



Heavy Minerals Titanium Discovery

Drilling extended to west

Marmota Limited (ASX:MEU) ('Marmota')

In January, Marmota announced **outstanding Heavy Mineral (HM) concentrate percentages, with every discovery hole featuring bonanza HM grades over thick wide intervals from surface** [ASX:MEU [14 Jan 2025](#)]. Marmota immediately commenced a maiden follow-up drill program [ASX:MEU [24 Jan 2025](#)].

Marmota is very pleased to provide the following program update:

1. Based on positive visual feedback¹ during the program from panning drilled samples for their heavy mineral sands content, **the program design has been modified by the team as they were drilling, with many more holes drilled to the west, into areas furthest away from the original discovery holes.**
2. **The maiden drilling program has completed and samples are now on their way to Adelaide.**

Key Points: Heavy Mineral Sands Drill Program

- **AC Drill program: 91 holes drilled for 3272m**
- **Hole depths: ~ 36m (average, or to refusal)**

Hole depths are purposefully shallow as the target is the titanium-bearing mineral sands *from surface*.

¹ Cautionary note: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

Program Design modified

- **The original program design featured a high concentration of holes around the 4 discovery holes** [see ASX:MEU 16 Jan 2025 and Figure 2 below], and a smaller number of holes to the west where there was no prior drilling, no prior results, and consequently less certainty of intersecting heavy mineral sands.
- In the process of carrying out this program, the program was re-designed by the geology team, placing more holes to the west, and establishing a regular grid over the entire interpreted palaeochannel within the tenement.
- The reason for the change in design of the program was based on visual feedback while drilling, from panning of samples to get an initial visual indication of the presence of heavy mineral sands. Notably, while panning samples from the most western fence line [Hole 30 in Figure 1] the team received very positive visual feedback from panning samples for heavy mineral concentrate [see Figure 4]. Cautionary Statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.
- These visual estimates are not intended nor suggested in any way as a proxy or substitute for obtaining laboratory assay results which are, of course, the next step. The purpose of Marmota referring to the visual feedback in this release is to explain why the geologist team modified the design of the drill program from that previously announced [ASX:MEU 24 Jan 2025].
- Marmota also 100% owns the adjacent tenement (EL 6679) to the west of Hole 30.
- **Anticipated timing for assay results:** Samples are on their way to Adelaide. Once they arrive and are delivered to the laboratory for assaying, Marmota expects initial titanium dioxide TiO₂ assays (on 4m composites) within around 4 weeks (*i.e.* approximately 5 weeks from the present): this will provide an immediate overview of the extent of high-grade mineralisation across the palaeochannel within the drilling area.

Figure 1 provides a plan view of the 4 discovery holes, every one of which yielded bonanza Heavy Mineral assays, and the 91 drilled holes along the interpreted titanium-hosting palaeochannel.

