

# DRILLING AND GEOPHYSICS CAMPAIGN UNDERWAY AT TUCKANARRA

**Odyssey Gold Limited (ASX:ODY) ("Odyssey" or "Company")** is pleased to advise that a new exploration campaign has now commenced at its Tuckanarra gold project, including initial drilling of several exciting gold targets generated from the recent aerial versatile time-domain electromagnetic ("VTEM") survey.

The planned program includes:

- Fixed loop EM ("FLEM") surveys to refine a number of compelling target conductors generated from the earlier aerial survey (see ASX announcement dated 5 May 2025);
- Initial reverse circulation ("RC") drilling of up to six targets, including previously untested, standalone electromagnetic ("EM") conductor targets, as well as significant potential extensions of known high grade mineralisation;
- Likely additional RC drilling of additional targets as processing of EM anomalies and target modelling, ranking and approval continues; and
- Infill drilling to upgrade existing Inferred Mineral Resources to Indicated classification, as part of the Tuckanarra Technical Study currently underway (see ASX announcement dated 29 April 2025).

Odyssey's field crew have now mobilised to Tuckanarra along with the FLEM survey team from Southern Geoscience. An RC drilling program totalling up to 5,000m of drilling is expected to commence in the coming weeks.

A site visit by consultants from Goldfields Technical Services, who are managing the Technical Study, has also just been completed. The Technical Study, being completed pursuant to the Burnakura Mill Access and Collaboration Agreement, is due for completion in July 2025.

Executive Director, Matt Syme, said: "We are excited to be getting another exploration field season underway at Tuckanarra.

The effectiveness of the aerial VTEM survey to generate anomalies over the existing deposits and the identification of a large number of new targets, was a major step forward for the project. The correlation between pyrrhotite and gold mineralisation is now well established. VTEM is unlocking new areas of mineralisation and the number of new conductor targets generated in the VTEM survey surpassed even our expectations. FLEM will also be a very useful tool for guiding our exploration below the shallow oxide resources into high grade primary gold mineralisation.

We already have a high quality and valuable resource base at Tuckanarra with 407,000oz at 2.5g/t, mostly at open pit depths, on Mining Leases and with other substantial near term mining advantages. We are confident about adding substantially to the initial resource estimate, starting with this current campaign."

#### For further information, please contact:

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# **Initial VTEM targets**

An aerial VTEM survey completed in April 2025 covered approximately 47km<sup>2</sup> of the southern area of the Tuckanarra gold project ("Tuckanarra" or "Project").

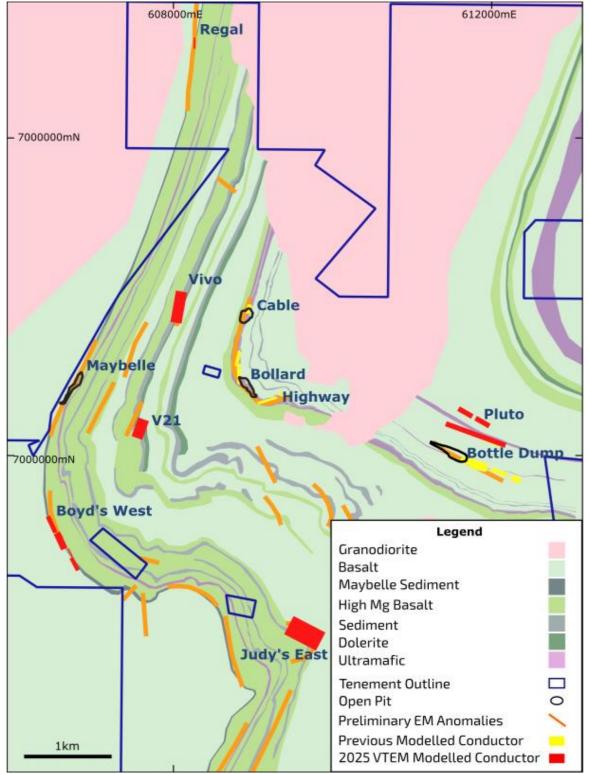


Figure 1 - Conductive plates modelled by Southern Geoscience within the priority anomaly areas. Not all anomalies are shown on the map.



