

3 October 2023

Drilling of High-Priority Olympus IOCG Target to Start Late-October

Highlights

- Gravity modelling of the Olympus Target defines a dense body, comparable to the densities of other IOCG bodies, starting at 270 metres depth.
- A late time moderate conductive EM plate bisects the gravity body at depth.
- Drilling of the Olympus Target is scheduled to start in 3 weeks.

Petratherm Limited (ASX: PTR) (“PTR” or “the Company”) is pleased to announce that drilling of the Olympus Gravity/EM Target is scheduled to get underway from late-October. Olympus occurs on PTR’s 100% owned Mabel Creek Project, located along the northern reaches of the Olympic Copper-Gold Province of South Australia.

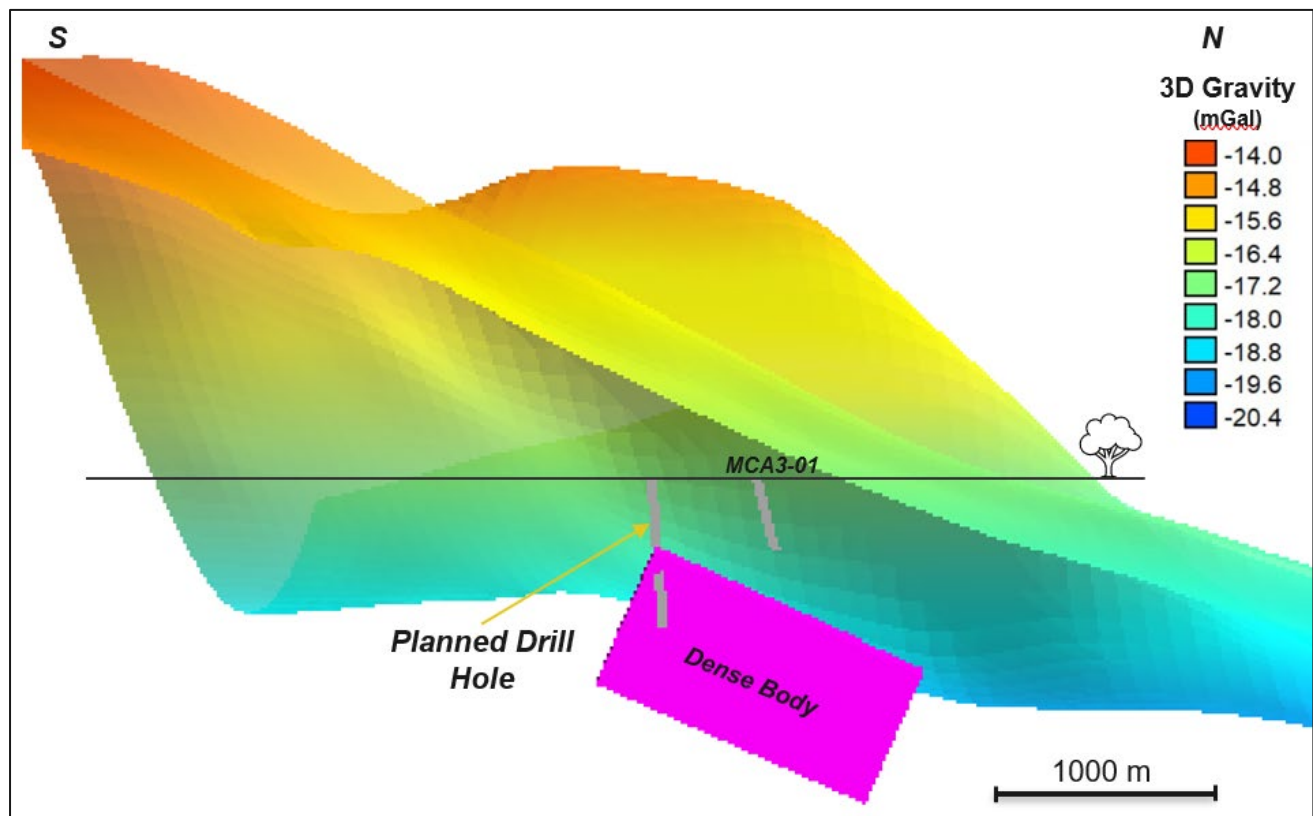


Figure 1 – 3D View looking west of the Olympus Bouguer Gravity Anomaly and dense gravity body target.

