11 March 2024
THIS ANNOUNCEMENT CONTAINS INSIDER INFORMATION

Pensana Plc
("Pensana" or the "Company")

Update on Coola and Sulima West Exploration Programmes

Pensana (PRE.L) is pleased to report the interpretation of the geophysical surveys conducted late in 2023 over the Coola carbonatite and the Sulima West laterite located 75 kilometres north of the Longonjo project and of the commencement of a bulk metallurgical test work programme designed to test for the amenability of this mineralisation to be processed at Longonjo.

The Coola Exploration project of which the company has a 90% interest is located approximately 160 kilometres east of the Port of Lobito, originally covering an area of 7,456 square kilometres. The Company has completed multiple field programmes in 2020, 2021 and 2022 confirming carbonatite/alkaline rare earth mineralisation on two highly prospective targets, the Coola carbonatite and Sulima West laterite.

Highlights

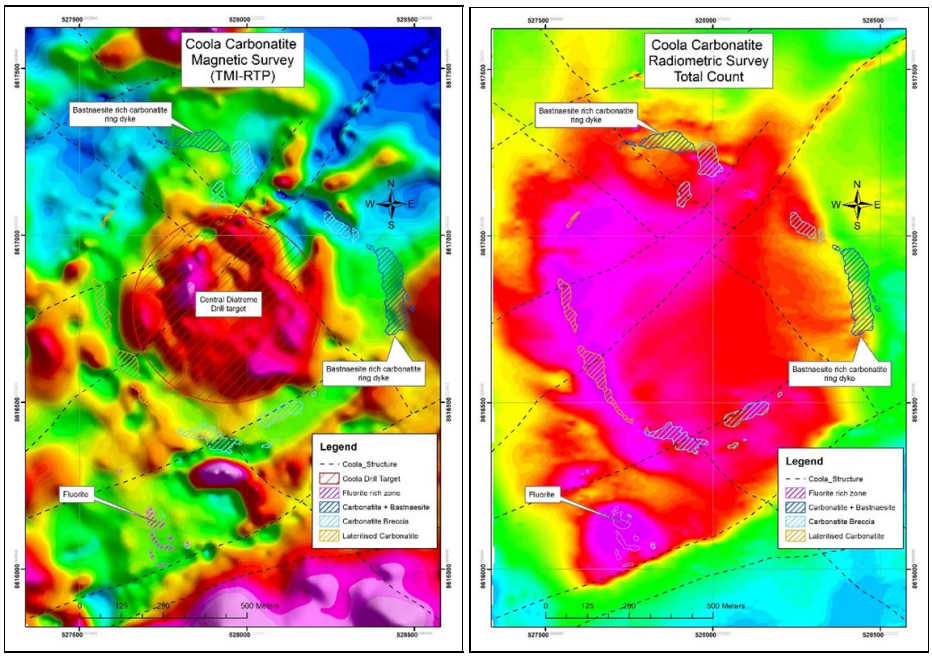
- **Coola confirmed as a 900 metre diameter carbonatite ring dyke with a similar scale and prospectivity to Longonjo;**
- **Sulima West has reported strong anomalies of high-grade Total Rare Earth Oxide (TREO) mineralisation for drill testing;**
- **A Coola carbonatite 4.7% TREO bastnaesite initial sample and a Sulima West 4.8% TREO enriched laterite initial sample have been sent for bulk metallurgical test work in South Africa; and**
- **These bulk samples will be tested for low-cost beneficiation to a high-grade concentrate at site for trucking to Longonjo for processing.**

A metallurgical test work programme at Blu Sky Mining laboratory in South Africa is underway to test the identified mineralisation for low-cost physical separation techniques which can be applied at site to produce a high-grade rare earth concentrate.

Successful results from these separation techniques will allow the drill programmes to target zones of mineralisation which have the potential to produce a high-grade concentrate at site. These concentrates may then be trucked to the Longonjo facility for processing.

Four bulk samples have been sent for metallurgical test work, including the Coola carbonatite initial sample reporting 4.7% TREO as mainly bastnaesite, and the Sulima West enriched laterite initial sample reporting 4.8% TREO as well as samples of fluorite and apatite.

