

#### 11 July 2022

# **SOALARA LIMESTONE - PHASE 1 CORE RESULTS**

Cassius Mining Limited ("**Cassius**" or "the **Company**") (**ASX Code: CMD**), is pleased to report its Diamond Core assay results from the Company's drilling programme<sup>1</sup> at its wholly owned Soalara Limestone asset in SW Madagascar.

#### HIGHLIGHTS

- > Phase 1 exploration results are part of a drilling program towards progressing to an MRE
- > 400m of Phase 1 coring confirms multiple significant limestone sequences at Soalara
- > All 4 holes confirm thick limestones, with occasional thin interbedded clayish limestones/clays
- > ~73% of all assays show an average of 97.02% wt CaCO3 ("High purity" limestone)
- > Best intersections at 97%+ Limestone purity (CaCO3 % wt) in each hole:
  - CMDD001: 29.30m of "High-Very High" purity Limestone between 1.0 and 41.1m
    - 73.1% of the interval
  - o CMDD002: 20.23m of "High-Very High" purity Limestone between 16.61 and 45.87m
    - 69.1% of the interval
  - CMDD003: 34.01m of "High-Very High" purity Limestone between 8.0 and 63.48m
    - 61.3% of interval
  - CMDD004: 25.95m of "High-Very High" purity Limestone between 6.7 and 45.81m
    - 66.4% of interval
  - CMDD004: 15.33m of "High" purity Limestone between 52.78 and 77.45m
    - 62.1% of the interval

#### Cassius CEO James Arkoudis comments:

"These exciting Phase 1 results from Soalara give us great encouragement to progress to the next phases of our drilling programme and the interim<sup>2</sup> JORC Resource estimation, to make this project successful for the benefit of our shareholders."

<sup>&</sup>lt;sup>1</sup> "Madagascar Drilling Programme – Phase 1" - ASX 28 May 2021

<sup>&</sup>lt;sup>2</sup> Cassius will conduct an initial MRE after Phase 2 drilling, before proceeding to Phase 3 drilling



#### Phase 1 Coring

4 Diamond core holes were completed between 7<sup>th</sup> February and 7<sup>th</sup> March 2022, vertically coring a total of 400.12m in HQ3 size. Total core recoveries varied from 89.44% to 94.07%, with an average of 92.02%.

Collar ID	Easting	Northing	RL	Azimuth	Inclination	Depth
CMDD001	370,601	7,389,501	108	0	-90	100.00
CMDD002	370,600	7,388,999	113	0	-90	100.12
CMDD003	371,103	7,389,502	101	0	-90	100.00
CMDD004	371,099	7,389,000	100	0	-90	100.00



Table 1: Soalara drill collars

Fig 1: Soalara completed Phase 1 Drill Collar grid locations & access tracks: CMDD001 to CMDD004



#### Overview

Mitchell's Classification (2011) for Limestone purity is used for evaluating the specific Limestone sequences cored in each of the four holes, as follows:

Limestone classification	CaO (wt%)	CaCO <sub>3</sub> (wt %)
100% limestone	56.03	100.0
Very high purity	> <mark>5</mark> 5.2	> 98.5
High purity	54.3 - 55.2	97.0 - 98.5
Medium purity	52.4 - 54.3	93.5 - 97.0
Low purity	47.6 - 52.4	85.0 - 93.5
Impure	< 47.6	< 85.0

# Calcium Carbonate content

Totally pure Limestone equates to 56.03% wt CaO (Calcium Oxide), equivalent to 100.0% wt CaCO3 (Calcium Carbonate).

The bedded limestone sequences intersected<sup>3</sup> at Soalara consist of predominantly calcite-clast dominant intramicrite (including fossil-bearing biomicrite and oolite-bearing oomicrite) varying in thickness from 6.16 to 35.84m, with occasional interbedded clays and clayish limestones varying in thickness from 1.06 to 7.91m.

The 420 sample assays across the 4 holes show CaO grades of up to 55.80% (average 52.59%), equivalent to a CaCO3 grade of up to 99.60% (average 93.87%). Excluding 112 of the 420 sample assays (~27% of the total) where impurities reduce CaO below 52.4% (93.5% CaCO3), the average grade of the balance 308 assays (~73% of the total) is 54.35% CaO (97.02% equivalent CaCO3) and sits in the "**High purity**" limestone class.

