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KGL to drill test multiple 3DIP targets to extend Jervois copper-lead-zinc

Highlights

- **Multiple IP and Resistivity targets in Bellbird Region**
- **Most targets have had no previous drilling**
- **Several large deeper targets in addition to the many shallow targets**
- **Drilling to commence in August to test all 3DIP targets**
- **Magnetotelluric (MT) survey results anticipated in 4 weeks**
- **Northern Territory Government grant awarded to KGL for deep drilling at Bellbird**

KGL Minerals (KGL) announces a new drill program to test targets from a high potential area at the Jervois copper and multi-metal Project in the Northern Territory.

KGL has completed a 3D - Induced Polarisation (3DIP) & Magnetotelluric (MT) survey in the Bellbird region to search for additional zones of mineralisation in a poorly tested and yet highly prospective zone along the 12km of mineralised strike length at Jervois.

The 3DIP survey has proven to be very effective at delineating existing copper mineralisation. Copper resources and prospects including Bellbird, Rockface and Rockhole exhibit a strong IP chargeability and conductivity response. This is primarily due to the presence of copper sulphide minerals such as chalcopyrite and bornite in addition to pyrite that dominates mineralisation.

Significantly the survey has also identified many new areas that display a similar signature to the existing resources and prospects. These new areas are located within the prospective trend and are either along strike or down dip from existing zones of copper mineralisation. Drill testing of all the new targets is planned to commence on the 10th August.

Simon Milroy, the Managing Director of KGL Resources comments, “There is an excellent correlation between known mineralisation and the coincident chargeability/resistivity anomalies generated by the 3DIP. The detail that a survey like this provides, enables us to accurately target the many new anomalies that have now been identified.”

Geology

The Jervois resource has been characterised as a hybrid SEDEX-VHMS system by both CSIRO and an independent study conducted by the NTGS in 2014. Characteristics observed at Jervois that are consistent with this style of mineralisation include:

- Cu-Pb-Zn mineralisation is stratiform and extending over several kilometres along strike with repeating stratigraphy due to folding
- Mineralisation occurred syngenetically as a hydrothermal exhalative event, prior to metamorphism and deformation
- The sedimentary host rocks and mineral zonation suggest a SEDEX deposit, while high Cu grade is more common in VHMS deposits.

Orion 3DIP Targets

A dipole-dipole IP survey undertaken in the Bellbird region by Mount Isa Mines in 2000 using the MIMDAS system demonstrated that the known mineralisation generates good chargeability anomalies. This survey also identified several additional IP anomalies that were either poorly resolved or at the limits of detection for the configuration and equipment used.

Quantec Geoscience ORION 3D is a multi-parameter distributed ground geophysical survey system that acquires large volumes of highly accurate subsurface physical property information from surface to depths of up to 800 metres with IP Chargeability and DC resistivity and to depths in excess of 1500 metres with MT resistivity. The survey extended over a hybrid block approximately 2.6 km x 2.6 km using the ORION 3D DCIP & MT system with 100 m dipoles at the centre surrounded by 200 m dipoles (Figure 1).

The attached Figures 2-7 are horizontal slices taken at a constant depth above sea level through the modelled results for both resistivity and chargeability. The relative level (RL) at the surface varies with topography though is approx. 360mRL at the Bellbird deposit. The depth slice at 200mRL is therefore approx. 160m below the surface, 100mRL is approx. 260m beneath the surface and 0mRL is approx. 360m beneath the surface.

In the resistivity images (Figures 2, 4 & 6) white/pink regions correspond to low resistivity/high conductivity. In the chargeability images (Figures (3, 5 & 7) the white/pink regions correspond to areas of high chargeability.

Results from the 3DIP survey show that most chargeability anomalies are coincident with conductivity anomalies. This is particularly evident at each of the existing copper prospects at Bellbird, Bellbird East, Rockface and Rockhole. Killeen on the other hand is predominantly zinc mineralisation which as expected, displays a poor IP response.

New chargeability anomalies have been identified in the shallower 200m RL depth slice (Figure 2: Targets A-F). These targets fit with the stratiform nature of the mineralisation and are in most cases along strike or indeed parallel to existing mineral occurrences.