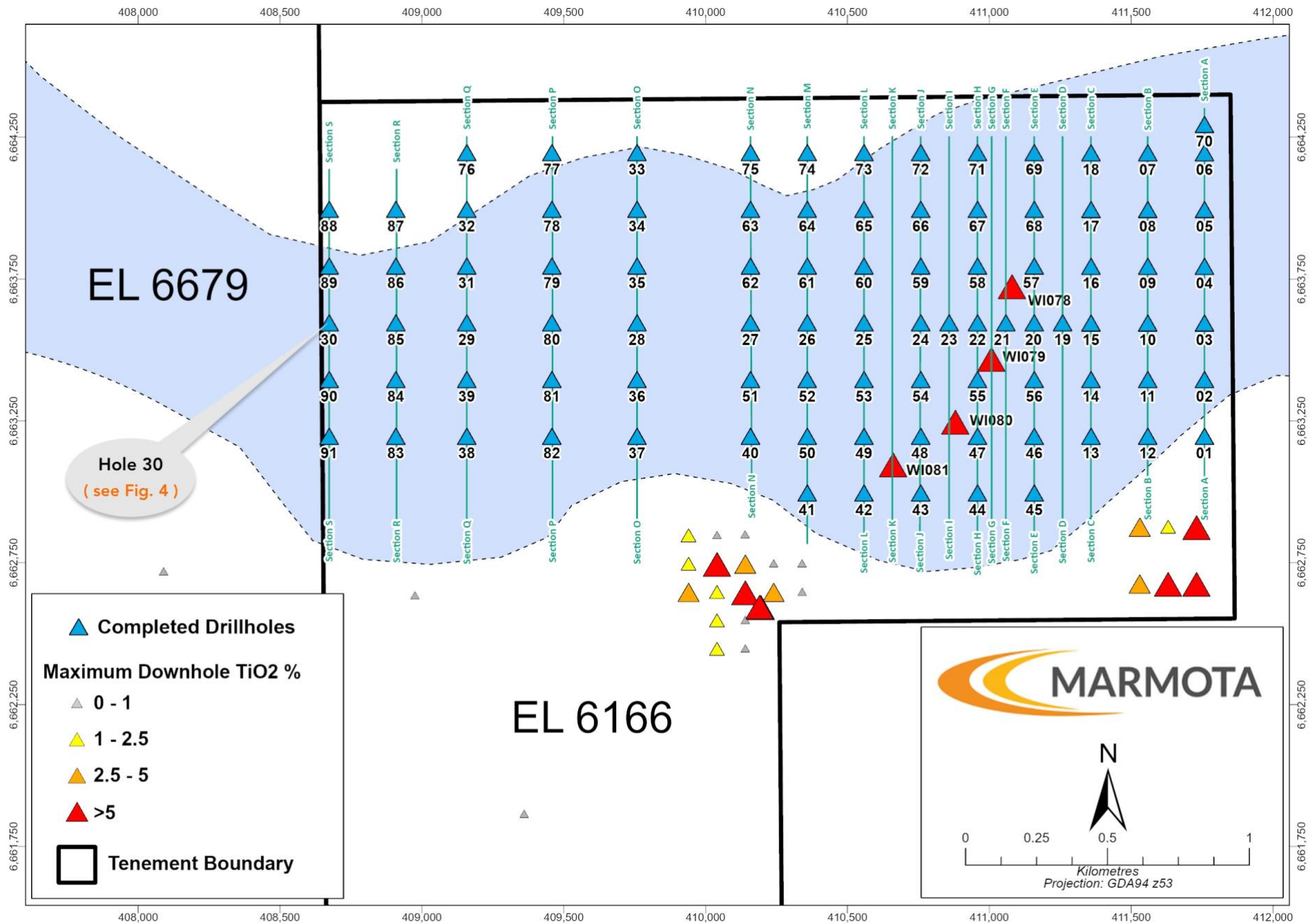


Figure 1: 91 new drilled holes ▲ around MEU's Titanium Discovery on EL 6166 with interpreted hosting palaeochannel