The lithology, CaO% purity and impurities for each of the 4 holes cored are shown in the following Figures 2-5.

<sup>&</sup>lt;sup>3</sup> Reported impurities or other physical properties are not considered to be of more relevance than the composition of the bulk limestone itself





Fig 2: CMDD001 Hole Lithology, CaO% Purity and Impurities with Depth

Two interbedded clayish limestones/clays of ~5.6-5.8m thickness occur at ~25-30.6m and ~59.7-65.5m, separating three limestone sequences from surface to 100m final depth (each of ~25-31.7m thickness). Impurities primarily include SiO2 (Silicon Dioxide), Fe2O3 (Ferric Oxide) and MgO (Magnesium Oxide).





Fig 3: CMDD002 Hole Lithology, CaO% Purity and Impurities with Depth

Two interbedded clayish limestones/clays of ~5.6-7.9m thickness occur at ~23-28.6m and ~55.2-63.1m, separating three limestone sequences from surface to 100m final depth (each of ~23-35.84m thickness). Impurities primarily include SiO2 (Silicon Dioxide), Fe2O3 (Ferric Oxide) and MgO (Magnesium Oxide).





Fig 4: CMDD003 Hole Lithology, CaO% Purity and Impurities with Depth

Three interbedded clayish limestones/clays of ~3.4-6.77m thickness occur at ~29.6-33.7m, ~36.47-43.2m and ~72.1-75.5m, separating four limestone sequences from surface to 100m final depth (each of ~2.7-29.6m thickness). Impurities primarily include SiO2 (Silicon Dioxide), Fe2O3 (Ferric Oxide) and MgO (Magnesium Oxide).





Fig 5: CMDD004 Hole Lithology, CaO% Purity and Impurities with Depth

Four interbedded clayish limestones/clays of ~2.2-5.2m thickness occur at ~22.6-24-8m, ~30.9-36.2m, ~65.2-68.7m and ~69.9-72.4m, separating five limestone sequences from surface to 100m final depth (each of ~6.1-29m thickness). Impurities primarily include SiO2 (Silicon Dioxide), Fe2O3 (Ferric Oxide) and MgO (Magnesium Oxide).



Weighted averages for CaO% and CaCO3% are calculated for the "very high", "high" and "medium" purity limestones (as summarised in Table 2 below). Weighted averages are not calculated for lower purity limestones, limestones with interbedded clays or clayish limestones.

Interval Weigh		ed Aver	age	Purity		
Collar ID	From (m)	To (m)	Interval (m)	CaO%	CaCO3%	Classification
	1.00	10.34	9.34	54.84	97.89	High
	12.73	24.20	11.47	54.76	97.75	High
	30.60	41.10	8.49	55.22	98.57	Very high
	41.10	51.48	9.96	53.77	95.98	Medium
CMDD001	52.96	59.74	6.78	53.84	96.11	Medium
	65.55	76.10	10.55	53.08	94.74	Medium
	76.10	79.17	3.07	55.11	98.38	High
	79.17	97.30	18.13	53.49	95.49	Medium
	97.30	100.00	2.70	55.13	98.41	High
	8.20	16.61	8.41	53.81	96.05	Medium
	16.61	23.00	6.39	55.15	98.45	High
	29.55	36.12	6.57	55.42	98.92	Very high
	36.12	38.60	2.48	52.99	94.59	Medium
CMDD002	38.60	45.87	7.27	54.43	97.15	High
	45.87	55.19	9.32	53.36	95.25	Medium
	63.10	71.02	7.92	53.65	95.76	Medium
	71.02	74.70	3.68	54.95	98.09	High
	74.70	95.93	20.05	53.67	95.80	Medium
	95.93	100.12	4.19	55.00	98.18	High
	8.00	21.30	13.30	54.92	98.04	High
	21.30	29.60	8.30	54.01	96.41	Medium
	33.70	36.43	2.73	54.82	97.84	High
	43.60	53.74	9.30	55.45	98.97	Very high
CMDD002	53.74	58.54	4.80	54.30	96.93	High
CIVIDDO05	59.60	63.48	3.88	54.90	98.00	High
	64.60	72.12	7.52	53.73	95.91	Medium
	75.54	87.70	12.16	53.58	95.63	Medium
	87.70	91.14	3.44	54.75	97.73	High
	91.14	100.00	8.86	53.45	95.41	Medium
	6.70	14.21	7.51	54.49	97.26	High
	14.21	19.91	5.70	52.86	94.35	Medium
,	19.91	22.59	2.68	54.53	97.34	High
,	24.80	30.96	6.16	54.80	97.83	High
	36.21	45.81	9.60	55.29	98.69	Very high
	45.81	51.95	6.14	53.81	96.06	Medium
	52.78	56.60	3.82	54.89	97.98	High
	58.78	65.22	6.44	54.37	97.05	High
	72.38	77.45	5.07	55.00	98.18	High
	77.45	81.09	3.64	52.67	94.02	Medium
	81.09	84.41	3.32	55.03	98.24	High
	84.41	96.76	12.35	53.78	96.01	Medium