Specialist geophysical consultants, Southern Geoscience Consultants ("SGC"), picked 32 high priority anomalies which Odyssey geologists then scored based on a range predictors of mineralisation including the host rock, destruction of magnetism in magnetic rocks, crosscutting structures, intensity of the EM conductor, historic workings, soil gold anomalism, anomalism in previous drilling, presence of mineralisation along strike and absence of overlying drainage coincident with the anomaly.<sup>i</sup>

An initial subset of six targets was then selected representing examples of a range of interpreted mineralisation styles, rock types and structural settings, not necessarily the largest or most intense anomalies (see modelled conductors in red on Figure 1).

The correlation between existing gold resources and EM anomalies, combined with limited logging of graphitic sediment in previous drilling suggests the EM anomalies are sulphide related.

SGC have geophysics crew onsite currently completing FLEM surveys over the priority anomalies to provide better definition of the conductors for drill targeting. This work is expected to be completed over the coming weeks.

Thereafter an RC drill rig has been booked to mobilise later in June to drill the first four targets as set out below, as well as drilling to upgrade the classification of Inferred resources, define additional resources and to complete pre-collars for deeper targets.

### Pluto

The Pluto target is located 450m north of the Bottle Dump Pit on EL20/783. This a 1.5km long soil anomaly of over 10ppb gold in historic sampling peaking at 420ppb from sampling in 1990<sup>ii</sup>. Coincident with this trend are 17 historic workings. Seven lines of 30m deep rotary air blast ("RAB") drilling were completed in 1994 with a best result of 1m @ 18.6g/t Au from 7m in TPH0962<sup>iii</sup> from siliceous saprolitic clays associated with mafic rocks and banded iron formation ("BIF") units. The mineralised RAB hole was completed immediately down dip of a 50m long line of three shallow workings. In 2022 Odyssey completed two RC holes totalling 212m drilling 50m to the west of the RAB line. The RC holes did not drill through the modelled conductor.

In 2023 a moving loop EM ("MLEM") survey<sup>iv</sup> was completed to the east of the Bottle Dump resource and also covered a small area of the Pluto target. Along with defining the down plunge extension of the Bottle Dump mineralisation this survey identified an EM anomaly at Pluto. The anomaly was identified on the most western line of a MLEM survey and appeared open to the west. All previous drilling failed to intersect the modelled conductor generated from the 2023 data.

The VTEM survey has generated an EM anomaly that is modelled as three conductors (Figure 2)<sup>v</sup>. These show strong similarities in scale and geometry to Bottle Dump. The gold mineralisation at Bottle Dump follows intersection line between NW striking BIF and a WNW striking fault cross cutting at a very low angle. It is notable this same scale and geometry is seen at Pluto with conductors at low angles representing the orientation of the outcropping BIF and cross cutting structures. All conductors dip 70-75 degrees to the south. The historic drilling failed to intersect the modelled conductors, however the result in TPH0962 correlates with the position the conductors would intersect if projected into oxide.



