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ASX RELEASE

Metal Hydride - Solid State Hydrogen Storage Update

Australian Mines Limited ("**Australian Mines**" or "**the Company**") is pleased to confirm that its Metal Hydride (MH-May24) has successfully undergone independent third-party performance testing within the Hydrogen Materials Advanced Research Consortium (**HyMARC**[1]).

HyMARC was established as part of the U.S. Department of Energy's (DOE's) Energy Materials Network, which aims to dramatically decrease the time-to-market for advanced materials that are critical to manufacturing many energy technologies, enabling manufacturers of all sizes to develop and deliver innovative, made-in-America products to the world market.

Following initial screening, HyMARC agreed to evaluate the performance of Australian Mines' MH-May24. The HyMARC team assessed the following MH-May24's key storage parameters:

- hydrogen absorption capacity,
- hydrogenation and dehydrogenation kinetics, and
- system parameters, including:
    - energy density by volume and weight
    - thermodynamic characteristics.

[1] Members of HyMARC include National Renewable Energy Laboratory (NREL), Lawrence Livermore National Laboratory, Sandia National Laboratories, Lawrence Berkeley National Laboratory, Pacific Northwest National Laboratory. The testing was conducted at NREL. (www.hymarc.org)

HyMARC's independent evaluation, provided in figures 1 to 3, are consistent with previously announced[2] MH-May24 performance parameters. HyMARC also observed that MH-May24 can be hydrogenated and dehydrogenated repeatedly. This is a key performance parameter that offers the potential for multi-year long-term energy storage.

