coarse-grained beforsite with amphibole mineral, brick-red oxidized spots	
V0708	630546	7702381	WGS84_33S	Coarse-grained beforsite with amphibole mineral, brick-red oxidized spots	
V0709	630592	7702147	WGS84_33S	Brown weathered beforsite with brick-red oxidized spots	
V0710	630603	7702228	WGS84_33S	Dark, brown weathered beforsite with amphibole (green amphibole)	
V0711	630612	7702326	WGS84_33S	Coarse-grained beforsite with amphibole mineral	
V0712	630618	7702223	WGS84_33S	Coarse-grained beforsite with amphibole mineral, brick-red oxidized spot	
V0713	630611	7702337	WGS84_33S	Coarse-grained, brown weathered beforsite with amphibole mineral, brick-red oxidized spots	
V0714	630611	7702384	WGS84_33S	Amphibole- rich beforsite	
V0715	630586	7702359	WGS84_33S	Amphibole- rich beforsite	
V0716	630656	7702363	WGS84_33S	Brown weathered amphibole beforsite with brick-red oxidized spots	
V0717	630659	7702361	WGS84_33S	Brown weathered amphibole beforsite with brick-red oxidized spots	
V0718	630683	7702364	WGS84_33S	Amphibole-rich beforsite with abundant brick-red oxidized spots	
V0719	630704	7702358	WGS84_33S	Coarse-grained beforsite with amphibole mineral. No visible brick-red oxidized spots	
V0720	630691	7702270	WGS84_33S	Red-brown weathered beforsite, No amphibole noted.	
V0721	630691	7702270	WGS84_33S	Duplicate of sample V0720	
V0722	630694	7702269	WGS84_33S	Red-brown weathered beforsite, No amphibole.	

Table 1 Dyke Rock Chip sampling







Figure 1: Southern Carbonatite Margin Geological mapping area with rock chip samples.



Figure 2: High interest rock chip samples V0708 and V0712





Metallurgical Analyses Ongoing

The Company commissioned the highly regarded mineralogist Dr Roger Townend from Diamantina Laboratories to conduct a SEM/EDS study of the REE and Nb minerals using representative splits from the full seven samples. The samples were screened at 2mm with the -2mm product mounted and polished on 6x2.5cm slides before being examined using the CSIRO SEM at Waterford.

Dr Townsend's summary reported:

- Ce monazites and ancylite were the dominant rare earth minerals detected by this study. Both of these minerals occur consistently as inclusions and associations with a barium bearing strontianite.
- The two rare earth minerals (identified) as clusters of relatively small grains, often produce aggregates in excess of 100u.
- Other gangue minerals that may be associated with and enclose the rare earth strontianite association include various carbonates, (dolomite, ankerite siderite, calcite rhodochrosite and complex Mg-Mn-Fe carbonate), hematite particularly in one sample, several barium minerals including barite, and romanechite, and two sodium amphiboles, riebeckite and richterite.
- Other rare earth minerals detected were huanghoite (exotic Ce mineral also found at Bayan Obo in China), and bastnasite, similarly associated with strontianite plus an unidentified cerium bearing barium sulfate.
- Ferrocolumbite was detected in KM 004B, as tabular crystals in a rare earth bearing strontianite calcite lithology.

The results from this study will allow for better discrimination of the processes required to liberate the REE and Nb minerals from the carbonatite ore.

The metallurgical samples used in the mineralogical study are detailed in Table 2 and were reported in ASX announcements by ARN on 6/12/24 and 19/10/23.

Preparations for Maiden Niobium Drilling Advancing

The current campaign for geological mapping and rock chip sampling are being used to strongly assist in targeting drill collars for the upcoming maiden 2,000m NQ diamond drilling programme targeting Niobium and REE. Concurrently, main access tracks have been designed with water bore holes to be drilled to facilitate the exploration programme, as shown in Figure 3.







Figure 3: Drill Planning, access tracks and water bores

Corporate Update

The Company wishes to advise that non-executive director Dr Caigen Wang has resigned from the Aldoro Board, effective from 2nd of April 2024, to focus on his increasingly demanding role with Aurum Resources Limited (ASX:AUE). The Aldoro board wishes to thank Dr Wang for his contributions to Aldoro and wishes him well for the future.





Kameelburg Geology Reference Map



Figure 4: Geological Map of the Kameelburg Carbonatite derived from published data (after Prins, 1981) with >1% TREO contour. Datum is UTM WGS84 zone 33.