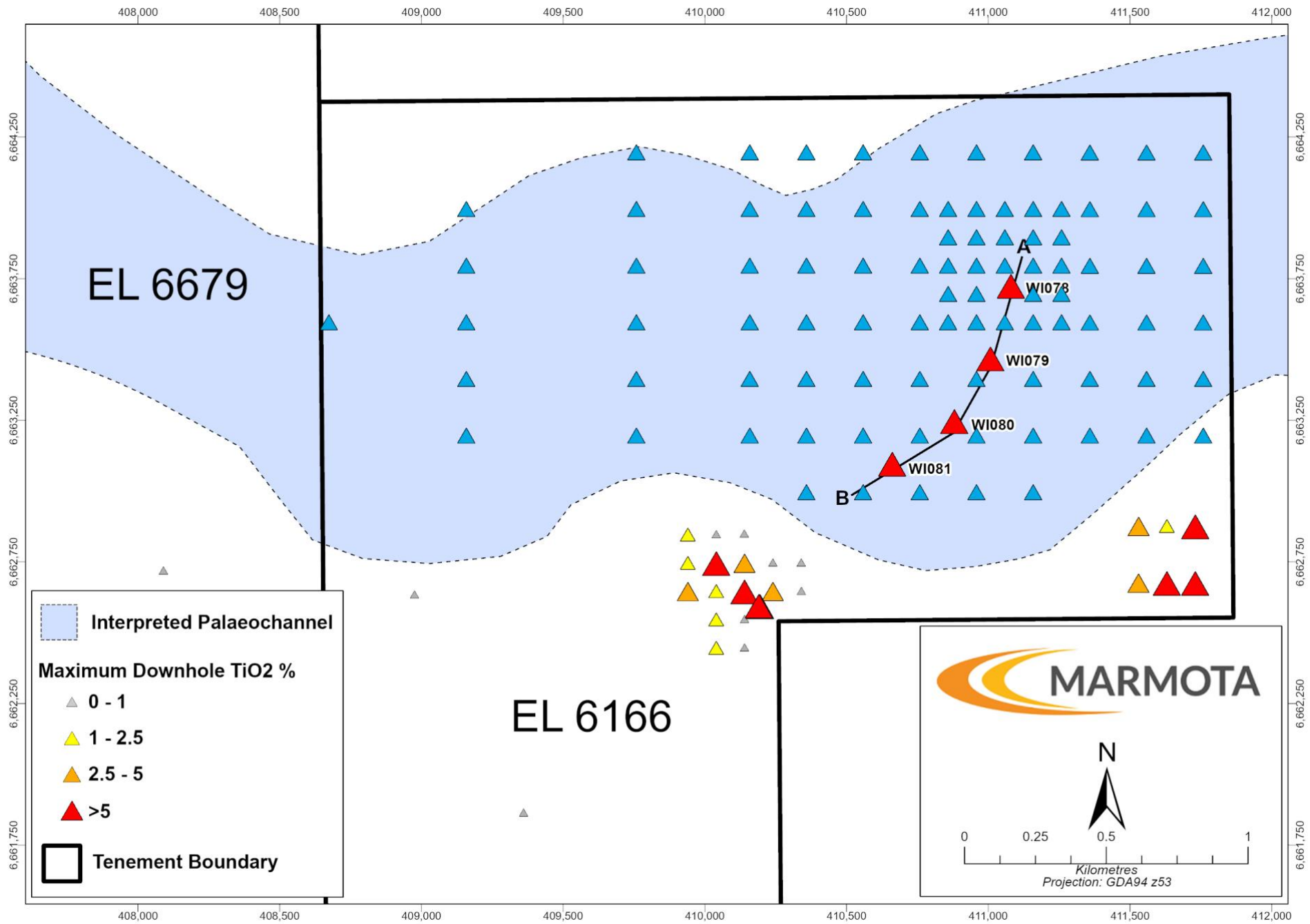


Figure 2: Original PLANNED drill holes ▲ as shown in ASX:MEU 24 Jan 2025 [compare to *drilled* holes in Fig. 1 above]