The strong responses at Target A and B are significant because they are located along strike to the south of the Bellbird resource and the planned open pits in an area that is partially under transported cover and has been poorly drilled in the past. Calcsilicate altered limestone has been mapped along the trend at the surface with associated copper occurrences.

The coincident chargeability/resistivity anomaly at Rockface fits well with the mineralised wireframe outlined on the images. Target C is located along strike to the east of Rockface and has not been drilled previously. Targets E and F are parallel to the Rockface and Rockhole prospects where geological mapping has located ferruginous schists with associated copper occurrences in an area with no previous drilling.

Target G (conductivity anomaly) is at the Chubko prospect where a single RC hole (KJC001) was previously drilled to test a target generated by geological mapping and rock chip sampling. This hole was drilled to the east of what is the main conductivity anomaly and intersected weak lead-zinc mineralisation.

New targets have also been identified in the deeper 0m RL depth slices (Figures 5-6: Targets X and Z). Both targets are well defined in the deeper depth slices but do not extend to shallower depth slices suggesting they may not have a surface expression. Target X is a strong coincident conductivity and chargeability anomaly 1000m east of the Bellbird resource that could represent a new mineralised horizon or alternatively repeated stratigraphy due to folding that is evident in the resistivity depth slice (Figure 3) where three parallel, folded, conductive units can be observed.

Target Z is below and to the northwest of the Bellbird Central pit and could be a depth extension of the known resource located below previous drilling.

The strong response in the deep depth slice at Rockface and Rockhole suggests mineralisation may extend well below the depth of current drilling.

KGL has successfully applied for the NT Government Core Initiative funding to evaluate the potential for deep extensions to or additional new mineralised horizons that could add significantly to the resource base at Jervois.

A diamond and RC drilling program will commence in August to test all the conductivity and chargeability targets generated by the 3DIP. The results of this 3DIP survey are very encouraging and should the defined targets be confirmed by the proposed drill testing, KGL will look to extend the survey area to the north and east over much more of the prospective stratigraphy.

