

### STOCK EXCHANGE ANNOUNCEMENT ...

October 31, 2011

### **Quarterly Activity Report ending 30 September 2011**

**ASX Release: PRW** 

Proto Resources & Investments Ltd ("Proto", "the Company") has passed further milestones at its flagship Barnes Hill nickel-cobalt-iron project near Beaconsfield in Tasmania. In the quarter, Proto appointed Caterpillar as the equipment supplier and debt financier for the project. The Development Application ("DA") and Development Proposal and Environmental Management Plan ("DPEMP") for the Barnes Hill deposit was also lodged.

Also in the quarter, Proto undertook field work across its exploration portfolio. This is building towards drilling in the Northern Territory. Work at the 100% owned Wave Hill project (EL27413, EL27617 and EL27618) 380km south-west of Katherine has concentrated on the elongated, 5km long A-trend anomaly. Ground gravity surveying was also undertaken at Waterloo.

#### **Highlights**

- Barnes Hill (Tasmania) Proto has selected Caterpillar as the equipment supplier and debt financier for the Barnes Hill nickel-cobalt-iron-magnesium joint venture in northern Tasmania. Caterpillar Inc. (NYSE: CAT) will provide mining equipment and Caterpillar Financial SÀRL ("Caterpillar Financial") in Zurich will manage the financing of the Barnes Hill project. In the quarter, Proto also lodged the DA and DPEMP for the Barnes Hill deposit. Lodgement follows the signing of an option that gives Proto the right to purchase private land adjacent to the mine site that includes 87 ha of native habitat to offset environmental impacts. Progress is also being made on the Barnes Hill ore leach and Barrier Bay technology pilot program.
- Doolgunna Projects (WA) The licenses for the Casey (E51/1457) and Great Doolgunna (E51/1455) projects have been granted. Desktop work has identified strong regional copper prospectivity that is to be first assessed through field mapping and geochemical sampling.
- Wave Hill & Lindeman's Bore (NT) During the quarter final processing and full 3D assessment
  of the ZTEM geophysical data from the airborne surveys completed in late 2010 at the
  Lindeman's Bore and Wave Hill Projects was completed.
- Waterloo (NT) Proto and its joint venture partner, Peak Mining and Exploration Limited completed a semi-regional gravity programme at the Waterloo Project, NT. The survey consisted of approximately 900 gravity stations at between 500-1000m spacing. Preliminary results are



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encouraging. Several discrete gravity anomalies of potential interest were identified along a major structure and are to be investigated further.

## Barnes Hill, Tasmania (Nickel Laterite, Cobalt and Iron) Project Development

On 16 August 2011 Proto announced the appointment of Caterpillar Inc. (NYSE: CAT) as the equipment supplier to Barnes Hill and the conclusion of a financing arrangement with Caterpillar Financial SARL ("Caterpillar Financial") in Zurich. Barnes Hill sits on granted mining lease 1872P/M which is over EL172006 that is also held by Proto. The commitment letter is to deliver a debt finance facility consisting of a Senior Secured Project Loan ("Project Loan") along with a Subordinated Loan ("Subloan") that together will provide up to US\$36m in financing, being 60% of total project costs, as required to construct and commission operations. Both the Project Loan and Subloan would have a payback period of 5 years from the end of the availability period.

The financing package will be based on the new low temperature, low pressure nickel processing system being developed by Barrier Bay Pty Ltd using technology created by Australian BioRefining Pty Ltd ("ABR"). In the period, Proto also engaged an independent technical report that is now underway. The initial technical review already completed has supported the process that combined new resin and membrane technology into an innovative low capex and low opex approach that contrasts strongly with existing High Pressure Acid Leach ("HPAL") technologies that have been used in Australia previously. Testing results have also continued to reinforce the environmental credentials. The Proto technology is inherently clean, as it further processes waste streams to deliver benign and inert waste and a reduced tailings footprint, while at the same turning iron and magnesium into saleable products.