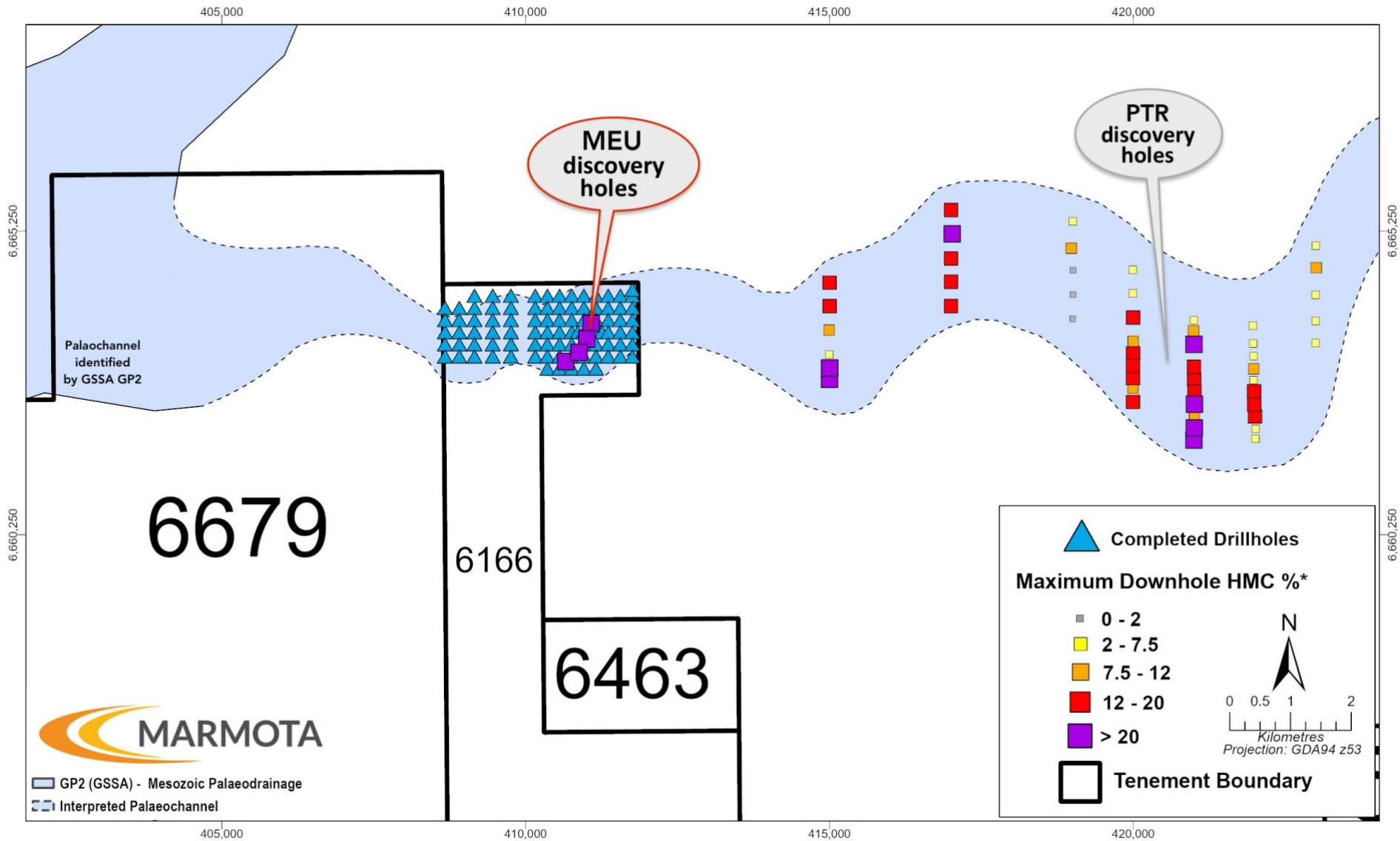


Figure 3: Regional view

Drilled holes just completed ▲ on top of palaeochannel interpretation over the *regional* area of Marmota’s Titanium Discovery on EL 6166 (Muckanippie) and Petratherm’s Titanium discovery, and adjacent MEU tenements.

* Diagram shows maximum published downhole Heavy Mineral intercept % for each hole from MEU and PTR, and is updated with the very latest available data including Petratherm’s ASX results last week [ASX:PTR 6 Feb 2025]



Figure 4

Photograph of Heavy Mineral Sands panned from Hole 25MKAC030 (Hole 30) on the far western tenement boundary while drilling during program.

Depth interval: 7m to 8m from surface. HM % estimate based solely on visual inspection is ~ 20% of sample and is yet to be assayed. This is broadly consistent with the HM % reported in the discovery holes on the eastern side of the tenement [ASX:MEU 14 Jan 2025]. Heavy Minerals appear black and separate when panned and can be distinguished from host sands and clays.

Cautionary statement

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. The purpose of Marmota including this photograph in the release is to explain why its geologists modified the design of the drill program once drilling had commenced. It is not intended in any way as a proxy or substitute for obtaining laboratory assay results. Laboratory assay results are the appropriate methodology for determining the extent and grade of mineralisation. Samples are on their way to Adelaide. Once they arrive and are delivered to the lab, initial 4m geochemical assays should be available within around 4 weeks of same. No identification of the HM species can be made until the laboratory work is completed.