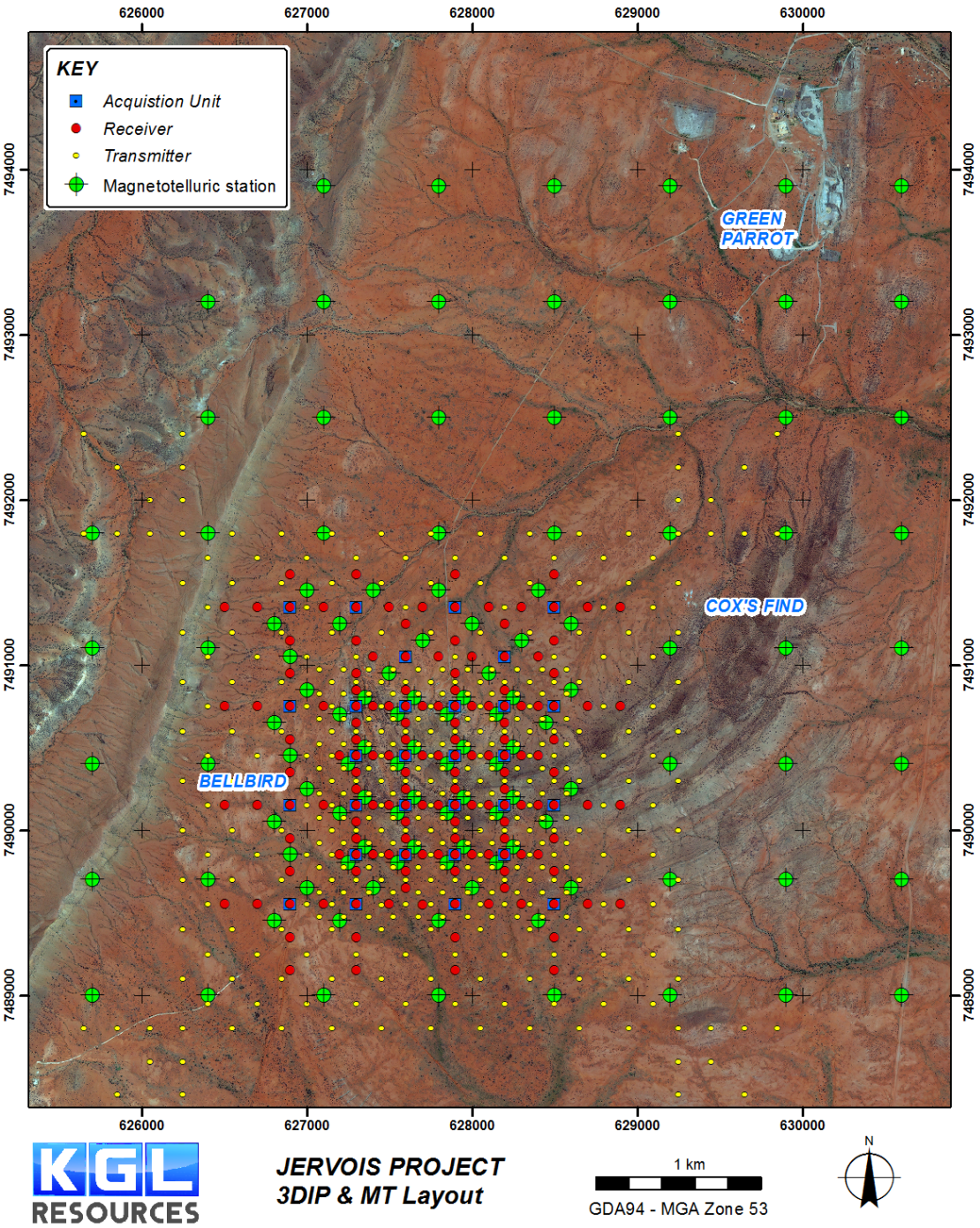

Figure 1 Jervois Survey layout for 3DIP and MT

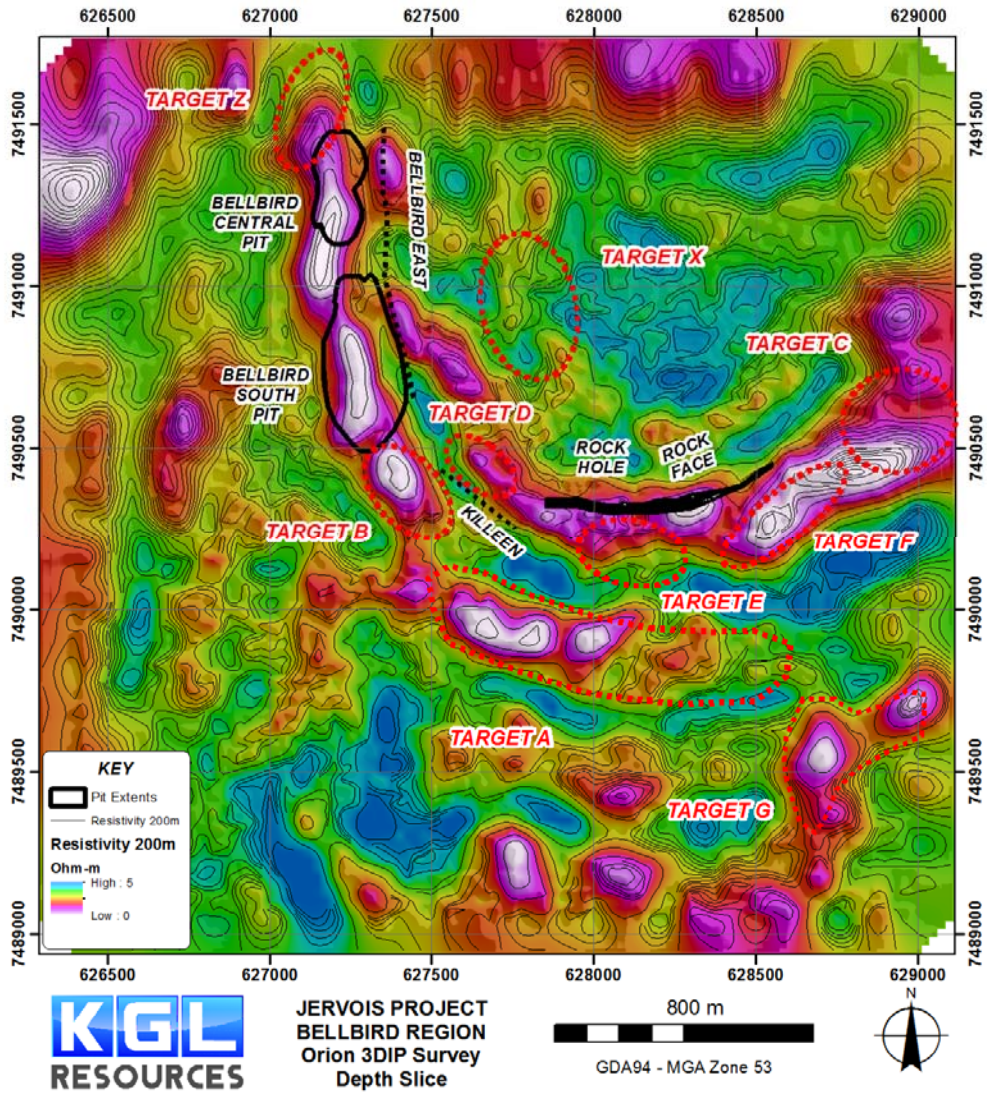

Figure 2 Bellbird Region 200m RL depth slice of resistivity

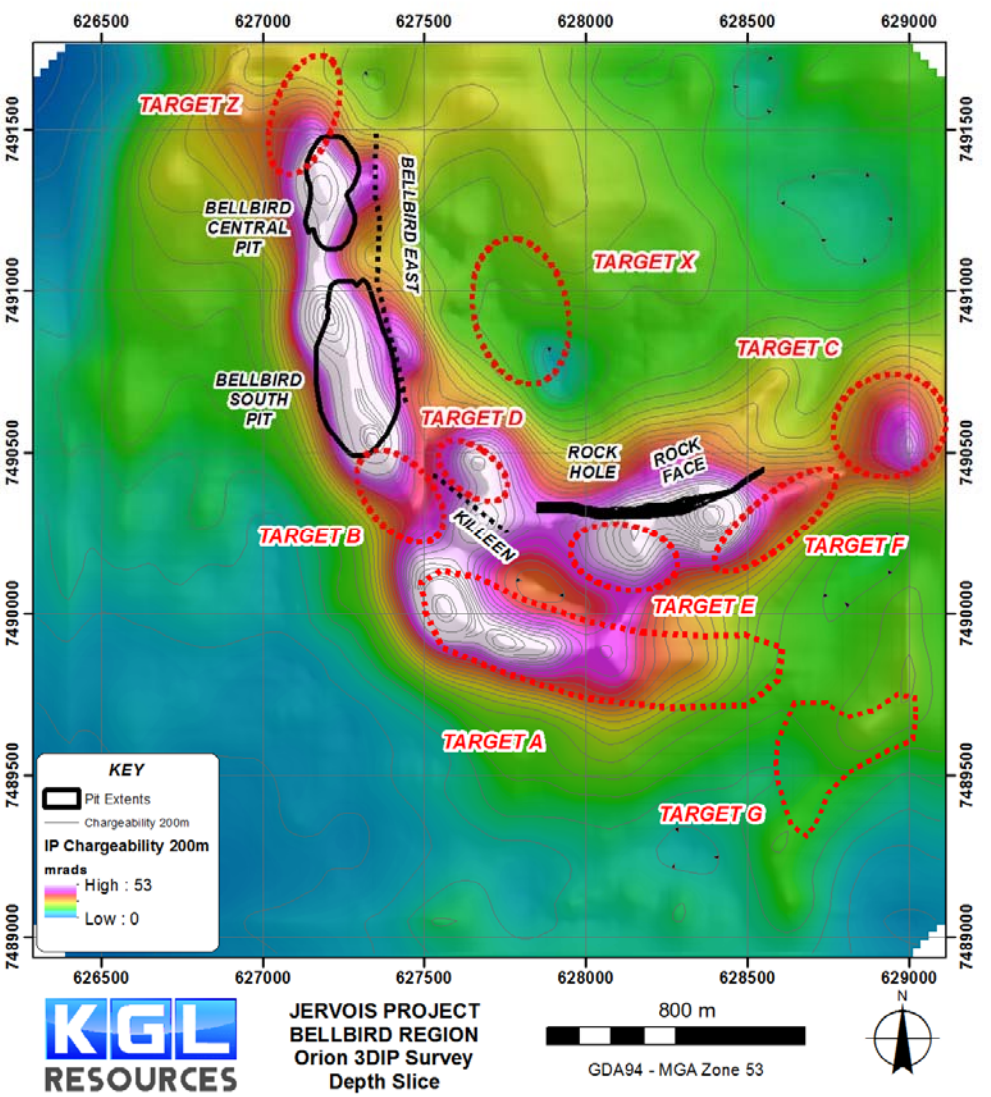

Figure 3 Bellbird Region 200m RL depth slice of chargeability