Olympus Geophysical Targeting

The Olympus Target is a strong gravity and partially overlapping conductive EM geophysical anomaly of significant dimensions, located along the Wirracanna Fault Structure (Figure 2). Historical drilling at the Cadi Prospect, further southeast along the Wirracanna structure, intersected broad zones of highly anomalous copper and light rare earths (i.e. drillhole 99WS003 - **16m @ 0.57% Cu, 0.16% Ce+La** from 184m) highlighting the fertility of this structure for iron-oxide copper-gold (IOCG)¹.

3D inversion modelling undertaken by independent consultants, Mitre Geophysics, of the gravity data, defines a sub-vertical sheet like body of high density, showing comparable density to that produced from Iron-Oxide Copper-Gold (IOCG) style mineralisation. The gravity body dimensions are approximately 1,200 metres long, by 700 metres vertical and approximately 40 metres wide. At its shallowest point, the model indicates that it comes to approximately 270 metres below the ground surface along its southern edge, which is also the interpreted top of the basement surface under the younger cover strata. The model indicates the body plunges gently to the north-northwest and appears to crosscut the older basement strata and is therefore likely a later emplacement.

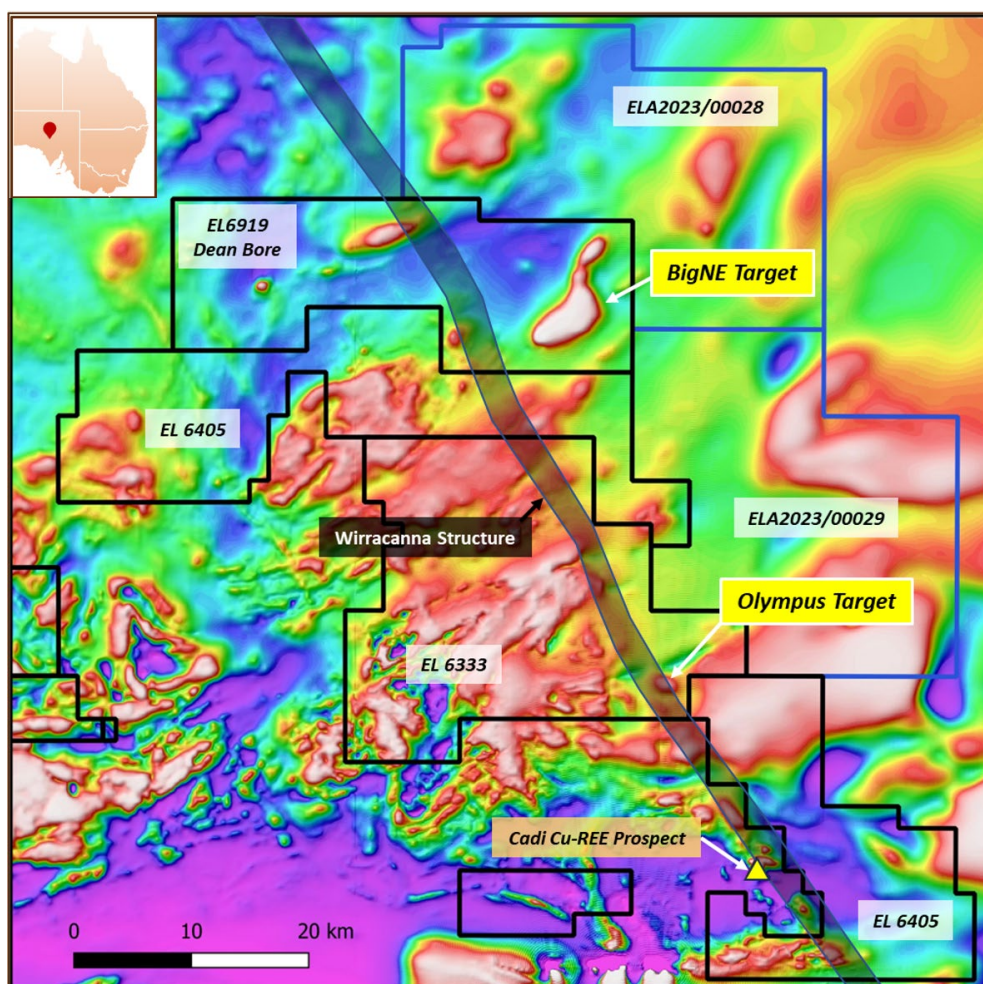