Site_ID	Core Sample_ID	Easting	Northing	Elevation	Datum	Weight(kg)	Length(cm)
13KMRC0103	KM001B	630193	7703094	1539m	WGS84_33S	17.8	88
13KMRC0103	KM001C	630205	7703105	1538m	WGS84_33S	16.5	90
13KMRC0133	KM004B	631176	7702989	1613m	WGS84_33S	17	91
13KMRC0148	KM005A	630692	7702901	1734m	WGS84_33S	20	99
13KMRC0267	KM008A	630594	7702316	1632m	WGS84_33S	19.5	95
13KMRC0267	KM008B	630604	7702305	1628m	WGS84_33S	19	97
13KMRC0231	KM009A	631002	7702491	1564m	WGS84_33S	20.5	107
					Total	130.3	667

Table 2: Metallurgical Sample locations

<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 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.





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.





JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. 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 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. 	 Rock samples were collected from outcrop/subcrop of the targeted dyke. At each site approximately 1kg of the targeted lithology was collected. Each sample was bagged and tagged (internally and labelled externally). 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 (FB6). Prep work was conducted at Intertek's Tsumeb laboratory before being exported to their Perth laboratory for analysis. SEM samples used material from the Met sample drilling conducted using a Hilti portable drill with a 100mm diameter diamond core barrel. Individual core lengths up to 1m were collected for bench tests. Multiple holes drilled at each site to obtain the fresher material. Samples collected from multiple sites across the carbonatite (see ASX:ARN 6/12/24 for full details)
Drilling techniques	 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). 	 No drilling reported.
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. 	 No drilling reported.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate 	No drilling reported.





Criteria	JORC Code explanation	Commentary
Sub-sampling	 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. If core, whether cut or sawn and whether quarter, half or all core 	No drilling reported.
techniques and sample preparation	 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. 	 The rock chip sampling the techniques applied are appropriate for initial investigations. They are not intended to be used is any resource calculations. 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. 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. The 1kg 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.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 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. No handheld instrument data is reported. The SEM/EDS work was conducted at CSIRO SEM facility at Waterford in Western Australia by highly regarded mineralogist Dr Roger Townend of Diamantina Laboratories.





Criteria	JORC Code explanation	Commentary
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. 	No drilling reported.
Location of data points	 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. 	 The datum used the WGS84-33S, A Hitachi pXRF X-MET8000 Expert GEO unit with inbuilt GPS was used for location data
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. 	 The rock sampling was targeted on the outcropping dyke of interest from historical data. 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. No mineral compositing has been done for the surface samples, but for the drill samples some composition was done based on lithology.
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. 	 The grid rock sampling makes no consideration of any structures other than the dyke extending in country rock. No drilling reported.
Sample security	The measures taken to ensure sample security.	 Samples collected by inhouse geologists and lodged with the laboratory under strict export/import procedures.





Criteria	JORC Code explanation	Commentary
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.)

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. 	 Exclusive Prospecting Licences EPL 7372. 7373 and 7895 are under JV agreement. No native title, wilderness or National Parks impacted. Licences are on local pastoral licences, sub surface minerals owned by the state. 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.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Previous relevant exploration was undertaken by: AMCOR (1960s-70s), results are not quoted in this release. Kinloch Resources Limited (2012-2016), trigger results are quoted in this release and considered reliable as the author of this release took the samples.
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	 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. 	 Rock results tabulated in the report have co-ordinates the RL's are derived by the DTM. No drilling reported. No pertinent information has been excluded in this release.
Data aggregation methods	 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. 	 No weighting or averaging techniques or truncations are undertaken in the rock sampling. No data aggregation methods were used. No metal equivalents have been used.
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 (eg 'down hole length, true width not known'). 	 No relationships between mineralisation widths and intercepts have been made. No comment on the geometry of the mineralisation has been made. No drilling conducted.





Criteria	JORC Code explanation	Commentary
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. 	 Appropriate location and geology maps are presented in the body of 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. 	 All historical (Triger) rock assays have been provided, on the carbonatite and off the carbonatite see ASX:ARN 23 March 2023.
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. 	 No other data apart from surface exploration data is presented in this release including the available metallurgical.
Further work	 The nature and scale of planned further work (eg 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. 	 Short term future work plans involve detailed mapping sampling to reveal the high REE and Nb systems in the Carbonatite Complex. This will allow the placement of drill collars. Diagrams of future work are not provided as the review is required first.

