

ASX ANNOUNCEMENT

28 May 2021

MADAGASCAR DRILLING PROGRAMME – PHASE 1

Cassius Mining Limited (“Cassius” or “the Company”) (ASX Code: CMD), is pleased to advise shareholders of the initial drilling phase of its resource estimation programme at the 100% owned Soalara Limestone asset in Madagascar, following a successful capital raising.

HIGHLIGHTS

- ✓ Recent AUD 425,000 capital raising
- ✓ Location set up and initial drilling phase budget: approx AUD 210,000
- ✓ Phase 1 drilling: 4-5 vertical diamond core holes to 100m maximum depth
- ✓ Drill collars on 500m grid, central in overall project area, easy access, flat terrain
- ✓ Phasing improves flexibility to accommodate assay lead time / external risks (eg. Covid)
- ✓ Subsequent drilling pending Phase 1 result, weather / logistics risks, board approval
- ✓ Geological Contractor – Vato Consulting, Madagascar based, substantial experience
- ✓ Drilling Contractor at final stage of selection – Madagascar based
- ✓ Lab Assay Services – SGS South Africa (Johannesburg)
- ✓ Dry season starting soon in Madagascar reduces weather risk

SOALARA PROJECT BACKGROUND

The Soalara Project is located in southwest Madagascar¹, immediately south of St Augustin where the Onilahy River enters the Mozambique Channel and 28 kms south of the port town of Toliara. It consists of two contiguous permits encompassing a total area of 18.75 km². The permits are granted to Soalara Calcaire SARLU, 100% owned by Cassius. In 2015 both permits were granted for the exploitation (mining) of limestone, valid for a period of 40 years to 2055.

A coastal location supports prospects for bulk exportation of Limestone aggregate and cut dimensional stone, being in close proximity to St. Augustin deep water bay and the port of Toliara, in addition to supplying Limestone aggregate for domestic industrial manufacture of cement, lime, steel and glass.