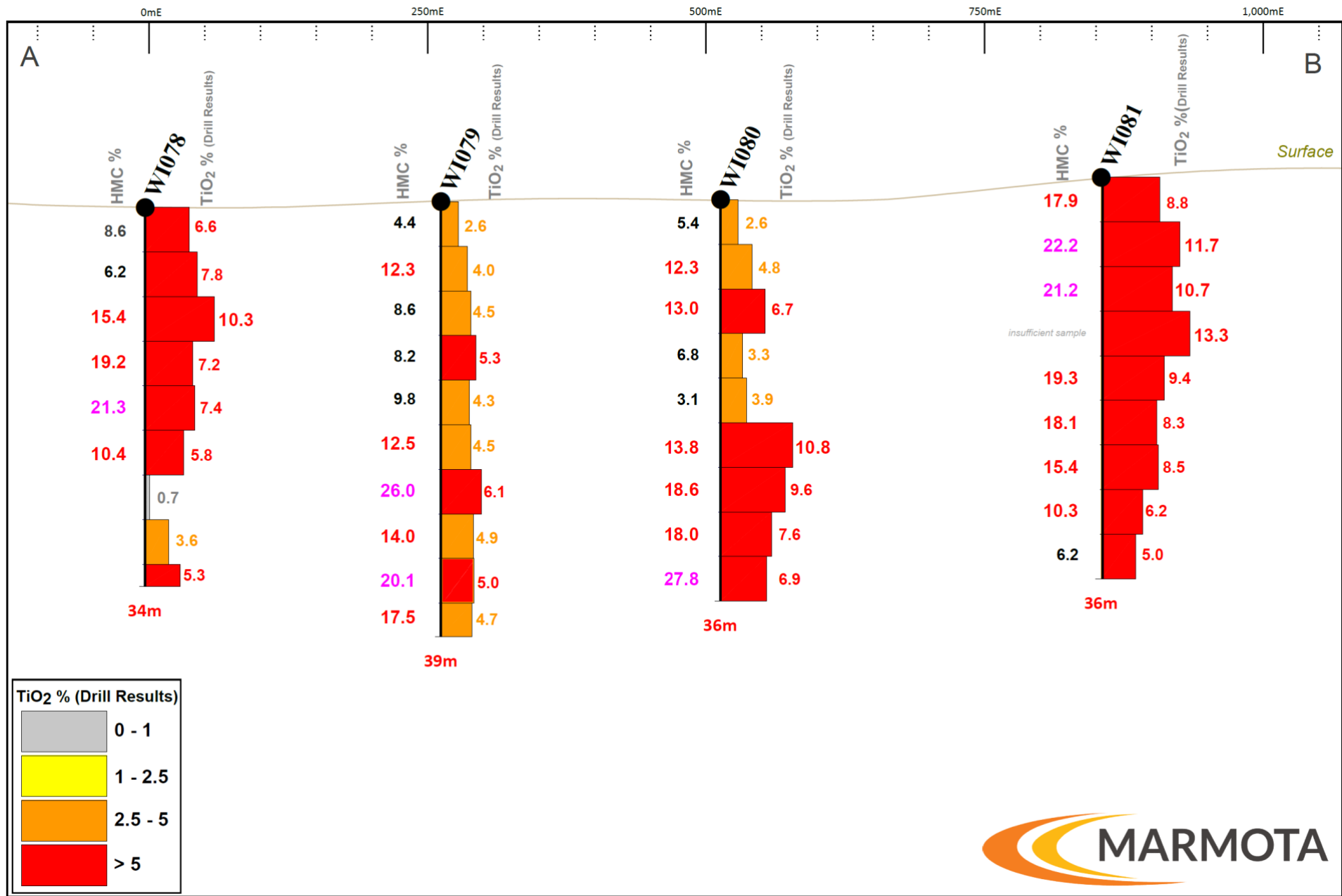


Figure 5: Cross-section from surface through all 4 Outstanding Titanium Discovery Holes

