

8th July 2026

TEMAS'S RCL CRITICAL MINERALS PATENT PORTFOLIO EXPANDS INTO VANADIUM

Patent filing follows recent RCL vanadium metallurgical testwork and further strengthens Temas' growing critical minerals technology platform

Highlights

- Temas has initiated the filing of a new **process patent** covering the extraction of vanadium from complex ore bodies using its proprietary Regenerative Chloride Leach ("RCL") mixed chloride leaching technology.
- Patent filing establishes a **priority filing date of July 8, 2026**, protecting the Company's latest metallurgical innovation.
- Patent entitled "**Chloride-based process for Vanadium extraction**"
- Filing follows the recent completion of the Company's previously announced RCL vanadium metallurgical testwork on material from its wholly-owned La Blache Titanium-Vanadium-Iron Project.
- Represents another expansion of Temas' growing intellectual property portfolio supporting future technology licensing opportunities.
- Follows Temas's [29 June 2026](#) results confirming extensive high-grade titanium-vanadium mineralisation at La Blache, including vanadium grades of up to 0.48% V₂O₅ over broad intervals, underpinning the vanadium endowment to which the newly patented RCL process can be applied.
- Strengthens Temas' ability to create value from vanadium; both from its own La Blache and Lac Brûlé assets and from third-party vanadium ore bodies, concentrates and mine waste through RCL technology licensing and processing partnerships.
- The Company continues to progress confidential discussions and third-party lab testing with potential processing and licensing partners regarding deployment of the RCL platform across critical minerals.
- Reinforces Temas' strategy of developing proprietary metallurgical solutions across multiple critical minerals beyond titanium.

Temas Resources Corp. ("Temas" or the "Company") (ASX: TIO | CSE: TMAS | OTCQB: TMAF | FSE: 26P0) is pleased to announce that, following the recent completion of the Company's Regenerative Chloride Leach ("RCL") vanadium metallurgical testwork announced earlier this year, the Company has initiated the filing of a new process patent covering the extraction of vanadium from complex ore bodies using mixed chloride leaching technology.

The patent application, entitled "**Chloride-based process for Vanadium extraction**" establishes a priority filing date of **July 8, 2026**, providing intellectual property protection for a novel process developed through the Company's ongoing metallurgical research and development activities.

The new patent application builds upon the encouraging results generated from Temas' proprietary RCL metallurgical testing on vanadium-bearing material from its 100%-owned La Blache Titanium-Vanadium-Iron Project in Québec, Canada. The work further demonstrates the adaptability of the RCL technology platform across

multiple critical minerals while expanding the Company's growing portfolio of proprietary processing technologies.

As announced on [29 June 2026](#), Temas reported the first results from its systematic re-assay program at the Hervieux West deposit within La Blache, confirming extensive high-grade titanium-vanadium mineralisation together with gallium, scandium and chromium credits. Selected intervals returned vanadium grades of up to 0.48% V_2O_5 over substantial widths, including 143.0 m at 0.48% V_2O_5 (88.7% $Fe_2O_3 + TiO_2$) in hole HWR-10-052. The vanadium extraction process now being patented is directly applicable to this style of Fe-Ti-V oxide mineralisation, reinforcing the potential for Temas to create value from both its own vanadium-bearing assets and comparable third-party ore bodies through the RCL platform.

The Company believes that securing intellectual property protection remains a critical component of its strategy to commercialize the RCL technology through future licensing agreements, strategic partnerships and deployment across global mineral projects. ***The Temas RCL technology platform is comprised of successfully granted US and Canadian metallurgical process patents for the extraction of Gold, Iron, Titanium, Nickel and Rare Earth Elements using its proprietary mixed-chloride leaching technology.***

In addition to this new patent application for the extraction of Vanadium, the RCL platform is supported by eleven granted patents across multiple critical minerals and jurisdictions:

- Gold — granted (United States)
- Gold — granted (Canada)
- Iron — granted (United States)
- Iron — granted (Canada)
- Iron — granted (India)
- Titanium — granted (United States)
- Titanium — granted (Canada)
- Nickel — granted (United States)
- Nickel — granted (Canada)
- Rare Earth Elements — granted (India)
- Rare Earth Elements — granted (Canada)
- Vanadium — application filed, priority date 7 July 2026 (new)

Kyler Hardy, Executive Chairman, commented:

"One of our strategic objectives has always been to continually expand the RCL technology platform through the development of new process innovations. The successful application of RCL to vanadium extraction has resulted in a process that we believe is both novel and commercially valuable. Filing this patent represents another important milestone in strengthening Temas' intellectual property portfolio and reinforces the versatility of the RCL platform across multiple critical mineral applications."

Tim Fernback, President & Chief Executive Officer, commented:

"The filing of this patent is another important step in transforming Temas from a critical minerals developer into a global clean metallurgical technology company. Every new patent strengthens our competitive position and builds long-term value in our technology licensing business. As demand accelerates for secure supplies of critical

minerals such as vanadium, we believe proprietary processing technologies like RCL will become increasingly valuable to miners seeking lower-cost, environmentally responsible extraction. We continue to evaluate further RCL applications across critical minerals, including gallium, scandium, chromium and rare earth elements and intend to keep expanding our intellectual property portfolio as future metallurgical programs are completed."