¹ See Fig 1

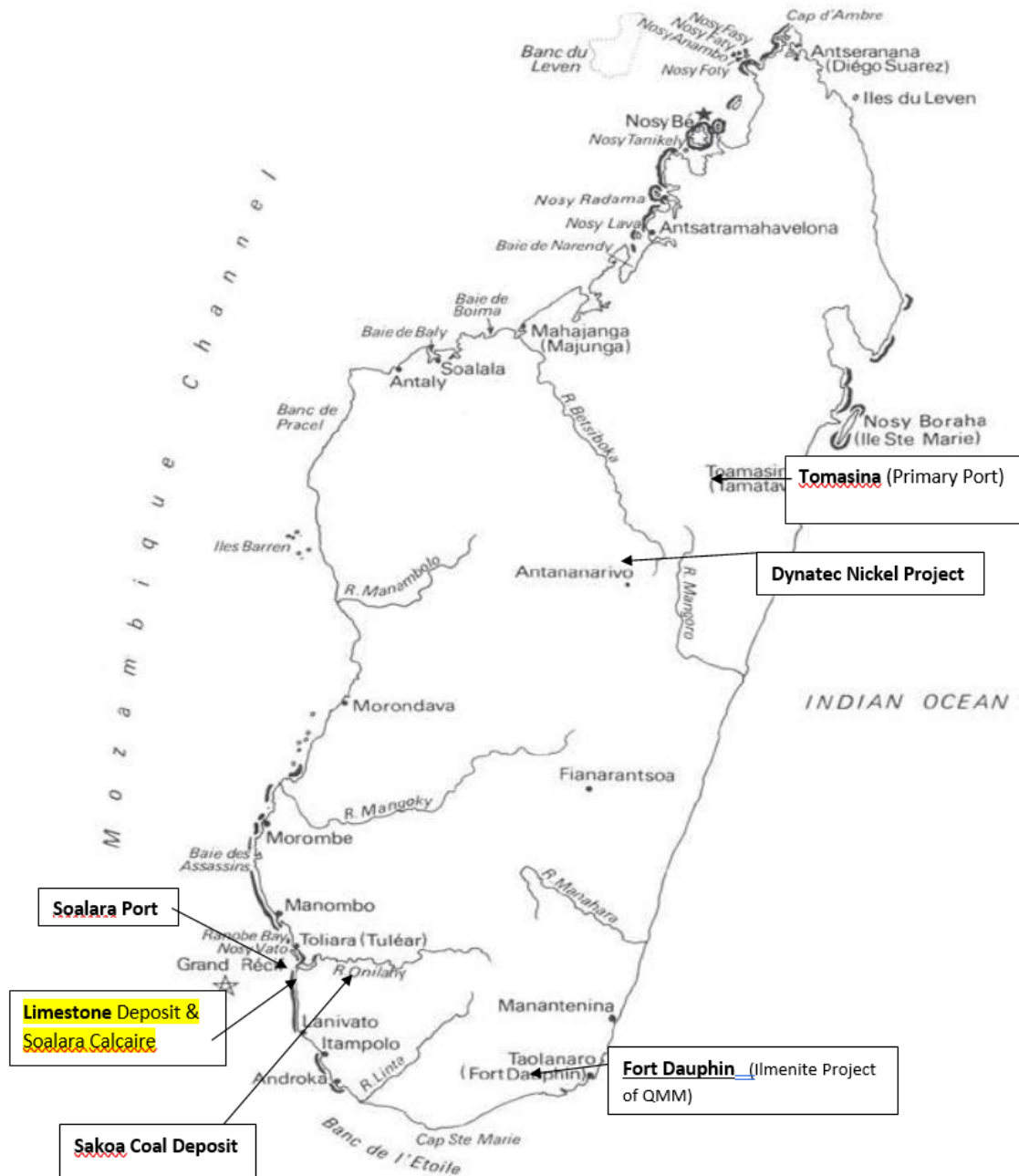


Fig 1 - Soalara: 28kms south of Toliara, and approx 750 kms south of the capital city Antananarivo

PREPARATION

Currently Madagascar has extended its previously reported Covid state of health emergency and curfew, with movement restricted in many regions except for essential services. All international flights (except for repatriation) and all domestic flights are suspended. It remains uncertain how long this status will continue for.

In the meantime the Company will process its permit requirements with the Madagascan

authorities, complete contractual negotiations with the service providers, and finalise on-ground preparations. This will include preparation of relevant initial drill sites and confirm ease of road access to be able to start the Phase 1 drilling programme.

GEOLOGY

The Soalara deposit includes a sequence of horizontally bedded Eocene limestones of 70-90m thickness, overburden free, exposed in cliffs and forming an elevated plateau. The exposed limestone can be sub-divided into two parts. A lower, slightly more compositionally variable sequence (approx 40m thick) is conformably overlain by an upper, more massive and compositionally uniform sequence (also approx 40m).

The limestone plateau exists along the coastal area on a regional basis, not only in the Soalara area. However in some locations the limestone has shell bearing beds and interlayered basalt, though not in the permit area. The limestone is buff coloured tending towards white in places with fine sugary texture on the fresh surfaces.

In Soalara, the deposit occurs as uniform horizontal beds of varying thickness from 0.5m to as much as 3m. The uniformity of the limestone deposit appears consistent with only minor structural disturbances. The top 13m exhibit some weathering progressively diminishing from surface. Beyond this depth the deposit shows its fresh state.

SRK ES previously collected samples² in 2016 along a 4.2 km length of the excellent cliff exposures in the west of the permits (including on the Limestone plateau itself), throughout the vertical sequences for geochemical analysis. SGS South Africa assayed the samples, identifying the lower limestone sequence as having an average 54.6% Calcium Oxide (CaO) and 0.4% Magnesium Oxide (MgO) content, corresponding to high purity limestone, with minor 1.03% Silicon Dioxide (SiO₂) and 0.21% Iron Oxide (Fe₂O₃) impurities.

The upper sequence appears to be even purer with an average 56.01% CaO and 0.21% MgO content, corresponding to very high purity limestone, with further reduced 0.27% SiO₂ and 0.07% Fe₂O₃ impurities.

An average 43.7% LOI (Loss on Ignition)³ was measured, being reasonably uniform across all lower and upper sequence samples.

A suite of data sets is planned to be taken for the drilling programme, including topographical data, drill collar co-ordinates, downhole surveys, geological and geotechnical logging, core photography and density, and geochemical assays.

² See Fig 2

³ Loss on ignition is reported as part of an elemental or oxide analysis of a mineral on heating. Volatile materials lost consist of "combined water" (hydrates and easily changed hydroxy-compounds) and carbon dioxide from carbonates.

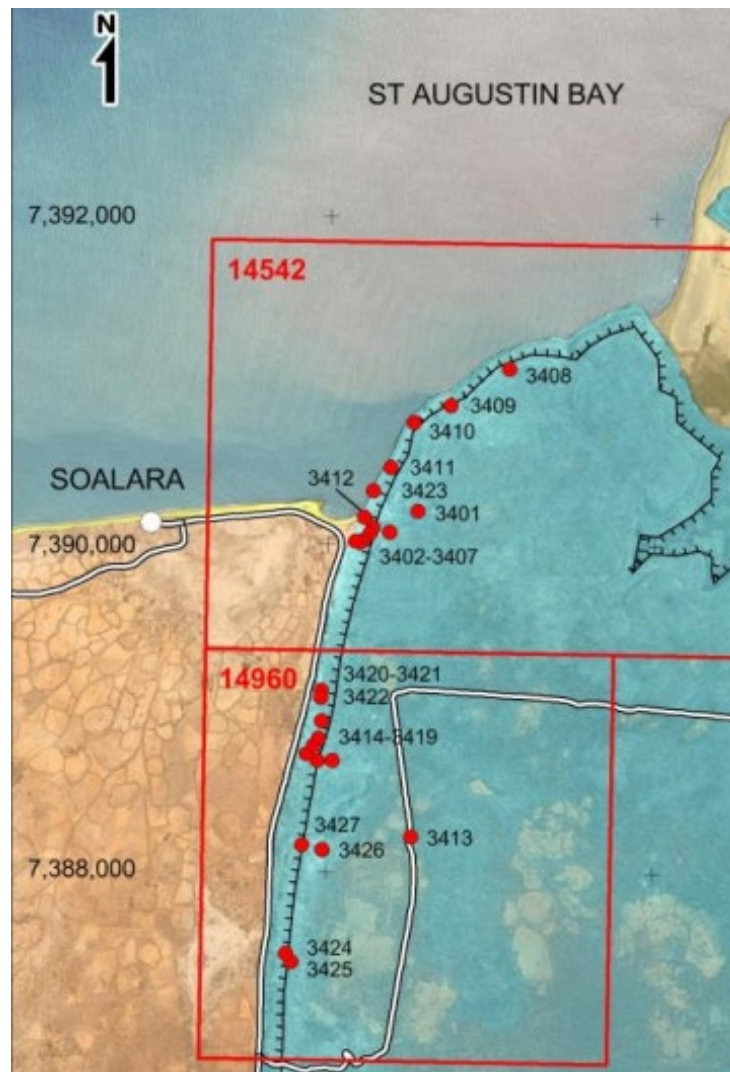


Fig 2 – Soalara Limestone Deposit ● & Sampling Points ●

DRILLING PROGRAMME – PHASE 1

Drill Collar grid spacing is based on field observations that the limestone appears at surface on the plateau to be reasonably consistent laterally across both permits. The drilling programme is designed to quantify both the lateral and vertical continuity of the purity of the Limestone, together with its geological and geomorphological characteristics for suitability to potential shallow open pit mining.

4 or 5 holes are in process of being selected from 9 candidates⁴ in Phase 1 of the drilling programme. Drilling progress to a subsequent stage will be dependent on board approval, results from Phase 1, as well as other external factors such as the influence of weather or Covid status. This phasing is designed to be an in-built quality, expenditure and efficiency control at all times.

⁴ Marked yellow in Fig 3

Phase 1 is expected to take around 15 days to drill using a single rig, plus permitting, mobilisation, set up and assay lead times. After acquiring the required datasets and collection of 1m samples for each core hole, all samples will be prepared by the Geological contractor and despatched securely to SGS in South Africa for assay.

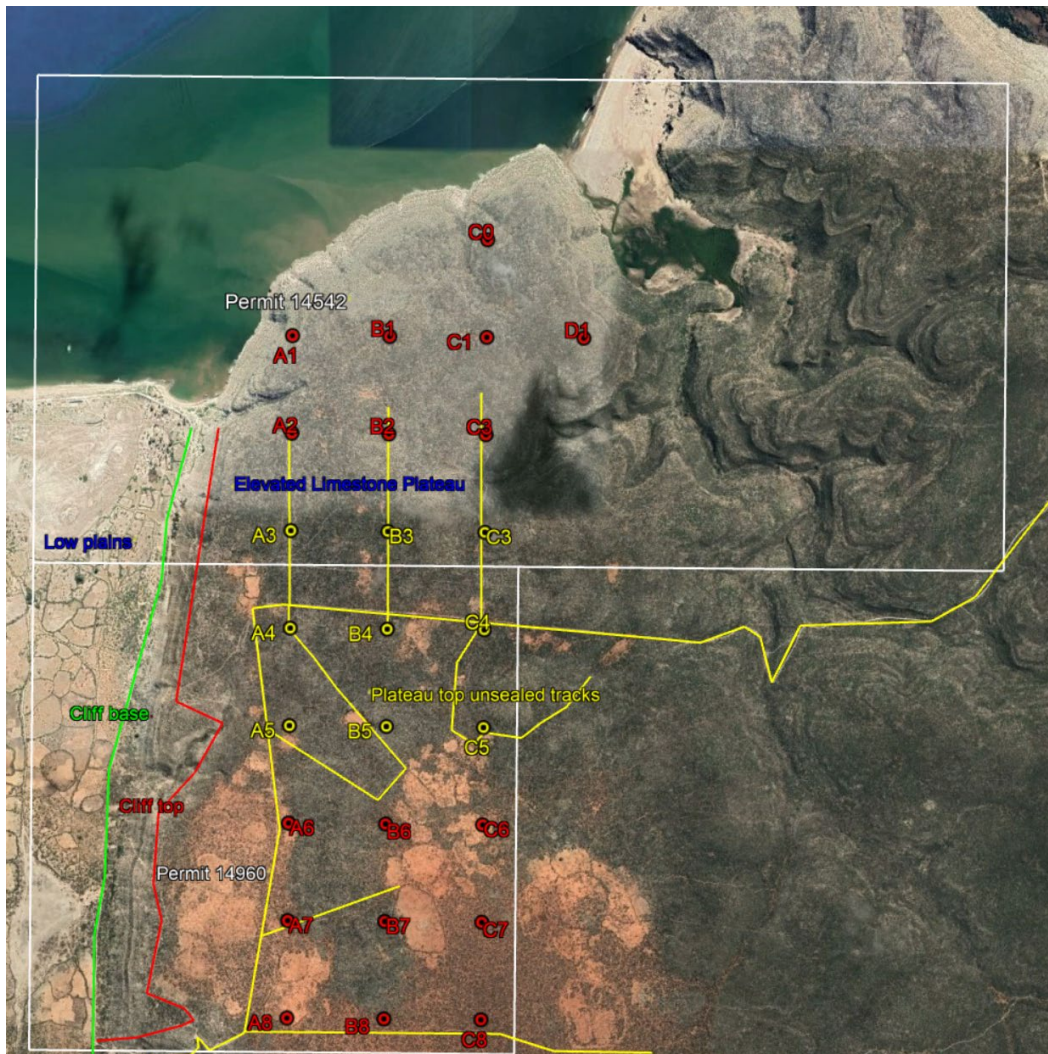


Fig 3 - Coastal location of Soalara: Permits 14542 + 14960, Drilling Grid, Access Tracks & Topography

INITIAL BUDGET

The initial budget for all permitting/preparation work, Phase 1 drilling and assays is estimated at approx AUD 210,000. A future Phase 2 would require separate consideration and potential approval at the time, following consideration of all relevant factors.

No permanent infrastructure is planned or budgeted for onsite at Soalara at this time. In-country Madagascan operations will be managed locally by the Geological contractor, with remote supervision by Cassius being conducted real time throughout the programme on a daily basis.

FURTHER INFORMATION

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SCHEDULE OF TENEMENTS AS AT 28 MAY 2021

Location		Tenement / Mining Lease Number / Special Licence Number					
Madagascar		R14542 – 100%, R14960 – 100%					
Permit	Company	Int (%)	Type	Expiry date	Grant date	Area (sq. km)	Commodity
14542	Soalara Calcaire SARLU	100	Exploitation (Mining)	03 Nov 2055	04 Nov 15	12.50	Limestone
14960	Soalara Calcaire SARLU	100	Exploitation (Mining)	03 Nov 2055	04 Nov 15	6.25	Limestone

The Licence Permits are held by wholly owned subsidiary Soalara Calcaire SARLU, the Permits were granted on 3 November 2015 and expire on 3 November 2055

Competent Person Statement

The information in this Report that relates to Exploration Targets and Exploration Results is based on information compiled by Dr David Jefferson who is a Member of the Institute of Materials, Minerals and Mining, a ‘Recognized Professional Organization’ (RPO) including in the list promulgated by the ASX from time to time. Dr Jefferson is a consultant working for SRK Exploration Services Ltd and has been engaged by Cassius Mining Ltd to prepare documentation for the Soalara Limestone Property. He has sufficient experience which is related to the style of mineralization and type of deposit under consideration and to the activity which has been undertaken, to qualify as Competent Person as define by the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”, Dr. Jefferson consents to the report being issued in the form and context in which it appears.

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This announcement contains summary information about Cassius, its subsidiaries and their activities which is current as

at the date of the announcement. The information in this announcement is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor may require in evaluating a possible investment in Cassius.

By its very nature exploration for minerals is a high-risk business and is not suitable for certain investors. Cassius securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to Cassius and of a general nature which may affect the future operating and financial performance of Cassius and the value of an investment in Cassius including but not limited to economic conditions, stock market fluctuations, gold price movements, regional infrastructure, constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

Certain statements contained within this announcement, including information as to the future financial or operating performance of Cassius, are forward looking statements that:

- May include, among other things, statement regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources, and anticipated grades and recovery rates, production, prices, recovery costs, results capital expenditure, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;
- Are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Cassius, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and,
- Involve unknown and known risk and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward looking statements.

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No verification: Although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in the Announcement has not been independently verified.

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