Hole 78 (NE) to Hole 81 (SW)

[ASX:MEU 14 Jan 2025]

LHS: Heavy Mineral concentration (HMC %)

RHS: TiO₂ % of initial Drill assay

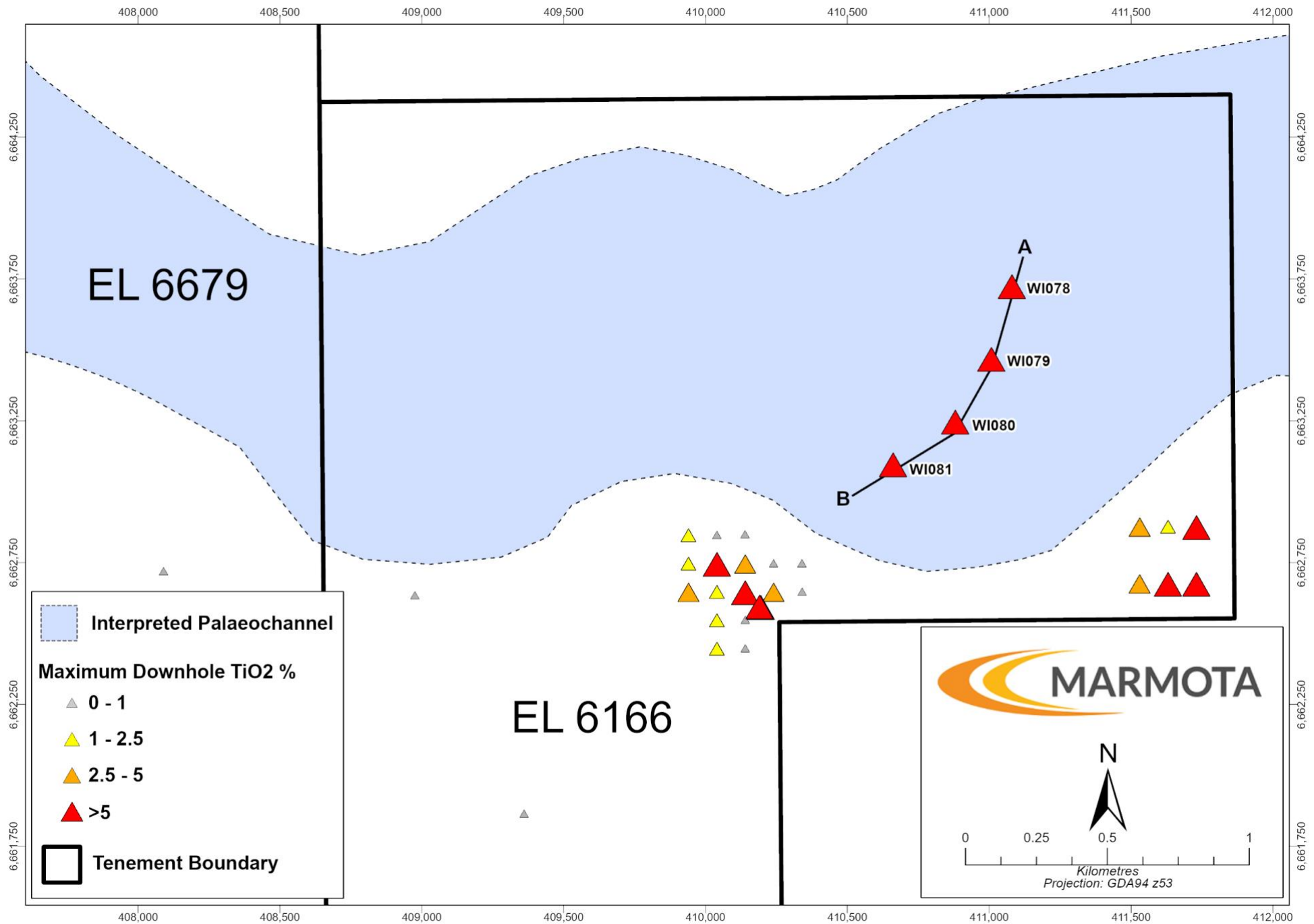


Figure 6: DETAIL VIEW: Marmota's Titanium Discovery on EL 6166 (Muckanippie) with interpreted hosting palaeochannel