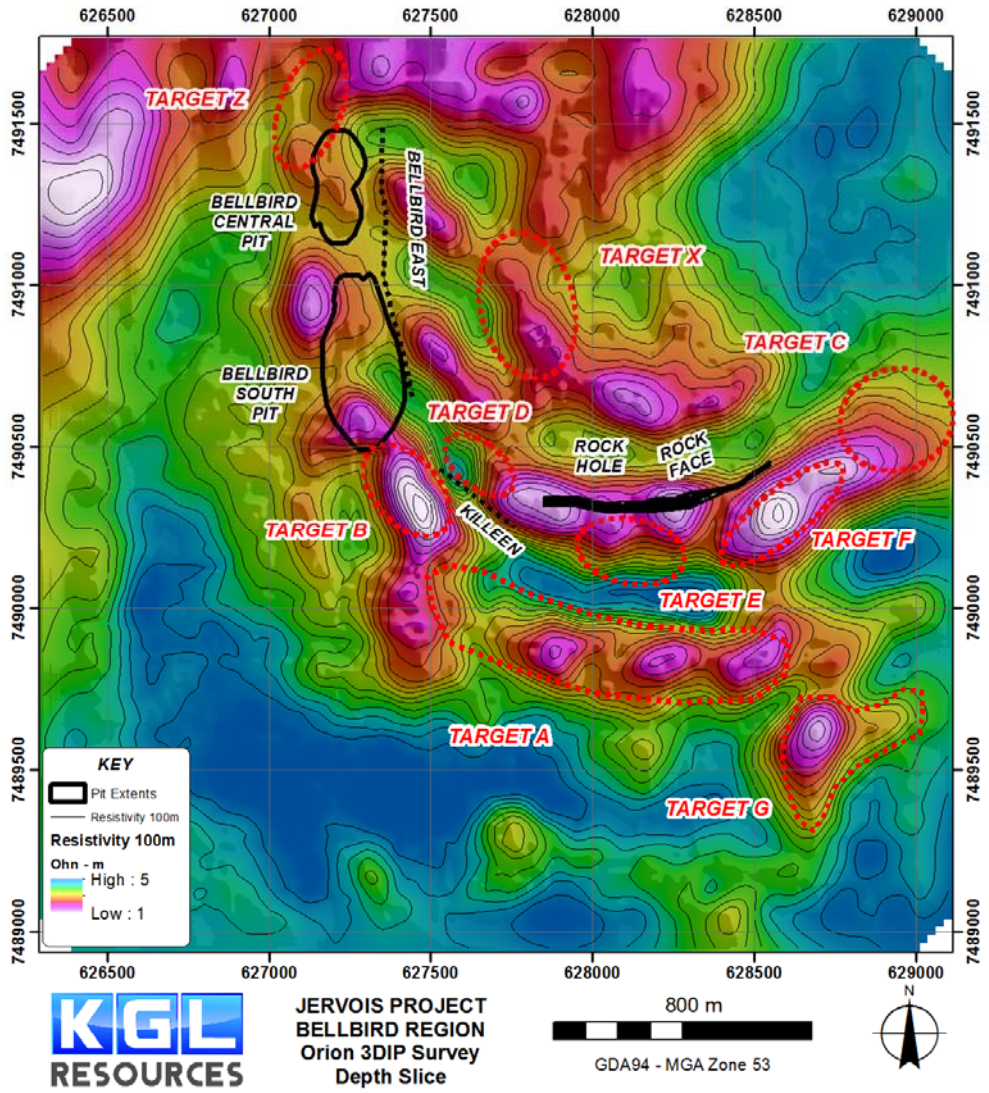

Figure 4 Bellbird Region 100m RL depth slice of resistivity

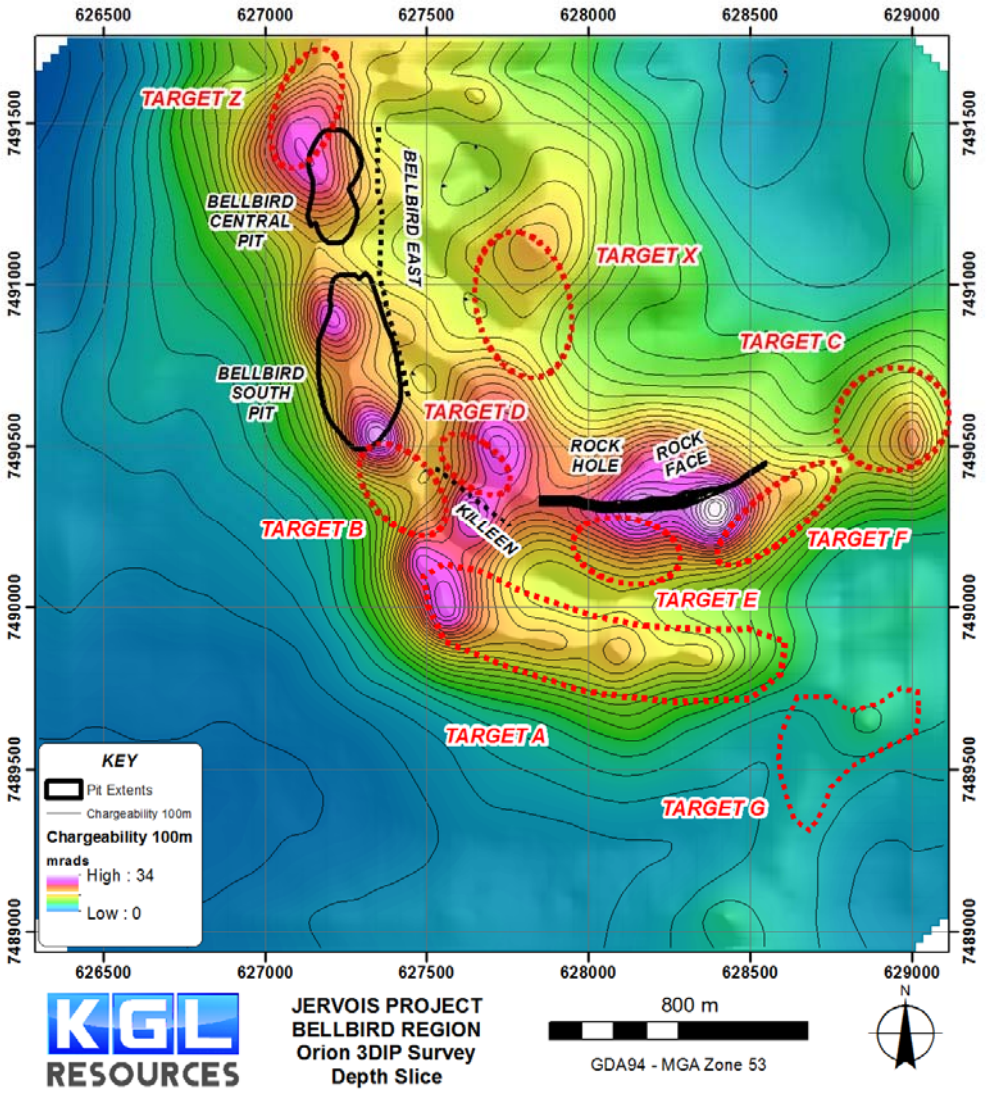

Figure 5 Bellbird Region 100m RL depth slice of chargeability

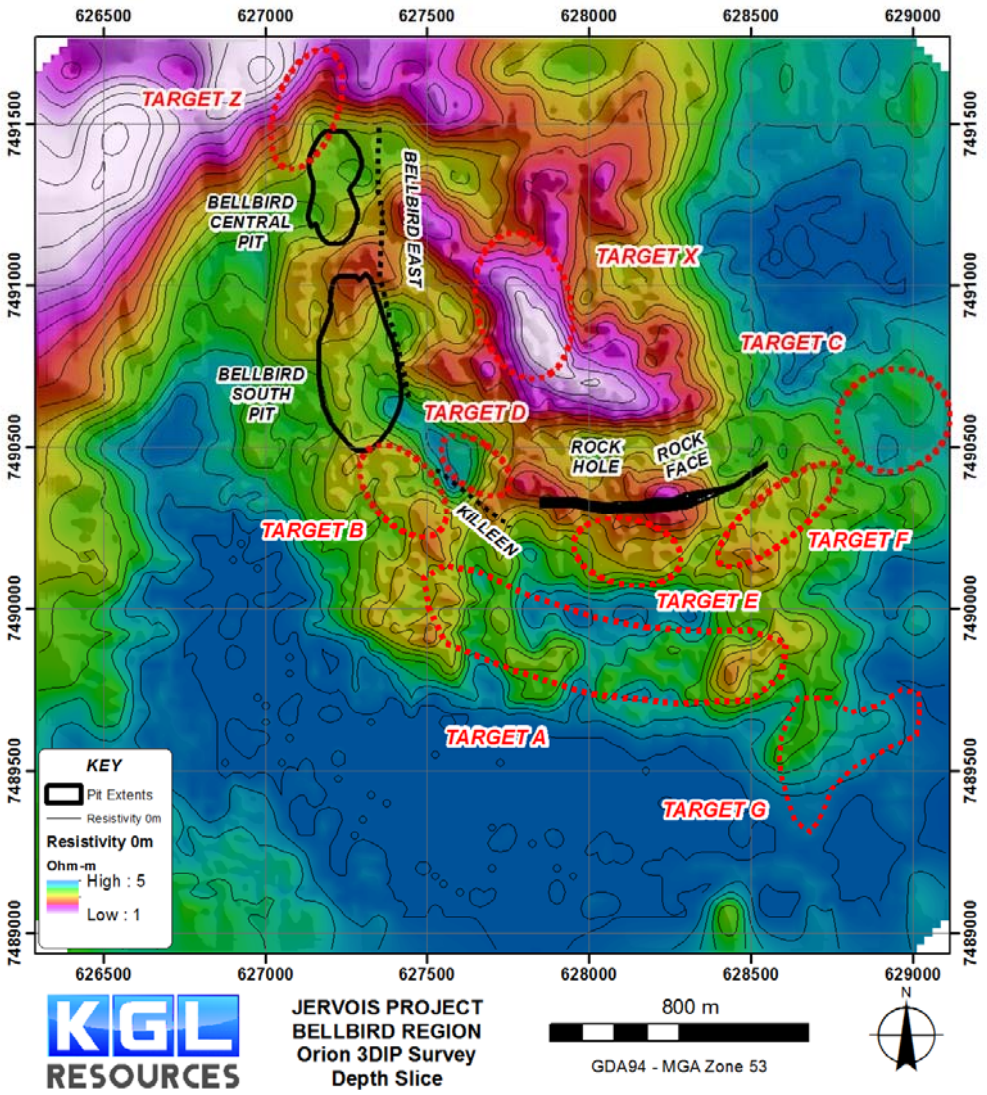

