

ASX Release

19 March 2024

DATELINE RESOURCES
LIMITED

(ACN 149 105 653)

ASX Code: DTR

CAPITAL STRUCTURE

Share Price (18/03/24) \$0.014
 Shares on issue 1.45 billion
 Market Cap \$20.3 million

MAJOR SHAREHOLDERS

| | |
|--------------------------------|--------|
| Mr. Mark Johnson AO | 20.18% |
| Mr. Stephen Baghdadi | 13.70% |
| Southern Cross Exploration N.L | 6.60% |
| National Nominees | 5.53% |

DIRECTORS &
MANAGEMENT

Mark Johnson AO
Chairman

Stephen Baghdadi
Managing Director

Greg Hall
Non-Executive Director

Tony Ferguson
Non-Executive Director

Bill Lannen
Non-Executive Director

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USGS confirm Mountain Pass and Colosseum zircons are “indistinguishable”.

Highlights

- USGS has undertaken zircon aging analysis for Colosseum and Mountain Pass
- The REE concentrations and chondrite-normalised spectra for the “Colosseum zircons are indistinguishable from the Mountain Pass zircons”.
- The Colosseum zircons have much lower U and Th (~20-50 ppm each) than Mountain Pass zircons (~100-800 ppm U, ~100-1,400 ppm Th)

Dateline Resources Limited (Dateline or the Company) is pleased to provide an update to rare earth studies being undertaken at the Colosseum Project in California. The studies follow on from previous mapping and sampling studies by the Company’s rare earth experts, Anthony Mariano PhD and Tony Mariano Jnr¹ (Marianos) as well as geophysical modelling undertaken in late 2023².

In October 2022, geologists from the United States Geological Survey (**USGS**) and Dateline’s own REE specialist Mr. Tony Mariano, visited Colosseum and collected samples, including those from a shonkinite dyke within the Colosseum mine area.

The USGS (United States Geological Survey) is a science bureau within the United States Department of the Interior with a budget of US\$1.8 billion for 2024.

Samples from previously identified outcrops of fenitized dikes were collected by USGS geologists for further analysis.

Using the available zircons in the samples collected, age dating was performed to obtain geochronological data. Using a SHRIMP-RG ion microprobe³, the USGS researchers concluded that REE concentrations and chondrite-normalised spectra for the Colosseum zircons are indistinguishable from the Mountain Pass Rare Earth mine zircons located 10km from Colosseum. This concurs with findings from the Marianos that the outcrops are genetically related and from the same period.

The recent geochemistry study⁴ of hole CM23-14 highlighted that there were elevated REE pathfinder elements associated with a granite intersected near the bottom of the hole. Further analysis, including analysis for various rare earth elements will be undertaken over the coming weeks.

Commenting on the study, Managing Director, Stephen Baghdadi, stated:

“The study by the USGS continues to add weight to the evidence that Colosseum has the potential to host a significant rare earth system with low uranium and thorium content. We have the right geology, the right timing and are in a known and proven rare earth district.”

“Whilst Dateline could have undertaken the age dating work on its own, its reassuring to have these results come from an independent US Federal agency.”

“The immediate focus is on drilling the gold deposit at Colosseum ahead of mine planning for underground mining and a mineral resource update, however we continue to progress planning and studies on the rare earth potential.”

¹ ASX Announcement 3 August 2022 – Colosseum rare earths field investigations

² ASX Announcement 20 October 2023 – Colosseum Rare Earths – Reprocessed data identifies several continuous high-density drill targets

³ Geological Society of America Abstracts with Programs, Vol 56, No. 4 2024

⁴ ASX Announcement 12 March 2024 – Gold drilling program expanded at Colosseum with second drill rig

USGS Abstract Summary – Technical Findings

Zircon Geochronology and Geochemistry Insights into A Shonkinite Dyke in the Colosseum Mine Area, Southeastern Mojave Desert, Ca

Geological Society of America Abstracts with Programs. Vol. 56, No. 4, 2024. doi: 10.1130/abs/2024CD-399680

Colosseum contains gold deposits hosted in Cretaceous rhyolite breccia pipes, which are much younger than the Mesoproterozoic (ca. 1.4 Ga) alkaline and carbonatite intrusions at the Mountain Pass REE mine.