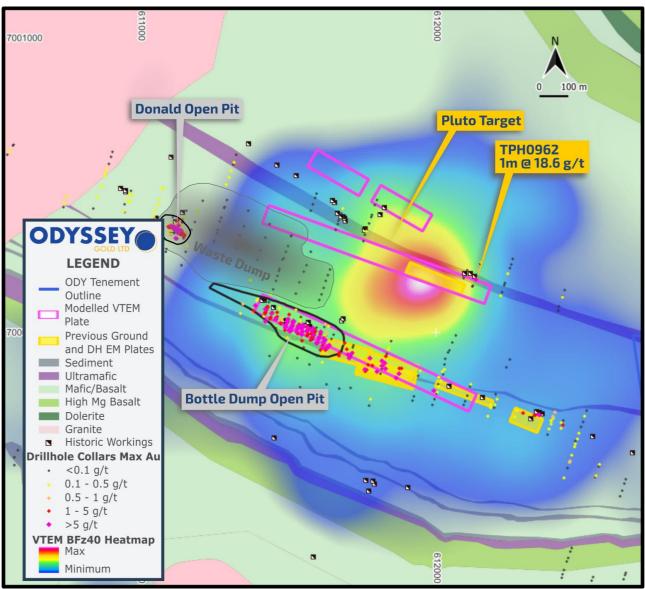


Figure 2 - Pluto target with BZ40 EM heatmap

### Vivo

The Vivo target is located 750m to the west of the Cable Pit on P20/2399. The area has not previously attracted exploration by Odyssey. Soil anomalism occurs over an area of approximately 400m x 400m. Two lines of RAB drilled in the in 1980 intersected gold anomalism in a supergene oxide horizon with best results of produced best results of 3m @ 0.55g/t Au from 12m (TPH0017) and 6m @ 0.31g/t Au from surface (TPH0017) and 9m @ 0.2g/t Au from 12m (TPH0016). The basalts and BIF interpreted from magnetic data strike north-south (Figure 3). A north-east striking cross cutting Tuckanarra Break causes destruction of magnetism in the BIF (Figure 4). This is coincident with a 500S modelled conductor 400m long with 200m plunge extent starting 120m below surface. The conductor strikes parallel to stratigraphy and is modelled to dip 45 degrees to the east.

The coincidence of soil and oxide gold anomalism over a significant area, destruction of magnetism, and modelled conductor in favourable host rock makes this a high priority target. RC drilling to intersect the conductor and potential vein hosted mineralisation in the hangingwall is planned.



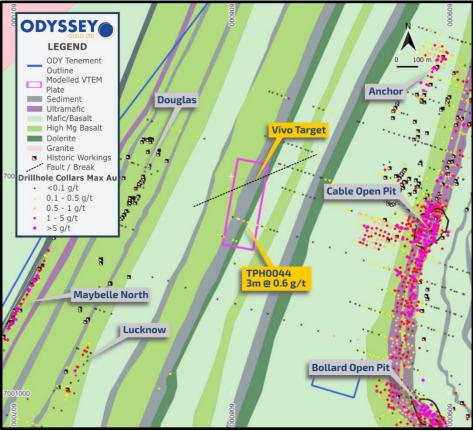


Figure 3 - Vivo conductor with geology and maximum gold in hole.

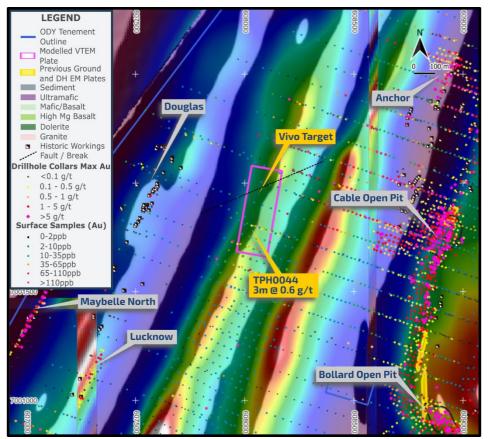


Figure 4 - Vivo conductor with RTP magnetics and maximum gold in drilling



### Boyd's West

This target is located on P20/2417 and E20/782. This target is an EM anomaly under shallow alluvial cover approximately 1.8km south of the Maybelle resource. The Boyd's West target is comprised of multiple conductors extending over 1,000m. The conductors are all west dipping at 50-80 degrees and start 35-70m below surface.<sup>vi</sup>

The conductors are coincident with the strike extension of the Maybelle sediment into the hinge of the Tuckanarra anticline. This sediment which has a distinctive elevated silver, zinc and lead signature, is the host rock of the Maybelle resource. The VTEM has generated EM anomalism coincident with the mineralised shoots at Maybelle and Maybelle North.

Limited previous exploration has been conducted in the Boyd's West target area. Soil sampling that has previously been completed would be ineffective due to cover and isolated shallow RAB holes in the area have not intersected the modelled conductor.

Two offsets in the modelled plates suggest the presence of NE striking faults with offset of 60-80m. The strong correlation between EM anomalies and gold mineralisation at Maybelle in the same sediments, and the presence of cross cutting structures (Figure 5) that also localise the gold mineralisation at Maybelle, make this a priority target. Two RC holes are planned to test whether sulphide is the source of the EM anomalies generated and the presence of gold mineralisation.

