

10 NOVEMBER 2009

# ASX RELEASE



**PEAK**  
RESOURCES LTD



## Project Update – Ngualla Carbonatite Project

### Initial Results add further interest to Rare Earth Element (REE) Potential

Peak Resources completed the fieldwork on the first pass soil geochemical and geological mapping programme at the Ngualla Project (Southwest Tanzania) on 21st of October, with all samples being dispatched to the assay laboratory in Mwanza (Tanzania). In addition to processing being undertaken in Tanzania, approximately 480 samples are being dispatched to SGS in Perth, Western Australia, to undergo further REEs analysis. The initial batch of samples was dispatched from Mwanza to Perth on 6 November.

The first phase of exploration within the Ngualla carbonatite consisted 200m x 200m offset grid (22 lines) with analysis for phosphate by an Innovax field portable XRF machine. Four lines have been infilled on 50m sample centres with samples dispatched to SGS Mwanza laboratory for base metal and limited rare earth analysis. This program was completed in tandem with detailed geological mapping and associated intensive rock chip sampling.

Turn around for wet analysis has been extremely slow and at this time, only 25% of results being received to date.

Three of the four 50m sample spaced lines are located:

**9148000 M/N 480100 M/E – 484000 M/E (Line 11);**

**9148600 M/N 480100 M/E – 484150 M/E (Line 14);**

**and**

**9149000 M/N 480100 M/E – 483900 M/E (Line 17)**

These lines were designed to further refine and validate phosphate rich zones and confirm the location of rare earth mineralization which was highlighted by limited historical geochemical sampling, with up to 5% combined rare earths being reported. It was noted that these rare earths had a close correlation with barite (Ba). On that basis, all samples are being analysed for barium as it is considered to be a potentially useful pathfinder mineral for the rare earths.



Above: RMTZ-73: Typical gossan from margin of carbonatite

The northernmost line that was sampled on 50m centres; (9149800 m/N from 480200 m/E to 483500 m/E Line 20) was in part designed to cover areas on the northern margins of the carbonatite where geological mapping has highlighted numerous limonitic gossans after sulphides and iron rich veining, within extensively K-feldspar and silica altered porphyritic rhyodacite, with associated visual copper and lead mineralization.

**Tanzania:**  
**Gold Projects:**

- Geita
- North Mara
- Ikoma
- Igunga

**Phosphate & REE:**

- Ngualla

**Western Australia:**  
**Base Metals:**

- Ashburton

**Gold:**

- Menzies
- Three Rivers

**Nickel:**

- Yellowdine

**Stock Exchange**  
**Australian Stock**  
**Exchange Symbols:**

PEK, PEKOA

**Issued Capital**  
93.8m Shares  
23.8m Dec '10 Options  
0.6m Dec '10 Options

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### Results to Date

#### Phosphate

The 200 x 200m in association with the 50m line spacing XRF survey has partially defined +5% phosphate zones extend for in excess of 2 sq km with several XRF values exceeding 20% phosphate. It is important to note that insufficient laboratory analysis has been received to confirm results, however, the XRF machine has been recalibrated on its return to Australia and it is considered that these results may be conservative, coupled with historical results which are of similar tenor to the XRF results.



Above: Phosphorus enriched dyke material (approx 20%) from NE area of Project

#### Rare Earths/Base Metals

While limited analytical results have been received for Lines 17 and 20 (northern areas), several key points have emerged from data received to date, being:

1. Anomalous barium values in soils +1% Ba (maximum 1.9% Ba) and anomalous rare earth Lanthanum (La) to +7000ppm (maximum rock chip 7,791 ppm La) confirm the prospectivity of the carbonatite for rare earth elements. All of the 50m spaced samples have been returned to Australia for complete rare earths analysis. Results are expected in the next 4-6 weeks.
2. In the area of Line 20, analysis for a significant number of base metal rock/soil samples have been received and confirm the existence of an extensive base metal anomalous zone which extends for in excess of 2kms. With maximum 1.18% copper, lead 8200ppm, zinc 2800ppm, molybdenum 158ppm and anomalous silver 8.49g/t (individual results are not from same sample).
3. Molybdenum mineralization has been shown to be pervasive within almost the entire 11km perimeter contact of the carbonatite, being hosted by a "fentised" (altered and metasomatised) strongly brittle fractured porphyritic rhyo-dacite material. Numerous gossans and isolated laterite zones in the central also host highly anomalous molybdenum.

### Ongoing Work Programme

While waiting on further results from the recently completed works, Peak Resources will embark on an infill geochemical programme with the field crew being mobilized on or about 10th of November.

Results from the recently completed work together with the current programme and remote sensing analysis will be used to scope a first pass drill programme scheduled to commence around April 2010.

### Conclusion

While it is important to note the company is not in receipt of all analytical results, there is now sufficient data to further confirm the Ngualla Carbonatite's prospectivity for a range of commodities including phosphate, rare earths and base metals. Geological and geochemical data is still being compiled with a program of detailed infill sampling commencing this week expected to provide additional data for drill targeting.

It is anticipated further results will be reported following receipt and review of same and further refining of data from work programs.

A handwritten signature in black ink, appearing to be "Mark Maine", written over a white background.

#### Mark Maine

Executive Chairman

The information in this report that relates to Exploration Results is based on information reviewed by Rodney Foster who is a Member of The Australasian Institute of Mining and Metallurgy. Rodney Foster is the a Director of the Company. He has sufficient experience which is 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'. Rodney Foster consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.