Figure 7: First bags from drilling at Muckanippie Heavy Mineral Sands discovery

Background

- In November 2024, Marmota discovered **exceptional thick rich titanium** mineralisation at Muckanippie [ASX:MEU 13 Nov 2024] from surface, *in every discovery hole* [see Fig. 5 and Fig. 6].
- In December 2024, Marmota submitted the first metallurgical testwork to specialist laboratories to determine the heavy mineral properties in the discovery holes.
- On 7 January 2025, Marmota announced that a geological review at Muckanippie identified a **regional scale palaeochannel** [see Fig. 3] interpreted to transect both Marmota's recent discovery of exceptional thick rich titanium mineralisation at Muckanippie (EL 6166) [ASX:MEU 13 Nov 2024] and Petratherm's discovery of thick rich titanium mineralisation also at Muckanippie [ASX:PTR 11 Sept 2024].
The new interpretation of the Mesozoic palaeochannel has been aided by work published as recently as November 2024 by the Geological Survey of South Australia ('GSSA') GP2 project [ASX:MEU 7 Jan 2025].
- **Marmota holds approximately 28km (in length) of the highly prospective titanium-bearing palaeochannel** on its tenements. Of the 28km, approximately 10km (in length) lies within Marmota's tenements to the west, and approximately 18km (in length) lies within Marmota's tenements to the east.
- The palaeochannel is interpreted to be up to ~ 5km in width over MEU tenements, as defined by the Geological Survey of South Australia GP2 project.

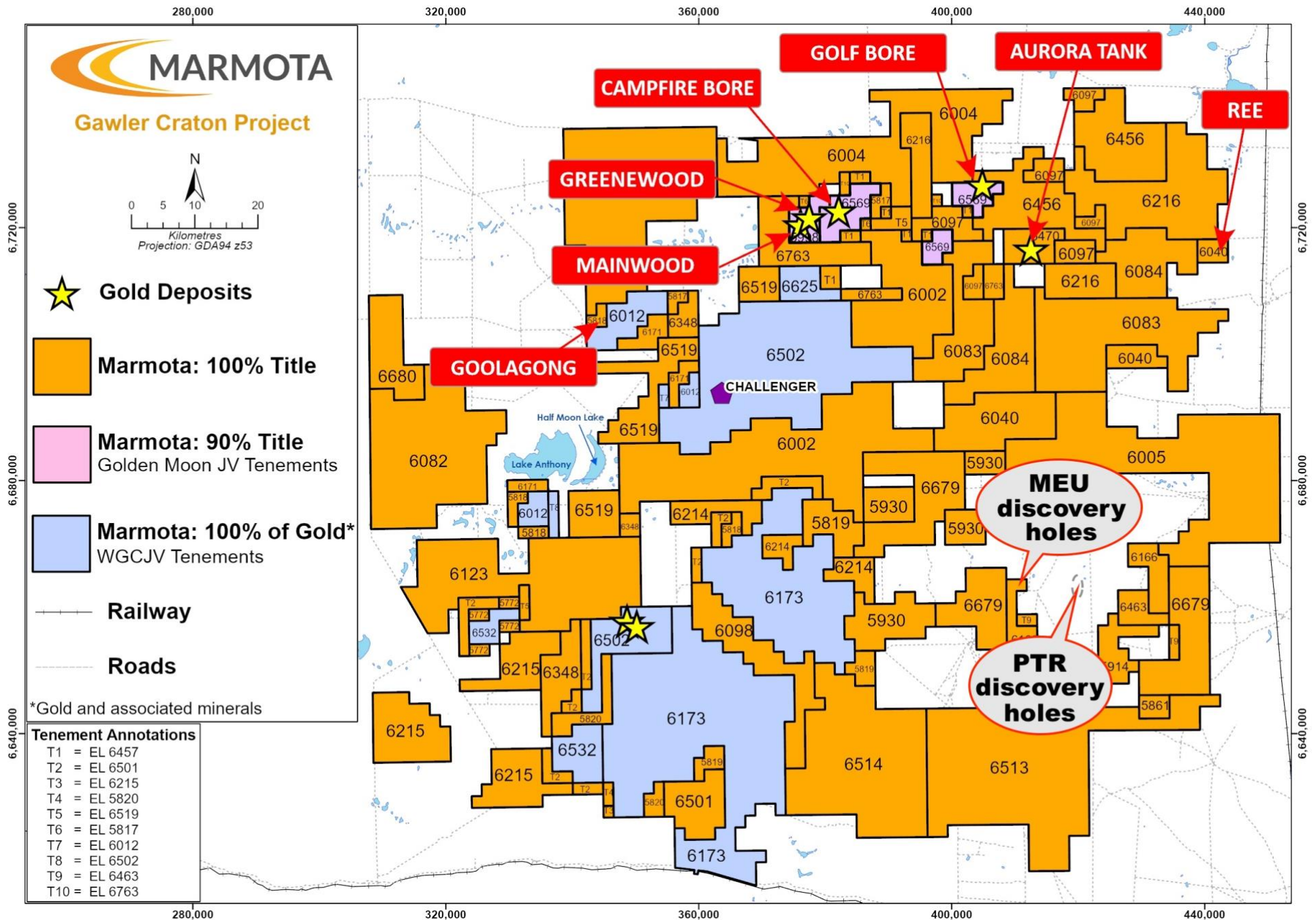
- January 2025 assay results [ASX:MEU 14 Jan 2025] yielded **outstanding Heavy Mineral (HM) concentrate percentages, with every discovery hole featuring bonanza HM grades over thick wide intervals from surface:**