Table 2: Soalara weighted averages for CaO%, CaCO3% and purity by hole

Weighted averages confirm significant "very high", "high" and "medium" purity limestone sequences, as summarised below:

#### Hole CMDD001

In total 8.49m of "very high" purity, 26.58m of "high" purity and 45.42m of "medium" purity limestone thicknesses were intersected (80.49% of total hole length):

- Best single intersection (very high)
- Best single intersection (high)
- Best single intersection (mgh)  $\rightarrow$
- → 8.49m @ 55.22% CaO (98.57% CaCO3)
- → 11.47m @ 54.76% CaO (97.75% CaCO3)
  - → 18.13m @ 53.49% CaO (95.49% CaCO3)

6.57m @ 55.42% CaO (98.92% CaCO3)

#### Hole CMDD002

In total 6.57m of "very high" purity, 21.53m of "high" purity and 48.18m of "medium" purity limestone thicknesses were intersected (76.18% of total hole length):

 $\rightarrow$ 

- Best single intersection (very high)
- Best single intersection (high)
  - section (high) → 7.27m @ 54.43% CaO (97.15% CaCO3) section (medium) → 20.05m @ 53.67% CaO (95.80% CaCO3)
- Best single intersection (medium)

#### Hole CMDD003

In total 9.30m of "very high" purity, 28.50m of "high" purity and 36.84m of "medium" purity limestone thicknesses were intersected (74.64% of total hole length):

- Best single intersection (very high)
- Best single intersection (high)
- Best single intersection (medium)
- → 9.30m @ 55.45% CaO (98.97% CaCO3)
- → 13.30m @ 54.92% CaO (98.04% CaCO3)
- → 12.16m @ 53.58% CaO (95.63% CaCO3)

#### Hole CMDD004

In total 9.60m of "very high" purity, 35.00m of "high" purity and 27.83m of "medium" purity limestone thicknesses were intersected (72.43% of total hole length):

• Best single intersection (very high)

• Best single intersection (high)

- → 9.60m @ 55.29% CaO (98.69% CaCO3)
- → 7.51m @ 54.49% CaO (97.26% CaCO3)
- Best single intersection (medium) → 12.35m @ 53.78% CaO (96.01% CaCO3)

Cross-sections of Limestone intervals (with CaO% and thickness) are shown in Figs 6-9 for each hole.





Fig 6: E-W cross section CMDD001 to CMDD003: Limestone Purity Intervals (CaO%) and Thicknesses with Depth





Fig 7: E-W cross section CMDD002 to CMDD004: Limestone Purity Intervals (CaO%) and Thicknesses with Depth









Fig 9: N-S cross section CMDD003 to CMDD004: Limestone Purity Intervals (CaO%) and Thicknesses with Depth



Following Figs 10-12 show core examples of "Very High", "High" and "Medium" purity Limestone:



Fig 10 - "VERY HIGH" purity core (CMDD003), 43.60 to 53.74m, weighted average 55.45% CaO (98.97% CaCO3 Limestone)





Fig 11 – "HIGH" purity core (CMDD003), 8.00 to 21.30m, weighted average 54.92% CaO (98.04% CaCO3 Limestone)





Fig 12 – "MEDIUM" purity core (CMDD002), 74.70 to 95.93m, weighted average 53.67% CaO (95.80% CaCO3 Limestone)

Weighted averages for Fe2O3%, MgO% and SiO2% impurities are summarised in Table 3 below, alongside CaO% and CaCO3% purity, for the "very high", "high" and "medium" purity limestones. Weighted averages are not calculated for lower purity limestones, limestones with interbedded clays or clayish limestones.

