# ASX Release 27 April 2022

# DATELINE RESOURCES LIMITED

(ACN 149 105 653) **ASX Code: DTR** 

### **CAPITAL STRUCTURE**

Share Price (26/04/22) \$0.125 Shares on issue 443 million Market Cap \$55.4million

#### **MAJOR SHAREHOLDERS**

Southern Cross Exploration NL 21.8% Mr. Mark Johnson AO 19.8% National Nominees Ltd 11.9% Stephen Baghdadi 5.9%

# 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

Mark Ohlsson Company Secretary

CONTACT
Mark Ohlsson
Phone: +61 2 9375 2353
Postal Address: P.O. Box 553
South Hurstville NSW 2221
Email: info@datelineresources.com.au



# REE Site Visit at Colosseum Confirms Possibility of Large Underlying Carbonatite Occurrence

## **Highlights**

- Lab analysis confirms fenite outcrops within Colosseum claim boundary
- Multiple mantle derived rock outcrops observed over 1.6km
- Possibility of large underlying carbonatite occurrence
- Follow up program of detailed structural mapping, sampling, and petrography underway

**Dateline Resources Limited** (ASX: DTR) (**Dateline** or the **Company**) is pleased to announce the Company's REE and carbonatite experts, Dr Anthony N. Mariano, PhD. and Mr Anthony Mariano Jr, have reported their findings of the February 2022 field work to the Company.

The Mountain Pass REE mine is located ~10km south-east of the Colosseum mine. The Mountain Pass REE mine is the only operating REE mine in the USA. Messrs Mariano have been mapping, sampling and advising on REEs in the Mountain Pass area for over 50 years.

### Commenting on the findings at Colosseum, Mr Mariano, said:

"The presence of lithologies associated with mantle derived systems such as the Mountain Pass Alkaline-Carbonatite system have not only been confirmed to exist in the Colosseum claim area, but additional previously unknown outcrop occurrences have been found through this field investigation. The occurrence of multiple outcrops of these lithologies at a distance of almost a mile apart within the Colosseum claims suggest the possibility of a large underlying alkaline carbonatite occurrence"



Figure 1. Looking north showing ~10km between Colosseum and Mountain Pass

The geological team visited a number of prospects and outcrops within the Colosseum claims during the site visit. Several of these locations were based on historical observations, whilst others were visited based on radiometric data and earlier site visits.

The geological team observed and noted several different rock types associated with the outcrops, including fenites and trachytes (Figure 2). Both rock types are lithologically related to carbonatite complexes and the Company's REE experts believe the rocks are genetically related to the geological events that created the nearby Mountain Pass carbonatite complex.



Figure 2. Outcrop of Trachyte dyke (COR-6). Trachyte is a mantle derived rock unit

### **Sampling and Analysis**

Four samples were collected and submitted for laboratory analysis (ICP/MS). Lab results showed the relative lanthanide distribution of the rare earth elements for three of the five samples analysed to be similar to rocks associated with carbonatite complexes (i.e. no negative europium (Eu) anomaly). Two other samples showed a negative Eu anomaly as would be expected in crustal derived granitic gneisses.

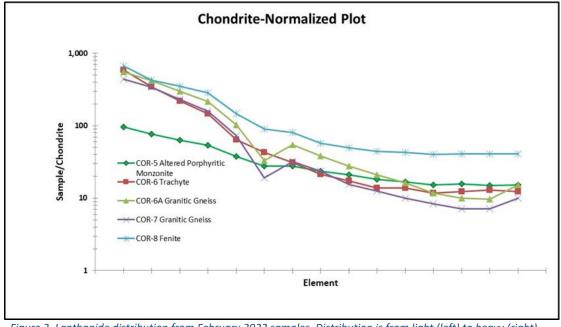


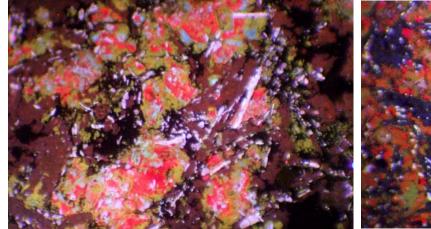
Figure 3. Lanthanide distribution from February 2022 samples. Distribution is from light (left) to heavy (right)

### **Petrographic and Cathodoluminescence Analysis**

As well as the ICP/MS analysis, the samples were also subject to petrographic and cathodoluminescence analysis (CL). The CL was particularly revealing in that it showed the brilliant red luminescence in the feldspars from Fe<sup>3+</sup> activation typical of fenites.

Figures 4 and 4a show CL micrographs of sample COR-8 and AMP 0-12 collected from within the Colosseum claim boundary. Figure 4b is a CL micrograph of sample taken from the Mountain REE mine

All three samples show similar brilliant red luminescence in the feldspars that are typical of fenites.