Hole WI-081	28m @ 19.2 % HM	from 0m (from surface)	including 4m @ 22.2 % HM
Hole WI-080	36m @ 13.5 % HM	from 0m (from surface)	including 4m @ 27.8 % HM
Hole WI-079	39m @ 13.2 % HM	from 0m (from surface)	including 4m @ 26.0 % HM
Hole WI-078	24m @ 13.5 % HM	from 0m (from surface)	including 4m @ 21.3 % HM

- Titanium is one of the critical minerals identified by governments worldwide with a range of uses in energy storage, defence, space, semiconductors, surgical implants, pigments and the production of metal alloys.
- The discovery features exceptional **TiO₂ grades over 10%** [ASX:MEU 13 Nov 2024], with every hole featuring remarkable intersections from surface.
- The titanium discovery is **located close to transport infrastructure**, adjacent to both the Adelaide to Darwin rail line, and the Adelaide to Perth rail line [see Fig. 8].

Marmota Chairman, Dr Colin Rose, said:

“ Marmota announced less than 4 weeks ago HM assays featuring bonanza grades in every discovery hole. Those assays confirm Marmota’s discovery at Muckanippie as a highly significant new Heavy Mineral sands discovery. Marmota is progressing with full speed and has now already completed a major follow-up drill program to rapidly advance, grow and develop this outstanding titanium Heavy Mineral discovery. We are extremely pleased with the progress being made. ”



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About Marmota Limited

Marmota Limited (ASX:MEU) is a South Australian mining exploration company focused on gold, titanium and uranium. Gold exploration is centred on the Company's gold discovery at Aurora Tank that is yielding outstanding intersections in the highly prospective and significantly underexplored Gawler Craton in the Woomera Prohibited Defence Area.

The Company's flagship uranium resource is at Junction Dam adjacent to the Honeymoon mine.

For more information, please visit: www.marmota.com.au

Competent Persons Statement

Information in this Release relating to Exploration Results is based on information compiled by Aaron Brown, who is a Member of The Australian Institute of Geoscientists and Executive Director of Exploration at Marmota. He has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Brown consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

For the purpose of ASX Listing Rule 15.5, the Board has authorised for this announcement to be released.