Figure 2 – Eastern Mabel Creek Project. Location of the Olympus and BigNE Targets on a magnetic image with respect to the Cadi Prospect and the Wirracanna Structure. Newly granted EL 6919 and tenement application areas EL2023/00028 & ELA2023/00029.

¹ Goldstream Mining, 2001, SA Govt. Record ENV09248

Olympus Target - Previous Work

The Company previously drilled a single hole MCA3-01 over the northern target area, intersecting 247 metres (vertical thickness) of cover and then penetrated 40 metres into weakly hematite altered granite and gneiss, intruded by mafic and felsic dykes². The revised 3D inversion gravity model after inputting measured density data from MCA3-01, defines a plunging body that gets deeper to the north in the vicinity of MCA3-01, clearly showing this hole did not reach target (Figure 1).

In May 2023, PTR reported SQUID EM surveys at Olympus which identified a moderate conductive feature over three consecutive lines spaced 400m apart along the eastern flank of the gravity anomaly (Figure 3)³. Modelling of the conductive response generates an approximate 2-kilometre-long conductive plate starting at approximately 600 metres below ground surface. The modelled feature dips to the southwest intersecting the gravity feature. Due to the deep nature of this conductive plate and overlying conductive cover strata, its precise orientation relative to the gravity body is open to several model interpretations. Consequently the upcoming drill targeting will be based on the gravity models as its configuration is better defined.