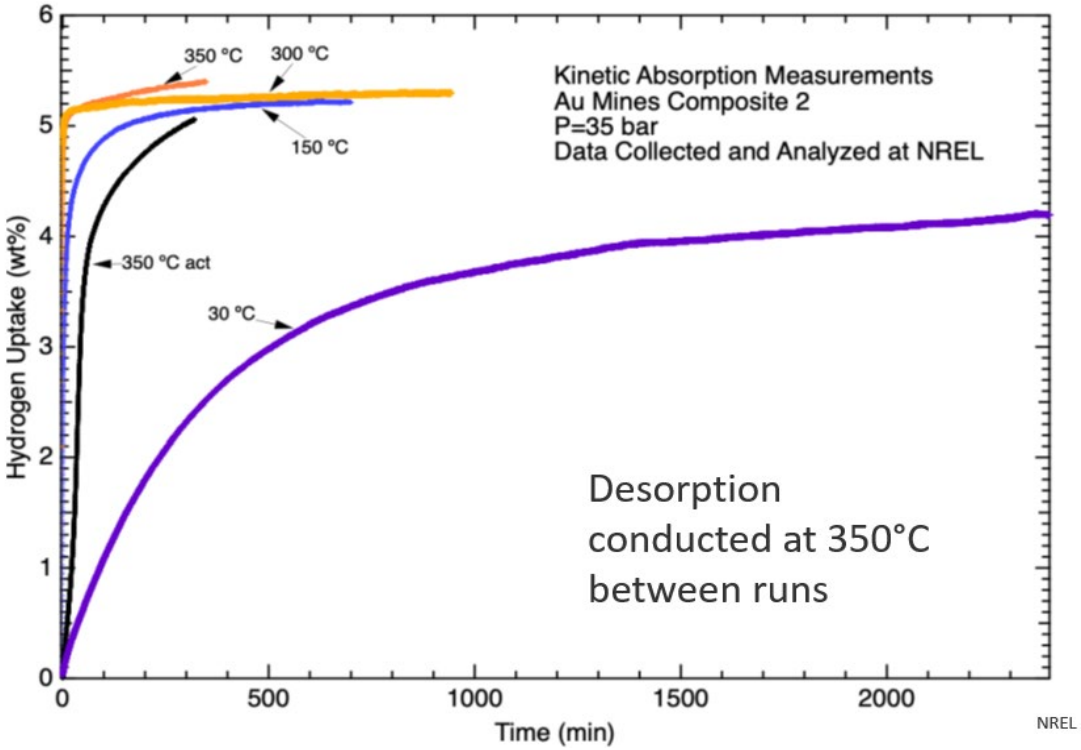

Figure 1: NREL: MH-May24 Kinetics

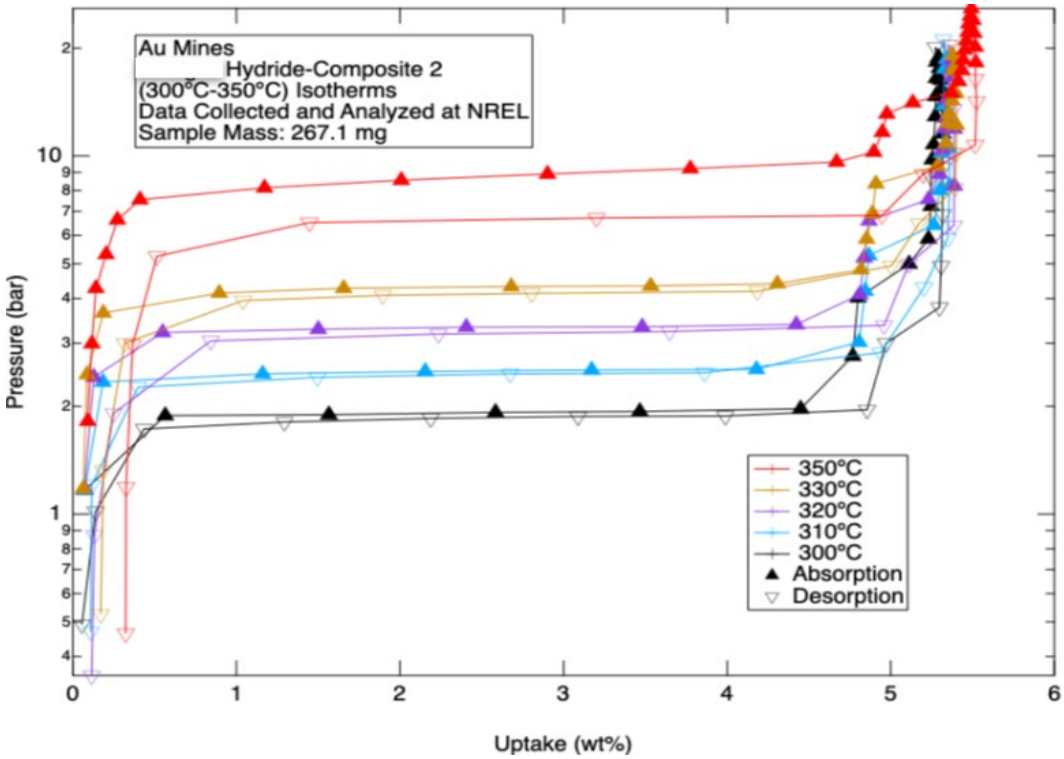

Figure 2: NREL: MH-May24 PCT Isotherm measurement results

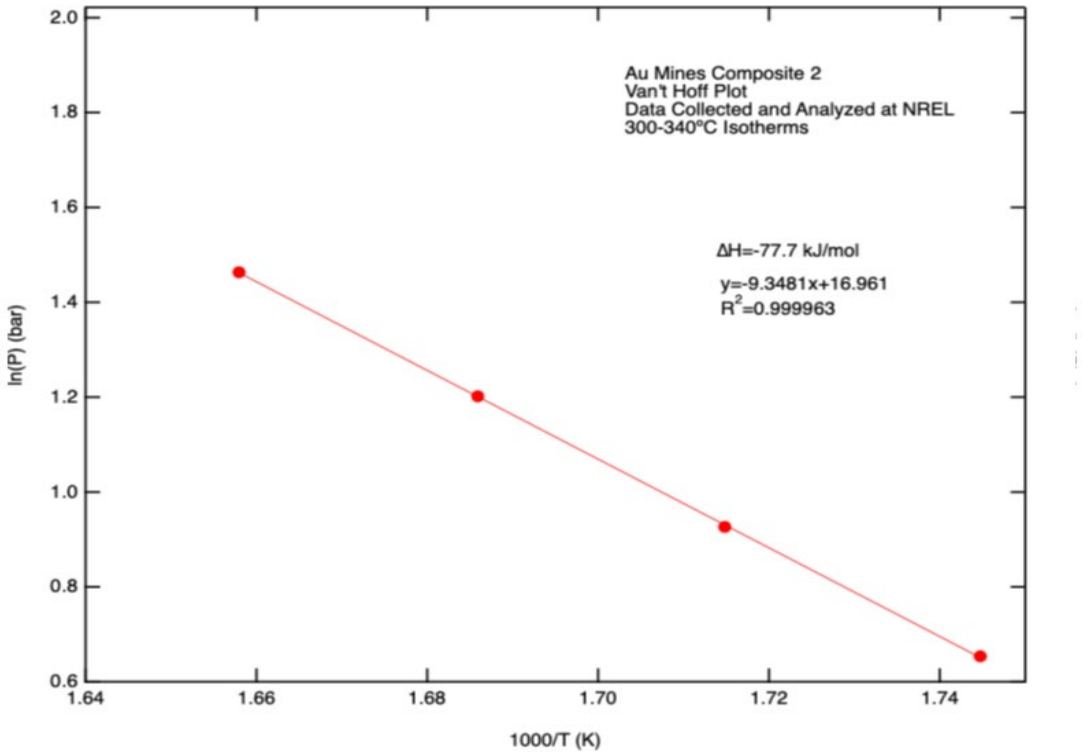

Figure 3: NREL: Van't Hoff Plot

Further Work

Going forward AUZ expects to continue the relationship with the HyMARC, which may provide access to strategic knowledge necessary for potential pathways to additional funding to advance AUZ's metal hydride.