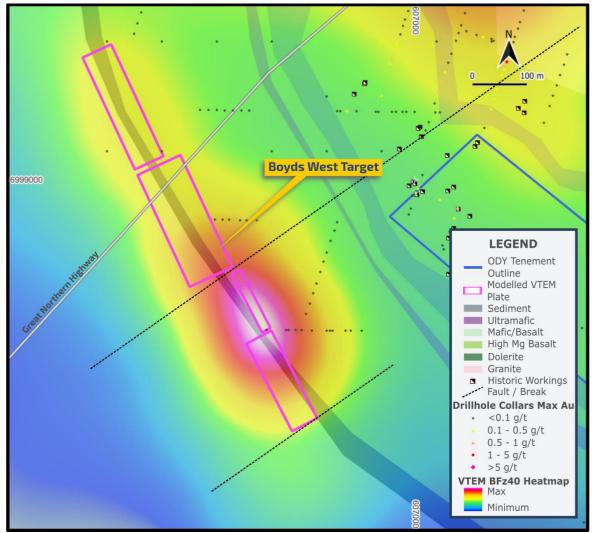


Figure 5 - Boyd's Reward - BZ40 Heatmap on geology



## V21

The V21 target is located in the heart of the Tuckanarra anticline, 400m north of Karbar Station, on E20/783.

North-south striking high-Mg basalt, BIF and dolerite are crosscut by a NNE striking fault (Figure 6) coincident with an EM anomaly generated in the VTEM Survey.

A 250m long 300S conductor is modelled to start 125m below surface. The conductor is modelled to dip at 45 degrees to the west and with a plunge length of 140m although this is likely the depth limit of detection of the VTEM.

The area has shallow alluvial cover. This is interfering with the bedrock response and makes the historic soils sampling of the target area ineffective. Along strike to the north of the conductor soil sampling generated an isolated peak result of 4.5g/t Au (CD202) and a historic grab sample (195) produced a result of 0.94g/t Au<sup>vii</sup>. A single line of aircore traverses the southern edge of the target however this is too shallow to have intersected the modelled conductor.

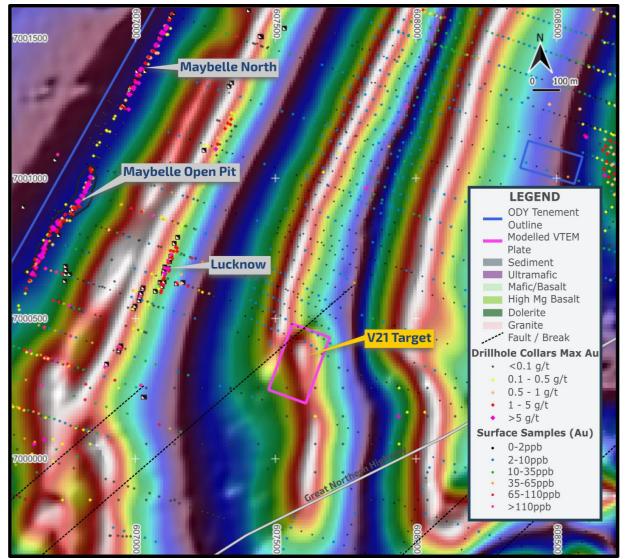


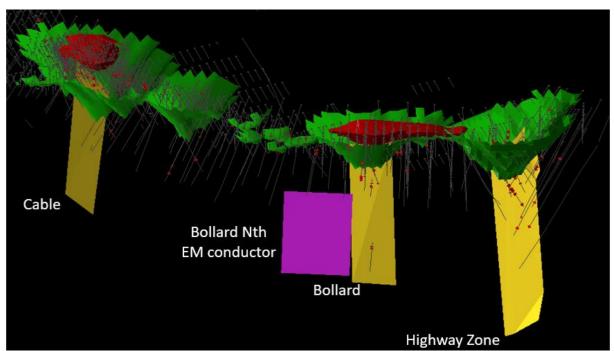
Figure 6 - V21 EM Target with RTP magnetics and maximum gold in drilling and soil samples.



# **Extensional Target Drilling**

The RC drill rig will also drill pre-collars for a number of holes targeting extensions of the known high grade primary mineralisation at the Highway and Bollard deposits. Previous drilling has already identified high grade shoots modelled as the source of the current laterite and oxide resources comprising these deposits.

