

ASX: RAU  
TSXV: RSM

TSXV Release: ASX Release:  
11 August 2024 12 August 2024

## Resouro Strategic Metals Project Studies Update for the Tiros Project

[Resouro Strategic Metals Inc.](#) (ASX: RAU; [TSX-V: RSM](#); [FSE: 8TX](#); [OTC: RSGOF](#)) ("**Resouro**" or the "**Company**") is pleased to provide an update on project studies for the Tiros Titanium and Rare Earth Elements Project in Brazil ("**Tiros Project**" or the "**Project**"). This includes progressing the metallurgical testwork and appointing industry leading technical experts to advance mining studies, environmental assessments and project approvals.

### Highlights

Following the announcement dated 18<sup>th</sup> July 2024 of the 1.7 billion tonne, maiden JORC Mineral Resource Estimate ("**MRE**") of Measured, Indicated and Inferred Resource for the Tiros Project<sup>1</sup>, Resouro has advanced the following key activities:

1. Progressed first phase metallurgical testwork for the Tiros Project Central Block resource:
  - a) Near completion of non-conventional first phase rare earth testwork with our partner, Altilium Group Ltd. ("**Altilium**") with results expected imminently;
  - b) Commenced conventional rare earth metallurgical testwork with our partners, Centre for Intelligent Technologies (CIT) Senai ("**CIT Senai**") and SGS S.A. Laboratories ("**SGS**"), in Belo Horizonte, Brazil;
2. Appointed Atticus to complete initial mine planning activities as part of the Preliminary Economic Assessment ("**PEA**") for Tiros;
3. Appointed Ausenco Limited ("**Ausenco**") to lead and manage the PEA for Tiros;
4. Appointed CLAM Meio Ambiente ("**CLAM**") environmental and social consultants to complete an Environmental Assessment as part of the project permitting and approvals process; and
5. Positive engagement with regulatory authorities in Minas Gerais, leading to commencing the process for application of a Mining Concession over the Central Block of Tiros.

---

<sup>1</sup> For details of the breakdown of the various categories of the Company's maiden JORC MRE including full exploration results and relevant JORC table information, refer to the Company's announcement to the ASX dated 18 July 2024 (TSXV 17 July 2024).



**Commenting on the appointment of these consultants and progress at Tiros, President, CEO, Director and Founder, Chris Eager commented:**

*“Completion of the JORC compliant Mineral Resource Estimate has paved the way for the selection of initial mining areas and compilation of representative composite samples for metallurgical testwork for the planned PEA Scoping Study for Tiros.”*

*“These initiatives are designed to highlight the full potential of our resources, optimize processes and deliver sustainable solutions. By leveraging cutting-edge technology and expert insights, we aim to push the boundaries of what is possible in metallurgy and achieve superior results, in terms of both economic and environmental outcomes.”*

*“Resouro remains committed to sustainable practices and positive community engagement, ensuring that our growth contributes to the well-being of the regions in which we operate.”*

*“Resouro looks forward to updating the market on metallurgical testwork results and progress to completion of our Preliminary Economic Assessment.”*

## **1. Metallurgical Testwork Programs**

Resouro is undertaking two major streams of metallurgical testwork in parallel, to gain insight into the preferred rare earth and TiO<sub>2</sub> recoveries and processing route.

### **a) Altilium Metallurgical Testwork**

The scope for the first stage Altilium test work was aimed at understanding the feasibility of applying the Altilium Ti/REE Process™ technology to Resouro’s samples mainly for the extraction of rare earth elements into solution.

The work involved a composite sample of approximately 50kg, premixed by Resouro, air dried and milled to 100% passing 0.5mm. Chemical and mineralogical analysis was conducted on the head sample. Three optimization sighter leach tests were conducted using nitric acid (HNO<sub>3</sub>) applying the Altilium Ti/REE Process™ in Laboratories in Brisbane, Australia to generate Pregnant Leach Solution (PLS) and residue. The samples were assayed for aluminium (Al), calcium (Ca), cobalt (Co), chromium (Cr), iron (Fe), gallium (Ga), magnesium (Mg), manganese (Mn), nickel (Ni), sulphur (S), scandium (Sc), silicon (Si), titanium (Ti), and rare earth elements (REEs).

The assay results of the Altilium sighter testwork are under review and are expected to be announced imminently.