Expanding the RCL Intellectual Property Platform

The RCL technology platform continues to evolve beyond its original titanium applications into a broad hydrometallurgical process capable of recovering multiple critical minerals from complex ores, concentrates and mine waste.

The Company's intellectual property strategy is focused on protecting novel metallurgical processes that can be commercialized through:

- Technology licensing;
- Joint venture opportunities;
- Strategic processing partnerships;
- Proprietary processing of Temas' wholly-owned mineral assets.

The filing of "**Chloride-based process for Vanadium extraction**" represents another significant addition to Temas' expanding portfolio of proprietary RCL technologies.

- ENDS -

Approved for Release by the Board of Directors

For further information, contact:

Tim Fernback
President & CEO
timf@temasresources.com

Matt Worner
Investor & Media Relations
VECTOR Advisors
matt@vectoradvisors.au
+ 61 (0) 429 522 924

Follow us:

<https://temasresources.com>
<https://x.com/TMASResources>
<https://www.linkedin.com/company/temas-resources-corp/>

Disclaimer

No representations or warranty, express or implied, is made by the Company that the material contained in this announcement will be achieved or proved correct. Except for the statutory liability which cannot be excluded, each of the Company, its directors, officers, employees, advisors, and agents expressly disclaims any responsibility

for the accuracy, fairness, sufficiency or completeness of the material contained in this announcement and excludes all liability whatsoever (including in negligence) for an loss or damage which may be suffered by any person as a consequence of any information in this announcement or any effort or omission therefrom. The Company will not update or keep current the information contained in this announcement or to correct any inaccuracy or omission which may become apparent, or to furnish any person with any further information. Any opinions expressed in the announcement are subject to change without notice.

ABOUT TEMAS RESOURCES

Revolutionizing Metal Production

Proprietary IP. Global Licensing. Titanium & Critical Minerals.

Temas Resources Corp. (**ASX: TIO | CSE: TMAS | OTCQB: TMAF | FRA:26P0**) is a technology-driven critical minerals company advancing a dual-business model built around proprietary processing innovation and strategic mineral ownership. The Company's patented Regenerative Chloride Leach (RCL) technology platform delivers significant operational cost reductions — validated at up to 65% lower than traditional processing — while dramatically reducing energy use and environmental impact.

Temas' RCL process is the foundation of its technology licensing and partnership business, enabling global mining and materials companies to adopt sustainable, high-margin metal extraction methods across a range of critical minerals including titanium, vanadium, nickel, and rare earth elements.

Complementing its technology division, Temas also owns 100% of two advanced titanium-vanadium-iron projects in Québec, Canada — La Blache and Lac Brûlé — which are strategically positioned to feed directly into the Company's proprietary processing platform, creating a fully integrated mine-to-market supply chain for Western metals.

Through this combination of innovative IP commercialization and resource ownership, Temas Resources is positioned to deliver scalable, low-carbon solutions that strengthen Western critical-mineral independence and create long-term value for shareholders.

Benefits the ORF - RCL Technology:

The RCL platform technology involves the hydrometallurgical mineral extraction of concentrates, whole ores, slags and tailings to enhance recovery of critical metals, battery metals, Platinum Group Minerals ("PGMs"), precious and base metals and Rare Earth Element ("REE") recovery at materially higher through-yields and lower capital and operating costs than many of the conventional approaches that are in use traditionally. This novel RCL technology is ideally suited to treat increasingly complex ores in an environmentally sensitive manner.

Pilot Testing Complete: The Company has completed a pilot test of approximately 1 ton of material from its La Blache TiO₂ mineral property yielding 88 kgs of a 99.8% pure TiO₂ commercial grade product.¹

¹ Source: Temas Resources Corp. "Pilot Scale Evaluation of Temas La Blache Ilmenite – Final Report PRO 21-16," 24 June 2022.

² These metallurgical test results and cost-reduction data were first reported in the Company's Canadian market announcement dated 13 April 2021, titled "Temas Resources Acquires 50 % of Green Mineral Process Developer ORF Technologies Inc."

Validated Cost Reduction: A significant cost reduction of over 65%^{2,3} is validated for TiO₂ processing using the RCL platform technology (e.g., reagent recycling, potentially lower energy use, optimized recovery etc.). These fundamental process efficiencies are expected to translate into economic advantages when applying the platform to Nickel or other target minerals hosted in complex ores.

Environmental Performance: The closed-loop design and high reagent recycling rates are core to the RCL platform, irrespective of the target mineral. Over 69% lower operating costs compared to conventional processing due to its core features operating at near ambient temperatures.³ This means the reduced environmental footprint and enhanced ESG profile are benefits that extend to ores and minerals previously noted, not just TiO₂.

