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PEAK RESOURCES

NGUALLA PROJECT UPDATE

ASX RELEASE

Peak Resources is pleased to provide an update on Ngualla, its Rare Earth Project in Tanzania following the release of the JORC statement in February 2012

HIGHLIGHTS:

- 30,000m drilling program to commence in May focussing on the Southern Rare Earth and Northern Zones. Drilling in the Southern Rare Earth Zone is targeted to increase the proportion of Measured Mineral Resource in preparation for feasibility studies as well as the total resource.
- The Northern Niobium Tantalum, Phosphate and Rare Earth Zone drilling is designed to define a maiden Resource for this second style of mineralisation at Ngualla.
- Diamond drilling to provide bulk samples for metallurgical test work will include 2,000 metres from the Southern Rare Earth and the Northern Zones.
- Metallurgical test work continues to show positive results for a direct acid leach process with further samples being shipped from site.
- A Scoping Study is to commence in April to address the optimal commercial development for Ngualla.

Having released the maiden Resource Statement at the end of February, Peak Resources is now focussed on **three key areas** of the business going forward.

- 1. Continued exploration and resource drilling,
- 2. Metallurgical test work, and
- 3. Scoping studies.

Additionally, Peak Resources has taken the initial steps of raising the profile of the company and its significant rare earth mineral resource in the international markets to allow for capital support that will be required in the longer term when the project moves into the construction phase.

The purpose of this strategy is twofold;

- 1. To ensure the international markets know and understand Peak Resources particularly in the rare earth market, and
- 2. To strengthen Peak's share register by increasing the percentage of long term institutions and to acquire an off take partner with the capability to support the business at the end product side.

Peak have engaged Australian investor relations firm, Walbrook Investor Relations, to advise in the Australian marketplace. By extension through its related firm, Walbrook PR have been engaged to assist in the United Kingdom. Similarly Peak has engaged MZ Group to advise in the North American marketplace.

Peak Resources Limited Level 2, 46 Ord Street West Perth Western Australia 6005

PO Box 603, West Perth Western Australia 6872

Directors:

Alastair Hunter, Non-Executive Chairman Richard Beazley, Managing Director Dave Hammond, Technical Director Jonathan Murray, Non-Executive Director Linda Paini, Company Secretary ASX Symbol: PEK Telephone: +61 8 9200 5360 Email: info@peakresources.com.au ACN 112 546 700 www.peakresources.com.au







Figure 1: The exploration and resource drilling focus for 2012 will be in the Southern Rare Earth and Northern Niobium – Tantalum Phosphate Zones shown on a satellite image of the Ngualla Carbonatite (light grey soil) draped over topography. Drill holes and contours coloured by maximum down hole REO %.

Exploration and Resource Drilling

Peak has moved the Ngualla Rare Earth Project forward rapidly over the last 19 months from discovery in August 2010 to the release of the maiden Mineral Resource Estimate on the 29 February 2012.

The 2012 drilling season will be the fourth phase of drilling since the program commenced. The in-country team are currently opening up the Ngualla camp in advance preparation for the upcoming drilling.

A service contract with Alpha Drilling Services has been signed and the drilling equipment is to be mobilised to site for a scheduled start in May.

The 2012 drilling program is designed around **four strategies** and consists of 30,000 metres of RC and 2,000 metres of diamond drilling (Figure 1).

- Infill resource drilling of 15,000 metres of RC in the Southern Rare Earth Zone to increase the level of confidence of the resource moving tonnages into Indicated and Measured Mineral Resource classifications. This strategy will assist with the metallurgical test work in the weathered zone by defining the amount of high grade mineralisation that may be suitable for treatment by a direct acid leaching process route. It will also allow for the conversion of Resources to Reserves as the economic studies progress.
- 2. Resource extension drilling of 4,000 metres of RC in the **Southern Rare Earth Zone** to test the north, south and depth of the mineral resource. This drilling will provide information for the assessment of optimum mine design and extraction sequence once in production. It will also by default potentially increase the overall size of the mineral resource.
- 3. RC drilling of 11,000 metres in the **Northern Niobium Tantalum, Phosphate Zone** to define a maiden Inferred Mineral Resource for this second style of mineralisation at Ngualla. This is the first step towards developing a pipeline of additional commodities to add further value to the rare earth development.
- 4. Diamond drilling of 2,000 metres in the Southern Rare Earth Zone and the Northern Niobium Tantalum, Phosphate Zone to collect samples for metallurgical test work required to develop a detailed mineral processing flow sheet for rare earths and initial sighter test work for the minerals in the northern zone.