These samples will be tested for multi-gravity, wet tables, WHIMS (wet high intensity magnetic separation), magnetic separation, and XRF/optical sorting with a view to concentrate generation ahead of processing at Longonjo, or as standalone mining opportunities in the case of the fluorite and apatite targets.



Figures 1 & 2: Coola carbonatite Magnetics (TMI-RTP - left hand image) showing central diatreme unique magnetic anomaly and Coola Radiometrics (Total Count - right hand image) showing fluorite rich plug.

Exploration Manager, Grant Hayward, commented:
"The Coola carbonatite magnetic survey has identified a number of compelling targets for follow-up and has clearly identified a large, roughly 600 metre diameter circular magnetic feature, with a unique magnetic signature occupying the central caldera.

We believe this to be a highly prospective, deeply weathered, volcanic pipe, or diatreme, which appears to have a similar scale to Longonjo. We knowthat the central areas of carbonatites often host supergene enriched REE deposits as is the case at Longonjo and so we are looking forward to drill testing this highly prospective target."

About the Coola Exploration Project

The Coola Exploration project is located approximately 160 kilometres east of Port of Lobito, originally covering an area of 7,456 square kilometres. Exploration is now focussed on two highly prospective targets: the Coola carbonatite and Sulima West, which are located between 40 and 100 kilometres north of the Longonjo project.

Pensana, through Coola Mining LDA in which Pensana holds a 90% interest, was granted the Coola exploration license in May 2020. It has since completed multiple field programmes in 2020, 2021 and 2022 involving geological mapping, rock chip sampling, trench and pit sampling, stream sediment sampling, initial radiometric surveys, close space soil sampling and assaying, confirming rare earth mineralisation across two carbonatites/alkaline complexes.

The **Coola carbonatite** is a roughly circular body, measuring about 900 metres across as, inferred from the limited outcrops of carbonatite and fenite. The circular shape suggests that the Coola carbonatite may be a ring dyke or breccia pipe, similar to the carbonatite at Longonjo. Rock chip sampling of the 0.9 kilometre diameter Coola carbonatite ring dyke returned values of between 0.6% and 4.9% TREO (average 2.6%).

Soil geochemistry over the covered carbonatite returned values of between 0.37% and 13.18% TREO (average 3.21%). Mineralogical studies of the Coola carbonatite identified the rare earth mineral to be bastnäsite, which occurs as discrete veins, veinlets, and segregations within the carbonatite.

Soil geochemistry over the fluorite-rich zone at Coola identified an area of 13 000 square metres with average fluorite values of 17% (Calcium Fluoride) CaF2.

Sulima West is a 4.2 kilometre diameter alkaline carbonatite ring complex with a corresponding high radiometric response. Ten historic trenches, each of about 90 metres in length located in the western segment of the structure, were identified and corresponded with the highest radiometric response.

Twenty-two reconnaissance samples were extracted from the trenches in 2021. The trenches were excavated into an iron/manganese-rich laterite very similar in appearance to the rare earth element laterite developed over the Longonjo carbonatite. Results of this initial sampling returned significant values for rare earth oxides with up to 10.6% TREO encountered in the laterite and averaging 4.2% TREO.

In Q2 2022, further trench and pit exploration activities were conducted at the Sulima West target, reporting initial rare earth grades of up to 9.7% TREO averaging 3.4% TREO over 68 metres at surface in the trench and up to 5.2% TREO, averaging 4.3% TREO over 6 metres at surface for the pit. Manganese oxide values of up 15.9% MnO and averaging 7.2% MnO were also reported. In addition, an outcropping hill of apatite-maghemite occurs to the north of the laterite which returned values of 22% P2O5.

The presence of highly anomalous TREO of >10%, the anomalous radioactivity, outcropping fenite, as well as significant manganese and supergene apatite, are all supportive of a carbonatite at depth.

For further details please go to https://pensana.co.uk/coola-exploration-project/ on the Pensana website.

The information contained within this announcement is considered by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No.596/2014. Upon the publication of this announcement via a Regulatory Information Service, this inside information will be considered to be in the public domain. The person responsible for arranging for the release of this announcement on behalf of the Company is *Paul Atherley, Chairman.*

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For further information, please contact:

Shareholder/analyst enquiries:
Pensana Plc
Paul Atherley, Chairman IR@pensana.co.uk

Tim George, Chief Executive Officer
Rob Kaplan, Chief Financial Officer