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Company Announcements Office ASX Limited Exchange Centre 20 Bridge Street Sydney NSW 2000

New Drill Holes Planned at Lindeman's Bore Lindeman's Bore LBD04 Results Received

Drilling of diamond core hole LBD04 at the Lindeman's Bore exploration licence EL25307 in the Northern Territory, has been completed to 504m depth, toward the northern limit of the previously defined geophysical ZTEM target. Strong quartz-carbonate alteration and lesser haematite-epidote-biotite alteration assemblages intersected in basalts of the Inverway Metamorphic formation.

Executive Summary

- Drilling of the fourth deep vertical diamond drill hole (LBD04) at Proto's 60%-owned Lindeman's Bore project has been completed at 504m. This stratigraphic hole has closed off the geophysical anomaly to the north leaving the centre for further exploration.
- Drill hole LBD04 intersected persistent zones of quartz-carbonate alteration and lesser haematite-epidote-biotite alteration assemblages in basalts of the Inverway Metamorphic formation, from 326m to 504m.
- The strong alteration assemblages within the Inverway Metamorphics suggests persistence of a significant regional hydrothermal system in the area, aggressively altering the surrounding country rock. Further exploration planned as Proto attempts to intersect significant mineralisation.
- Plans are underway to drill a LBD05 angle drill hole through the central portion of the ZTEM anomaly, east of the LBD03 location. This hole will target the centre of the central axis of the anomaly.

Lindeman's Bore Drillhole LBD04 Results

The Board of Proto Resources & Investments Ltd ("**Proto**", the "**Company**") is pleased to announce the completion of the fourth deep diamond hole (LBD04) at the Lindeman's Bore project 380km south west of Katherine, Northern Territory. LBD04 was drilled approximately 200m to the NNE of the previous LBD03 hole targeting the northern central axis limit to the ZTEM anomaly (**Figure 1**).

The basal sandstone conglomerate unconformity of the overlying Limbunya sedimentary formation was intersected at a vertical depth below surface of 326m, compared to former drill hole LBD03 at 341m, indicating an undulating palaeo-land surface morphological control to the unconformity surface (**Figure 2**).

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Figure 1. Geophysics ZTEM anomaly image and FLTEM models with current drill hole locations.



Figure 2. Limbunya Formation basal unconformity, sandstone-conglomerate rock to 326m depth.



No significant mineralisation was encountered in LBD04. However, the alteration assemblages occurring throughout the Inverway Metamorphics are very similar to the occurrences in LBD03, suggesting that LBD04 has been drilled towards the outer northern limit of a hyrdrothermal alteration halo. The northern part of the ZTEM anomaly targeted could be a response to the amount of hematite alteration within the mafic units of the Inverway Metamorphics, particularly with a significant increase in magnetic susceptibility readings encountered towards the bottom of the hole with magnetometer S.I. units up to 10×10^{-3} present (**Figure 5**).

Previous drill hole LBD03 was completed in 2012, targeting a tabular 500m by 500m electromagnetic ("EM") anomaly identified through sequential application of a Z-Axis Tipper Electromagnetic ("ZTEM") survey in 2010, and follow-up ground EM and Gravity surveys performed during 2011-2012. The ZTEM geophysical data returned potentially sulphide-bearing geophysical signatures that encouraged further exploration under the Mississippi Valley style copper-lead-zinc mineralisation ("MVT") model that Proto is continuing to test at Lindeman's Bore. The ZTEM anomaly is also supported by a coincident Gravity Low response (**Figure 3**) which Proto is interpreting as representing a geophysical signature for the hydrothermal alteration activity event, resulting in the altered host rocks inheriting lower density properties compared to surrounding country rock.

Although no significant mineralisation was intersected in LBD04, the strong alteration within the Inverway Metamorphics is intriguing (**Figures 4, 5, 6**). The style of alteration suggests a significant hydrothermal system has pervasively and aggressively invaded and altered the surrounding country rock. The intersection of an intrusive rock unit in previous drill hole LBD02 with high gold and palladium signatures (7m @ 1.1g/t Gold from 424m (including 1m @ 5.32g/t Gold and 1m @ 0.45g/t Palladium) approximately 2km north of LBD04, could be of significance spatially to a similar rock type seen in LBD04 from 384m to 392m depth (**Figure 7**), assuming that connecting conduits are present. However, no such equivalent Au-Pt-Pd geochemical signature is present with this unit in LBD04. It is worth noting that the Coronation Hill deposit near Pine Creek in the Northern Territory (4.5Mt @ 4.5g/t Au, 0.19 g/t Pt and 0.65 g/t Pd) exhibits quite a wide spread alteration signature and is located in mafic intrusive plugs between 200m-400m below unconformable Meso-proterozoic sediments of the Kombolgie Formation.





Figure 3. Gravity survey image showing low response signature (purple colours) for LBD03 and LBD04 locations.



The Company remains encouraged by the extent of hydrothermal alteration in the vicinity of the ZTEM anomaly encountered in drill holes LBD03 and LBD04. With the current indications for a hydrothermal alteration halo width of at least 200m for the ZTEM anomaly, an additional LBD05 angled drill hole is planned to further test the central portion of the ZTEM anomaly, east of LBD03 (**Figure 8**). A down-hole electromagnetic survey will also be planned for the LBD05 hole as a geophysical test for any off-hole conductivity anomalies occurring at depth (i.e. sulphide mineralisation in the Inverway Metamorphic stratigraphy), to provide perhaps further targeting for a follow-up LBD06 drill hole.



Figure 4. Strong quartz-carbonate-haematite development (hydrothermal-alteration of mafic rock).



Figure 5. Strong magnetometer readings towards base of hole in foliated quartz-carbonated mafic rock.





Figure 6. Pervasive quartz-carbonate-haematite development in black shale and mafic rock



Figure 7. Leopard spot" textured intrusive rock unit suggestive of possible fine-grained Gabbro composition





Figure 8. Proposed drill hole LBD05 position in relation to LBD03 drill hole and ZTEM anomaly.



Proto's Managing Director, Andrew Mortimer said "Proto is very pleased to of intersected the high level of alteration that we believe has been caused by a large hydrothermal system. The next drill hole (LBD05) is designed to test the very centre of the anomaly now that LBD04 has closed off the anomaly's potential for mineralisation to the north. Proto will be aiming to drill LBD05 as soon as possible".

Shareholders and interested parties should direct their enquiries to:

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And consult the company's website: www.protoresources.com.au

Competent Persons Statement

The information in this release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information reviewed by Tony Treasure, who is a Member of the Australasian Institute of Mining & Metallurgy. Mr Treasure has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Treasure consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.