At Bollard, previous FLEM and downhole EM surveys generated an EM anomaly north of Bollard pit (Figure 7). This coincides with interpreted position of a major BIF unit that is the host of sulphide mineralisation at Cable and Bollard. This style of sulphide mineralisation was intersected in a diamond tail completed in October 2024 which yielded a result of 3.7m @ 8.3g/t Au<sup>viii</sup> (Figure 8) in a pyrrhotite replaced footwall BIF.



**Figure 7** – Bollard North modelled EM conductor (purple). Pits mined in the 1990s in red, open pit optimisations in green and higher-grade shoots in yellow.



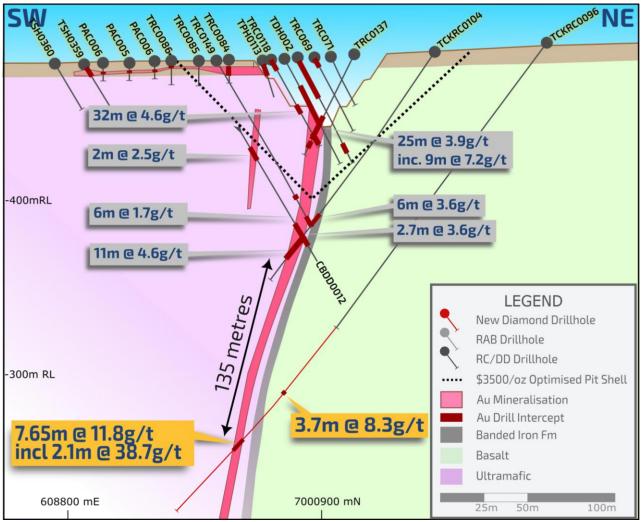


Figure 8 – Cross section through the Bollard Pit

# Infill Drilling at Cable and Bollard Deposits

Goldfields Technical Services ("GTS") are managing the Technical Study of the options for mining the existing shallow resources at Tuckanarra for potential processing at the nearby Burnakura Processing Plant. This week a team from GTS have completed a site visit as part of the Technical Study.

A substantial proportion of the mineral resources likely to comprise the early stages of mining at Tuckanarra are within the Cable and Bollard deposits, located on M20/527 and where open pits were mined in the 1990's.

The current RC drilling program also includes up to 12 holes totalling 1,100m at Cable. This drilling is designed to target mineralisation not currently classified in the existing mineral resource estimate, and to convert Inferred Resources to Indicated Resources where the density of drilling, or reliance on historic drilling, precluded classification as Indicated Resources.



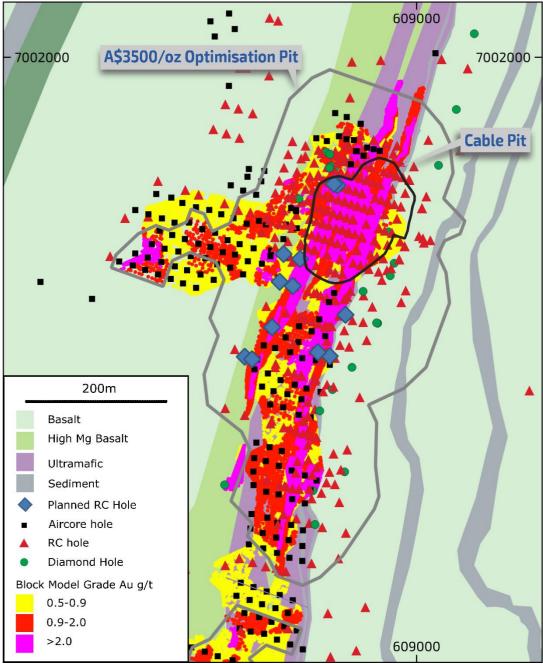


Figure 9 – Map of planned drilling at Cable Pit

# Potential Drill-for-Equity with Topdrill

Highly regarded WA drilling contractor, Topdrill Pty Ltd ("Topdrill"), have been engaged to undertake the planned RC drilling program of up to 5,000m of drilling, to mobilise later in June 2025, after completion of the ground EM survey and other preparatory work.