On 29 September 2011, Proto announced that the DA and DPEMP to approve mining had been lodged. The DA will be assessed by the West Tamar Council who will consider planning impacts, while the DPEMP will be assessed by the Board of the Environment Protection Authority, Tasmania ("EPA") under the Environmental Management and Pollution Control Act 1994 (Tas) and associated regulations. The EPA will also manage the assessment under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) under referral from the Commonwealth Department of Sustainability, Environment, Water, Population and Communities ("SEWPAC").

Proto has also acquired an option to purchase 105 ha of private land adjacent to the mine site to add to conservation reserves. This land includes 87 ha of native habitat to offset the impact of mining. This area is shown in Figure 1 below. Under the terms of the Mining Lease, only 65 ha of area will be being utilised for mining and processing at any point with ongoing rehabilitation of mined areas to be undertaken on a rolling basis. This will create a situation where the offsets surpass the impacted area at all times during the operation of the mine.



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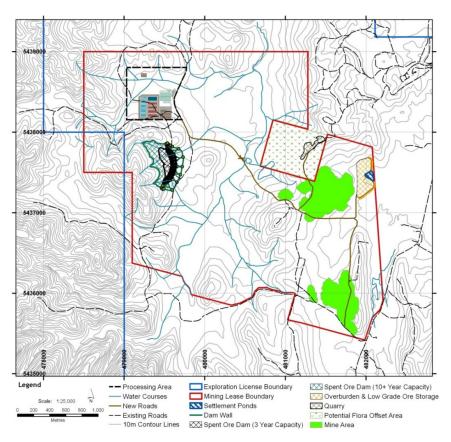


Figure 1 – Barnes Hill site layout with offset area marked

In the quarter, Proto also advanced environmental management activities at Barnes Hill. The Company completed construction of the first of two enclosures to protect local populations of *Tetratheca gunnii* from wallaby grazing (see Figure 2 below). These enclosures were constructed with permission from the Department of Primary Industries, Parks, Water and Environment. The Board of Proto strongly support initiatives to propagate such populations, and considers the utilisation of Proto's extensive environmental surveys to support conservation activities is an important side-benefit of the project.



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Figure 2 – Enclosure to protect Tetratheca gunnii from wallaby grazing

#### **Technology Progress**

During the quarter, work continued on the Barnes Hill ore leach and Barrier Bay technology pilot program. Barrier Bay Pty Ltd is developing the process using ABR's core patented technology and holds an option to purchase worldwide rights to the technology in mining related applications.

Leaching was performed on 10 tonnes of Barnes Hill ore, with testing comparing vat loading methods, as well as subsequent leach characteristics and metal recoverability. Proto's joint venture partner Metals Finance Limited ("Metals Finance", ASX: MFC) has also conducted specific nickel recoverability tests in the form of bottle-roll trials. This information is being used in the final design of the ore leach circuit that is to be implemented at Barnes Hill in the second half of 2012.

The proposed flow chart for utilization of the 5-step Barrier Bay acid recovery technology comprises four proprietary stages and an Ion Exchange ("IX") step for selective recovery of nickel between stages 1 and 2. Early testing has taken place without the IX stage, in order to provide data on the sequential recovery across all constituent metals. Sequential metals removal across proprietary stages 2-4 are shown in Figure 3 below. These results were from a prototype cell and run through to magnesium removal (~66%).



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#### **Metals Distribution in solids**

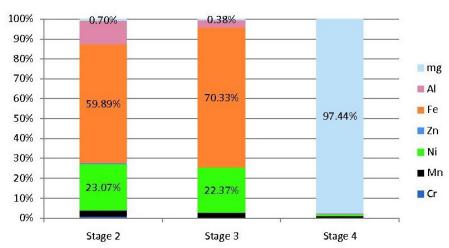


Figure 3 - Sequential Metal Recovery in an Early Barrier Bay Trial

An independent expert's report on the Barrier Bay technology is currently underway. This follows a preliminary independent report that has already been received that provided an encouraging review of the technology thus far.

#### Doolgunna Projects, WA (Copper, Gold and Lead)

On 29 September 2011, Proto announced the grant of two of its Exploration Licence applications in the Yerrida Basin. The Casey project (E51/1457) consists of 63 sub-blocks (192 km²) and the Great Doolgunna license (E51/1455) covers 2 sub-blocks (6 km²). Both projects are located within the Yerrida Basin which has become one of the most active regions for exploration following the results achieved at Sandfire Resources NL's DeGrussa/Conductor Projects. This suggests regional exploration potential that Proto has been waiting to pursue. These projects were applied for on 30 August and 2 September 2010 respectively and Proto has been eagerly awaiting grant for over a year in order to put its exploration plans into action. The first field studies will comprise mapping and associated geochemical surveys (soil sampling/rock chip sampling).

Proto has three other tenements under application within the same region. These are: E53/1580 (named Mt Killara), E53/1581 (named Magellan North) and E69/2872 (Station Bore). These applications are currently under Native Title assessment.

#### Wave Hill & Lindeman's Bore, NT (Nickel Sulphide, Copper and PGEs)

As announced on the 12<sup>th</sup> of July 2011, final processing and 3D compilation of ZTEM results obtained at Lindeman's Bore and Wave Hill have now been completed. Lindeman's Bore, on granted exploration licence EL25307, and three granted tenements at Wave Hill (EL27413, EL27617 and EL27618) are located 380km south-west of Katherine. The additional analysis was undertaken following the positive initial data announced on 20 April 2011, and has provided a clearer indication of the most promising targets. This work



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has subsequently followed up after the end of the quarter through ground geophysics undertaken at both projects. This data is currently being analysed and will be released to market in due course.

#### Waterloo, NT (Nickel Sulphide, Copper and PGEs)

In the quarter, Proto completed an extensive ground gravity survey program over the Company's Waterloo project. Waterloo is being explored under Proto's joint venture with Peak Mining and Exploration Limited ("Peak"). The project area is situated approximately 80km southeast of Kununurra in the Kimberley region of the Northern Territory within the extensive Cambrian Kalkarindji continental flood basalt province which is believed to be prospective for Noril'sk-style Ni-Cu-PGE deposits. Waterloo comprises two granted exploration licenses (EL27416 and EL27420) and two applications (EL28504 and EL28505). The survey consisted of approximately 900 gravity stations acquired at between 500-1000m spacing by Atlas Geophysics Pty. Ltd.

Preliminary gravity results look encouraging and are clearly mapping the major structural suture/conduit present at Waterloo. This structure, the Blackfellow Creek Fault, is orientated in a ~NE-SW direction. Several discrete gravity anomalies are present along this major structure and are to be investigated further (see figure 1).

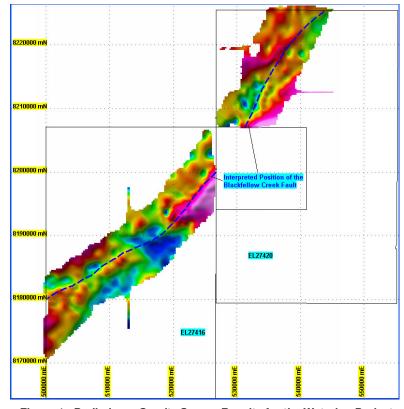


Figure 1 - Preliminary Gravity Survey Results for the Waterloo Project



## STOCK EXCHANGE ANNOUNCEMENTS:

# Corporate Activities New Chairman Appointed

As announced on the 16<sup>th</sup> of August 2011, the Honourable Ian Campbell took on the role of Chairman of the Company on September 1, 2011. Mr Campbell had been an independent non-executive director of Proto since 2008, when he retired from Federal politics after a distinguished career spanning 17 years in the Australian Senate. This included serving as the Minister for the Environment and Heritage and involvement in the Corporate Law Economic Reform Program (CLERP).

Mr Campbell replaces Mr Andrew Mortimer in the role of Chairman. Mr Mortimer is continuing in the capacity of Managing Director, where he will to focus more closely on achieving production at Barnes Hill where first shipments are planned for early 2013 and where the equipment supplier and finance arranger were appointed in the quarter.

#### **Enquiries:**

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#### Competent Persons Statement

The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves, together with any related assessments and interpretations, is based on information reviewed by Mr Peter Peebles a full-time employee of Darlington Geological Services Pty Ltd. Mr Peebles is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation 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 Mineral Resources and Ore Reserves". Mr Peebles consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.