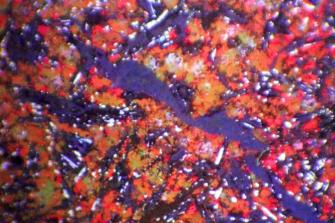


Figure 4. CL micrograph of fenite in COR-8 collected in February 2022

Figure 4a: CL micrograph of fenite in AMP 0-12 collected in the 1970's

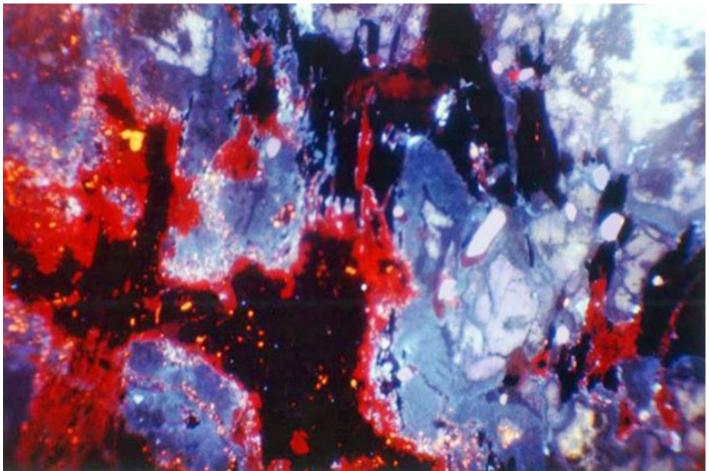


Figure 4b CL micrograph of fenite taken from the Mountain Pass Rare Earth Mine in the 1970's

### **Summary and Next Steps**

The findings from this site visit are encouraging for the following reasons:

- The presence of lithologies associated with mantle derived systems such as the Mountain Pass Alkaline-Carbonatite system have not only been confirmed to exist in the Colosseum claim area, but additional previously unknown outcrop occurrences have been found through this field investigation.
- Several analytical techniques used in evaluation of the samples provide data confirming the nature of these rock
- The occurrence of multiple outcrops of these lithologies at a distance of almost a mile apart within the Colosseum claims suggest the possibility of a large underlying alkaline carbonatite occurrence.
- Future work to map the Colosseum claim area for the presence of these lithologies and investigate the possibility of structural controls related to their emplacement is warranted.

The Company intends to complete a detailed mapping program across all the claims in Q2 2022, before planning a drilling program.

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

## For more information, please contact:

Stephen Baghdadi

Managing Director +61 2 9375 2353 www.datelineresources.com.au **Andrew Rowell** 

White Noise Communications +61 400 466 226 andrew@whitenoisecomms.com



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### **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 quality 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.

#### **About Dateline Resources Limited**

Dateline Resources Limited (ASX: DTR) is an Australian publicly listed company focused on gold mining and exploration in North America. The Company owns 100% of the Gold Links and Green Mountain Projects in Colorado, USA and 100% of the Colosseum Gold Mine in California.

The Gold Links Gold Mine is a historic high-grade gold mining project where over 150,000 ounces of gold was mined from high-grade veins. Mineralisation can be traced on surface and underground for almost 6km from the Northern to the Southern sections of the project. The Company aims to delineate sufficient Mineral Resources to commence a small high-grade, low-cost operation by the end of 2021.

The Company owns the Lucky Strike gold mill, located 50km from the Gold Links mine, within the Green Mountain Project. It is proposed that ore from Gold Links would be transported to Lucky Strike for processing.

The Colosseum Gold Mine is located in the Walker Lane Trend in East San Bernardino County, California and produced approximately 344,000 ounces of gold (see ASX release 15 March 2021). Significant potential remains for extension to mineralization at depth.

# **JORC Code, 2012 Edition – Table 1**

# 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>All samples followed a strict Chain of Custody.</li> <li>Sampling practice is appropriate to the geology and mineralization of the deposit and complies with industrybest practice.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).</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>	
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> </ul>	

Criteria	JORC Code explanation	Commentary
	<ul> <li>The total length and percentage of the relevant intersections logged.</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>	Rock samples sent to Activation     Laboratories were dried and weighed.     Sample size assessment was not conducted.
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>Samples were assayed by industry standard methods byActivation Laboratories, Ancaster, Ontario.</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>Sampling, documentation and sample submittal were underthe guidance and care of Anthony Mariano and Anthony N. Mariano, PhD.</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>	All sample locations were located using GPS equipment.
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 classifications applied.</li> </ul>	No sample compositing has been applied.

Criteria	JORC Code explanation	Commentary
	Whether sample compositing has been applied.	
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>	
Sample security	The measures taken to ensure sample security.	<ul> <li>All samples were taken and maintained under the constant care of Anthony Mariano and Anthony N. Mariano, PhD. Samples were delivered to the laboratory via US Postal Service.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	

# **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	<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 known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>All tenements are 100% owned by Dateline ResourcesLimited or a wholly owned subsidiary and there exist production-based royalties as previously disclosed to ASX.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Colosseum gold mine is a breccia pipe related gold mineral system within the Walker Lane mineral district. The breccia is developed as Jurassic felsic magmas were being emplaced into Proterozoic granite gneiss beneath Palaeozoic sedimentary rocks.</li> <li>The breccia includes clasts of Palaeozoic sedimentary rocks and Jurassic rhyolite porphyry as well as Proterozoic gneiss.         Gold mineralisation is associated with pyrite and minor base metal sulphides occupying the matrix of the breccia and in ring fractures surrounding the breccia pipe     </li> </ul>

Criteria	JORC Code explanation	Commentary
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>	
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 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>	
Relationship between mineralisation 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>	
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>Supporting figures have been included within the body ofthis 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>	
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,</li> </ul>	

Criteria	JORC Code explanation	Commentary
	groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
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>Petrographic examination of the altered linear zone will be combined with further field mapping of the claim area to identify any other zones of fenitisation.</li> </ul>