Collar ID	Interval		Weighted Average					
	From (m)	To (m)	Interval (m)	CaO%	CaCO3%	Fe2O3%	MgO%	SiO2%
	1.00	10.34	9.34	54.84	97.89	0.10	0.15	0.97
	12.73	24.20	11.47	54.76	97.75	0.22	0.20	0.90
	30.60	41.10	8.49	55.22	98.57	0.05	0.17	0.32
	41.10	51.48	9.96	53.77	95.98	0.24	0.26	1.90
CMDD001	52.96	59.74	6.78	53.84	96.11	0.30	0.32	1.52
	65.55	76.10	10.55	53.08	94.74	0.48	0.40	2.44
	76.10	79.17	3.07	55.11	98.38	0.15	0.24	0.54
	79.17	97.30	18.13	53.49	95.49	0.34	0.31	2.35
	97.30	100.00	2.70	55.13	98.41	0.08	0.27	0.65
	8.20	16.61	8.41	53.81	96.05	0.36	0.24	1.93
	16.61	23.00	6.39	55.15	98.45	0.10	0.14	0.48
	29.55	36.12	6.57	55.42	98.92	0.08	0.15	0.33
	36.12	38.60	2.48	52.99	94.59	0.15	0.15	3.90
	38.60	45.87	7.27	54.43	97.15	0.22	0.22	1.24
CIVIDDOUZ	45.87	55.19	9.32	53.36	95.25	0.38	0.34	2.15
	63.10	71.02	7.92	53.65	95.76	0.33	0.44	1.64
	71.02	74.70	3.68	54.95	98.09	0.11	0.39	0.36
	74.70	95.93	20.05	53.67	95.80	0.35	0.54	1.65
	95.93	100.12	4.19	55.00	98.18	0.10	0.31	0.52
	8.00	21.30	13.30	54.92	98.04	0.06	0.13	0.75
	21.30	29.60	8.30	54.01	96.41	0.28	0.23	1.65
	33.70	36.43	2.73	54.82	97.84	0.13	0.23	0.90
	43.60	53.74	9.30	55.45	98.97	0.04	0.20	0.23
	53.74	58.54	4.80	54.28	96.90	0.22	0.23	1.45
CINDDOOS	59.60	63.48	3.88	54.90	98.00	0.11	0.22	0.87
	64.60	72.12	7.52	53.73	95.91	0.41	0.31	1.75
	75.54	87.70	12.16	53.58	95.63	0.36	0.36	1.83
	87.70	91.14	3.44	54.75	97.73	0.15	0.33	0.67
	91.14	100.00	8.86	53.45	95.41	0.37	0.26	2.72
	6.70	14.21	7.51	54.49	97.26	0.13	0.22	1.43
	14.21	19.91	5.70	52.86	94.35	0.59	0.36	2.64
	19.91	22.59	2.68	54.53	97.34	0.14	0.21	1.21
	24.80	30.96	6.16	54.80	97.83	0.17	0.20	0.92
	36.21	45.81	9.60	55.29	98.69	0.08	0.21	0.39
CMDD004	45.81	51.95	6.14	53.81	96.06	0.20	0.23	2.64
	52.78	56.60	3.82	54.89	97.98	0.12	0.19	0.74
	58.78	65.22	6.44	54.37	97.05	0.20	0.31	1.19
	72.38	77.45	5.07	55.00	98.18	0.14	0.27	0.59
	//.45	81.09	3.64	52.67	94.02	0.49	0.39	2.59
	81.09	84.41	3.32	55.03	98.24	0.14	0.30	0.53
	84.41	96.76	12.35	53.78	96.01	0.38	0.27	1.94

Table 3: Soalara holes CMDD001-004: weighted averages for CaO% / CaCO3% purity and Fe2O3 / MgO / SiO2 impurity



#### **Conclusions and Forward Operations**

Phase 1 of the JORC Resource estimation drilling programme confirms multiple thick sequences of very high, high and medium purity Eocene Limestones (from >98.5% to 93.5% CaCO3) at the Soalara deposit, overburden free and interbedded with only occasional thin clayish Limestones and clays.