MH-May24 Results (as tested and previously announced by AUZ)[2]

Previously AUZ announced MH-May24, under isothermal conditions and at a pressure of 38 bar MH-May24 absorbs hydrogen as follows:

- Absorbs 5.2wt% hydrogen at 200°C.
- Absorbs 4.2wt% hydrogen at 200°C in less than 4 minutes.
- Absorbs up to **4.7wt% hydrogen at 100°C**.
- Absorbs **hydrogen at room temperature.**
- Under isothermal conditions of 250°C and at vacuum[3] MH-May24 **desorbs 5wt% Hydrogen in approximately 3.3 hours**. Practical applications generally require hydrogen desorption kinetics over several hours.

AUZ's calculated[4] a theoretical system Gravimetric Energy Density of 1.15 kWh/kg and Volumetric Energy Density of 1.78 kWh/dm^3, as indicated with the red ✖ in Figure 4. The positioning indicates a potential for considerable improvement over lithium-ion batteries and compressed hydrogen at 700bar (CGH2).

[2] Please refer to ASX Announcement, 13May 2024
[3] In this announcement where the term vacuum is used the pressure was less than 0.5 bar.
[4] Please refer to page 6 of ASX Announcement, 13 May 2024 for details of assumptions on a system based on MH-May24.

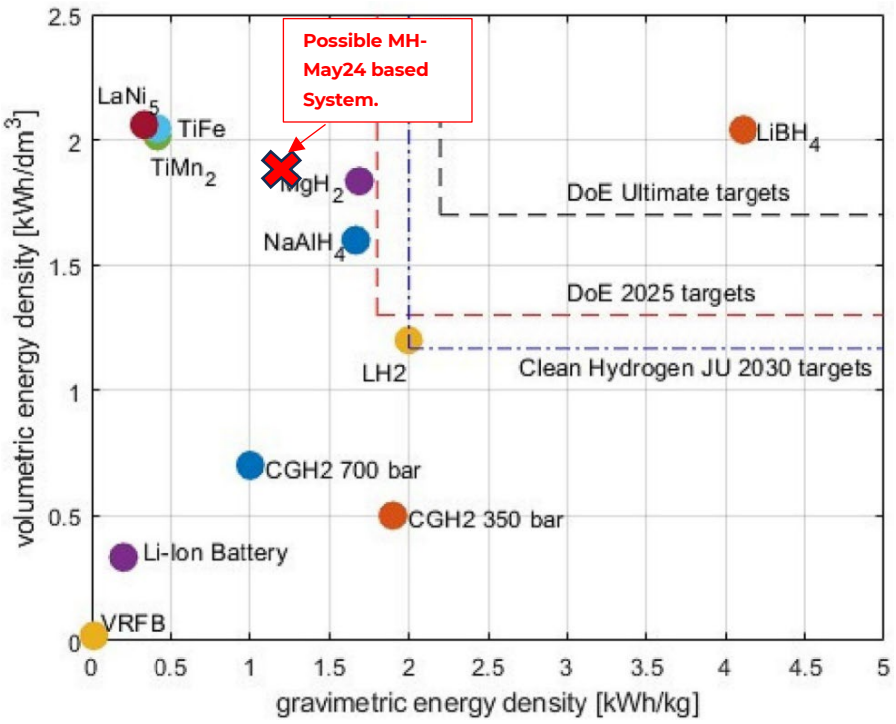

Figure 4 Adapted from "A review on metal hydride materials for hydrogen storage"[5] The densities are presented as theoretical "system" densities by applying an assumed penalty of 50% extra weight and 100% extra volume to metal hydride materials.[6]

AUZ's CEO, Andrew Nesbitt commented *"The consistency of HyMARC's test results with those previously announced by AUZ strengthens our confidence in MH-May24's potential as a commercially viable, high-density hydrogen storage media—positioning Australian Mines to play a key role in the global energy transition."*

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Authorised for release by the Board of Directors of Australian Mines Limited

[5] Klop, N., Grimmer, I., Winkler, F., Sartory, M., & Trattner, A. (2023). A review on metal hydride materials for hydrogen storage. Journal of Energy Storage, 72, 108456.
[6] MH-May24: the weight has been increased by 50% and the volume has been increased by 100%, to allow for a comparable plot.

Australian Mines Limited supports the vision of a world where the mining industry respects the human rights and aspirations of affected communities, provides safe, healthy, and supportive workplaces, minimises harm to the environment, and leaves positive legacies.