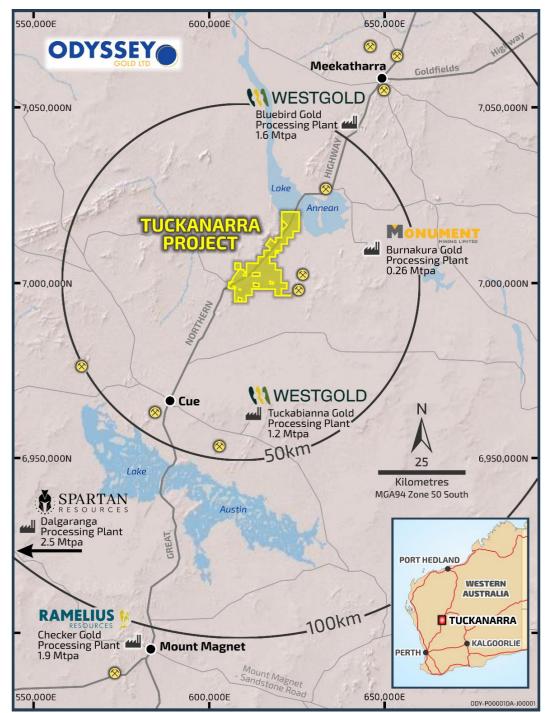
Odyssey is also considering entering into a drill-for-equity Agreement with Topdrill, pursuant to which the Company could satisfy up to 40% of direct drilling costs invoiced by Topdrill through the issue of ordinary shares in the Company. No agreement has been entered yet and the Company will update the market should any such agreement be executed.



## ABOUT ODYSSEY GOLD

Odyssey's Tuckanarra Gold Project (80% Odyssey) is part of the prolific Murchison Goldfields (Figure 10). The Murchison Goldfields are host to a +35Moz gold endowment (historic production plus current resources) with 7.5Mtpa of processing capacity within 120km of the Project. The Project straddles the Great Northern Highway approximately 40km north of Cue and 680km north-northeast of Perth.

The Project currently has an indicated and inferred Mineral Resource Estimate of 5.14Mt @ 2.5g/t Au for 407koz of gold<sup>ix</sup>. This includes a high-grade subset of 2.25Mt @ 3.9g/t for 283koz of gold above a 2.0g/t Au cut off. Approximately 4.2Mt @ 2.3g/t Au for 311koz is on granted mining leases.



*Figure 10* - Odyssey Gold in located in the heart of the Murchison Gold District surrounded by 7.5Mtpa of processing capacity.



## **Forward Looking Statements**

Statements regarding plans with respect to Odyssey's projects are forward-looking statements. There can be no assurance that the Company's plans for development of its projects will proceed as currently expected. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.

## **Competent Persons Statements**

The information in this announcement that relates Exploration Results and Mineral Resource Estimates is extracted from announcements dated 27 November 2020, 23 September 2021, 19 April 2022, 28 July 2023, 15 February 2024, 27 August 2024, 20 November 2024, 18 February 2025 and 5 May 2025 respectively, which are available to view at www.odysseygold.com.au and is based on, and fairly represents information compiled by the relevant Competent Person, Mr Matthew Briggs.

The Company confirms that: (a) it is not aware of any new information or data that materially affects the information included in the original announcements; (b) all material assumptions included in the original announcements continue to apply and have not materially changed; and (c) the form and context in which the relevant Competent Persons' findings are presented in this announcement have not been materially changed from the original announcements.

This ASX Announcement has been approved in accordance with the Company's published continuous disclosure policy and authorised for release by Matt Syme, Executive Director of the Company.

<sup>&</sup>lt;sup>i</sup> Refer ASX announcement dated 5 May 2025

<sup>&</sup>lt;sup>ii</sup> Refer ASX announcement dated 27 November 2020

iii Refer ASX announcement dated 19 April 2022

<sup>&</sup>lt;sup>iv</sup> Refer ASX Announcement dated 28 July 2023

<sup>&</sup>lt;sup>v</sup> Refer ASX Announcement dated 5 May 2025

<sup>&</sup>lt;sup>vi</sup> Refer ASX Announcement dated 5 May 2025

vii Refer ASX announcement dated 18 February 2025

viiiRefer ASX announcement dated 20 November 2024

<sup>&</sup>lt;sup>ix</sup> Refer ASX announcement dated 15 February 2024