Shonkinite dykes at Colosseum are mostly aphyric, but analysis of zircon from one sparsely porphyritic dyke enables a preliminary comparison to Mountain Pass zircons. High-spatial resolution (25 micron spot size) zircon data were collected with a SHRIMP-RG ion microprobe.

Due to the very low uranium concentrations (20-45 ppm), zircon U-Pb ages have relatively large errors. Based on 11 concordant analyses and excluding 14 other analyses based on discordance or very high (>100 Myr) single spot age errors, the error-weighted mean $^{207}\text{Pb}/^{206}\text{Pb}$ age is $1,453 \pm 44$ Ma.

Within error, these ages overlap the older end of the known age range of zircons from the Mountain Pass mafic alkaline intrusions (ca. 1,390-1,440 Ma).

Three concordant, inherited Paleoproterozoic zircons were also documented in the Colosseum sample, with $^{207}\text{Pb}/^{206}\text{Pb}$ ages of $1,623 \pm 18$ Ma, $1,643 \pm 29$ Ma, and $1,773 \pm 30$ Ma.

The inherited Paleoproterozoic zircons have much higher U (190-470 ppm), and a distinctly negative Eu anomaly in their chondrite-normalized REE spectra (0.1-0.3 ppm Eu), which is lacking in the primary Colosseum zircons (0.9-2.6 ppm Eu).

The REE concentrations and chondrite-normalized spectra for the Colosseum zircons are indistinguishable from the Mountain Pass zircons; however, the Colosseum zircons have much lower U and Th (~20-50 ppm each) than Mountain Pass zircons (~100-800 ppm U, ~100-1,400 ppm Th).

This announcement has been authorised for release on ASX by the Company's Board of Directors.

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About Dateline Resources Limited

Dateline Resources Limited (ASX: DTR) is an Australian publicly listed company focused on mining and exploration in North America. The Company owns 100% of the Colosseum Gold-REE Project in California.

The Colosseum Gold Mine is located in the Walker Lane Trend in East San Bernardino County, California. On July 6, 2022, the Company announced to the ASX that the Colosseum Gold mine has a JORC-2012 compliant Mineral Resource estimate of 20.9Mt @ 1.2g/t Au for 813,000oz. Of the total Mineral Resource, 258koz @ 1.2g/t Au (32%) are classified as Measured, 322koz @ 1.2g/t Au (39%) as Indicated and 235koz @ 1.3g/t Au (29%) as Inferred.

The Colosseum is located less than 10km north of the Mountain Rare Earth mine. Work has commenced on identifying the source of the mantle derived rocks that are associated with carbonatites and are located at Colosseum.

Forward-Looking Statements

This announcement may contain “forward-looking statements” concerning Dateline Resources that are subject to risks and uncertainties. Generally, the words “will”, “may”, “should”, “continue”, “believes”, “expects”, “intends”, “anticipates” or similar expressions identify forward-looking statements. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. Many of these risks and uncertainties relate to factors that are beyond Dateline Resources’ ability to control or estimate precisely, such as future market conditions, changes in regulatory environment and the behaviour of other market participants. Dateline Resources cannot give any assurance that such forward-looking statements will prove to have been correct. The reader is cautioned not to place undue reliance on these forward-looking statements. Dateline Resources assumes no obligation and does not undertake any obligation to update or revise publicly any of the forward-looking statements set out herein, whether as a result of new information, future events or otherwise, except to the extent legally required.

Competent Person Statement

Sample preparation and any exploration information in this announcement is based upon work reviewed by Mr Greg Hall who is a Chartered Professional of the Australasian Institute of Mining and Metallurgy (CP-IMM). Mr Hall has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Hall is a Non-Executive Director of Dateline Resources Limited and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.