## About the Altilium Group Limited

Altilium Group Limited (“**Altilium Group**”), incorporated in England, is the parent company of Altilium Licensing Limited (“**ALL**”) and Altilium Projects (Australia) Pty Ltd).

Research and development for the Altilium Group is performed in Australia. Altilium Technology may be applied to ore, mining waste or process tailings. The first developed application of Altilium Technology was the Altilium Nickel Laterite Process™ which is designed to process nickel laterite ore. The Altilium Group has subsequently developed the following processes:

- Altilium Bauxite Process™ - to extract metals from bauxite ore;
- Altilium Red Mud Process™ - to re-process bauxite residue (tailings); and
- Altilium Ti/REE Process™ - to extract titanium and rare earth elements from a lateritic ore.

The Altilium Group is proactively researching and developing new applications for its technology with a focus on the extraction of critical metals

## b) Conventional Metallurgical Testwork with CIT Senai

Resouro has partnered with CIT Senai who are part of the FIEMG group of companies. FIEMG are the leading private industry group in the state of Minas Gerais and have been established for over 90 years, offering innovative solutions that promote a positive impact on the economy, competitiveness, sustainability and social transformation in Brazil.

FIEMG connects companies, governments and communities, in a business environment that is conducive to sustainable development and innovation. CIT Senai is the arm of the business that contains extensive laboratory assets and project history including a rare earth magnet laboratory now producing small-scale rare earth magnets in Belo Horizonte, Brazil.

The partnership initially involves a detailed 12-month program split into;

- Mineral Characterisation;
- Leaching Testwork;
- Gravimetric, Electrostatic/Magnetic Testwork; and
- Optimisation.

An approximately 500kg sample of Tiros representative material from composites has been delivered to CIT Senai and work has commenced per the scope. The aim of this work is to develop a preliminary process flow sheet and assess a cost-benefit study to determine the optimal path forward for the Project.

## **2. Appointment of Atticus to complete Geology, Geotechnical and Mine Planning Activities**

Resouro has appointed Atticus to complete the geology, geotechnical and initial mining planning activities on the Tiros deposit.

Atticus is the subject matter expert who completed the Tiros maiden JORC MRE and will continue to work with Resouro on advancing the Project. Atticus will utilise the data from the MRE along with ongoing infill drilling for mine planning, design and metallurgy purposes.

## **3. Appointment of Leading Engineering Consultant, Ausenco, to Lead the Preliminary Economic Assessment for Tiros**

Resouro has appointed global engineering consultant, Ausenco, to manage the PEA for Tiros. The PEA, also referred to as a ‘*Scoping Study*’, is a critical economic analysis to determine the viability of Tiros’ Mineral Resources. This PEA analysis will provide valuable insights into the potential profitability, risks and opportunities associated with developing Tiros.

Ausenco have had significant experience in providing engineering, project development and delivery solutions, including managing engineering studies of this nature. The Ausenco team is based across twenty-six offices in fifteen countries, with projects in over eighty locations worldwide including Belo Horizonte, Minas Gerais, Brazil, where Resouro is based and the flagship Tiros Project is located.

## **4. Appointment of Leading Environmental Consultant, CLAM, to Complete the Initial Environmental Assessments for Tiros**

Resouro has appointed leading environmental consultants CLAM to develop the initial environmental assessments for the Tiros Project. The technical studies will evaluate the environmental and social aspects of Tiros as part of the overall approval and permitting process and to support a potential future development decision.

CLAM is considered a leading consultant in sustainability related to Integrated Environmental Management and Corporate Sustainability and has nearly three decades of experience in this field. CLAM’s key sector exposure covers heavy industry, mining, energy, oil and gas, agroforestry, and other general services. CLAM has a multidisciplinary technical team, comprised of 600+ collaborators, including field professionals and specialists.

## 5. Early Preparation of Tiros Mining Concession Application

Considering the exceptional results of the maiden JORC MRE and technical progress made to date on the Tiros Project, as well as the global demand of rare earths and titanium critical minerals, Resouro is commencing early works associated with its Mining Concession application. This involves but not limited to; Defining the areas that will be affected by mining, Environmental Impact Assessment, mine planning, waste and tailings disposal (if required), details of the treatment plant and production rates.

