

22 February 2024

Tivan engages Hatch for Pre-Feasibility Study for the Speewah Vanadium Project

The Board of Tivan Limited (ASX: TVN) ("Tivan" or the "Company") is pleased to advise that it has appointed global professional services firm Hatch to commence work on the pre-feasibility study ("PFS") for Tivan's Speewah Vanadium Project in the Kimberley region of north-east Western Australia.

Tivan is advancing development planning for a conventional salt roast vanadium operation at Speewah. In Q3 2023, Tivan announced that Hatch had been engaged to complete an engineering review in support of commencement of the PFS, including evaluation of prior scoping work, preparation of a basis of design, selection of base flowsheet, identification of appropriate trade-off studies and definition of PFS testwork requirements (see ASX announcement of 22 September 2023).

As part of the engineering review, Hatch oversaw in Q4 2023 an intensive two-day technical workshop attended by senior Hatch and Tivan technical staff, and select industry professionals with subject matter expertise relevant to key aspects of the project flowsheet. Subject matter experts included Orway Mineral Consultants (a wholly owned subsidiary of Lycopodium), METS Engineering, SRK Consulting, Metso, FLSmidth and SRD Consulting. The workshop presented the findings and conclusions of the scoping review, and provided forum for discussion, challenge and agreement on the take-forward approach leading into PFS metallurgical testwork and engineering studies.

Tivan's PFS for the Speewah Vanadium Project will assess the technical and economic feasibility of a conventional salt roast vanadium mining, beneficiation and processing operation integrated at the Speewah mine site to produce vanadium products. The PFS will include studies focused on mining, hydrology, tailings, engineering and project economics, with contributions from Hatch and other consultants. Tivan plans to report on results from the PFS in Q3 2024.

The scope of the PFS also includes development of a concept design for Tivan's proposed vanadium electrolyte production facility in the Middle Arm Sustainable Development Precinct in Darwin (see ASX announcement of 31 October 2023), which is intended to utilise vanadium produced at Speewah to manufacture high-purity vanadium electrolyte for use in vanadium redox flow batteries.

Hatch is a global professional services group comprising a network of 10,000 professionals and experience spanning over 150 countries in the metals, energy and infrastructure sectors. Hatch has extensive experience and expertise in the vanadium sector, having been involved with numerous vanadium projects in South Africa, the Middle East and North America. Flowsheets developed by Hatch include both pyrometallurgical and hydrometallurgical recovery techniques, producing vanadium from a variety of feedstocks including titanomagnetite ore, spent catalysts, boiler/fly ash and steelmaking slag.

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The salt roast pathway is considered the optimal approach to commencing operations at the Speewah Vanadium Project. Longer-term, the Company's vision is to develop the TIVAN+ mineral processing technology pathway, in partnership with CSIRO, to commercialise further value from the Speewah vanadium deposit.

Comment from Tivan Executive Chairman

Mr Grant Wilson commented:

"We are delighted to appoint Hatch to deliver the Pre-Feasibility Study for the Speewah Vanadium Project. Our teams have been working in close collaboration since September, rapidly advancing the Project with subject matter experts assembled from around the world.

We are on track to deliver an industry-defining PFS at Speewah, that will facilitate the development of Long Duration
Energy Storage as a sovereign capability, commencing at the Middle Arm Sustainable Development Precinct. In Hatch we have a partner of unrivalled technical expertise that shares our vision of the global energy transition."

🗘 Comment from Hatch Director - Metals, Australia-Asia

Mr Claude D'Cruz commented:

""Hatch is delighted to be continuing our work with Tivan, building on our engineering review work, to move the Speewah Vanadium Project forward. Tivan's highly collaborative, transparent, and agile working model aligns very well with Hatch's values and culture. We look forward to further strengthening our partnership with Tivan as we jointly progress the Speewah Pre-Feasibility Study."

This announcement has been approved by the Board of the Company.

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Forward looking statements

This announcement contains certain "forward-looking statements" and comments about future matters. Forward-looking statements can generally be identified by the use of forward-looking words such as, "expect", "anticipate", "likely", "intend", "should", "estimate", "target", "outlook", and other similar expressions and include, but are not limited to, the timing, outcome and effects of the future studies, project development and other work. Indications of, and guidance or outlook on, future earnings, financial position, performance of the Company or global markets for relevant commodities are also forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements. Any such statements, opinions and estimates in this announcement speak only as of the date hereof, are preliminary views and are based on assumptions and contingencies subject to change without notice. Forward-looking statements are provided as a general guide only. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. Any such forward looking statement also inherently involves known and unknown risks, uncertainties and other factors and may involve significant elements of subjective judgement and assumptions that may cause actual results, performance and achievements to differ. Except as required by law the Company undertakes no obligation to finalise, check, supplement, revise or update forward-looking statements in the future, regardless of whether new information, future events or results or other factors affect the information contained in this announcement.

Hatch Services and Deliverables

Hatch's services and study deliverables will be prepared for exclusive use by Tivan, are not intended for public disclosure, must not be used or relied upon by third parties, cover only selected aspects of Tivan's Projects, are based on various information provided by or on behalf of Tivan and are subject to various assumptions, conditions and disclaimers. Hatch does not endorse or otherwise provide any guarantee, warranty or other statement on the feasibility or any particular outcome of Tivan's Projects.

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