The upper Limestone sequences are generally of higher purity, with further significant Limestone intervals continuing thereafter from surface to final depth (~100m) in every hole.

Phase 1 also confirms lateral as well as vertical Limestone continuity with depth between all four holes, with CaO% and CaCO3% purity generally increasing in an easterly direction.

With ~73% of all assays from every metre of the Phase 1 drilling programme showing an average of 97.02%wt CaCO3, and therefore sitting in the "High purity" limestone classification<sup>4</sup>, the drilling programme remains on track to target a potential upgrade from the current JORC Exploration Target<sup>5</sup> to a JORC Resource<sup>6</sup>.

Phase 2 will be conducted with a further 5 holes (now in process of being planned) along the eastern and northern extensions of the Phase 1 holes (adjacent to the existing holes CMDD001, 003 and 004), on the existing 500m grid pattern for drill collars. Phase 2 is expected to start in August/September 2022, taking an estimated 35-45 days.

The Company has selected its consultants to conduct the initial JORC Resource estimation at the end of Phase 2, to include all 9 holes cored from Phases 1 and 2 combined.

After completion and the Company's review of that estimation, plans will then be finalised to conduct Phase 3 of the drilling programme as the next stage of the overall programme to drill up to a maximum of 26 vertical holes in total at Soalara, where Cassius already holds two contiguous Limestone Mining Licenses covering 18.75 km<sup>2</sup> (valid for Exploitation to 2055).

Cassius will further keep shareholders updated via ASX announcements as progress continues.

This has been authorized and approved by the board for release.

#### FURTHER INFORMATION

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<sup>&</sup>lt;sup>4</sup> Mitchell classification (2011)

<sup>&</sup>lt;sup>5</sup> "Soalara High Grade Limestone Project – Independent Technical Review" – ASX 19 May 2016, Dr.David Jefferson (Competent Person , CP). The Company is not aware of any new information or data that materially affects the information in the announcement. The form and context in which the CP's findings are presented have not been materially modified.

<sup>&</sup>lt;sup>6</sup> The potential quantity and grade of the defined Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

#### **Competent Person Statement**

The information in this statement that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Jannie Leeuwner – BSc (Hons) Pr.Sci.Nat. MGSSA and is a full-time employee of Vato Consulting LLC. Mr. Leeuwner is a registered Professional Natural Scientist (Pr.Sci.Nat. - 400155/13) with the South African Council for Natural Scientific Professions (SACNASP). Mr. Leeuwner has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and the activity being undertaken to qualify as a Competent Person as defined in the Note for Mining Oil & Gas Companies, June 2009, of the London Stock Exchange and the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr. Leeuwner consents to the inclusion of the information in this release in the form and context in which it appears.

#### Disclaimer

This ASX announcement has been prepared by Cassius. It should not be considered as an offer to subscribe for or purchase any securities in the company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the company will be entered into on the basis of this announcement.

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 financialadvisor. 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 provide movements, regional infra structure, 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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All forward looking statements made in this announcement are qualified by the fore going cautionary statements. Investors are cautioned that forward looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward looking statements due to inherent uncertainty therein. 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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# JORC Code, 2012 Edition – Table 1 Soalara Limestone Project

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

(Criteria in this section apply to all succeeding sections.)

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 down hole 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>Diamond drilling was used to obtain HQ3 size core, with the core cut using a diamond blade core saw.</li> <li>Samples were taken along the depth intervals and lithological sub-division mark-ups to gather representative samples.</li> <li>Sampling consists of approx. 1m samples of ½ core with breaks at lithological discontinuities - typical 1-3kg.</li> <li>Samples were oven dried, manually crushed to -2mm, split twice through a 50/50 riffle splitter to obtain a representative subsample of approx. 100g, and then pulverise that 85 % pass - 75µm.</li> <li>The pulp samples were sent to an accredited laboratory (SGS) in Perth, Australia for whole rock analysis by X-Ray Fluorescence (XRF) spectrometry.</li> <li>QA/QC procedures applied with alternating standards and blanks inserted every 20 samples, and two duplicates inserted every 100 samples.</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>	<ul> <li>Conventional wireline diamond drilling was used to obtain all drillcore and drilling was undertaken with a BMP250 trailer mounter drilling rig. Nominal core diameter was 61.1mm (HQ3) in 0.5-1.5m runs. Drill holes were inclined at -90° (vertical) and core is not orientated. A total of 4 diamond holes (CMDD001, CMDD002, CMDD003 and CMDD004) were completed during 1st phase of the 2022 drilling program and 400.12m were drilled.</li> </ul>
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 recovery is measured every run by geologists.</li> <li>Core recoveries of &gt;92% on average were achieved for sampled core. Cavities were intersected at drillhole CMDD001 (2.43m) from 31.75 to 33.76m and from 47.30 to 47.72m, at CMDD002 (2.09m) from 28.64 to 29.55m, from 75.88 to 76.23m and from 77.47 to 78.30m, at CMDD003 (1.24m) from 43.20 to 43.60m,</li> </ul>

Criteria	JORC Code explanation	Commentary
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> <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>	<ul> <li>from 44.86 to 45.30m and from 51.00 to 51.40m.</li> <li>No bias or relationship has been observed between recovery and grade.</li> <li>Logging includes descriptions of mineralisation, structural and lithological aspects of the core to support a future Mineral Resource Estimate (MRE). Lithologies are logged according to the Folks limestone classification system, which classifies limestone on basis of grain type and grain size.</li> <li>Logging is qualitative and all core is photographed dry and wet.</li> <li>All diamond core holes logged in their entirety.</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>½ cores are cut using a diamond core saw and collected for assays. Other ½ cores are stored.</li> <li>Samples are prepared at the OMNIS laboratory in Antananarivo and samples are oven dried, crushed to -2mm, split twice through a 50/50 riffle splitter to obtain a representative subsample, weighing approx. 100g and then pulverized that 85% pass -75µm. Pulp samples were sent to SGS an accredited laboratory, in Perth, West Australia for whole rock analysis by XRF spectrometry.</li> <li>QA/QC procedures applied with alternating standards and blanks inserted every 20 samples, and two duplicates inserted every 100 samples.</li> <li>1m sampling is deemed to be comprehensive and representative for the style/type of mineralisation under investigation.</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>Assays were conducted at the SGS laboratory in Perth, West Australia. SGS is accredited with NATA for Limestone using the XRF78S analysis method, which holds while transitioning to new a SGS Globally Aligned XRF72LS analysis method in 2022. For XRF78S the pulps were mixed with lithium metaborate / tertaborate mixture and fused in a platinum crucible at 1050°C on an automatic fusion machine. The molten fusion is poured into a platinum mold and cooled and after analysed using XRF spectrometry.</li> <li>QA/QC procedures applied with alternating standards and</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>blanks inserted every 20 samples, and two duplicates inserted every 100 samples in addition to the internal QAQC from the laboratory.</li> <li>Standards, blanks, and duplicates for drill sample analyses reported in this announcement have performed satisfactorily.</li> <li>AMIS0461 standards were inserted every 20 samples, AMIS0793 blanks were inserted every 20 samples. Duplicates from the sample preparation laboratory were included at a rate of 2 duplicates per 100 samples.</li> <li>It should be noted that the in-house AMIS0461 limestone standards consistently reported bias lower with an average of 0.22% for CaO. Selective samples will be sent to an external umpire lab for checks prior to commencing with an MRE.</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>All work was completed and significant intersections verified by Vato Consulting personnel.</li> <li>No twin holes have been completed, but are planned for future drill programs.</li> <li>All data is recorded on paper logs and after digitally using a standard logging system and files are stored in Excel files, with the objective being to import all data into an industry standard relational and auditable database to finalise a MRE.</li> <li>CaO has been converted to CaCO3 using a conversion factor 1.7845</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>Drill collar locations recorded with a handheld GPS (readings are average out with an accuracy of approx.1m for x/y). Final collar locations will be completed at the end of the drilling program by using differential GPS (dGPS) (with an accuracy to cm for x/y/z).</li> <li>Grid system used - UTM WGS84 Z38S</li> <li>Topographical survey will be completed at the end of the drilling program to produce at Digital Terrain Model (DTM).</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</li> </ul>	<ul> <li>Data spacing nominally 500m x 500m for drill hole collars.</li> <li>Data spacing sufficient for understanding controls on geological and grade/purity continuity due to the flat bedded nature of the limestone. No MRE estimated yet.</li> </ul>