High Recovery Potential: Just as we've demonstrated high-quality, 99.8% TiO₂ product from pilot testing¹ the RCL platform is engineered for high recovery and purity of all target metals. Our metallurgical expertise focuses on optimizing these recoveries and maximizing margins for each specific mineral.

RCL results in a quicker and more complete liberation of the target metals using atmospheric pressure and lower temperatures than competing methods and improves the selectivity and efficiency of subsequent solvent extraction steps. Management believes that this novel metallurgical process can be applied to many complex resource deposits worldwide, enhancing both extraction and recovery for the operator.

COMPARISON OF RCL PROCESS FOR TITANIUM PRODUCTION

Cheaper and more energy efficient:

A University of Minnesota study on ORF Technologies' patents concluded that the TiO₂ recovery process could slash production costs by ~ 50-65%, and the process is also less energy-intensive compared to the industry standard.

Massive sector tailwinds:

The global market for TiO₂, valued at US\$21.23 billion, is anticipated to grow at a compound annual growth rate of 6.2% through 2032, signifying a substantial opportunity for RCL efficient recovery process.

Our technology as a platform:

ORF Technologies' patented process can produce high-quality Titanium Dioxide (TiO₂) from low-grade materials and is applicable to all ilmenite ores, including those rich in Chromium (Cr), Cobalt (Co), and Vanadium (V), thus enabling the extraction of additional value from elements that are typically not recoverable with other methods.

		Sulphate	Chloride	RCL
Technical	History	1918 (Titan Company)	1948 (Chemours)	Patented (Temas)
	Process Type	Hydrometallurgical	Pyrometallurgical	Hydrometallurgical
	Process Conditions	Hydrometallurgical (up to 180 C, 85-92% H2SO4)	Pyrometallurgical (up to 1200 C)	Hydrometallurgical 70 C, 20% HCl
	End-to-End Processing in One Location	Possible	Not practiced	Possible
	CAPEX per installed tonne	\$2,500-\$3,000	\$3,000-\$4,000	\$2,700 (estimated)
Environmental	Health and Safety Requirements	High	Very High	Lowest
	Environmental Challenges	Disposal of acidic waste products	Disposal of some waste products	Waste streams to Revenue Streams
	Carbon Footprint	7.56 t CO2eq / t of TiO2	9.34 t CO2eq / t of TiO2	20-50% lower than Chloride Route (estimated)
Financial	Energy Consumption and Efficiency	Medium but inefficient Batch Process	Highest but Efficient	Lowest and most Efficient
	Raw Material Flexibility	Flexible and Low Cost (Ilmenite/slag)	Inflexible and High Cost (rutile and SR or UGS)	Highly Flexible and Lowest Cost (slags, VTM, hemi-ilmenite, ilmenite)
	Reagent Cost	Sulphur Price has Substantial Effect	No Effect, Reagents are Regenerated	No Effect, Reagents are Largely Regenerated
	Quality = Unit Cost of TiO ₂ in Feed (USD/tonne)	\$600	\$1,200 (SR) to \$1,900 (Natural Rutile)	\$280 (Temas feedstock) \$600 (merchant ilmenite)
	OPEX (USD/Tonne)	\$700-\$1,500 (China) \$2,000-\$2,500 (Western Europe)	\$1,750 (Chemours) ~\$2,325 (average)	< \$900 (estimated)
	Value = Quality of finished TiO ₂ pigment (USD/tonne)	~\$2500 - \$3200	~\$3000 - \$3800 +	~\$3800 +
	Cost Drivers	Acid treatment, waste management, and higher labor/energy requirements increase costs over time.	Higher initial capital and raw material costs but, long-term savings from lower waste, continuous processing, and higher product quality.	The superior flexibility in utilizing low-cost feedstocks coupled with simple reaction vessels produces superior operating margins and environmental performance.

³ The cost-reduction figure is supported by independent evaluation conducted by the Natural Resources Research Institute (University of Minnesota, 2017) and subsequent pilot-scale validation by ORF Technologies Inc., as detailed in Temas Resources news releases of 2021 and 2022.

Cautionary Note Regarding Forward-Looking Statements

Neither the Canadian Securities Exchange nor the Market Regulator (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this news release.

This press release contains forward looking statements within the meaning of applicable securities laws. The use of any of the words “anticipate”, “plan”, “continue”, “expect”, “estimate”, “objective”, “may”, “will”, “project”, “should”, “predict”, “potential” and similar expressions are intended to identify forward looking statements

Although the Company believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company cannot give any assurance that they will prove correct. Since forward looking statements address future events and conditions, they involve inherent assumptions, risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of assumptions, factors and risks. These assumptions and risks include, but are not limited to, assumptions and risks associated with mineral exploration generally and results from anticipated and proposed exploration programs, conditions in the equity financing markets, and assumptions and risks regarding receipt of regulatory and shareholder approvals.

Management has provided the above summary of risks and assumptions related to forward looking statements in this press release in order to provide readers with a more comprehensive perspective on the Company’s future operations. The Company’s actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits the Company will derive from them. These forward-looking statements are made as of the date of this press release, and, other than as required by applicable securities laws, the Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise.