

## **AWARD OF GRADIENT ARRAY IP SURVEY CONTRACT**

- **Khumsup Geophysics awarded contract for Gradient Array Induced Polarisation Survey over the gold mineralised Grace and Bemm Shear Zones**
- **Mobilisation scheduled for mid-September**
- **Grace Gold Copper Project located 25km to the southeast of Newcrest's world class Telfer Mine and 40km to the southwest of the Havieron gold project in the Paterson Province of WA.**

**Paterson Resources Limited ("Paterson" or "the Company") (ASX:PSL)** is pleased to announce the appointment of Khumsup Geophysics to carry out a Gradient Array Induced Polarisation Survey (GAIP) over the full 4 km extent of the Grace and Bemm Shear Zones, which are the main controlling structures for Au-Cu mineralisation at the Grace Gold Prospect.

Khumsup was founded in 1999 and has developed a high level of expertise in acquiring geophysical data for mineral exploration programs throughout Africa, China, SE Asia, Europe, Australia and the Pacific since that time.

The planned GAIP survey (see Fig 1 below) is designed to follow up on to two historical IP surveys carried out in the 1980's and 1990's which provided coverage of only relatively small areas at each end of the Grace and Bemm Shear Zones, but most importantly to provide new IP survey coverage along the two shear zones what was not previously surveyed but contains significant zones of gold mineralisation and the Grace inferred mineral resource of 1.59mt @ 1.35g/t Au for 69,000 ozs (\*PSL ASX Announcement 22 May 2020 – Entitlement Issue Prospectus).

This GAIP survey will play a crucial role in identifying the location and orientation of the mineralised trends and structures at prospect scale below surface. Even though unusually for the Paterson Province there is outcrop to geologically map, the gold/copper mineralisation follows stratigraphy and structures at depth, so the GAIP results will assist with drill planning and prioritisation. In the Paterson Province, the highest grade Au-Cu mineralisation is mostly associated with chargeable sulphide minerals, so the GAIP will be used as a direct targeting tool as well as for mapping subsurface geology and structure.

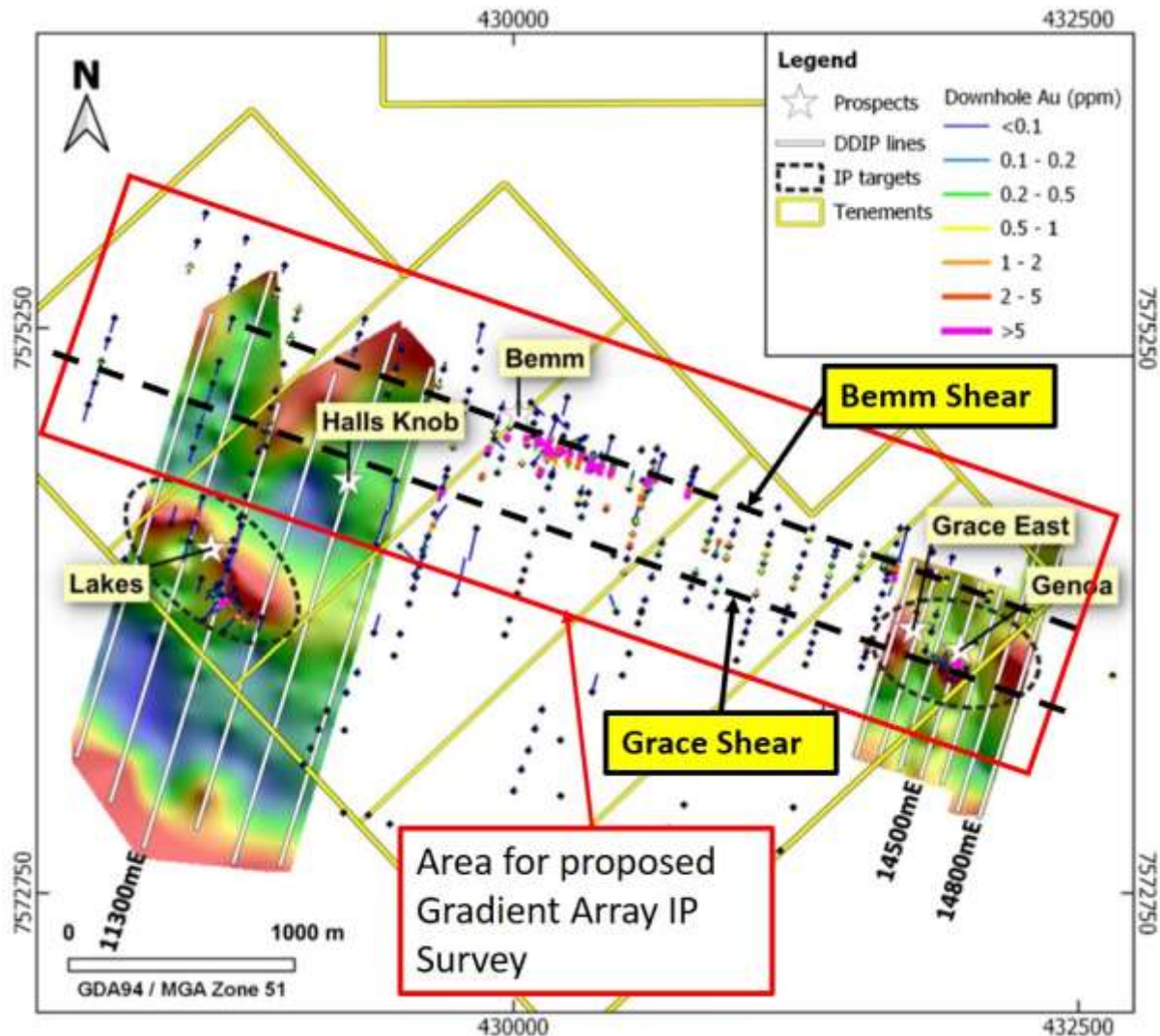
\*(The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous announcement. All material assumptions and technical parameters pertaining to the resource estimate continue to apply and have not materially changed.)

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An infill RC Drilling program immediately following the GAIP survey will be designed to increase confidence levels and size of the existing Grace inferred resource, but also to expand step-out drill coverage along the mineralised system contained within and surrounding the Grace and Bemm Shear Zones. (Refer to PSL ASX Announcement – 8 May 2020 Review of Grace Gold Copper Project Geophysics).



**Figure 1 :** Gradient Array IP survey (red outline) planned to cover the full length of the Au-Cu mineralised Grace and Bemm Shear Zones. The two historic dipole-dipole IP (DDIP) surveys with survey lines shown as white lines with 100m dipole spaced data on the left (1990's) and 50m dipole spaced data on the right (1980's). Colour images are a depth slices through DDIP chargeability inversion models, indicating chargeability anomaly trends at 75-100m depth. Maximum gold in hole assay values are shown at the drill collar.

## **Geophysics - Induced Polarisation and Existing IP drill targets**

GAIP surveying provides a 2D map of chargeability and resistivity/conductivity of the underlying geology over a survey grid area in the top 150m from land surface.

Chargeability is a measure of the ability of minerals within the rock to store an electrical charge on the boundaries of conductive minerals and is closely associated with disseminated sulphide mineralisation. In general, chargeability highs are associated with high sulphide content or graphitic units.

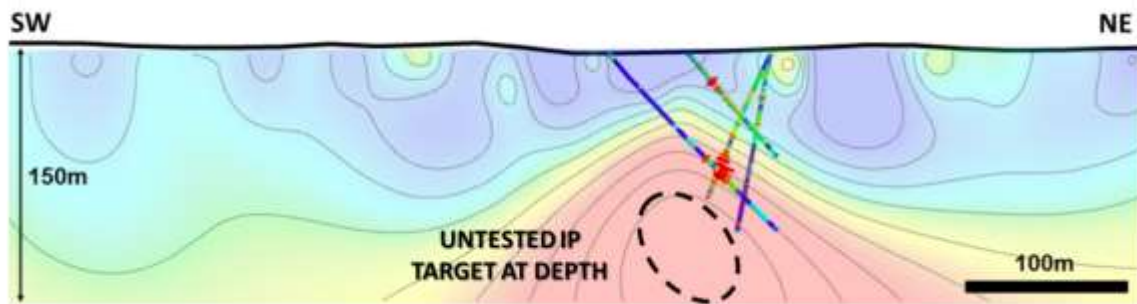
Resistivity is a measure of how rock material can resist the flow of electrons in the rock, and the inverse of this is electrical conductivity. High resistivity (equivalent to low conductivity) is often associated with silica-rich zones or increased quartz veining and fracturing. Low resistivity (equivalent to high conductivity) is associated with high sulphide content, clays formed by weathering or fractured rock, or by graphitic units.