Criteria	JORC Code explanation	Commentary
	classifications applied. <ul> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>No sample compositing has been applied, other than the weighted average calculations of mineralised intercepts for very high, high and medium purity limestones based on the Cox/Mitchell classification system. This system is used to establish various grades of limestone purity based on the CaO and CaCO3 contents:</li> <li>Very high purity &gt;98.5 CaCO3 wt% / &gt;55.2 CaO wt% High purity 97.0-98.5 CaCO3 wt% / 54.3-55.2 CaO wt% Medium purity 93.5-97.0 CaCO3 wt% / 52.4-54.3 CaO wt% Low purity 85.0-93.5 CaCO3 wt% / 47.6-52.4 CaO wt%</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>Vertical holes. Orientation of sampling is perpendicular to the flat bedding limestone sequence. No known bias present.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Samples retained onsite at a secure storage at the Soalara Project prior to dispatch to the OMNIS laboratory in Antananarivo. Samples bags were sealed as soon as sub- sampling was completed, and stored securely until dispatch to the laboratory in Australia via courier.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Company / Vato Consulting undertake a regular QA/QC review of all data. To date no problems encountered with quality.</li> </ul>

# Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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</li> </ul>	<ul> <li>Two Exploitation (Mining) permits (14542 and 14960) granted to Soalara Calcaire SARLU by Ministère auprès de la prèsidence chargé des Mines et du Pétrole (MPMP) and Bureau du Cadastre Minier de Madagascar (BCMM) on 04 November 2015 for a period of 40 years (expiring 03 November 2055). Exclusive</li> </ul>

Criteria	JORC Code explanation	Commentary
	known impediments to obtaining a licence to operate in the area.	<ul> <li>rights granted for exploitation of limestone (calcaire). Cassius fully owns Soalara Calcaire SARLU. Only agreements with 3 previous shareholders of Soalara Calcaire SARL. One shareholder paid in full with other two shareholders to receive the USD\$ 420,000 on first commercial shipment and a royalty. No known legal disputes relating to the property. Permits and Government admin fees in good standing.</li> <li>Security of tenure considered acceptable. No known impediments to operate in the area. Two Mining (Exploitation) Licenses have secure tenure until expiry on 3 Nov 2055.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Historical exploration completed by Services des Mines des Madagascar (1928-1948), Service Geologique (pre1966), Madagascar Mineral Resources SARL (2005-09) and Gulf Industrials (2010-15). Limited to geological mapping, geological observations, rock-chip sampling and geochemical analysis.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Soalara project contains flat bedded limestone deposited in a tropical marine environment in the Eocene period. Prospective limestone forms a plateau exposed in a cliff face up to 90-100m thick, divided into sequences based on clay content and lithological variability.</li> </ul>
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>To date only four diamond holes (CMDD001, CMDD002, CMDD003 and CMDD004) have been completed with drill collar data as stated in this release. Further staged drilling will be ongoing.</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</li> </ul>	<ul> <li>Significant results reported are weighted averages based upon sample length and very high, high and medium limestone purity grades.</li> <li>The intercepts reported in this release are reported in weighted</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	percent (%) calcium oxide (CaO), calcium carbonate (CaCO3), ferric oxide (Fe2O3), magnesium oxide (MgO) and silicon dioxide (SiO2).
Relationship between mineralisatio n 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>Vertical holes and the orientation is perpendicular to the flat bedding limestone sequence.</li> <li>Vertically orientated drilling results reflect true thicknesses of the limestone sequence.</li> </ul>
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>All relevant maps, sections and tabulations of drill hole collars provided in this release.</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>Exploration results reported corresponds to the assay results received for the 4 drill holes (CMDD001, CMDD002, CMDD003 and CMDD004) drilled so far. Further staged drilling will be ongoing.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Representative density measurements are completed using the Caliper Vernier method (for weathered core) and the Density Scale Air-Water method (for fresh core) for all lithologies identified during the logging process.</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>Additional diamond drilling planned in stages to target an extension of current Exploration Target to a potential JORC Resource for Limestone, to a total maximum of 26 vertical holes (each drilled to a maximum of 100m depth). Additional standardised chemical and physical test work for determination of the limestone qualities will be conducted.</li> <li>This and previous announcements contain plans and discussion of potential future extent of the Limestone deposit.</li> </ul>