Figure 6 Bellbird Region 0m RL depth slice of resistivity

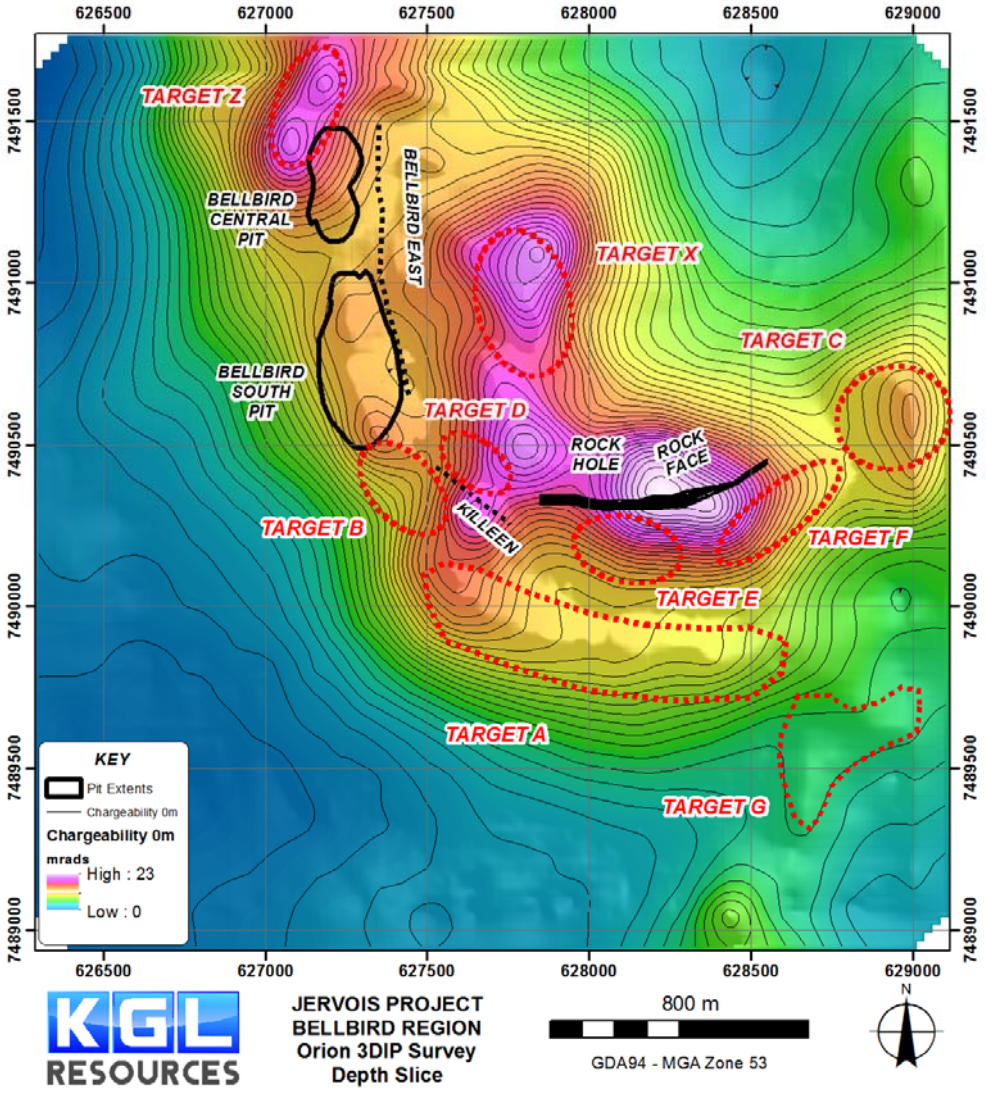

Figure 7 Bellbird Region 0m RL depth slice of chargeability

For further information contact:

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About KGL Resources

KGL Resources Limited is an Australian mineral exploration company focussed on increasing the high grade Resource at the Jervois Copper-Silver-Gold Project in the Northern Territory and developing it into a multi-metal mine.

Competent Person Statement

The Jervois Exploration data in this report is based on information compiled by Martin Bennett, who is a member of the Australian Institute of Geoscientists and a full time employee of KGL Resources Limited.

Mr. Bennett has sufficient experience which is relevant to the style of the mineralisation and the type of deposit under consideration and to the activity to which he is undertaking, 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. Bennett has consented to the inclusion of this information in the form and context in which it appears in this report.