Aside from the upcoming GAIP surveying, Newcrest Mining completed two Induced Polarisation dipole-dipole (DPIP) surveys at Grace during 1988 and 1997. In 1988, a 50m DPIP survey was undertaken over the Grace East Prospect (WAMEX Report A24465), and in 1997 a 100m DPIP survey was undertaken over the Lakes Prospect (WAMEX Report A53741). The DDIP survey line locations are shown in Figure 1 above, with re-processed and depth modelled IP chargeability anomaly cross-sections for survey lines 11300mE, 14500mE and 14800mE shown in Figures 2, 3 and 4, respectively. No digital data were recovered, so the DDIP data were digitised from raw data pseudo-section plot files provided in historic reports and plans. The digitised DDIP data were then modelled using UBCDCIP2D inversion software.

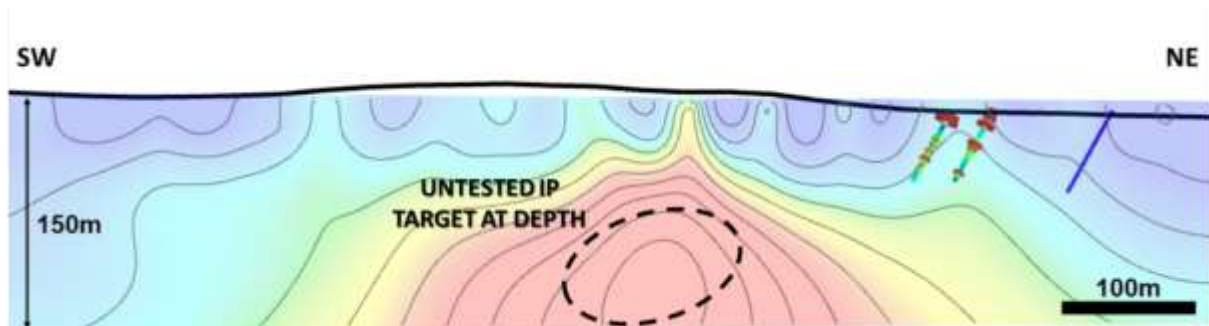
An IP anomaly responses of chargeability highs occurs in all re-processed and re-modelled DDIP cross sections at depth, forming northwest-southeast trends between survey lines. Chargeability anomalies at depth suggest the presence of sulphide minerals, predominately pyrite, pyrrhotite, chalcopyrite and arsenopyrite, occurring within dolomitic siltstone host rocks. Gold-copper mineralisation is associated with sulphide minerals zones, and the chargeability anomalies clearly shown in Figures 1, 2, 3 and 4 represent excellent drilling targets. Furthermore, the potential sulphide zones are generally associated with higher resistivity values below a less resistive (more conductive) zone of weathered bedrock, where the lower resistivity at depth is interpreted to be caused by intense quartz and carbonate brecciation and silica alteration. A depth slice of chargeability anomalism at 225m RL, or about 75m to 100m below land surface, was generated from DDIP 2D inversion model results, and is shown in Figure 1 as coloured image areas. The mineralised Grace and Bemm shear corridor is clearly defined by a chargeability high trend in the eastern survey area, with a similar chargeability zone evident over the Lakes prospect area, which is parallel and offset to the south of the Grace and Bemm shear zone, potentially increasing the overall width of the gold mineralised corridor at Grace. Both DDIP anomaly trends remain open along strike.

