

14 February 2023

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**Mineralogy and Metallurgical Testing Underway for Narraburra Rare Earths and Rare Metals Project**

- **Drill core samples from the recently completed 31-hole diamond drill core programs at Narraburra have been sent to the Australia Nuclear Science and Technology Organisation (“ANSTO”) for test work**
  - **ANSTO is a statutory body of the Australian Government that provides a range of services to the resources sector, assisting with Australia’s transition to renewable energy and green technology**
  - **Test work now underway includes reconfirmation of assay results, mineralogical characterisation and metallurgical leach testing – initiatives designed to provide a greater understanding of Narraburra’s REE and RM composition and potential extraction alternatives**
  - **ANSTO’s work is anticipated to be completed early in the June quarter**
  - **The Narraburra Project’s updated Mineral Resource Estimate to JORC 2012 standards is expected to be delivered in March**
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Godolphin Resources Limited (ASX: GRL) (“**Godolphin**” or the “**Company**”) is pleased to advise it has commenced both metallurgical and mineralogy test work for the Narraburra Rare Earth Element (“REE”) and Rare Metals (“RM”) Project (“Narraburra” or “the Project”), located 12km northeast of Temora in central west New South Wales.

The Company has recently compiled a number of samples from its 31-hole diamond drill core programs (refer ASX: GRL announcements: 24 October 2022, 11 November 2022 and 18 January 2023). The samples have been sent to the Australian Nuclear Science and Technology Organisation (“ANSTO”). ANSTO is a statutory body of the Australian Government focused on national infrastructure, research and providing bespoke services to the resources sector facilitating the transition to renewable energy.

### **Management Commentary**

**Managing Director Ms Jeneta Owens said:** *“To have commenced these important metallurgical and mineralogical testing with samples from the Narraburra Rare Earths and Rare Metals Project highlights the Company’s commitment to assessing the Project as quickly as possible and presents another opportunity to unlock value for shareholders.*

*“We look forward to working with ANSTO over the coming weeks to understand the Project’s mineralogical make up and leachability. Our initial focus is to assess Narraburra’s potential as a mining project, with the REEs extracted by leaching, often the lowest cost method to extract metals. In parallel with ANSTO’s work, we are working to upgrade the Project’s Mineral Resource Estimate to JORC 2012 standards. We expect to release the new Mineral Resource Estimate in March.”*



The samples are currently undergoing multiple assessments at ANSTO. A first-pass approach is aiming to characterise REE-in-clay mineralisation with the objective of determining if the REEs can be simply and cheaply extracted by leaching. Mineralogical characterisation by QEMSCAN<sup>1</sup> (SEM in Particle Mineral Analysis mode) will be conducted at the same time. Repeating of assays will also be conducted, which is designed to reconfirm previously reported assay results to provide greater confidence in the Project grades. Results from the ANSTO test work are expected early in the June quarter.

**Project Background:**

The Narraburra area was first explored for rare earth elements (REE) associated with the Devonian-aged Narraburra Granite. It is listed as a Critical Minerals Project by the Critical Minerals Office of the Australian Government's Department of Industry, Science, Energy and Resources and Australian Trade and Investment Commission<sup>1</sup>.

Narraburra highlights a major low-carbon metal opportunity in an established mining region. To date, diamond drilling undertaken by Godolphin at Narraburra has intersected broad zones of REE and RM mineralisation in clay, saprock (clay-weathered rock) and in underlying fresh rock protolith material (refer ASX: GRL announcements: 11 November 2022 and 13 December 2022). The primary target at Narraburra is an Ionic Adsorption Clay ("IAC") REE style of mineralisation. Ion-adsorption clay deposits are the result of weathering of rare earth-rich host rocks which, over time, results in the formation of clays. The clays and clay-weathered saprock become enriched in REE through water table effects, resulting in flat sheets of REE regolith mineralisation.

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*This market announcement has been authorised for release to the market by the Board of Godolphin Resources Limited.*

For further information regarding Godolphin, please visit <https://godolphinresources.com.au/> or contact:

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<sup>1</sup> Quantitative Evaluation of Minerals by Scanning Electron Microscopy



## About Godolphin Resources

Godolphin Resources (ASX: GRL) is an ASX listed resources company, with 100% controlled Australian-based projects in the Lachlan Fold Belt (“LFB”) NSW, a world-class gold-copper province. A strategic focus on critical minerals and green metals through ongoing exploration and development in central west NSW. Currently the Company’s tenements cover 3,400km<sup>2</sup> of highly prospective ground focussed on the Lachlan Fold Belt, highly regarded province for the discovery of REE, copper and gold deposits. Additional prospectivity attributes of GRL tenure include the McPhillamys gold hosting Godolphin Fault and the Boda gold-copper hosting Molong Volcanic Belt.

Godolphin is exploring for REE, structurally hosted, epithermal gold and base-metal deposits and large, gold-copper Cadia style porphyry deposits and is pleased to announce a re-focus of exploration efforts for unlocking the potential of its East Lachlan tenement holdings, including increasing the mineral resource of its advanced Lewis Ponds Project. Reinvigoration of the exploration efforts across the tenement package is the key to discovery and represents a transformational stage for the Company and its shareholders.

### COMPLIANCE STATEMENTS:

*Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company’s website [www.godolphinresources.com.au](http://www.godolphinresources.com.au).*

*The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons’ findings are presented have not been materially modified from the original market announcements. Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company’s website [www.godolphinresources.com.au](http://www.godolphinresources.com.au)*

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<sup>i</sup> [https://www.austrade.gov.au/ArticleDocuments/5572/Critical\\_Minerals\\_Projects\\_in\\_Australia.pdf.aspx](https://www.austrade.gov.au/ArticleDocuments/5572/Critical_Minerals_Projects_in_Australia.pdf.aspx)