The Tiros Project is underpinned by a 1.7 billion tonne MRE at 3,900 ppm Total Rare Earth Oxide (TREO), 1,100 ppm Magnet Rare Earth Oxides (MREO) and 12% Titanium Dioxide (TiO<sub>2</sub>) (*refer footnote 1 and ASX announcement of 18 July 2024 for full details*).

The MRE places the Tiros Project as one of the largest undeveloped titanium and rare earth resources globally. The location of Tiros, being within Brazil's most advanced mining state Minas Gerais, benefits significantly from access to infrastructure, including existing roads, rail and port facilities, as well as a progressive and supportive community.

Resouro has had strong engagement with regulatory authorities and has, in collaboration, mapped out a range of potential pathways to accelerate project licences and approvals.

This announcement has been authorized for release by the Board of Directors.

### Contact Information:

Chris Eager, CEO

[chris.eager@resouro.com](mailto:chris.eager@resouro.com)

+44 7388 0579809

Justin Clyne, Director

[justin.clyne@resouro.com](mailto:justin.clyne@resouro.com)

+61 407 123 143

Melissa Hamilton, Media,

[melissa.hamilton@mcpartners.com.au](mailto:melissa.hamilton@mcpartners.com.au)

+61 417 750 274

## About the Company

Resouro is a Canadian incorporated mineral exploration and development company, listed on the ASX, TSXV, OTC and FSE, focused on the discovery and advancement of economic mineral projects in Brazil, including the Tiros project in Minas Gerais and the Novo Mundo Gold Project in Mato Grosso. The Tiros project represents 25 mineral concessions totalling 450 km<sup>2</sup> located in the state of Minas Gerais, one of the most infrastructurally developed states of Brazil, 350 km from Belo Horizonte, the state capital. Resouro has released a Mineral Resource Estimate for the Tiros Project of 1.7 bn tonnes of Inferred, Indicated and Measured Resource as follows.

DOMAIN	CAT	TONNES (t)	TiO <sub>2</sub> (%)	TREO (ppm)	MREO (ppm)
HG (High Grade)	Inferred	42,000,000	23	8,700	2,200
	Indicated	55,700,000	23	9,030	2,380
	Measured	20,800,000	24	9,320	2,530
	<b>Sum</b>	<b>120,000,000</b>	<b>23</b>	<b>9,000</b>	<b>2,400</b>
MG (Medium Grade)	Inferred	620,000,000	11	3,500	950
	Indicated	704,000,000	11	3,650	1,020
	Measured	224,000,000	11	3,570	997
	<b>Sum</b>	<b>1,500,000,000</b>	<b>11</b>	<b>3,500</b>	<b>930</b>
<b>Totals</b>	<b>1,700,000,000</b>	<b>12</b>	<b>3,900</b>	<b>1,100</b>	

*Note: Further details of the Company's Maiden JORC MRE are contained within the Company's announcement of 18 July, 2024.*

## Forward-Looking Information

*This announcement contains certain "forward-looking information" within the meaning of applicable securities law. Forward-looking information is frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. Although we believe that the expectations reflected in the forward-looking information are reasonable, there can be no assurance that such expectations will prove to be correct. We cannot guarantee future results, performance or achievements. Consequently, there is no representation that the actual results achieved will be the same, in whole or in part, as those set out in the forward-looking information.*

*Forward-looking information is based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those anticipated in the forward-looking information. Some of the risks and other factors that could cause the results to differ materially from those expressed in the forward-looking information include, but are not limited to: general economic conditions in Canada and globally; industry conditions, including governmental regulation and environmental regulation; failure to obtain industry partner and other third party consents and approvals, if and when required; the need to obtain required approvals from regulatory authorities; stock market volatility; liabilities inherent in the mining industry; competition for, among other things, skilled personnel and supplies; incorrect assessments of the value of acquisitions; geological, technical, processing and transportation problems; changes in tax laws and incentive programs; failure to realize the anticipated benefits of acquisitions and dispositions; and the other factors. Readers are cautioned that this list of risk factors should not be construed as exhaustive.*

*The forward-looking information contained in this announcement is expressly qualified by this cautionary statement. We undertake no duty to update any of the forward-looking information to conform such information to actual results or to changes in our expectations except as otherwise required by applicable securities legislation. Readers are cautioned not to place undue reliance on forward-looking information.*

***Neither the ASX, TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.***