The DDIP chargeability anomalies have not been fully drilled both along strike and at depth. The historical IP survey results have limited depth extent, with the 50m DPIP detection to

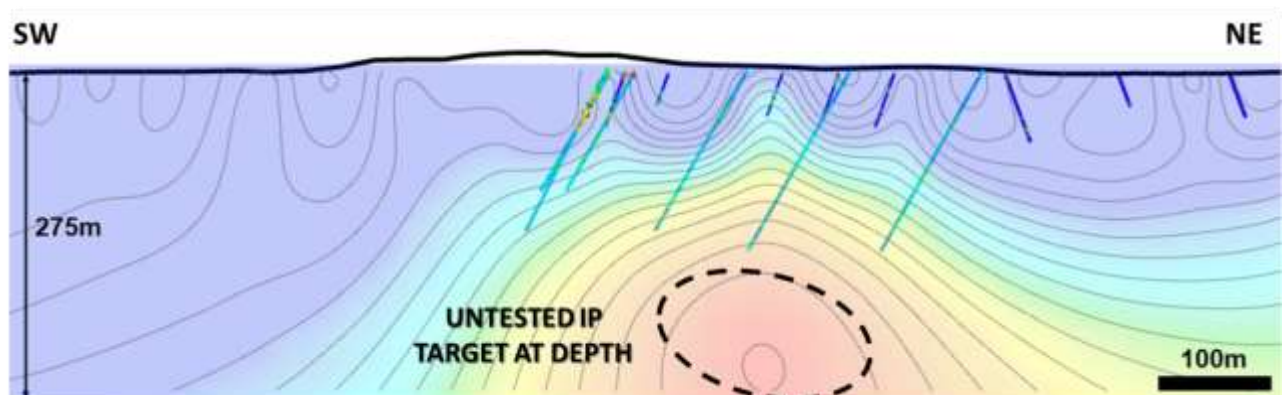
only approximately 150m in depth, and the 100m DPIP detecting to approximately 300m in depth. Better data quality and depth penetration can be achieved with modern IP survey systems, and the Company is planning further DDIP surveys over the project area, following the upcoming GAIP survey, to comprehensively map the two parallel chargeability anomaly trends and identify the scale of deeper IP anomaly responses to help target for much larger scale gold-copper mineralised systems in the project area. (Refer to PSL ASX Announcement – 8 May 2020 Review of Grace Gold Copper Project Geophysics).



**Figure 2:** Grace historic DDIP survey line 14500mE chargeability model cross section with drilling and downhole gold assays represented by colour bars.



**Figure 3:** Grace historic DDIP survey line 14800mE chargeability model cross section with drilling and downhole gold assays represented by colour bars.



**Figure 4:** Grace historic DDIP survey line 11300mE chargeability model cross section with drilling and downhole gold assays represented by colour bars. Grace historic IP survey line 11300mE model cross section, looking towards azimuth 300°.



For further information, please visit [www.patersonresources.com.au](http://www.patersonresources.com.au) or contact:

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*This announcement has been authorised for release to ASX by the Board of Paterson Resources Limited.*

### **About Paterson Resources:**

Paterson Resources (ASX: PSL) is a publicly listed, junior mineral resources company focused on the exploration and development of gold and copper projects. Paterson has aggregated a diversified portfolio of assets that are at multiple stages, commodities and jurisdictions. The Grace Gold Project located in the world class Paterson mineral province in Western Australia consists of two granted exploration licences and five granted prospecting licences (E45/4524, E45/5130, P45/2905, P45/2906, P45/2907, P45/2908, and P45/2909). The Company also has an extensive landholding prospective for gold in the Pilbara in Western Australia, with four exploration licences (E08/2880, E47/3578, E47/3827, and E45/5020). The Burranga Copper Gold Project, located in the world class minerals province of the East Lachlan Fold Belt in central western New South Wales consists of four contiguous exploration licences (EL6463, EL6874, EL7975 and EL8826) covering a total area of approximately 221km<sup>2</sup>. Paterson is an active explorer with the aim of discovering a valuable mineral resource and delivering shareholder value.

### **Competent Person's Statement**

The information in this announcement that relates to Exploration Results complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Dr Jayson Meyers, a consultant to Paterson Resources Pty Ltd and a Director of Resource Potentials Pty Ltd. Dr Meyers is a Fellow of the Australasian Institute of Geoscientists. He 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 JORC Code. Dr Meyers consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Dr Meyers holds securities in the Company.

### **Forward Looking Statements**

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Paterson operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Paterson Resources (PSL) control.

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