Metallurgical Test Work

The geological setting of Ngualla comprises **three distinct zones** which have significantly different mineralisation and metallurgical characteristics (Figure 1).

The Southern Rare Earth Zone is defined by its rare earth mineralisation and occurs from surface in the following main hosts.

- 1. Iron rich gravel colluvium and ferricrete. Typical grade 1 to 4% REO*.
- 2. Highly weathered carbonatite, rare earth enriched, iron and barite rich, the original carbonate minerals are completely leached typically 2.5 to 7% REO.
- 3. Fresh, primary carbonatite rock, iron poor, carbonate rich 1.5 to 2.5% REO.

*REO = Total Rare Earth Oxide

Mineralisation in the **South West Alluvial Zone** (Figure 1) occurs from surface over a wide area within unconsolidated (potentially 'free-dig') material at grades of 2 to 4% REO. This zone is an erosional feature which was originally sourced from the Southern Rare Earth Zone.

Rare earth mineralisation in the **Northern Niobium – Tantalum, Phosphate Zone** ranges in grade from 1 to 2.5% REO but is also accompanied by niobium mineralisation in the 0.25 to 1.5% Nb2O5 range and phosphate at 15 to 25% within an iron rich magnetite – apatite rock.

The initial sighter metallurgical test work is nearing completion whilst a number of flow on studies have been developed and continue due to the positive results in the initial programme.

Preliminary acid leach test work on eight RC drill samples of weathered rare earth mineralisation from the Southern Rare Earth Zone produced a range of results from 8 to 92% of rare earths leached.

The understanding of the poorer results of 8, 30 and 46% has now been identified through follow up investigation. These samples are associated with iron rich gravel colluvium and ferricrete which contains slightly elevated levels of phosphate, calcium and magnesium, resulting in the relatively poor performance of the leach kinetics in extracting rare earth minerals.

Importantly, two of these samples are located on the perimeter of the Southern Rare Earth Zone where the geology changes dramatically to a strong association of phosphate with the rare earth mineralisation. The third sample was collected from a small isolated zone of atypical transported colluvium within the centre of the Southern Rare Earth Zone.

Direct acid leach test work on the these eight samples has progressed to test acid consumption rates and leach recovery of rare earth minerals under a range of conditions of acid strengths, acid types and temperatures to optimise the leach kinetics.

The next step in this line of study will be to investigate the chemistry required to selectively precipitate rare earth minerals from the acid solution. Precipitation will produce a solid form of a rare earth concentrate for further refining.

The work on direct acid leaching is also being progressed with the collection of thirty additional samples of high grade weathered rare earth mineralisation from the Southern Rare Earth Zone. The greater geographical spread of representative low calcium – magnesium – phosphate samples will increase the level of statistical confidence in direct acid leach potential of the Southern Rare Earth Zone. These samples are scheduled to arrive shortly at Amdel (Perth) and testing will be completed within three months.

Simple gravity concentration (Wifley Table) has shown potential to significantly upgrade primary mineralisation. Investigations into flotation test work as a method of further upgrading the primary mineralisation to a saleable concentrate is in progress using a variety of reagents and operating parameters.



Scoping Studies

With the maiden Resource Statement completed in late February the third focus is now on defining the Ngualla Project as a potential mining and processing operation that will deliver value to the shareholders.

Work will commence on the Scoping Study in April with the appointment of an engineering group to be finalised this week. The Scoping Study is scheduled for completion in December 2012.

The Scoping Study has a broad content set to meet the following objectives;

- 1. Determine the optimal commercial development route for Ngualla,
- 2. Examination and confirmation of the strategic, commercial and operational fit,
- 3. Examination and justification of additional exploration and resource drilling,
- 4. Estimation of the magnitude of the capital and operating costs required for the development,
- 5. Identification of potential technical issues needing further investigation,
- 6. Estimation of the costs and time required to undertake further development work for a Pre-Feasibility Study, and
- 7. Planning for the next Phase; the Pre-Feasibility Study.

Peak in the coming months will be fully engaged in developing the Ngualla Project to further add value to shareholders. With the technical programs involving the recommencement of the drilling program, the continuing metallurgical test work and the commencement of the Scoping Study there will be continual updates to market to inform the shareholders and potential investors of the progress with these studies.

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Richard Beazley Managing Director