Resouro Selects Flowsheet for Tiros PEA

written by Raj Shah | November 27, 2025

Confirmation test work focused on recovering high grade titanium and rare earth elements now underway at SGS Lakefield in Canada

November 27, 2025 (Source) – Resouro Strategic Metals Inc. (ASX:RAU) (CVE:RSM) (8TX:FRA) (RSGOF:OTCMKTS) has reached the final step on the path toward completing a Preliminary Economic Assessment (PEA) for its High Grade Titanium and Rare Earth Elements Tiros Project in Minas Gerais, Brazil (Tiros or Tiros Project).

After 18 months of exhaustive metallurgical test-work on several hydrometallurgical and pyrometallurgical processes, a process flowsheet has been developed and selected which will allow the Company to define capital and operating costs, recoveries, and product specifications for the Tiros Project PEA.

“This flowsheet was chosen because it uses a combination of conventional technologies and the majority of equipment can be sourced in Brazil,” said Christopher Eager, Resouro’s Chairman and CEO. “We are continuing to test alternative technologies to include in trade off studies-like the recently announced MOU with Rare Earth Technologies of Cincinnati, Ohio-for the upcoming preliminary feasibility study.” (Refer ASX announcement of 13 November 2025 / TSX-V 12 November 2025).

Flowsheet based on characterization and minerology of Tiros mineralization

The flowsheet applies a combination of conventional processing technologies aimed at producing a course-grained Titanium

Dioxide product, a fine-grained Titanium Dioxide product, and mixed Rare Earth Sulfate which could be further processed to produce a mixed rare earth carbonate or oxide.

The flowsheet (shown in Figure 1*) is based on the characterization and mineralogy of the Tiros mineralization, while also taking product marketing guidelines into consideration. The flowsheet has two main processing streams:

- a coarse particle treatment stream designed to recover a high-grade titanium concentrate for sale to traditional titanium markets, through the use of mineral dressing technologies, and some calcination / leaching technologies; and
- a fine particle treatment stream optimized for the recovery of a fine titanium powder, as well as rare earth elements, by using a calcination / acid baking / leach process.

Developed by a team of experts

The flowsheet was developed by the Resouro technical team in Brazil under the direction of Dr Lino Freitas and Steve Williams of Blue Coast Research, British Columbia.

Dr. Freitas has a PhD in Extractive Metallurgy from Polytechnique Montreal, Canada, and is a professor of mineral processing at the Escola Superior de Engenharia de Minas Gerais. He has extensive experience in titanium and rare earths processing at Vale, AMEC, and SNC Lavalin in Brazil.

Mr. Williams has worked in the mining industry, in Australia, Canada, and South America for more than four decades. The author of many acclaimed geometallurgy papers, he became a CIM Distinguished Lecturer in 2004, followed by a CIM Fellow, for

his notable work in geometallurgy.

The result of extensive test work

Test work has been completed at SGS Geosol and CIT SENAI in Belo Horizonte and SGS Lakefield in Canada. Further confirmation test work is currently underway at SGS Lakefield after which Resouro will report recoveries, mass balances, and product specifications according to NI 43-101 standards.

*To view tables and figures, please visit: https://abnnewswire.net/lnk/3TMR8WG8

About Resouro Strategic Metals Inc.

Resouro Strategic Metals Inc. (ASX:RAU) (CVE:RSM) (OTCMKTS:RSGOF) (FRA:8TX) 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 Titanium-Rare Earths Project and the Novo Mundo Gold Project. The Tiros project has 28 mineral concessions totalling 497 km2 located in the state of Minas Gerais, one of the best infrastructurally developed states of Brazil, 350 km from the state capital of Belo Horizonte. Resouro’s Mineral Resource Estimate for the Tiros Project contains 165 million tonne of titanium dioxide and 5.5 million tonne of total rare earths oxides within a Measured and Indicated Resource of 1.4 billion tonne at 12% titanium dioxide and 4,000 ppm of total rare earth oxides.