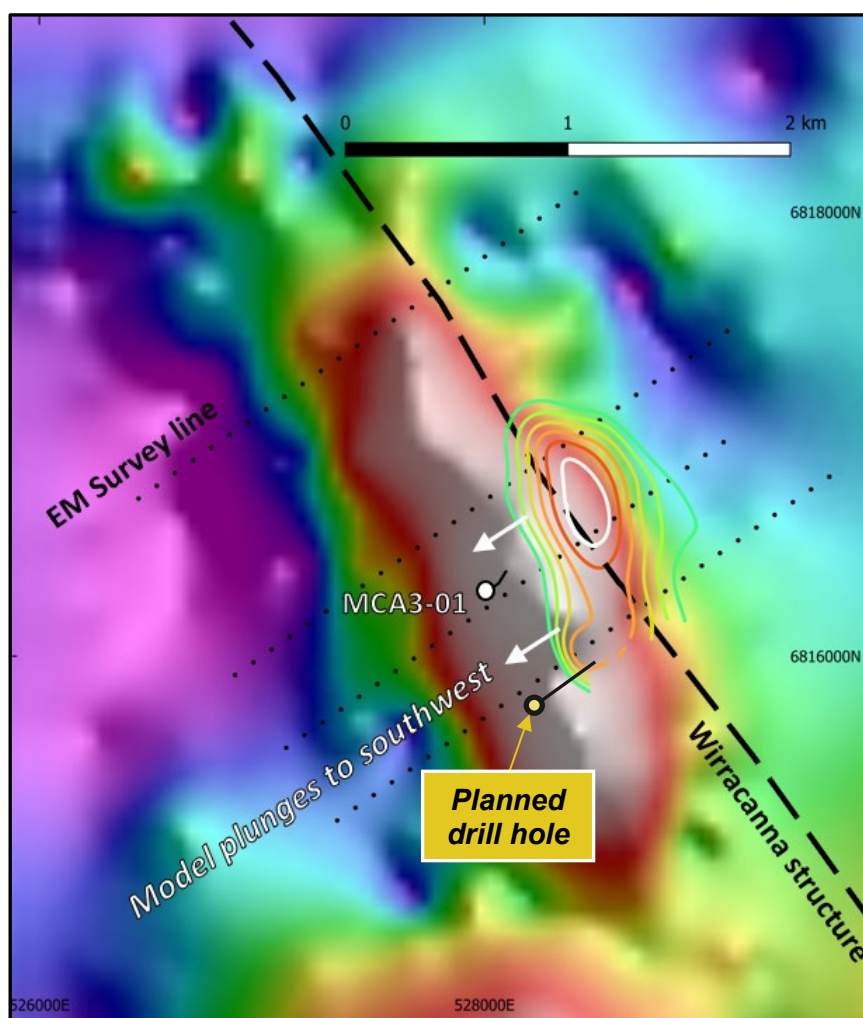


Figure 3 – Olympus geophysical response. Coloured image is gravity data (1VD Bouguer) overlain by late time EM contours (X channel 32) showing the position of the conductive plate on the eastern flank of the gravity body, which plunges back to the southwest.

² PTR Announcement -12 May 2020 - Mabel Creek Drilling Results

³ PTR Announcement – 22 May 2023 – SQUID EM Survey – Significant Copper-Gold Target

Forward Program

Drilling of Olympus Target is scheduled to start in approximately 3 weeks. An angled drillhole has been planned which will test the modelled shallow southern portion of the gravity anomaly (Figure 1). This initial hole is likely to be completed to approximately 600 metres depth. Follow-up drillholes will be completed subject to positive indications from the initial drill hole.

PTR was recently granted Dean Bore (EL 6919), which adds an additional 470km² of land tenure at Mabel Creek, and has registered two large Exploration Licence Application's covering 1,263km² over an identified prospective Iron-Oxide Copper-Gold (IOCG) fertile zone east of current tenement holdings (Figure 2). PTR intends to undertake gravity surveying over these new areas later in the year to explore for additional high calibre IOCG style geophysical targets for drill testing.

The Olympus Geophysical Target has proven to be an exceptional Teir-1 geophysical anomaly, demonstrating rock densities and conductivities that may be indicative of mineralisation. The Company eagerly awaits drill testing of the target and a further update will be provided once the rig mobilises to site.

ENDS

This announcement has been authorised for release on the ASX by the Company's Board of Directors.

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Competent Persons Statement:

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Limited. Mr Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Petratherm Limited

Petratherm Limited (ASX: PTR) is a critical minerals explorer focused on the discovery of world-class copper-gold and rare earth deposits. The Company has several advanced drill ready projects in the Olympic Copper-Gold Domain of South Australia. PTR recently announced the discovery of significant concentrations of rare earths hosted in clays in the Northern Gawler Craton of South Australia which are undergoing further drill testing.

Exploration drilling at the Comet Project Area has delineated two major REE occurrences. The Meteor and Artemis REE prospects both occur at very shallow depths, include high-grade blankets of mineralisation showing good lateral extent and ore thickness. Less than 10% of the project area has been explored for REE's and a systematic program of advancement of current prospects, testing of new areas and metallurgical recovery test work is ongoing.

PTR has several exciting copper-gold targets at its Mabel Creek and Woomera Projects located within the Olympic Copper-Gold Trend. Targeting work has defined several compelling Tier 1 Copper-Gold targets and PTR anticipates drill testing of targets will begin from late in 2023 calendar period.



PTR's Project Locations in South Australia